DEUTSCHE TELEKOM
THE 2018 FINANCIAL YEAR

LIFE IS FOR SHARING.

SELECTED FINANCIAL DATA OF THE GROUP

billions of €

		Change compared to prior year (%)	2018	2017	2016	2015	2014	2013	2012	2011
REVENUE AND EARNINGS										
Net revenue		0.9	75.7	74.9	73.1	69.2	62.7	60.1	58.2	58.7
Of which: domestic	%		32.2	32.8	33.7	36.2	39.9	42.2	44.3	44.9
Of which: international	%		67.8	67.2	66.3	63.8	60.1	57.8	55.7	55.1
Profit (loss) from operations (EBIT)		(14.7)	8.0	9.4	9.2	7.0	7.2	4.9	(4.0)	5.6
Net profit (loss)		(37.4)	2.2	3.5	2.7	3.3	2.9	0.9	(5.4)	0.5
Net profit (loss) (adjusted for special factors)		(24.7)	4.5	6.0	4.1	4.1	2.4	2.8	2.5	2.9
EBITDA		(8.9)	21.8	24.0	22.5	18.4	17.8	15.8	18.0	20.0
EBITDA (adjusted for special factors)		5.0	23.3	22.2	21.4	19.9	17.6	17.4	18.0	18.7
EBITDA margin (adjusted for special factors)	%		30.8	29.7	29.3	28.8	28.0	28.9	30.9	31.8
PROFITABILITY										
ROCE	%		4.7	5.8	5.7	4.8	5.5	3.8	(2.4)	3.8
STATEMENT OF FINANCIAL POSITION										
Total shareholders' equity and liabilities		2.9	145.4	141.3	148.5	143.9	129.4	118.1	107.9	122.5
Shareholders' equity		2.3	43.4	42.5	38.8	38.2	34.1	32.1	30.5	40.0
Equity ratio	%		29.9	30.0	26.2	26.5	26.3	27.1	28.3	32.7
Net debt		9.1	55.4	50.8	50.0	47.6	42.5	39.1	36.9	40.1
Relative debt (Net debt/EBITDA (adjusted for special factors))			2.4	2.3	2.3	2.4	2.4	2.2	2.1	2.1
CASH FLOWS										
Net cash from operating activities		4.1	17.9	17.2	15.5	15.0	13.4	13.0	13.6	16.2
Cash capex		(35.9)	(12.5)	(19.5)	(13.6)	(14.6)	(11.8)	(11.1)	(8.4)	(8.4)
Free cash flow (before dividend payments and spectrum investment)[a]		13.7	6.2	5.5	4.9	4.5	4.1	4.6	6.2	6.4
Net cash used in investing activities		(15.0)	(14.3)	(16.8)	(13.6)	(15.0)	(10.8)	(9.9)	(6.7)	(9.3)
Net cash (used in) from financing activities		(29.1)	(3.3)	(4.6)	(1.3)	(0.9)	(3.4)	1.0	(6.6)	(6.0)
EMPLOYEES										
Average number of employees (full-time equivalents, without trainees)	thousands	0.0	216	216	221	226	228	230	232	240
Revenue per employee	thousands of €	1.0	349.7	346.2	331.4	305.9	274.5	261.8	250.4	244.0
T-SHARE – KEY FIGURES										
Earnings per share (basic and diluted)	€	(37.8)	0.46	0.74	0.58	0.71	0.65	0.21	(1.24)	0.13
Dividend per share[b]	€	7.7	0.70	0.65	0.60	0.55	0.50	0.50	0.70	0.70
Total dividend[c]	billions of €	7.1	3.3	3.1	2.8	2.5	2.3	2.2	3.0	3.0
Total number of ordinary shares at the reporting date[d]	millions	0.0	4,761	4,761	4,677	4,607	4,536	4,451	4,321	4,321

Calculated on the basis of millions for greater precision. Changes to percentages expressed as percentage points.

[a] And before PTC and AT&T transactions and compensation payments for MetroPCS employees.
[b] Subject to approval by the relevant bodies and the fulfillment of other legal requirements.
[c] Subject to approval by the 2019 shareholders' meeting concerning the dividend payments for the 2018 financial year. For further information, please refer to Note 33 "Dividend per share" in the notes to the consolidated financial statements, page 223.
[d] Including treasury shares held by Deutsche Telekom AG.

millions

	Change compared to prior year (%)	2018	2017	2016	2015	2014	2013	2012	2011
FIXED-NETWORK AND MOBILE CUSTOMERS									
Mobile customers	5.9	178.4	168.4	165.0	156.4	150.5	142.5	127.8	125.1
Fixed-network lines	0.1	27.9	27.9	28.5	29.0	29.8	30.8	32.1	34.7
Broadband customers[a,b]	6.7	20.2	18.9	18.4	17.8	17.4	17.1	16.9	16.9

[a] Excluding wholesale.
[b] Starting in Q2 2018, we no longer report the number of broadband lines from a technical perspective. Instead, we report the number of broadband customers. The figures for 2016 and 2017 have been adjusted accordingly.

The key parameters used by Deutsche Telekom are defined in the section "Management of the Group" in the combined management report, page 38 et seq.
The figures shown in this report were rounded in accordance with standard business rounding principles. As a result, the total indicated may not be equal to the precise sum of the individual figures.
The new accounting standards IFRS 15 "Revenue from Contracts with Customers" and IFRS 9 "Financial Instruments" took effect as of January 1, 2018. Prior-year comparatives were not adjusted. For further information, please refer to the section "Initial application of standards, interpretations, and amendments in the financial year" in the notes to the consolidated financial statements, page 154 et seq.

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LETTER FROM THE CHAIRMAN OF THE BOARD OF MANAGEMENT

DEAR SHAREHOLDERS,

Deutsche Telekom keeps its promises. In 2015, we communicated our four-year forecast – one that was clearly geared towards growth. The figures are now in and they speak for themselves: We have exceeded our expectations. What's more, in 2018 alone we raised our full-year guidance three times despite investing a great deal of money at the same time – more than EUR 12 billion, in fact.

And all of this at a time that is anything but easy for our industry. A quick glance at the company ratings in our sector shows they are falling virtually across the board. Not ours! In 2018, we significantly outperformed the DAX and this year we continue to maintain our position as the leading European telco in terms of market value.

Let's take a look at what we achieved compared with our forecast for 2018. Organically, i.e., assuming constant exchange rates and the same Group structure, net revenue in 2018 increased by 3.1 percent. Also on an organic basis, adjusted EBITDA came in at 7.2 percent or EUR 1.6 billion higher than the prior-year figure and above our expectations. The same goes for free cash flow, which grew by 18.9 percent on the same basis and thus ended the year higher than the level we forecast.

As you can see, our strategy is paying off. We continue to focus on delivering the best networks and are forging ahead with our build-out efforts like no other provider in our industry.

As you know, high data speeds rely on fiber-optic infrastructure. We are thus immensely proud to have laid our 500,000th kilometer of fiber-optic cable last year. Our fiber-optic network is and remains the largest in Germany. We also offer a rate plan with 100 megabits per second (Mbit/s) to 26 million households. What's more, by the end of 2018 we were able to offer some 14 million households and 2 million business locations top speeds of up to 250 Mbit/s using supervectoring. In 2019, we plan to extend high-speed coverage to 28 million households using this technology.

As you can see, our focus is on high quality and maximum coverage. That also goes for mobile communications: Our LTE network already covers 97.8 percent of the population in Germany, helped by 1,300 additional cell sites. We are not only investing in Germany, but in all of our footprint countries, where our LTE network covers 97 percent of the population, or around 109 million people.

T-Mobile US has the fastest 4G mobile network in the United States. By 2020, our U.S. colleagues plan to be the first to offer 5G nationwide.

Deutsche Telekom is helping to pioneer 5G in Europe, too. The first antennas to fully support the new communications standard are already up and running in Berlin, Darmstadt, Hamburg, and Warsaw. We are hosting the world's first test of 5G for industry at the Port of Hamburg, and we have already achieved record-breaking transmission speeds in Austria, Greece, and Macedonia.

This costs money, but we believe it is money well spent: From 2018 to 2021, we plan to invest over EUR 20 billion in Germany – much of this will go towards building out the mobile and fixed networks.

Quantity without quality? Not at all. Quality is one of our top priorities. That's why I am delighted that we regularly take first place in independent tests of networks and services – in Germany, Europe, and the United States.

As you can see, our commitment and our investments are bearing fruit. The fact that we have the resources to do all this is down to you, our shareholders. Please accept my sincere thanks for the trust you place in us. Our financial situation illustrates that your trust has not been misplaced.

Our customers also have confidence in what we do. This much is clear from the customer growth we are seeing on both sides of the Atlantic. Our approach to combining fixed and mobile communications in one convergent product is gaining momentum both in Germany, in the form of MagentaEINS (642,000 customer additions), and in Europe as MagentaOne and similar offerings (1.1 million customer additions).

In the United States, our Un-carrier strategy continues to flourish. T-Mobile US has added more than one million new customers every quarter for almost six years. With such rapid growth, our U.S. subsidiary has once again left every other national competitor trailing in its wake. Furthermore, we expect the merger agreed with Sprint – which is still subject to approval by the regulatory authorities – to substantially strengthen our future business.

Over the past year, our colleagues in the United States have also been exploring new horizons in the area of customer service with their Un-carrier Next initiative. Under the new Team of Experts program, postpaid customers who call customer service are connected directly to a personal advisor.

In Europe, too, we are working ceaselessly to make our service even better. A key focus for us in Germany is on ensuring that our service technicians are on time, which they are for almost 95 percent of agreed appointments. We have also significantly reduced the number of customer complaints.

But regardless of whether it's about great technology or outstanding service – none of it would be possible without the dedicated employees we have at our Group. They are the people who make Deutsche Telekom what it is – an industry leader on both sides of the Atlantic. I would like to take this opportunity to thank my colleagues sincerely for such dedication.

Dear Shareholders,

The financial report is further evidence that not only do we set ourselves ambitious goals – we also meet and even exceed them. I'm happy to say it again: We keep our promises. Our growth profile is unique in the industry. We are leaders in our sector and work tirelessly to make sure it stays that way.

Over the past year, we have laid important strategic groundwork in this regard – for example, with the completion of the acquisition of Tele2 in the Netherlands and the takeover of UPC in Austria. We can now become a one-stop shop for integrated product bundles in these countries, too, which will mean even better services for our customers.

We have already set the bar for the next few years. On average, revenue is expected to increase by one to two percent per year by 2021, adjusted EBITDA by two to four percent, and free cash flow by around ten percent.

And it goes without saying that you will benefit from our successes. Following the dividend of EUR 0.65 per share for 2017, we are proposing – subject to approval by the relevant bodies and the fulfillment of other legal requirements – a dividend for the 2018 financial year of EUR 0.70 per dividend-bearing share. That's because Deutsche Telekom is a dependable partner in this respect, too.

Best regards,

Tim Höttges

SUPERVISORY BOARD'S REPORT TO THE 2019 SHAREHOLDERS' MEETING

The 2018 financial year was characterized by the systematic implementation of the Group strategy and the Group's ongoing transformation in an age of digitalization and technological change. Good business development on the domestic German market and in Europe, and continued excellent business development in the United States were major features. Despite the positive overall macroeconomic environment in Europe and the United States, Deutsche Telekom remains under high competitive and regulatory pressure. The Group held its own in the challenging environment in the telecommunications industry. Strong results brought the 2018 financial year to a successful close. The Group is on course for growth. The Supervisory Board exercised its functions as an advisory and supervisory body and gave the Board of Management its full support.

SUPERVISORY BOARD ACTIVITIES IN THE 2018 FINANCIAL YEAR

We continually monitored the Board of Management's activities in managing the business and the Group as a whole. Specifically, this supervisory role consisted of ensuring that these activities were lawful, compliant, appropriate, and efficient.

The primary prerequisites for fulfilling this role were the Board of Management's written and oral reports. The Board of Management kept us regularly informed in good time on corporate strategy, planning, business development of the Group and its different segments, the risk situation, risk management, compliance, innovation focuses, and any deviations in the business development from original plans, as well as significant business transactions involving the Company and its significant subsidiaries and associates.

The Board of Management fulfilled its duties to inform quickly and in full. The Board of Management's reports met all statutory requirements, the standards of good corporate governance, and the criteria imposed on them by us with regard to both content and scope. In addition to the reports, we requested and received supplementary information. We reviewed, critically analyzed and verified the plausibility of these reports and other information.

The Rules of Procedure of the Board of Management and Supervisory Board include a list of transactions and measures for which the Board of Management has to obtain approval from the Supervisory Board. We met with the Board of Management to discuss and thoroughly review the business transactions and measures presented to us in the 2018 financial year for approval in line with this document. We approved the transactions and measures submitted for resolution.

The frequency of plenary and committee meetings mean that we are in close contact with the Board of Management. The Board of Management also reports on individual issues in writing or in discussions between the meetings. In addition, the Chairman of the Supervisory Board is in contact with the Chairman of the Board of Management at regular appointments at which current business transactions, strategy issues, planning, business development, the risk situation, risk management, and compliance, as well as other significant events, are discussed.

In the 2018 financial year, 6 Supervisory Board meetings, 1 one-day off-site conference, and 28 meetings of the Supervisory Board committees took place. The overall participation rate was around 95 percent. Each of the Supervisory Board members attended more than half of the meetings of the Supervisory Board and the respective committees on which they sit. Written votes were used where resolutions were required between the meetings.

In the meeting on February 21, 2018, in the presence of the external auditor, we dealt with the Company's 2017 annual financial statements and consolidated financial statements, as well as the Group management report, which is combined with the management report of Deutsche Telekom AG (combined management report), including the combined non-financial (Group) statement contained in the combined management report as a separate section. Our approval of the 2017 annual financial statements was based on the recommendation of the Audit Committee. The same applies to the review of the combined non-financial statement. We agreed to the Board of Management's proposal on the appropriation of net income. We resolved to reappoint Timotheus Höttges as Chairman of the Board of Management, to assign the Finance department to Dr. Christian P. Illek effective January 1, 2019, to make a minor modification to the Board of Management compensation system with respect to short-term variable remuneration, and to acquire shares in OTE. We also approved the agenda for the 2018 shareholders' meeting and dealt with the current situation at T-Systems. The Board of Management reported comprehensively on the current situation and the most important financial and operational KPIs for the Company and its segments.

In our meeting on April 29, 2018, following an in-depth report by the Board of Management and intense discussions, we dealt with the planned business combination of T-Mobile US and the mobile communications provider Sprint.

In the meeting before the shareholders' meeting on May 16, 2018, the Board of Management reported in detail on the current situation and the financial and operational KPIs of the Company and its segments in the first quarter of 2018. The Board of Management updated us on the core messages from the Capital Markets Day which took place in May 2018. In addition, we approved the conversion of the legal form of DTSE from a GmbH into an SE.

In the meeting on July 13, 2018, we appointed Birgit Bohle as the new Board member responsible for Human Resources and as Labor Director, both effective January 1, 2019 until December 31, 2021.

In the meeting on September 4, 2018, the Board of Management reported on the current situation and the financial and operational KPIs of the Company and its segments in the second quarter of 2018. We also intensively discussed the Board of Management compensation system. Furthermore, we passed a resolution to establish a new Board department for USA and Group Development effective January 1, 2019 and appointed Thorsten Langheim to the Board of Management as the member responsible for this new department effective January 1, 2019 until December 31, 2021.

During the off-site conference of the Supervisory Board and the Board of Management that was held the following day, we dealt with the Company's strategy. We debated the status of the strategy and progression with its implementation, and discussed individual strategic focal topics.

In our meeting on December 19, 2018, we adopted resolutions on a variety of Board of Management compensation topics, such as target achievement for variable remuneration. The Board of Management reported on the current situation and the financial and operational KPIs in the Company and its segments in the third quarter of 2018. A further focus of the meeting was the resolution on the budget and on the annual financing plan for the 2019 financial year. We also acknowledged the medium-term planning for 2019 to 2022 and dealt with the Group risk report. In addition, we adopted resolutions on the acquisition of further spectrum in the United States and on a range of restructuring measures at the Group in Germany.

In our plenary meetings and in the Audit Committee in particular, we also regularly supervised the management of the company by the Board of Management. As part of this, we made sure that the Board of Management ensured compliance with legal provisions and internal standards and policies through the Group-wide compliance organization. We also regularly met with the Board of Management to discuss the Group-wide risk management system that it had introduced. Based on our own reviews and on the audit reports from the external auditors, we came to the conclusion that the internal compliance systems and the internal control and risk management systems are effective.

Outside of its meetings, the Supervisory Board attended information events to keep up to date on the latest topics and developments.

ORGANIZATION OF THE SUPERVISORY BOARD'S ACTIVITIES

To increase the efficiency of our work, and in consideration of the specific requirements we have to fulfill, we have set up the committees listed below, all of which have an equal number of shareholders' and employees' representatives, with the exception of the Nomination Committee. In regard to committee membership, our aim is to achieve regular rotation among the Supervisory Board members. Our objective is also to ensure that the chairperson roles on the committees are occupied by different members. The committees' chairpersons regularly reported to us at our plenary meetings on the content and results of committee meetings.

SUPERVISORY BOARD COMMITTEES

General Committee
Prof. Dr. Ulrich Lehner (Chairman)
Josef Bednarski
Dr. Rolf Bösinger (since June 28, 2018)
Johannes Geismann (until May 17, 2018)
Lothar Schröder

Finance Committee
Dr. Ulrich Schröder (Chairman until February 6, 2018)
Monika Brandl (until June 30, 2018)
Dr. Günther Bräunig (since March 29, 2018)
Klaus-Dieter Hanas (until November 20, 2018)
Nicole Koch (since July 1, 2018)
Dagmar P. Kollmann
Frank Sauerland (since November 28, 2018)
Michael Sommer (until November 20, 2018)
Karl-Heinz Streibich (Chairman since March 29, 2018)
Karin Topel (since November 28, 2018)

Audit Committee
Dagmar P. Kollmann (Chairwoman)
Josef Bednarski
Dr. Rolf Bösinger (since June 28, 2018)
Johannes Geismann (until May 17, 2018)
Prof. Dr. Michael Kaschke
Petra Steffi Kreusel
Sibylle Spoo (since January 1, 2018)

Staff Committee
Lothar Schröder (Chairman)
Josef Bednarski
Prof. Dr. Ulrich Lehner
Margret Suckale

Nomination Committee
Prof. Dr. Ulrich Lehner (Chairman)
Dr. Rolf Bösinger (since June 28, 2018)
Johannes Geismann (until May 17, 2018)
Dagmar P. Kollmann

Mediation Committee
Prof. Dr. Ulrich Lehner (Chairman)
Josef Bednarski
Dr. Rolf Bösinger (since June 28, 2018)
Johannes Geismann (until May 17, 2018)
Lothar Schröder

Technology and Innovation Committee
Lothar Schröder (Chairman)
Sari Baldauf (until May 17, 2018)
Monika Brandl (from January 1 until June 30, 2018)
Odysseus D. Chatzidis (since July 1, 2018)
Lars Hinrichs
Nicole Seelemann-Wandtke (since November 28, 2018)
Michael Sommer (until November 20, 2018)
Karl-Heinz Streibich
Margret Suckale (since June 28, 2018)

Special Committee for U.S. Business
Prof. Dr. Ulrich Lehner (Chairman)
Dr. Günther Bräunig (since March 29, 2018)
Johannes Geismann (until May 17, 2018)
Constantin Greve (since November 28, 2018)
Dr. Helga Jung (since June 28, 2018)
Lothar Schröder
Dr. Ulrich Schröder (until February 6, 2018)
Michael Sommer (until November 20, 2018)
Sibylle Spoo

Special Committee on the Acquisition of Spectrum in Germany (since January 1, 2019)
Prof. Dr. Ulrich Lehner (Chairman)
Josef Bednarski
Lothar Schröder
Karl-Heinz Streibich

The General Committee met eleven times in 2018, one meeting of which was held jointly with the Finance Committee. The committee focused mainly on preparing the recommendations for decision for the plenary meetings in regard to all of the decisions on Board of Management and Supervisory Board matters. Among other things, the committee reviewed the compensation system and the appropriateness of Board of Management remuneration as scheduled. Succession planning for the Board of Management was also discussed in the meeting. In the joint meeting with the Finance Committee, the General Committee dealt in particular with the 2019 budget and the medium-term planning for 2019 to 2022.

The Finance Committee met three times, of which one meeting was together with the General Committee. Investment planning and focuses were the subject of the meetings. The committee also dealt with general topics such as interest and foreign currency management, and a spectrum review. In the joint meeting with the General Committee, the Finance Committee discussed the 2019 annual financing plan in particular.

The Audit Committee met five times in 2018. The external auditor was present at all of these meetings. The Audit Committee's area of responsibility is defined by German legislation and the German Corporate Governance Code. It includes, in particular, the monitoring of accounting and the accounting process, the effectiveness of the internal control system, risk management and the internal auditing systems, compliance, and data privacy. The Audit Committee also handled matters relating to the audit of the Company's financial statements, in particular selecting and ensuring the independence of the external auditor, and monitored the additional services provided by the external auditor, the commissioning of the external auditor, the stipulation of the main focuses of the audit, and the agreement on fees. After thorough discussion, the Audit Committee issued a recommendation to us about our suggestion for the external auditor to be nominated by the 2018 shareholders' meeting. The Audit Committee also regularly discussed the quarterly reports on business development. Additionally, the Audit Committee adopted a resolution on the invitation to tender for the auditing of the annual and consolidated financial statements and other auditing services from the 2021 financial year onwards. Furthermore, the Audit Committee commissioned PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Frankfurt/Main with a limited assurance engagement on the combined non-financial statement contained within the combined management report. In the 2018 financial year, the Audit Committee again held one extraordinary meeting on fundamental issues affecting the Group. At this meeting, the committee dealt in particular with the effectiveness of the reporting system, the development of the report structure, the effectiveness of the internal control system and the compliance management system, and new legal requirements affecting the Audit Committee as well as current legal developments at German and European level. At the same meeting, the Audit Committee dealt with the topic of data privacy and data security and the members discussed and familiarized themselves with new requirements and developments regarding German and EU law, financial accounting standards, the Group Development department, and process analysis tools. In addition, outside of its meetings the Audit Committee members attended in-depth workshops on structuring the tender and selection process for the external auditor, implementing new, international accounting standards, the digitalization of the financial statement auditing process, and the risk management system.

Dagmar P. Kollmann, Chairwoman of the Audit Committee, has expert knowledge of accounting and auditing. She is also particularly knowledgeable and experienced in the application of accounting standards and internal control procedures. She is independent, and is not a former member of the Board of Management of Deutsche Telekom AG. Like the members of the full Supervisory Board, the members of the Audit Committee overall are very familiar with the sector in which Deutsche Telekom AG is active.

The Staff Committee held two meetings in 2018 and mainly discussed matters relating to headcount and staffing requirement planning for the purpose of preparing Supervisory Board resolutions on the 2019 budget. In addition, the committee dealt with topics including qualitative HR planning, skill and succession management, the women's quota, and HR organization, and received information on the results of the pulse survey 2018 on employee satisfaction.

The Nomination Committee met three times in 2018, and dealt in its meetings with succession planning for the Supervisory Board.

The Mediation Committee to be formed in accordance with § 27 (3) of the Codetermination Act did not meet in 2018.

The Technology and Innovation Committee held three meetings in 2018 and dealt with a very broad range of topics from a variety of areas. For example, the committee discussed trends and strategic approaches, 5G, voice control technology, the transformation of the Technology and Innovation Board department, the TV strategy in Europe, and innovative ideas from corporate bodies and codetermination structures. The committee supports and promotes innovation and technological developments at infrastructure and product level. It supports the Board of Management with advice on how to tap new growth areas.

The Special Committee for U.S. Business held one meeting in 2018 and discussed in particular the planned business combination of T-Mobile US and mobile communications provider Sprint.

The Special Committee on the Acquisition of Spectrum in Germany has existed since January 1, 2019. The committee will be kept updated by the Board of Management regarding the planned 5G auction and provide guidance and advice in this context.

CONFLICTS OF INTERESTS

Johannes Geismann was a member of the Supervisory Board of Deutsche Telekom AG and, at the same time, State Secretary at the Federal Ministry of Finance. New member of the Supervisory Board, Dr. Rolf Bösinger, is also State Secretary at the Federal Ministry of Finance. Dr. Ulrich Schröder was a member of the Supervisory Board of Deutsche Telekom AG and, at the same time, CEO of the Executive Board at Kreditanstalt für Wiederaufbau (KfW). New member of the Supervisory Board, Dr. Günther Bräunig, is also the current CEO of the Executive Board at KfW (Kreditanstalt für Wiederaufbau). We are aware that Deutsche Telekom AG is currently involved in legal disputes in which the Federal Republic of Germany is the opposing party. There were no conflicts of interest requiring action with any of the aforementioned members of the Supervisory Board. Should a conflict of interest arise, the Supervisory Board members will discuss how to proceed with the Chairman of the Supervisory Board.

Michael Sommer is a member of the supervisory board of ZDF Enterprises GmbH. The company in question is responsible for program sales, coproductions, and the marketing of online rights, among other things. Mr. Sommer has therefore reported a potential conflict of interest to the Supervisory Board. It was agreed that he would not take part in deliberations and votes in the Supervisory Board related to the topics of TV and online rights. There were no conflicts of interest requiring action as of Mr. Sommer's departure from the Supervisory Board.

CORPORATE GOVERNANCE

The Supervisory Board and Board of Management are aware that good corporate governance is an important foundation for corporate success. The provisions of the German Corporate Governance Code are hence reflected in the Company's statutes. The Board of Management and the Supervisory Board last issued their Declaration of Conformity with the German Corporate Governance Code on December 30, 2018.

For more details on the Company's corporate governance policy, please also refer to a separate section of the Annual Report, **page 14 et seq.**

CHANGES IN THE COMPOSITION OF THE BOARD OF MANAGEMENT

At our meeting on February 21, 2018, we approved the re-appointment of Timotheus Höttges for the period from January 1, 2019 until December 31, 2023. Thomas Dannenfeldt announced to us that he would not be standing for a further term of office on personal grounds. We resolved to assign the Finance department to Dr. Christian P. Illek effective January 1, 2019.

In our meeting on July 13, 2018, we appointed Birgit Bohle as the Board member responsible for Human Resources and as Labor Director, both effective January 1, 2019 until December 31, 2021.

We passed a resolution on September 4, 2018 to establish a new Board department for USA and Group Development effective January 1, 2019, and appointed Thorsten Langheim to the Board of Management as the member responsible for this new department effective January 1, 2019 until December 31, 2021.

CHANGES IN THE COMPOSITION OF THE SUPERVISORY BOARD

Shareholders' representatives: Dr. Ulrich Schröder resigned from his position as a member of the Supervisory Board effective February 6, 2018. He was succeeded by Dr. Günther Bräunig effective March 21, 2018, who was appointed to the Supervisory Board of Deutsche Telekom AG by the Bonn District Court until the end of the next shareholders' meeting. In a resolution passed by the shareholders' meeting on May 17, 2018, Dr. Günther Bräunig was elected for a further term of office until the end of the 2023 shareholders' meeting.

After being appointed to the Supervisory Board of Deutsche Telekom AG by the Bonn District Court until the end of the next shareholders' meeting, succeeding Dr. Wulf H. Bernotat effective September 28, 2017, the shareholders' meeting on May 17, 2018 appointed Margret Suckale to the Supervisory Board of Deutsche Telekom AG until the end of the 2023 shareholders' meeting.

Sari Baldauf left the Supervisory Board of Deutsche Telekom AG effective the end of the shareholders' meeting on May 17, 2018. In her place, Harald Krüger was elected by the shareholders' meeting on May 17, 2018 as a member of the Supervisory Board until the end of the 2023 shareholders' meeting.

At the shareholders' meeting on May 17, 2018, Prof. Ulrich Lehner was elected for a further term of office as a member of the Supervisory Board of Deutsche Telekom AG until the end of the 2022 shareholders' meeting. This further term takes account of the upper age limit set by the Supervisory Board. Following the shareholders' meeting, the Supervisory Board re-elected Prof. Lehner as Chairman.

Johannes Geismann resigned from his position as a member of the Supervisory Board effective the end of the shareholders' meeting on May 17, 2018. He was succeeded by Dr. Rolf Bösinger effective June 1, 2018, who was appointed to the Supervisory Board of Deutsche Telekom AG by the Bonn District Court until the end of the next shareholders' meeting in 2019.

Employees' representatives: Hans-Jürgen Kallmeier resigned from his position as a member of the Supervisory Board of Deutsche Telekom AG effective midnight, December 31, 2017. He was succeeded by Odysseus D. Chatzidis effective January 3, 2018, who was appointed to the Supervisory Board of Deutsche Telekom AG by the Bonn District Court.

The employees' representatives on the Supervisory Board of Deutsche Telekom AG Josef Bednarski, Monika Brandl, Klaus-Dieter Hanas, Petra Steffi Kreusel, Lothar Schröder, Michael Sommer, and Sibylle Spoo, each of whose term of office expired at the end of the shareholders' meeting on May 17, 2018, were court-appointed to the Supervisory Board at the same time.

Monika Brandl resigned from her position as a member of the Supervisory Board of Deutsche Telekom AG effective June 30, 2018. She was succeeded by Nicole Seelemann-Wandtke effective July 5, 2018, who was appointed to the Supervisory Board of Deutsche Telekom AG by the Bonn District Court.

At the delegates' assembly on November 20, 2018, the employees' representatives Josef Bednarski, Odysseus D. Chatzidis, Nicole Koch, Petra Steffi Kreusel, Lothar Schröder, Nicole Seelemann-Wandtke, Sibylle Spoo, and Karin Topel were re-elected to the Supervisory Board, and Constantin Greve and Frank Sauerland were appointed to the Supervisory Board for the first time. Klaus-Dieter Hanas and Michael Sommer did not stand for re-election and left the Supervisory Board of Deutsche Telekom AG on November 20, 2018.

The Supervisory Board would like to thank all of the former members for their valuable support.

For detailed information on the Board of Management members, please refer to Deutsche Telekom AG's website at **www.telekom.com/en/investor-relations/management-and-corporate-governance/board-of-management.**

For detailed information on the Supervisory Board members, please refer to Deutsche Telekom AG's website at **www.telekom.com/en/investor-relations/management-and-corporate-governance/supervisory-board.**

REVIEW OF THE ANNUAL FINANCIAL STATEMENTS OF THE PARENT COMPANY AND CONSOLIDATED FINANCIAL STATEMENTS FOR THE 2018 FINANCIAL YEAR

The Board of Management submitted the annual financial statements, the consolidated financial statements, and the Group management report, of which the latter is combined with the management report of Deutsche Telekom AG (combined management report) and includes the non-financial (Group) statement as a separate section, together with its proposal for the appropriation of net income, to us in good time.

PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Frankfurt/Main, which was appointed as auditor of the single-entity financial statements and auditor of the consolidated financial statements (external auditor) for the 2018 financial year by the shareholders' meeting on the recommendation of the Audit Committee and proposed for appointment by the entire Supervisory Board, audited the annual financial statements as of December 31, 2018, which were prepared in accordance with the provisions of the German Commercial Code (Handelsgesetzbuch – HGB), and the combined management report, as well as the consolidated financial statements as of December 31, 2018, which were prepared in accordance with IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e (1) HGB, and the combined management report, and issued an unqualified audit opinion for each document. The auditor also issued an unqualified audit opinion for the combined non-financial statement contained in the combined management report.

Before the Audit Committee passed a resolution on its recommendation to the Supervisory Board for the proposal for election to be submitted to the shareholders' meeting, the external auditor confirmed that there are no business, financial, personal or other relationships between itself, its corporate bodies, and audit managers on the one hand and the Company and its corporate body members on the other that may cast doubt on its independence. The auditor also stated to what extent non-audit services were rendered for the Company in the previous financial year and to what extent such services have been contracted for the following year. On this basis, the Audit Committee verified and confirmed the external auditor's requisite independence. It informed us of the outcome of this review before we prepared our resolution to propose to the shareholders' meeting the appointment of said independent auditor.

The external auditor also confirmed to the Audit Committee and the Supervisory Board in their financial statement review meetings on February 19 and February 20, 2019, respectively, that there are no circumstances that may give rise to doubts about the external auditor's impartiality. In this context, the auditor also reported on any services rendered in addition to auditing services. In the Supervisory Board meeting on February 20, 2019, the Audit Committee informed us about its monitoring of the auditor's independence while taking account of the non-audit services provided, and of its conclusion that the auditor continues to be independent as necessary.

The external auditor submitted its reports on the nature and extent as well as the result of its audits (audit report) to us. The documentation on the financial statements (including the combined non-financial statement), the external auditor's audit report, and the Board of Management's proposal for the appropriation of net income were made available to all members of the Supervisory Board in good time.

We conducted our own in-depth review of the documents submitted by the Board of Management and the external auditor's audit reports. In preparation, the Audit Committee had conducted a thorough review of the aforementioned documents. The annual financial statements, the consolidated financial statements, and the combined management report (including the combined non-financial statement contained therein), as well as the Board of Management's proposal for the appropriation of net income, were explained in detail by the Board of Management to the members of the Audit Committee at its meeting on February 19, 2019. The members of the Board of Management also answered the committee members' questions. Moreover, the external auditor also attended this meeting and reported on its audit, in particular the key audit areas defined in agreement with the Audit Committee and the Supervisory Board, and the main findings of its audit, and explained its audit report. The external auditor did not identify any material weaknesses in the internal control system at Group level, in the risk management system, or in the accounting process. The members of the Audit Committee acknowledged and critically reviewed the audit report and audit opinion, and discussed them, as well as the audit itself, with the external auditor. The review included questions about the nature and extent of the audit and about the audit findings. The Audit Committee satisfied itself that the audit and the audit report were compliant. In particular, its members had assured themselves that the audit report and the audit conducted by the independent auditor met the legal requirements. The Audit Committee agrees with the external auditor that there were no material weaknesses, in particular with regard to the accounting process, in the internal control or risk management systems at Group level. The same applies to the combined non-financial statement. The Audit Committee recommended that we approve the results of the audit conducted by the external auditor and, since it had no objections to the documents submitted by the Board of Management, that we approve the annual financial statements and the consolidated financial statements; it also recommended that we not raise any objections against the combined management report including the combined non-financial statement, and that we support the Board of Management's proposal for the appropriation of net income.

We performed the final review of the annual financial statements, the consolidated financial statements, and the combined management report, including the combined non-financial statement, as well as the Board of Management's proposal for the appropriation of net income, at the Supervisory Board meeting on February 20, 2019, taking into account the report and recommendations of the Audit Committee and the external auditor's audit report. The Board of Management attended this meeting, explained the documents they had submitted, and answered our questions. The external auditor also attended this meeting and reported on its audit and the main findings of its audit, explained its audit report, and answered our questions, in particular relating to the nature and extent of the audit and the audit findings. Based on this and the report presented by the Audit Committee, we were satisfied that the audit and the audit report were compliant. We followed the Audit Committee's recommendation and approved the result of the external auditor's audit. The same applies to the combined non-financial statement.

Based on the final outcome of our review of the annual financial statements, the consolidated financial statements, and the combined management report, including the combined non-financial statement, as well as the Board of Management's proposal for the appropriation of net income, no objections need be raised. The same applies to the Corporate Governance Statement even insofar as it is not to be audited by the external auditor. We followed the Audit Committee's recommendation and approved the annual financial statements and the consolidated financial statements.

The approval of the Supervisory Board constitutes formal approval of the annual financial statements.

The Supervisory Board's assessment of the position of the Company and the Group is the same as that which the Board of Management presented in its combined management report, including the combined non-financial statement. It followed the Audit Committee's recommendation and approved these documents.

When dealing with the budget and medium-term planning on December 19, 2018, we conducted an in-depth examination of financial and investment plans, discussing in particular the development of earnings, free cash flow, and balance sheet ratios. The Board of Management's proposal concerning the appropriation of net income was examined by the Audit Committee on February 19, 2019, and by the Supervisory Board on February 20, 2019. The external auditor was present at both meetings. We followed the Audit Committee's recommendation to approve and support the Board of Management's proposal to pay out shareholder remuneration of around EUR 3,320 million and to carry forward EUR 3,711 million to unappropriated net income.

At our meeting on September 4, 2018, the Board of Management informed us that no dependent company report would be prepared for the 2018 financial year since there was no legal requirement to do so. We acknowledged and approved this step. Dependent company reports are not planned for subsequent financial years provided no circumstances or legal requirements arise that call for such.

We would like to thank the members of the Board of Management, all of Deutsche Telekom's employees and the works committees for their commitment and dedication in the 2018 financial year.

Bonn, February 20, 2019
The Supervisory Board

Prof. Dr. Ulrich Lehner
Chairman

CORPORATE GOVERNANCE REPORT 2018

In the following text, the Board of Management and the Supervisory Board report on corporate governance at Deutsche Telekom AG in accordance with Section 3.10 of the German Corporate Governance Code. This Corporate Governance Report is published together with the Corporate Governance Statement in accordance with § 289f HGB, which is published on Deutsche Telekom's website.

www.telekom.com/en/investor-relations/investor-relations/declaration-of-conformity-pursuant-to--161-479770

www.telekom.com/en/investor-relations/management-and-corporate-governance

Sound, systematic corporate governance is particularly important for an international group such as Deutsche Telekom with its many subsidiaries and associates. The Company complies with legal requirements, national provisions, such as the recommendations of the Government Commission on the German Corporate Governance Code, as well as with international standards. The Supervisory Board and the Board of Management are convinced that sound corporate governance, taking company and industry-specific issues into account, is an important building block for the future success of Deutsche Telekom AG. Accordingly, responsibility for compliance with the principles of sound corporate governance is vested in senior management.

In the 2018 financial year, the Board of Management and Supervisory Board once again carefully examined the corporate governance of Deutsche Telekom AG and the Deutsche Telekom Group as well as the contents of the German Corporate Governance Code. During the reporting period just ended, as in prior years, Deutsche Telekom AG again fulfilled all of the Code's recommendations. The Supervisory Board and Board of Management of Deutsche Telekom AG therefore issued an unqualified Declaration of Conformity with the German Corporate Governance Code on December 30, 2018:

Declaration of Conformity pursuant to § 161 of the German Stock Corporation Act (Aktiengesetz – AktG).

I. The Board of Management and Supervisory Board of Deutsche Telekom AG hereby declare that, in the period since the issuance of the most recent declaration of conformity pursuant to § 161 of the Stock Corporation Act on December 30, 2017, Deutsche Telekom AG has complied with the recommendations of the Government Commission on the German Corporate Governance Code announced by the Federal Ministry of Justice and Consumer Protection on April 24, 2017 in the official section of the Federal Gazette (Bundesanzeiger), without exception.

II. The Board of Management and Supervisory Board of Deutsche Telekom AG hereby declare further that Deutsche Telekom AG has complied with the recommendations of the Government Commission on the German Corporate Governance Code, published by the Federal Ministry of Justice and Consumer Protection in the official section of the Federal Gazette (Bundesanzeiger) on April 24, 2017, without exception.

The Declaration of Conformity can be found on the website of Deutsche Telekom AG. This website also provides access to the declarations of conformity from previous years.

Cooperation between the Board of Management and the Supervisory Board. The Board of Management and the Supervisory Board work closely together for the good of the Company and maintain regular contact. The Board of Management agrees the Company's strategic alignment with the Supervisory Board and discusses the status of strategy implementation with the Supervisory Board at regular intervals. The Supervisory Board of Deutsche Telekom AG holds a minimum of four meetings a year. In 2018 there were six Supervisory Board meetings and a one-day off-site conference on the strategic alignment of the Company. In addition, 28 Supervisory Board committee meetings were held. The Board of Management keeps the Supervisory Board fully and regularly informed in good time on corporate strategy, planning, business developments, the risk situation, risk management, compliance, innovation focuses, and any deviations in the business developments from original plans, as well as significant business transactions involving the Company and major Group companies. The Board of Management regularly submits written and oral reports. Between meetings, the Board of Management also informs the Supervisory Board of the current business development of the Group and its segments on a monthly basis. The Board of Management reports to the Supervisory Board on individual issues in writing or in discussions. The information and reporting obligations of the Board of Management specified by the Supervisory Board go beyond statutory requirements. The activities of the Board of Management and the Supervisory Board, as well as the Audit Committee of the Supervisory Board, are specified in separate Rules of Procedure. Those that govern the Board of Management provide guidance on its schedule of responsibilities and the majorities required for resolutions, among other matters. The Chairmen of the two Boards also exchange information regularly in person.

For details about cooperation between the Board of Management and Supervisory Board, please refer to the "Supervisory Board's report to the shareholders' meeting," **page 7 et seq.** of the Annual Report.

Composition of the Board of Management. As of January 1, 2019, the Board of Management's schedule of responsibilities states that there are nine Board departments instead of eight: the department of the Chairman of the Board of Management; Finance; Human Resources; Data Privacy, Legal Affairs and Compliance; T-Systems; Germany; Technology and Innovation; and Europe. The Board of Management was extended to include the USA and Group Development Board department. Each Board of Management member is authorized to manage the sphere of responsibility allocated to him or her. Certain matters are subject to approval by the full Board of Management. Furthermore, every Board member can submit matters to the full Board of Management for decision. Members of the Board of Management should not be older than 65 years of age (standard age limit). In September 2015, the Supervisory Board set out target figures for the number of women on the Board of Management. The Supervisory Board set a short initial deadline for implementation at the end of 2015 within which the current proportion of women on the Board of Management (1 of 7) was to remain stable. The Supervisory Board also resolved that the proportion of women should increase to 2 of 7 within the second implementation period by the end of 2020.

Composition of the Supervisory Board. The Supervisory Board of Deutsche Telekom AG consists of twenty members, ten representing the shareholders and ten representing the employees. The Supervisory Board members representing the shareholders are elected by the shareholders' meeting by simple majority. As in previous years, elections to the Supervisory Board were for individual members held at the last shareholders' meeting on May 17, 2018. For each candidate proposed to the shareholders' meeting on May 17, 2018, a résumé was included with the agenda containing relevant details of their expertise, skills, and experience, as well as their most important activities next to the Supervisory Board mandate. The standard five-year terms of office of the individual Supervisory Board members representing the shareholders end on different dates. This ensures continuity regarding the Supervisory Board's composition. The Supervisory Board members representing employees were most recently elected at the delegates' assembly on November 20, 2018, according to the provisions of the German Codetermination Act (Mitbestimmungsgesetz – MitbestG). The résumés of all Supervisory Board members are published on the Deutsche Telekom website and updated annually.

As for its composition, the Supervisory Board has set itself the following objectives:

- Taking into account the Company's specific situation, the Supervisory Board resolves to consider the aspect of diversity in addition to the requisite expertise of a candidate when issuing recommendations for future appointments to the Supervisory Board to the competent election bodies.
- The Supervisory Board has to be composed in such a way that its members as a group possess the knowledge, ability, and expert experience required to properly perform its tasks.
- The Supervisory Board supports an appropriate degree of women representation on the Supervisory Board. A minimum of 30 percent of members of the Supervisory Board shall be women.
- In view of the Company's international focus, candidates with an international background are to be given appropriate consideration in future appointments to the Supervisory Board.
- Conflicts of interest are to be avoided in appointments to the Supervisory Board.
- The term of office for members of the Supervisory Board shall end no later than the close of the shareholders' meeting after the Supervisory Board member reaches the age of 75 unless there are special reasons for this not to be the case (standard age limit).
- A regular limit of three terms of office shall apply for membership on the Supervisory Board. Appointments by court order that are limited until the next shareholders' meeting shall not, however, be considered a term of office.
- The Supervisory Board shall include at least sixteen members who are independent within the meaning of Section 5.4.2 of the German Corporate Governance Code. It is assumed that those Supervisory Board members elected in accordance with the Codetermination Act are independent in principle as defined. On the shareholders' representative side, at least six members of the Supervisory Board must therefore be independent.

For further information on the women's quota, please refer to the Corporate Governance Statement at **www.telekom.com/en/investor-relations/management-and-corporate-governance.**

For details on changes to the composition of the Supervisory Board during the reporting period, please refer to the "Supervisory Board's report to the shareholders' meeting," **page 7 et seq.** of the Annual Report.

The Supervisory Board considers the following skills, expertise and knowledge to be essential for it to exercise its role (profile of skills and expertise):

1. Strategic skills and expertise
- TC/IT industry, related industries
- Market (competition and customers), sales, and customer business
- Products
- Market participants
- Regulated industries
- M&A processes

2. Financial skills and expertise
- Accounting processes, risk management, audit of financial statements
- Financial KPIs and systems
- Capital and financial markets

3. Control skills and expertise
- Management/CEO
- Supervisory board
- International management experience
- Codetermination
- Legal affairs/compliance
- Regulatory and competition law

4. Innovation skills and expertise
- New technologies
- Digitalization
- IT/NT/telecommunications

5. Sustainability expertise, social skills
- Human resources
- Change management
- Organizational and cultural change
- Diversity
- Sustainability

Regarding the achievement level of the Supervisory Board membership targets and meeting the stipulations of the profile of skills and expertise:

The proportion of women on the Supervisory Board was at least 40 percent throughout the 2018 financial year. This means that the target of reaching the quota of 30 percent, which is now set out by law, was fulfilled.

The Supervisory Board is composed in such a way that its members as a group possess the knowledge, ability and expert experience required to properly perform its tasks. The members of the Supervisory Board represent various different professions and many of them have a multinational background. The avoidance of conflicts of interest and compliance with the standard age limit and the regular limit on terms of office were taken into consideration in the appointments to the Supervisory Board.

The Supervisory Board is convinced that, as a whole, it meets the stipulations of the profile of skills and expertise.

Furthermore, the proposals for election took account of the targets resolved by the Supervisory Board for its own composition as well as the skills and expertise profile drawn up by the Supervisory Board for itself as a whole.

The shareholders' meeting elected Margret Suckale to the Supervisory Board. She has a high level of experience in committee work and in leadership roles. Previous seats on the management boards at Deutsche Bahn AG and BASF SE contribute to her extensive expertise in legal affairs, HR, regulation, and corporate governance.

Dr. Günther Bräunig, CEO of KfW Bankengruppe and a recognized expert in capital markets, international financing, legal affairs, and HR, was also elected to the Supervisory Board by the shareholders' meeting. Dr. Bräunig has extensive national and international leadership experience, gained in part during many years on the executive board of KfW Bankengruppe.

In addition, Harald Krüger, a nationally and internationally renowned expert in the fields of innovation management and technology, was elected to the Supervisory Board. He is the CEO of BMW AG and has spent many years in top management roles in areas such as production, sales, strategy, and HR.

Prof. Ulrich Lehner has long-standing experience as the Chairman of the Supervisory Board of Deutsche Telekom AG. He is also a member of other supervisory bodies for global enterprises active in the fields of energy technology, automotive, consumer goods, pharmaceuticals, and manufacturing technology. As a qualified auditor, Prof. Lehner is also particularly knowledgeable about accounting processes and the auditing of financial statements. He has extensive expertise in national and international corporate leadership, including from his previous role as CEO of Henkel AG & Co. KGaA.

The Supervisory Board is convinced that – in accordance with the recommendation of the German Corporate Governance Code – it has a sufficient number of independent members to provide impartial advice to and monitor the Board of Management.

The Supervisory Board is convinced that Lars Hinrichs, Dr. Helga Jung, Prof. Michael Kaschke, Dagmar P. Kollmann, Harald Krüger, Prof. Ulrich Lehner, Karl-Heinz Streibich, and Margret Suckale are independent Supervisory Board members within the meaning of the German Corporate Governance Code.

The Supervisory Board will continue to ensure that the candidates proposed for election at the shareholders' meeting can dedicate the required amount of time to their Supervisory Board tasks at Deutsche Telekom AG.

Tasks assigned to the Supervisory Board. The Supervisory Board appoints the members of the Board of Management and regularly supervises its management of the Company. The Supervisory Board is directly involved in all decisions of strategic importance to the Company. This involvement is guaranteed through the specification of approval provisos for the Supervisory Board and through the agreement of the strategic alignment of the Company. The work of the Supervisory Board is specified in Rules of Procedure. To clarify the reporting obligations on the part of the Board of Management, the Supervisory Board has drawn up a list of transactions subject to approval. This list forms an integral part of the Rules of Procedure for the Supervisory Board and the Board of Management, respectively. The Supervisory Board and Audit Committee each assess the efficiency of their work every two years, which also provides new impetus for their work on a regular basis. The self-assessment carried out to this end is based on a comprehensive questionnaire followed by intense discussion and consultation on the results by the Supervisory Board and Audit Committee. The Supervisory Board carried out its last efficiency audit in the 2017 financial year. As well as the work of the Supervisory Board as a whole, this also considered the work of all of the Board's committees. A further, separate evaluation of the Audit Committee was carried out most recently in 2018.

The members of the Supervisory Board take on the necessary training and development measures required for their tasks on their own and are supported by Deutsche Telekom AG in doing so with a range of options including information events and workshops with internal and external experts. The Company offers new Supervisory Board members a customized program to introduce them to the industry and the situation of the Company. Furthermore, a meeting extraordinary to regular reporting is held to inform the members of the Audit Committee about the latest changes in the law, new accounting and auditing standards, and any changes in corporate governance issues. The members of the Supervisory Board are also kept up to date about any new requirements for work on the Supervisory Board at the regular Board and committee meetings.

In order to perform its tasks more effectively, the Supervisory Board has nine committees. The General Committee deals with personnel matters relating to the Board of Management and prepares the meetings of the Supervisory Board. The Staff Committee deals with general personnel matters not relating to the Board of Management. The Finance Committee mainly deals with complex financial and business management topics within the Company. The Audit Committee performs the tasks required by law and recommended by the German Corporate Governance Code. These include, in particular, monitoring accounting and the accounting process, the effectiveness of the internal control system, the risk management and internal auditing systems, the audit of financial statements, compliance, and data privacy. The Technology and Innovation Committee supports and promotes innovation and technological developments at infrastructure and product level and supports the Board of Management with advice on how to tap new growth areas. Furthermore, the Supervisory Board has formed a Nomination Committee, which consists exclusively of shareholders' representatives. The Nomination Committee is responsible in particular for proposing to the Supervisory Board suitable candidates for the latter to subsequently recommend to the shareholders' meeting for election. In addition, there is a Mediation Committee, which was formed in accordance with § 27 (3) of the Codetermination Act. Furthermore, a Special Committee for U.S. Business was established in May 2014. In view of the planned 5G auction in Germany, a Special Committee on the Acquisition of Spectrum in Germany began its work on January 1, 2019.

For further details about the composition and working methods of the committees, please refer to the "Supervisory Board's report to the shareholders' meeting," **page 7 et seq.** of the Annual Report.

For more information, please refer to the section "Risk and opportunity management," **page 113 et seq.** in the combined management report of the Annual Report.

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For further details on the members of the Supervisory Board and any seats they hold on the supervisory boards of other companies, please refer to **page 270 et seq.** of the Annual Report.

For details on conflicts of interest that have arisen, please refer to the "Supervisory Board's report to the 2018 shareholders' meeting," **page 7 et seq.** of the Annual Report.

The committees' chairpersons report to the Supervisory Board on a regular basis on the work of the committees. The Chairwoman of the Audit Committee, Dagmar P. Kollmann, has expert knowledge of accounting and auditing. She is also particularly knowledgeable and experienced in the application of accounting standards and internal control procedures. She is independent, and is not a former member of the Board of Management of Deutsche Telekom AG. Like the members of the full Supervisory Board, the members of the Audit Committee overall are very familiar with the sector in which Deutsche Telekom AG is active.

The Chairman of the Supervisory Board coordinates the work of the Supervisory Board and presides over its meetings. In addition to the organizational tasks relating to the Supervisory Board, he maintains regular contact with the Chairman of the Board of Management and the members of the Board of Management to discuss issues relating to the Company's strategy, planning, business development, the risk situation, risk management, and compliance, and is informed of the general business situation and significant events. In this context, the Chairman of the Board of Management in particular informs the Chairman of the Supervisory Board of all events that are significant to the situation, development, and governance of the Company.

Avoiding conflicts of interest. Board of Management members and Supervisory Board members are obliged to disclose immediately any conflicts of interest to the Supervisory Board. Any functions assumed by members of the Board of Management that are not covered by their Board of Management mandate are subject to approval by the General Committee of the Supervisory Board.

Risk and opportunity management. The Board of Management and the Supervisory Board consider the approach to the management of opportunities and risks arising in connection with the Company's business activities to be of fundamental importance for professional corporate governance. The Board of Management receives regular reports from the Group's Risk Management unit concerning current risks and their development. In turn, it reports to the Supervisory Board on the risk situation and the risk management system. The risk management system in place at Deutsche Telekom AG is evaluated by the external auditor, and it is constantly being expanded and improved. In addition to the responsibilities assigned by law and those recommended by the German Corporate Governance Code, the Audit Committee also deals with risk management, including the monitoring of the effectiveness of the internal risk management system. The system is designed to manage a variety of risks, including financial risks and risks to the Company's reputation.

Compliance. Compliance involves the observance of legal requirements and internal Group rules. Deutsche Telekom AG has a Group-wide compliance organization that is continuously being improved (also published in the 2017 Corporate Responsibility Report). There is also a Compliance Committee that supports the Board of Management in further developing the framework for an effective compliance management system. The members of the Compliance Committee are experienced managers in the areas of compliance, legal affairs, security, internal auditing, and human resources. The Chief Compliance Officer, appointed by the Board of Management, chairs the Compliance Committee. A compliance officer has been appointed for each of the operating segments. Individual business units have additional compliance officers/contacts depending on their respective size and risk situation. Clear reporting structures have been implemented throughout the Group. The particular significance attached to compliance is underlined by the decision to pool all compliance activities in the Board of Management department for Data Privacy, Legal Affairs and Compliance.

Deutsche Telekom AG has implemented a comprehensive compliance management system. According to this system, a compliance program is set up based on a structured risk assessment process performed once a year throughout the Group. The compliance management system also includes the Code of Conduct, the Code of Ethics, and various policies. The Code of Conduct defines how employees and management should practice value-based and legally compliant conduct in their daily business activities. The Code of Ethics addresses the members of the Board of Management of Deutsche Telekom AG and persons within the Group who carry special responsibility for financial reporting. It obliges these individuals to comply with the principles of honesty, integrity, transparency, and ethical conduct. The compliance management system in place at Deutsche Telekom AG and other selected national and international companies was certified as being appropriate and effectively implemented by an external auditor in stages from 2016 through 2018 in accordance with IDW audit standard 980 with the focus on anticorruption.

Internal controls over financial reporting. Deutsche Telekom AG has implemented a process to systematically assess the effectiveness of its internal controls over financial reporting. This process again provided evidence of the controls' effectiveness throughout the Group for the 2018 financial year. The Audit Committee assumes the task of monitoring the accounting and financial reporting processes on behalf of the Supervisory Board. The system of internal controls over financial reporting is updated on an ongoing basis and monitored separately by Internal Audit and external auditors.

The Audit Committee also monitors the effectiveness of the internal control system, which goes beyond financial reporting.

Accounting and audit of financial statements. An agreement has been reached with the external auditor of Deutsche Telekom AG that the Chairman of the Supervisory Board/the Audit Committee shall be advised immediately of any issues uncovered during the audit that might give rise to statements of exclusion or reservation in the external auditor's report, unless these issues can be resolved forthwith. Moreover, it has been agreed that the external auditor shall immediately report any findings and issues that emerge during the audit and that have a direct bearing upon the tasks of the Supervisory Board. According to this agreement, the external auditor undertakes to inform the Supervisory Board or make a note in the audit report of any facts discovered during the audit that might indicate a discrepancy in the Declaration of Conformity submitted by the Board of Management and Supervisory Board with the German Corporate Governance Code. The Audit Committee supervises the independence of the external auditor.

Transparent shareholder communication. We are committed to providing institutional investors, retail shareholders, financial analysts, and the general public with regular, comprehensive, transparent and up-to-date information about the Company's position at the same time and on an equal basis to ensure a high level of transparency and equality of information. Significant information, such as press releases, ad-hoc notifications, presentations from analyst conferences, all financial reports and the financial calendar, is made available on the Company's websites. Additionally, the Chairman of the Supervisory Board once again made himself available to investors to discuss matters specific to the Supervisory Board.

Share ownership by members of the Board of Management and the Supervisory Board. Total direct or indirect holdings of shares in the Company or associated financial instruments by members of the Board of Management and the Supervisory Board do not exceed 1 percent of the shares issued by the Company.

Bonn, February 20, 2019
The Supervisory Board and the Board of Management

For detailed information about the compliance management system, please refer to Deutsche Telekom AG's website at **www.telekom.com/en/company/compliance.**

The Code of Conduct and the Code of Ethics are published on Deutsche Telekom AG's website at **www.telekom.com/en/company/compliance/code-of-conduct** and at **www.telekom.com/en/investor-relations/management-and-corporate-governance.**

For a description of the main features of the accounting-related internal control system, please refer to the section "Accounting-related internal control system" in the combined management report, **page 129** of the Annual Report.

THE T-SHARE

T-Share information

		2018	2017
XETRA CLOSING PRICES			
Share price on the last trading day	€	14.82	14.80
Year high	€	15.49	18.05
Year low	€	12.81	14.76
TRADING VOLUME			
German exchanges	billions of shares	3.3	2.4
Market capitalization on the last trading day	billions of €	70.6	70.4
WEIGHTING OF THE T-SHARE IN MAJOR STOCK INDEXES ON THE LAST TRADING DAY			
DAX 30	%	5.8	4.6
Dow Jones EURO STOXX 50®	%	2.2	2.0
T-SHARE – KEY FIGURES			
Earnings per share (basic and diluted)	€	0.46	0.74
Proposed dividend	€	0.70	0.65
Number of shares issued	millions, at year-end	4,761	4,761

DEVELOPMENT OF INTERNATIONAL INDEXES

After six years of strong growth, the DAX came under immense pressure in 2018. Rising interest rates and concerns about the negative effects of growing protectionism, especially in trade between the EU, China, and the United States, took their toll on the index. As a result, Germany's most important stock market barometer lost 18.3 percent over the course of the year.

Although somewhat less than the DAX, the Dow Jones EURO STOXX 50® also ended the year substantially down: On a total return basis – i.e., including reinvested dividends – this wide-ranging European stock market index lost 12.0 percent. As with the DAX, share price performance was impacted by discussions around interest rates and growing protectionism in global trade.

Similarly, the Nikkei ended the stock market year down 12.1 percent. The United States' stock market barometer, the Dow Jones, while performing better than the European and Japanese stock exchanges, was also unable to buck the negative trend, falling 5.6 percent.

T-SHARE PERFORMANCE

The European telecommunications sector performed somewhat better than the cross-sector indexes but was nevertheless weak in 2018. The industry's barometer, the Dow Jones STOXX® Europe 600 Telecommunications, fell 8.8 percent in the course of the stock market year. Share price performance was adversely affected by regulatory discussions and increasing competition on a number of European markets.

In this environment, the T-Share closed the year 2018 at EUR 14.82, up slightly by 0.1 percent. The lowest price recorded during the year was EUR 12.81 on March 26, 2018, while the highest price of EUR 15.49 was recorded on November 30, 2018, shortly after the publication of our figures for the third quarter.

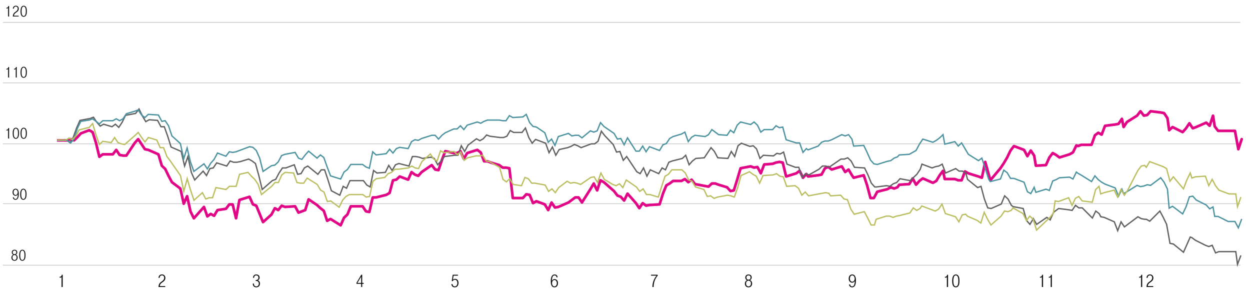
On a total return basis – and thus comparable with the DAX – our share ended the year 2018 up 5.0 percent.

DIVIDEND

The Board of Management and Supervisory Board of Deutsche Telekom AG will propose to this year's shareholders' meeting, to be held on March 28, 2019, the distribution of a dividend of EUR 0.70 per dividend-bearing share.

T-Share as compared to DAX, Dow Jones EURO STOXX 50®, and Dow Jones STOXX® Europe 600 Telecommunications

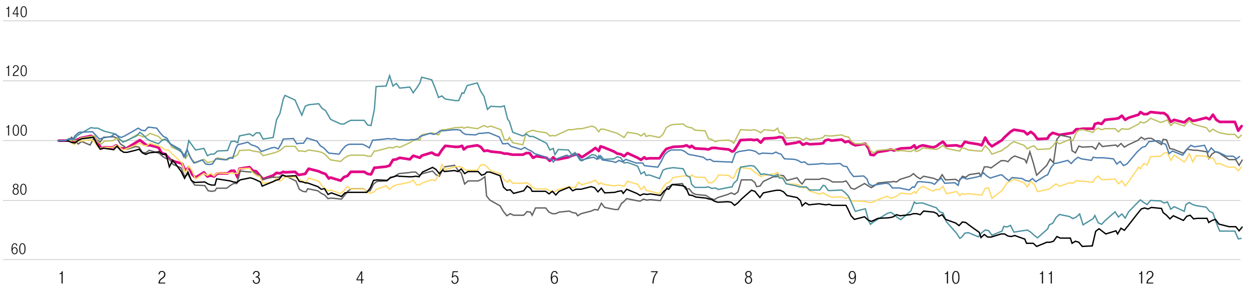
January 1 to December 31, 2018 (based on total shareholder return [a])



■ Deutsche Telekom ■ DAX ■ Dow Jones EURO STOXX 50® ■ Dow Jones STOXX® Europe 600 Telecommunications

T-Share as compared to other European telecommunications companies

January 1 to December 31, 2018 (based on total shareholder return [a])



■ Deutsche Telekom ■ BT Group ■ Orange ■ KPN ■ Telecom Italia ■ Telefónica ■ Vodafone

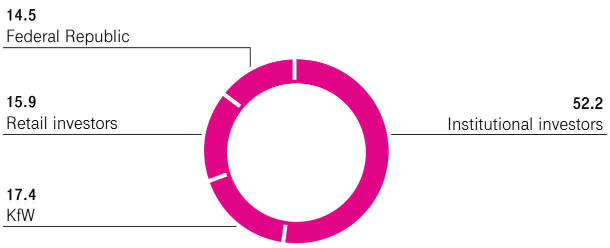
[a] Total shareholder return measures the value performance of a shareholding over a specific period. It takes into account dividends paid during the investment period along with any changes in share price.

SHAREHOLDER STRUCTURE

The Federal Republic's shareholding, including that of Kreditanstalt für Wiederaufbau (KfW), stands at approximately 32 percent. The proportion of institutional investors decreased slightly to 52.2 percent, while the share of retail investors increased to 15.9 percent. As a result, the percentage of shares in free float remains at 68 percent of the share capital.

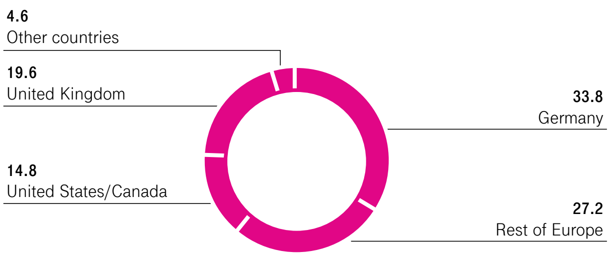
Shareholder structure

% (as of December 31, 2018)



Geographical distribution of free float

% (as of December 31, 2018)



SUSTAINABLE DEVELOPMENT GOALS

In order to successfully tackle global challenges, the member states of the United Nations adopted the 2030 Agenda for Sustainable Development in 2015. The aim is to enable economic development and prosperity – in line with social justice and taking account of the ecological limits of global growth. The Agenda applies equally to all nations of the world.

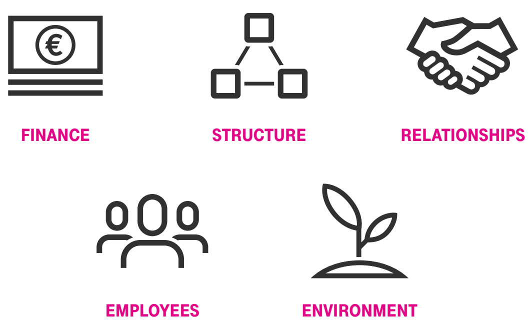
The core of the 2030 Agenda comprises 17 goals: the Sustainable Development Goals (SDGs). In particular, it seeks to reduce poverty and hunger, promote healthcare and education, enable equality, protect the environment and climate, and make consumption sustainable. Implementing the ambitious SDGs will require everyone to work together: policy makers, civil society, and business. As such, companies are also called upon to make concrete contributions with respect to their business activities.

We are answering this call. Many of our products, services, and activities already allow us to make such a contribution. Our contribution to the SDGs also has a positive effect on the entire value chain at Deutsche Telekom. To enhance clarity, we divide these value contributions into the five subcategories – Finance, Structure, Relationships, Employees, and Environment.

For example, as a responsible employer, we greatly value employee participation and a working environment that is fair and respectful; we encourage diversity and support our employees on their journey toward the digital working world (Employees). In doing so, we also contribute to meeting SDGs 8 and 5. Our broadband network build-out makes an active contribution to creating and expanding high-quality infrastructure and promoting innovation (SDG 9), and at the same time strengthens our infrastructure (Structure). By consistently improving energy efficiency as we expand our network, and by delivering cloud-based services that enhance energy efficiency for our customers (Environment), we contribute towards SDG 13. Thanks to products and solutions like these, customers can conserve yet further resources and heighten the positive effects on the environment (SDGs 12, 14, 15). The build-out of our broadband network also gives a large number of people access to digital education media (SDG 4), while our e-health services improve medical care (SDG 3). At the same time, we generate revenue with these services (Finance). Smart city solutions promote sustainable living (SDGs 11, 17) and we implement them using new partnerships (Relationships).

To clearly highlight the contribution our products, services, and activities make towards the individual sustainability development goals and our value chain, we have marked the relevant passages of the following pages with the respective SDG and contribution symbols.

Deutsche Telekom's value contributions



THE GLOBAL GOALS

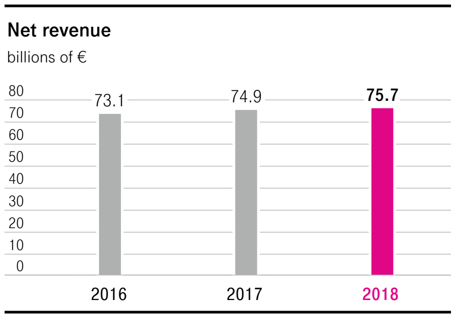
COMBINED MANAGEMENT REPORT

This report combines the Group management report of the Deutsche Telekom Group, comprising Deutsche Telekom AG and its consolidated subsidiaries, and the management report of Deutsche Telekom AG.

DEUTSCHE TELEKOM AT A GLANCE

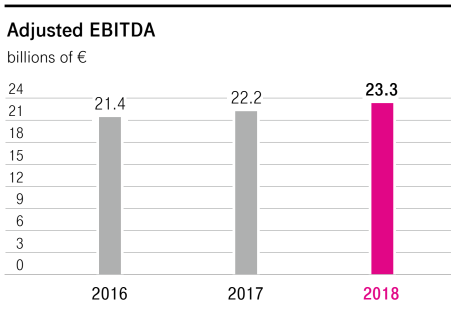
NET REVENUE

- We are well on track to meeting our growth forecast, posting an increase in net revenue of 0.9 percent to EUR 75.7 billion. On a comparable basis, i.e., excluding exchange rate effects and effects of changes in the composition of the Group, net revenue increased by as much as EUR 2.3 billion or 3.1 percent.
- Our United States operating segment posted an increase in revenue of 2.2 percent; in U.S. dollars, the continuing success of our U.S. operations was evident in revenue growth of 6.8 percent. Revenue in our Europe operating segment grew by 2.6 percent.
- The business trend was stable in our Germany operating segment, with revenue down 1.1 percent due to the first-time application of the IFRS 15 accounting standard.
- Revenue remained on a par with the prior year in our Systems Solutions operating segment, while in our Group Development operating segment revenue declined.



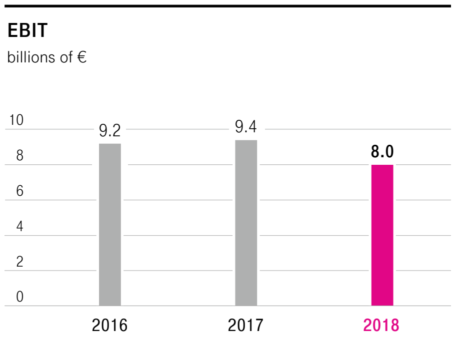
ADJUSTED EBITDA

- Adjusted EBITDA grew by EUR 1.1 billion to EUR 23.3 billion. Excluding exchange rate effects, adjusted EBITDA rose by EUR 1.6 billion or 7.2 percent and thus exceeded our expectations.
- Due to the ongoing success of T-Mobile US, we generated an increase in adjusted EBITDA of 8.3 percent in the United States operating segment. In U.S. dollars, this growth reached as much as 13.6 percent. Adjusted EBITDA also grew in our Europe operating segment (by 3.5 percent) and in our Germany operating segment (by 2.4 percent). While adjusted EBITDA remained stable in our Group Development operating segment, it declined in our Systems Solutions operating segment (-15.7 percent).
- At 30.8 percent, the Group's adjusted EBITDA margin increased slightly against the prior-year level of 29.7 percent. The EBITDA margin was 39.7 percent in Germany, 32.6 percent in Europe, and 27.6 percent in the United States.



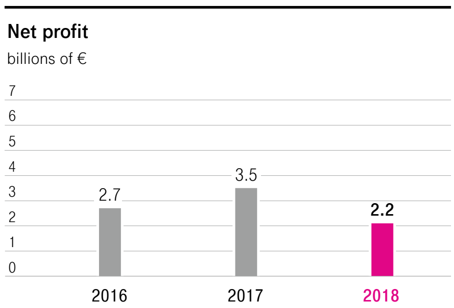
EBIT

- EBIT decreased by EUR 1.4 billion to EUR 8.0 billion.
- EBITDA was negatively affected by special factors of EUR 1.5 billion in contrast to positive net special factors of EUR 1.7 billion in the previous year. Staff-related measures and non-staff-related restructuring accounted for negative special factors of EUR 1.3 billion, an increase of EUR 0.6 billion year-on-year. The prior-year period had also benefited from positive special factors of EUR 1.7 billion from the reversal of impairment losses previously recognized for spectrum licenses at T-Mobile US, the sale of Strato (EUR 0.5 billion) and of further shares in Scout24 AG (EUR 0.2 billion), and a settlement agreement concluded with BT (EUR 0.2 billion).
- At EUR 13.8 billion, depreciation, amortization and impairment losses were down EUR 0.8 billion year-on-year. This was largely attributable to impairment losses of EUR 0.7 billion on goodwill and property, plant and equipment recognized as special factors in the Europe operating segment, whereas, in the prior year, impairment losses of EUR 2.2 billion had been recognized in the Europe and Systems Solutions operating segments. Depreciation and amortization increased by EUR 0.7 billion.

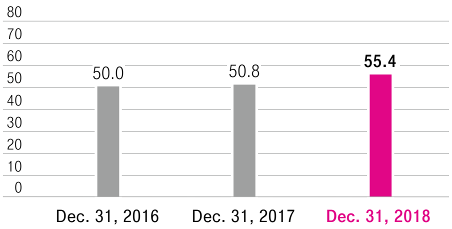


NET PROFIT

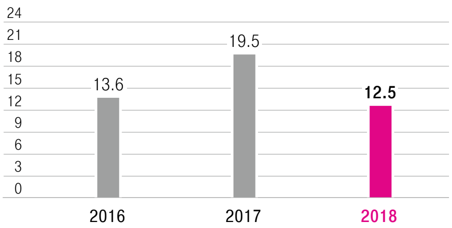
- Net profit decreased from EUR 3.5 billion to EUR 2.2 billion.
- At EUR 2.8 billion, the loss from financial activities was EUR 1.5 billion lower than a year earlier, offsetting the effects of the reduction in EBIT. The higher loss in the prior year was attributable to the EUR 1.5 billion impairment of our financial stake in BT recognized in profit or loss, as well as to higher negative effects from the remeasurement of derivatives. While the settlement amount of EUR 0.6 billion agreed in the Toll Collect arbitration proceedings had a negative impact in the reporting year, finance costs improved by EUR 0.4 billion year-on-year.
- The tax expense amounted to EUR 1.8 billion; in the prior year there had been a tax benefit of EUR 0.6 billion, which was mainly attributable to the remeasurement of deferred taxes at T-Mobile US as a result of the U.S. tax reform.
- Profit attributable to non-controlling interests decreased year-on-year by EUR 0.9 billion.
- Adjusted earnings per share declined from EUR 1.28 in the prior year to EUR 0.96 in the reporting year.



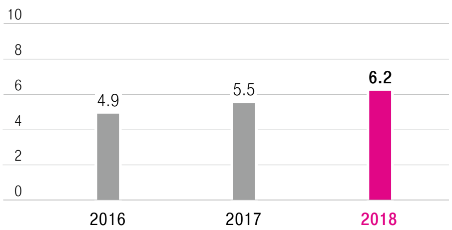
Net debt
billions of €



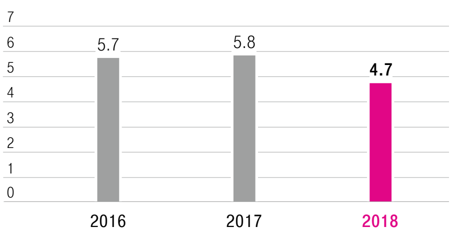
Cash capex
billions of €



Free cash flow
(before dividend payments and spectrum investment)
billions of €



ROCE
%



NET DEBT

- Net debt increased from EUR 50.8 billion at the end of 2017 to EUR 55.4 billion.
- Factors in this increase included, in particular, the dividend payment (including to non-controlling interests) of EUR 3.3 billion, the acquisition of UPC Austria (EUR 1.8 billion), additions to liabilities in connection with finance leases (EUR 1.0 billion), exchange rate effects (EUR 1.1 billion), T-Mobile US' share buy-back program (EUR 0.9 billion), payment obligations arising out of the Toll Collect settlement (EUR 0.6 billion), and further acquisitions of shares in T-Mobile US and OTE (EUR 0.4 billion).
- The main factor reducing net debt was free cash flow of EUR 6.2 billion.

CASH CAPEX

- Cash capex (including spectrum investment) decreased from EUR 19.5 billion to EUR 12.5 billion.
- In the prior year, mobile spectrum licenses had been acquired for EUR 7.4 billion, mainly in the United States operating segment, compared with cash outflows in the reporting year of EUR 0.3 billion, primarily in the United States.
- Adjusted for the effects of spectrum acquisition, cash capex was up by EUR 0.1 billion. Capital expenditures were focused primarily on the United States, Germany, and Europe operating segments and went toward the build-out and upgrade of our networks.

FREE CASH FLOW (BEFORE DIVIDEND PAYMENTS AND SPECTRUM INVESTMENT)

- Free cash flow was up by EUR 0.7 billion to EUR 6.2 billion. Adjusted for exchange rate effects and changes in the composition of the Group, the value thus exceeded our expectations.
- Net cash from operating activities increased by EUR 0.8 billion year-on-year. Lower net interest payments, which were essentially due to the fact that T-Mobile US has increasingly been financed internally since 2017, and that refinancing terms continue to be favorable, in particular had a positive effect on free cash flow. The positive business development in our United States operating segment was adversely affected by currency translation effects.
- The year-on-year increase of EUR 0.1 billion in cash capex (excluding spectrum investment) had a negative impact on free cash flow.

ROCE

- Our key performance indicator ROCE (return on capital employed) decreased by 1.1 percentage points in the reporting period to 4.7 percent.
- This was attributable to the decrease in net operating profit after taxes (NOPAT), while the average amount of net operating assets (NOA) increased slightly over the year.
- NOPAT was impacted in 2018 primarily by negative special factors in connection with staff-related measures and impairment losses on goodwill, which even the significant improvement in adjusted EBITDA could not completely offset. In particular, positive special factors in the prior year had had an offsetting effect on NOPAT.
- NOA increased in 2018 as a result of growth in intangible assets and property, plant and equipment, as well as an increase in the present value of unrecognized rental and lease obligations, reflecting Deutsche Telekom's consistently high level of investment.

For further information, please refer to the section "Development of business in the Group," **page 49 et seq.**

For further information, please refer to the Media section on our website at **www.telekom.com/en/media/media-information.**

HIGHLIGHTS IN THE 2018 FINANCIAL YEAR

BOARD OF MANAGEMENT

Dr. Dirk Wössner was appointed as the new Board member responsible for Germany effective January 1, 2018. In addition, Adel Al-Saleh was appointed as the new Board member responsible for T-Systems effective January 1, 2018.

The former Board member responsible for Human Resources (CHRO), Dr. Christian P. Illek, became the new CFO as of January 1, 2019. He succeeds Thomas Dannenfeldt, who left the Company for personal reasons when his contract expired at the end of 2018. Birgit Bohle joined the Board of Management as of January 1, 2019 as the Board member responsible for Human Resources as successor to Dr. Illek.

Thorsten Langheim became a member of the Board of Management at Deutsche Telekom AG as of January 1, 2019, taking up the role of head of the newly created Board department responsible for USA and Group Development. The Supervisory Board intends the new Board department to better reflect the importance of U.S. business to the Group, in addition to placing a stronger emphasis on evolving the portfolio. Deutsche Telekom AG thus has had nine Board departments since the start of 2019.

CAPITAL MARKETS DAY 2018

In May 2018, we presented our new medium-term strategy and the financial outlook at our Capital Markets Day in Bonn. Our forecast for growth through to 2021 remains at the same high level we anticipated at our Capital Markets Day in 2015: Revenue is expected to increase by 1 to 2 percent annually, adjusted EBITDA by 2 to 4 percent, and free cash flow by around 10 percent. From 2019 onwards, we expect that all business units will contribute to earnings growth in the Group. The focus of our strategy is on convergent products and services for consumers and business customers. Our capital expenditure is to remain at a high level and will center on the ongoing build-out of broadband networks and upgrading to the LTE and 5G standards. The dividend for the financial years starting 2019 will reflect the development of adjusted earnings per share. We expect this figure to increase to around EUR 1.20 per share by 2021.

CORPORATE TRANSACTIONS

In March 2018, we exercised our right of first refusal as invited by the Greek privatization authority Hellenic Republic Asset Development Fund (HRADF) and acquired a 5 percent stake in our Greek subsidiary OTE. The transaction was completed in May 2018 through the acquisition of additional shares in the amount of EUR 0.3 billion. As a result, we hold around 45 percent in the company's shares.

In December 2017, T-Mobile Austria agreed to acquire Austria's leading cable operator, UPC Austria. The European Commission approved the deal on July 9, 2018 and the transaction was consummated on July 31, 2018. A purchase price of EUR 1.8 billion was paid in cash. The UPC Austria group has been fully included in our consolidated financial statements since the acquisition date. In line with our strategy, this acquisition will allow us to offer convergent product bundles to our customers on the European market.

Together with their respective majority shareholders Deutsche Telekom AG and Softbank K.K., T-Mobile US and Sprint Corp. concluded a binding agreement in April 2018 to combine their companies. The larger T-Mobile US is expected to achieve cost and capital expenditure synergies with a net present value of around USD 43 billion (after integration costs). Around USD 15 billion has been budgeted for integration costs. The business combination is expected to make a positive contribution to adjusted earnings per share at the Deutsche Telekom Group after the first three years. The new company will have a customer base of around 127 million. Under the agreement, T-Mobile US will acquire all of the shares in Sprint. On completion of the transaction, Deutsche Telekom will hold around 42 percent of T-Mobile US' shares and Softbank around 27 percent, while the free float will account for about 31 percent. Due to the voting-rights agreement with Softbank, and to the fact that Deutsche Telekom has the right to appoint the majority of the members of the Board of Directors, T-Mobile US will continue to be included as a fully consolidated subsidiary in the consolidated financial statements. The agreement is subject to approval by the authorities as well as other closing conditions.

On November 27, 2018, the European Commission approved the acquisition of Tele2 Netherlands by T-Mobile Netherlands and the transaction was consummated on January 2, 2019. This transaction is part of our long-term strategy and will establish a stronger, more sustainable provider of convergent fixed-network and mobile services on the Dutch market. Tele2 Group receives a purchase price in the form of a 25 percent stake in T-Mobile Netherlands and a cash component of some EUR 190 million taking any retrospective adjustments to the purchase price into account. Tele2 Netherlands has been fully included in our consolidated financial statements since the acquisition date.

SETTLEMENT IN THE TOLL COLLECT ARBITRATION PROCEEDINGS

Together with Daimler Financial Services AG, we reached an agreement with the Federal Republic of Germany in May 2018 to end the toll collection arbitration proceedings. This agreement puts an end to a lengthy legal dispute regarding the implementation of heavy truck road tolls in Germany. The agreed settlement amount of around EUR 3.2 billion includes services previously provided to the Federal Republic of Germany. Daimler Financial Services AG and Deutsche Telekom have both agreed to make final payments of EUR 550 million each. The payments will be made in three tranches by 2020; the first tranche has already been paid.

T-MOBILE US SHARE BUY-BACK PROGRAM

In April 2018, T-Mobile US' Board of Directors authorized an increase in the total share buy-back program to up to USD 9.0 billion, consisting of the USD 1.5 billion in repurchases already executed and for up to an additional USD 7.5 billion of T-Mobile US common stock until the end of 2020. This Board resolution applies in the event that the business combination of Sprint and T-Mobile US does not materialize. In addition, in the 2018 financial year we purchased shares in T-Mobile US on the capital market totaling USD 0.2 billion, bringing our stake to around 63 percent.

INCREASE IN EXTERNAL CAPITAL FUNDING FOR COMPANY PENSIONS

We place high importance on our company pension plans in the Group. SDG 8 Going forward, pension payments are to be covered to a greater extent by our own assets. To achieve this, in March 2018 the 12 percent financial stake in the BT Group was transferred to the Group's own trust, Deutsche Telekom Trust e.V., roughly doubling the level of external capital funding. This capital may only be used for pension payments. BT continues to be an integral part of our strategic orientation.

INVESTMENTS IN NETWORKS SDG 9

5G network for Germany. At our Network Day in Berlin in October, we presented an eight-point plan for a fast, successful 5G rollout. By 2025, we plan to cover 99 percent of the population nationwide and 90 percent of the country with 5G. We intend to invest an additional EUR 20 billion in Germany in the four years through 2021. To ensure that business, industry, and the general public get the most powerful 5G network, we will also team up with partners. With over 500,000 kilometers of cable now laid, our fiber-optic network forms the basis for high-performance fixed and mobile infrastructure. It currently serves 26 million households with surfing speeds of up to 100 Mbit/s and more over the fixed network. Following the market launch of supervectoring in August 2018, maximum speeds of up to 250 Mbit/s became available to 6 million households. As of the end of 2018, some 14 million households were benefiting from such transmission rates. Our aim is to offer speeds of up to 250 Mbit/s to 28 million households in 2019.

Fiber-optic rollout progresses apace. A host of major fiber-optic projects to bring light speeds to urban and rural areas got under way in 2018, for instance in the German rural districts of Vorpommern-Rügen and Burgenlandkreis, the city of Bautzen, the town of Lüneburg, and at the Port of Hamburg. A large-scale digitalization project for Stuttgart and five neighboring rural districts was also given the go-ahead, under which gigabit connections are to be rolled out to approximately 90 percent of the 1.38 million households in the region as well as to all of the around 140,000 business sites and facilities. The nationwide build-out of FTTH is gathering speed. We also started the fourth wave of our nationwide rollout of optical fiber to business parks. Almost 45,000 businesses located at 106 business parks in over 70 municipalities are already benefiting from bandwidths of up to 100 Gbit/s. The aim is to connect a total of 3,000 business parks across Germany to the fiber-optic network by the end of 2022. In addition, we are already planning or preparing to implement further large-scale fiber-optic projects at our national companies in Europe, such as FTTH coverage of up to one million households and businesses in Greece and a comprehensive FTTH project in the Czech Republic.

1,300 new cell sites for added capacity and coverage. We installed 1,300 new cell sites in 2018, bringing the total number of sites in Germany to around 29,000. More than 2,000 new sites will be added over the next few years. Our high-speed LTE network covers 97.8 percent of the population. This percentage is set to increase to 98 percent by the end of 2019. The three big network tests – carried out by connect, Chip, and Computer Bild – confirm that we have the best mobile communications network in Germany. More than 80 percent of our cell sites are already connected with optical fiber. They are also equipped with Single RAN technology and thus ready for the fifth-generation mobile standard, 5G.

8 DECENT WORK AND ECONOMIC GROWTH
EMPLOYEES

European Aviation Network (EAN) ready. At the start of 2018, together with Inmarsat and our technology partner Nokia, we set up the first trans-European integrated LTE network consisting of 300 base stations. The network offers seamless connectivity over land and sea: Airline passengers benefit from the high bandwidth with high-speed transmission rates that let them browse social media, share pictures, and even stream broadband content. Airlines using the service do not have to share the network capacities with LTE users on the ground.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
STRUCTURE

German cloud data center continues to grow. The next phase of our expansion activities at the high-performance data center in Biere, near Magdeburg, went live in September 2018. Biere now has a capacity of 150 petabytes for processing and storing cloud data. Since the commissioning of this high-tech Fort Knox in 2014, global demand for cloud services has continued to increase substantially. In response, T-Systems has systematically developed into a multi-cloud provider that collaborates with leading international providers of cloud solutions. The Open Telekom Cloud, our public cloud offering, was the first cloud in Germany to receive the TCDP 1.0 certification promoted by the Federal Ministry for Economic Affairs and Energy. SDG 16

16 PEACE, JUSTICE AND STRONG INSTITUTIONS
STRUCTURE

T-Mobile Polska signs wholesale FTTH agreement with Orange. Under an agreement signed in July 2018, T-Mobile Polska will gain access to Orange's fiber-optic infrastructure and will use it to provide services based on data transmissions in non-regulated areas. The contract will guarantee T-Mobile Polska access to 1.7 million households. Together with the partner's plans to invest in the deregulated area by the end of 2020 and in the fiber-optic network in regulated areas, this will enable T-Mobile Polska to potentially reach over 4 million households. T-Mobile Polska aims to provide initial individual customers, and small and medium-sized enterprises with the full range of fixed-network services based on fiber-optic infrastructure in the first quarter of 2019 at the latest. The agreement is to run for up to 20 years. In addition to the agreement with Orange, T-Mobile Polska signed another wholesale FTTH agreement with network operator Nexera, covering more than 450 thousand further households, which will be connected by the end of 2020.

Internet of Things gets off the ground. We are one of the leading providers in the large-scale technology roll-out of the Internet of Things (IoT) in Germany, Europe, and North America. The new NarrowBand-IoT (NB-IoT) network technology is now available in over 2,000 locations across Germany, and more than 300 businesses from various industries are already utilizing its potential. We also operate NB-IoT infrastructure in eight further European markets and in the United States, with nationwide rollout completed in the Netherlands, Austria, Slovakia, and the United States. Our NB-IoT networks are already up and running in several cities across Poland, the Czech Republic, Hungary, Croatia, and Greece.

First European NB-IoT roaming tests concluded. In June 2018 we announced that, together with the Vodafone Group, we had successfully concluded the first international roaming tests in Europe using NB-IoT technology. This service will deliver seamless coverage and continuity of service for millions of connections over low-power wide-area networks. The success of this test marks an important milestone in the development of a stable roaming environment for mobile IoT networks.

INNOVATION

5G under live conditions. SDG 9 The first 5G antennas in Europe to fully support the fifth-generation communication standard have been transmitting data under real-world conditions via our network in Berlin since May 2018 and via our network in Warsaw since December 2018. In the T-Mobile Austria network in Innsbruck, a preliminary version of the final 5G standard is reaching record speeds of 2 Gbit/s with latency of just three milliseconds. The first live 5G demonstrations were also conducted in Greece and Macedonia. In a world first, the Hamburg Port Authority, Deutsche Telekom, and Nokia are testing new aspects of the 5G standard using various applications in real-world industrial conditions at the Port of Hamburg in Germany. Since January 2018, the testing ground covering around 8,000 hectares has been used to review this innovative technology and its suitability for rollout in an industrial environment.

For further information on our innovations, please refer to the section "Innovation and product development," page 89 et seq.

NOW. NEW. NEXT. This was the motto of our booth at the Mobile World Congress in Barcelona in February 2018, where we showcased innovative solutions and visions for the smart society of today and tomorrow based on the network of the future. The focus was on the new 5G communication standard, which will facilitate the interconnection of billions of devices, and the Internet of Things. In an urban setting, visitors had the opportunity to experience and interact with digital innovations across a range of themed zones, including smart city and Industry 4.0, as well as security topics and future technologies like drones, smart textiles, and augmented reality sports.

Digitalization reaches all areas of healthcare. SDG 3 From hospital beds that transmit their whereabouts automatically to ultrasound scanners that request maintenance work, telemedical patient care, and mobile apps – the digital revolution is radically changing the face of healthcare and poses a complex challenge for everyone affected. Telekom Healthcare Solutions delivers IT solutions designed to help overcome these challenges. conhIT, the world's leading trade fair for healthcare IT, took place in Berlin in April 2018. Under the motto "Set for a digital future" (Digital auf Zukunft programmiert), T-Systems showcased its latest innovations, which include a tracking system to localize medical equipment and a secure platform for digital collaboration.

"Shape the digital now." We presented digital solution modules for industry at Hannover Messe in April 2018. The focus was on practical and concrete implementation options for production planning, manufacturing, and logistics. Visitors were able to see products and services relating to cloud computing, the Internet of Things, connectivity, and security, and experience new trends such as digital twins, blockchains, and artificial intelligence. We also showcased the new PLM Cloud service, a cloud-based product lifecycle management (PLM) solution that was launched at the start of the year. Companies can use the PLM Cloud to transform what is probably their most important process, i.e., the development of new products from initial design through to test simulation, bring that process into the digital age, and thus accelerate their approach to innovation. SDG 9

"Magenta connects." At our booth at IFA 2018 in Berlin, we brought our entire world of Magenta products to life for trade fair visitors. The main focus was on Magenta Entertainment, "In the best network," Magenta Connected Life, MagentaEINS, and MagentaSERVICE. Selected highlights: An interactive multi-player drone race on a 5G LED big screen demonstrated the capabilities of the network of the future. The booth also featured an e-sport arena where experts from SK Gaming invited visitors to try out e-sport games including League of Legends and FIFA, as well as mobile gaming. In the MagentaSERVICE zone, the new SprachID service took center stage. In the future, customers will not need to remember account numbers and passwords – when they phone up they will be recognized by their voice alone.

PARTNERSHIPS

Partnerships are key to the success of our Group. We again entered into and expanded a large number of partnerships in the reporting year. We would like to present some of them in detail:

Accession to the Industrial Internet Consortium (IIC). We are now able to contribute our strengths in the field of IoT connectivity, in particular with NB-IoT and 5G, to the IIC to strengthen Europe's standing in the global consortium. The U.S. organization is spearheading the digital transformation of economy and society on an international scale by driving the development, rollout, and expansion of IoT and Industry 4.0 solutions. Our goal is to develop common approaches for the interoperability of systems in dialog with IIC members and their partners. Additionally, the aim is to outline needs and framework conditions in the context of standardization along with security requirements for IoT services and hardware.

Open Telekom Cloud wins European tenders. The European nuclear research center CERN has enlisted T-Systems to operate the proven solution developed in 2017 as a pilot system for the Helix Nebula European research cloud. To this end, T-Systems will provide a high-performance solution and a multi-cloud solution, both based on the Open Telekom Cloud. Research institutions throughout Europe can use these solutions and combine the Open Telekom Cloud with their own IT resources and solutions to create a hybrid model. T-Systems has also designed a cloud platform for the European Space Agency ESA. The Copernicus Data and Information Access Services (DIAS) platform was launched in the first quarter of 2018 and makes earth observation data collected by ESA satellites available to the public via the cloud at no cost for direct processing.

Public cloud – strategic partnerships. T-Systems and Microsoft are entering into a strategic partnership that will focus on promoting public cloud services in four key areas: SAP applications, managed services on Microsoft Azure and Microsoft Office 365, digital solutions using artificial intelligence and mixed reality, and IoT. SAP certified the Open Telekom Cloud in time for Hannover Messe 2018, thus guaranteeing the performance of SAP HANA in the public cloud and enabling the solution to be integrated seamlessly into SAP support processes. The additional service in the public cloud means companies can complement their IT landscape with SAP applications flexibly and easily by self-service and receive appropriate support where needed.

Global initiative for sustainable cities. SDG 11 In September 2018, we announced a far-reaching collaboration with United Smart Cities (USC) to help cities become smarter and more sustainable. The United Smart Cities program is a global initiative established and coordinated by the United Nations Economic Commission for Europe (UNECE) in cooperation with the Organization for International Economic Relations (OiER). As part of the partnership, we have also taken on a board position in USC's Global Industry Advisory Board (GIAB). The GIAB consists of 12 members who provide strategic counsel to all UN organizations on smart city issues across the globe. In addition, in November 2018 we presented our newest solutions for the smart city ecosystem at the Smart City Expo World Congress in Barcelona. We also invited representatives from five partner cities with whom we have already successfully rolled out various smart city solutions to appear at our booth. Trenčín in Slovakia, Athens in Greece, Kazimierz in Poland, Gijón in Spain, and Krk in Croatia.

5G for connected mobility. In just a few years, cars, traffic signals, and street lights will all share information via the 5G communication standard. And these are just three examples for traffic in the future. The systems involved will have to be secure. Together with DEKRA, we are working to equip the Lausitzring test and race track with 5G technology to create an intelligent mobility test site. Multiple scenarios will be played out at the site: Connected cars and autonomous vehicles will communicate in real time with each other, with road infrastructure, and with cyclists and pedestrians. This creates the perfect environment for car manufacturers, suppliers, and telecommunications component manufacturers to test intelligent mobility in a real-world environment.

Digital Cities and Regions initiative. In July 2018, we joined forces with the German Association of Towns and Municipalities (DStGB) to launch a new initiative called the Executive Program Digital Cities and Regions. The partners develop intelligent, tailor-made solutions with the aim of promoting digitalization in cities and communities and preparing the regions for the digital future. The defined success factors are common platforms, a good digital infrastructure, and courage for cultural change. As a digital partner, we provide the necessary expertise and help the towns and municipalities to launch initial projects. 23 cities from across Germany with very different expectations of the program have now joined the initiative, which will continue in 2019 on the back of the successful launch and strong demand.

Strategic partnership for better road safety. In August 2018, we launched a strategic partnership with the automobile association ADAC, with plans to offer products and attractive benefits to our customers and ADAC members. To this end, we intend to leverage the opportunities of traffic digitalization. For example, we worked together with ADAC to further enhance our CarConnect solution which now lets drivers report breakdowns to ADAC via just a few clicks in the CarConnect app.

Cybersecurity for banks. SDG 16 The number of cyberattacks on banks worldwide is on the rise. Industry regulators are continually tightening up IT security requirements for banks. That is why Fiducia & GAD IT AG (IT service provider for all 900 Volksbank and Raiffeisenbank branches in Germany) and the German DZ Bank group have joined forces with Telekom Security to improve cybersecurity for the credit unions over the long term. In the first phase, the partners established a Security Operation Center (SOC) to handle specific IT security incidents for DZ Bank.

16 PEACE, JUSTICE AND STRONG INSTITUTIONS
RELATIONSHIPS
11 SUSTAINABLE CITIES AND COMMUNITIES
RELATIONSHIPS

CORPORATE CUSTOMER DEALS

T-Systems wins major contract with the Sparda group. The group of Sparda-Banks has signed a seven-year outsourcing contract with T-Systems with a volume in the mid-three-digit million euro range. We will take over the entire IT infrastructure of Sparda-Datenverarbeitung eG, the Sparda group's central IT service provider, and migrate all mainframe computers and server landscapes to high-security data centers operated by T-Systems.

Brandenburg's government administration to get high-speed network. Brandenburg has placed a major telecommunications order in the high two-digit million euro range with T-Systems. We will provide the infrastructure and components for telephony and the wide-area network of the state's administration. In future, sites will get connection speeds of up to 10 Gbit/s using up to ten times more bandwidth than before. Brandenburg intends to have the network certified by the German Federal Office for Information Security (BSI).

Campus network for OSRAM. Together with Ericsson we are building a customized campus solution for high-tech company OSRAM. With the industry focusing increasingly on the digitalization of processes, the key to this transformation is wireless connectivity across production sites that is adapted to each specific use case. Our campus solution offers the companies their own exclusive network linked to the public network. The technology for the campus networks is being provided by our partner Ericsson. We are also working with OSRAM to develop prototypes for a mobile robot. In the future, driverless transport vehicles will navigate the works site autonomously using the campus network.

NEW PRODUCTS AND RATE PLANS

Of course, we again launched new products, services, and rate plans on the market in the reporting year, some of which are presented below:

MagentaMobil XL: unlimited data. In March 2018, we presented our new mobile rate plan for the German market: MagentaMobil XL includes flat rates and unlimited high-speed data in Germany's best mobile network (as judged by computer magazine Chip 1/2019). Quality-conscious customers with modest data needs can choose the new entry-level rate plan MagentaMobil XS. We also updated our business customer portfolio with the new Business Mobil XL Plus rate plan featuring flat rates and unlimited high-speed data.

Full-service Internet of Things bundles. The Internet of Things is revolutionizing our world, improving corporate processes, and opening up new business models. This transformation calls for products that are not only quick, simple, and safe to use, but also enhance transparency. We offer these kinds of products for a range of usages in virtually all industries. One key tenet for us is our end-to-end approach: connectivity, management of connectivity and hardware, solutions and services – all from a single source. Our product bundles offer solutions for tracking, monitoring and maintenance, identity and access control, connected mobility, and analytics. In May 2018, Hrvatski Telekom became the first provider in Croatia to make NB-IoT services available commercially. A new IoT solution for consumers, Combi Protect, lets users keep track of pets, purses, luggage, and more on their smartphone using a GPS tracker and app. Customers can choose to track movements in real time and set digital boundaries that trigger an alarm on the smartphone if crossed.

Team of Experts. In August 2018, T-Mobile US introduced Un-carrier Next, a new initiative that changes the structure of their customer service department and solves several significant pain points for customers: Postpaid customers will get directly through to a human when they call customer support, and that human will be one member of a team of experts devoted to that customer and other customers in their geographic region.

In September 2018, T-Mobile US announced that MetroPCS is becoming Metro™ by T-Mobile (Metro) and Metro introduced new unlimited rate plans with tiers that include added benefits. Metro will offer Amazon Prime, expanded cloud storage, and mobile backup through Google One, as well as the latest smartphones.

AWARDS

We once again won a number of awards in the reporting year, the largest of which can be seen in the following graphic.

For information on further awards received for our HR activities, please refer to the section "Employees," **page 97 et seq.**

Major awards in 2018

New Work Award 2018: T-Systems is awarded second place with its Magenta Lighthouse project.

Brand Finance Global 500: Deutsche Telekom continues to be the most valuable telecommunications brand in Europe.

AV Test: Smart home platform Qivicon singled out with the best rating for "excellent protection."

eLearning Award 2018: Deutsche Telekom wins with its Digital Learning Booster project.

Women on Board Award 2018: FidAR, an association to promote the advancement of women on supervisory boards, honors Deutsche Telekom with an award for its implementation of equal gender participation.

German Investor Relations Prize 2018: Deutsche Telekom once again wins the award for investor relations excellence in a DAX 30 ranking.

German Innovation Award: Deutsche Telekom and Inmarsat win the innovation award for their European Aviation Network.

connect hotline test: Trade journal connect rates service at Deutsche Telekom as "very good" and best among German broadband providers (connect, issue 9/2018).

Best online shop of the year: Telekom Magenta SmartHome online shop wins in the"Smart home applications" category.

Mobile Excellence Awards 2018: Cosmote wins three gold awards for innovative applications designed to improve customer service quality.

SAP Global Platinum Reseller Partner: T-Systems added as an exclusive partner to resellers of solutions from the global market leader in corporate software.

Best network 2019: Winner of Computer-Bild magazine's mobile network test with an overall score of 1.8 (Computer-Bild, issue 25/2018).

Best Corporate Governance company: Corporate governance at Crnogorski Telekom rated Montenegro's best.

Tested customer satisfaction: Deutsche Telekom is again awarded the TÜV quality seal.

World's most ethical companies 2018: Deutsche Telekom is one of the most ethical companies worldwide.

KONSUMENT test winner: T-Mobile Austria takes the top spot in the mobile communications consultation test (issue 3/2018).

EMEA/MEE Partner Excellence Award 2018: T-Systems is the SAP service partner of the year.

Bloomberg Gender Equality Index: T-Share listing honors Deutsche Telekom's achievements in terms of equal rights.

Greece's fastest mobile network 2018: Cosmote wins the Ookla Speedtest Award for the fastest mobile internet network in Greece.

Extel Survey 2018: Investor Relations at Deutsche Telekom are rated the best in Europe and its IR organization the best in the European telecoms sector.

connect readers' choice 2018: Deutsche Telekom wins in eight categories and receives awards for its subsidiaries congstar and T-Mobile Austria.

Dow Jones Sustainability Index: Deutsche Telekom's commitment to CR, employee, and social issues honored with inclusion in the DJSI.

Best in test: P3 communications distinguishes our networks in Croatia, the Czech Republic, Greece, Hungary, Macedonia, the Netherlands, and Slovakia with the "best in test" accolade.

Investors' Darling 2018: Double victory for Deutsche Telekom in the categories "Corporate social responsibility" and "Strategy reporting" (manager magazine, issue 10/2018).

German Mobility Award 2018: The Connected Drones project run by Deutsche Telekom and Deutsche Flugsicherung is singled out as a flagship project in the field of sustainable mobility.

Carbon Disclosure Project: Deutsche Telekom is included in the CDP A List, a climate protection ranking which serves as a basis for the STOXX Global Climate Change Leaders index.

TÜVit seal Testing institute TÜV Informationstechnik certifies the responsible treatment of customer data at Deutsche Telekom for the third time.

CHIP network test 2018: Deutsche Telekom is the overall winner of the mobile network test for the ninth time in a row (CHIP, issue 1/2019).

connect mobile network test 2019: Test winners Deutsche Telekom and T-Mobile Austria score high, including with best results in the categories "Mobile internet" and "Voice and data" (connect, issue 1/2019).

GROUP ORGANIZATION

BUSINESS ACTIVITIES AND ORGANIZATION

Business activities. With 178 million mobile customers, 28 million fixed-network lines, and 20 million broadband customers, we are one of the leading integrated telecommunications companies worldwide. We offer our consumers fixed-network/broadband, mobile, internet, and internet-based TV products and services, as well as ICT solutions for our business and corporate customers. We have an international focus and are represented in more than 50 countries. With a staff of some 215,675 employees (as of December 31, 2018) throughout the world, we generated revenue of EUR 75.7 billion in the 2018 financial year, around 68 percent of it outside Germany.

Fixed-network business includes all voice and data communications activities based on fixed-network and broadband technology. This includes the sale of terminal equipment and other hardware, as well as the sale of services to resellers. Our mobile communications business offers mobile voice and data services to consumers and business customers; in addition, we sell mobile devices and other hardware. We also sell mobile services to resellers and to companies that buy network services and market them to third parties (mobile virtual network operators, or MVNOs). Drawing on a global infrastructure of data centers and networks, our corporate customer arm, T-Systems, operates information and communication technology (ICT) systems for multinational corporations and public-sector institutions.

We believe that economic, social, and ecological aspects can be reconciled; sustainability is the guiding principle behind all our actions. A range of sector-specific and general conditions are crucial to the success of business activities. These include first-rate quality at reasonable costs – in data privacy and security, in customer service, in network build-out, and in materials procurement – as well as qualified staff and good working conditions within our own Group, but also at our suppliers. It is also important to consider the potential consequences of climate change for our business activities: for example, to construct our network infrastructure in such a way that it is protected from severe weather conditions, changes in temperatures, and higher wind speeds. We also help our customers to reduce their carbon footprint with innovative products and services. Furthermore, we want to reduce the Group's CO_2 emissions despite rapid growth in data traffic and the network build-out that this requires. Also beyond our core business, we do everything we can to ensure that our actions are socially acceptable. For us, this means conducting ourselves in a way that is ethical and compliant with the law and informing and involving our stakeholders in a transparent way. SDG 12

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

FINANCE

Our responsible corporate governance and business success are based on our shared corporate values and our Guiding Principles, which are as follows:

- Customer delight and simplicity drive our action
- Respect and integrity guide our behavior
- Team together – Team apart
- Best place to perform and grow
- I am T – count on me

We want to be a sustainably growing company that delights its customers, creates value for its investors, and in which employees enjoy their work.

Organization. Our financial reporting conforms with our Group strategy and is based on the following organizational structure.

Organizational structure

Deutsche Telekom Group				
Group Headquarters & Group Services				
Germany Fixed-network and mobile communications	**United States** Mobile communications	**Europe** Fixed-network and mobile communications	**Systems Solutions** Global ICT solutions	**Group Development** Selected subsidiaries

Our Group is divided into five operating segments plus the Group Headquarters & Group Services segment, each of which we describe in detail below.

Our **Germany** operating segment comprises all fixed-network and mobile activities for consumers and business customers in Germany. It also focuses on the wholesale business to provide telecommunications services for carriers and our Group's other operating segments. Separate sales entities for consumers and business customers allow the operating segment to take a customer-centric sales approach. The bundling of customer service activities places a further focus on customer satisfaction and quality assurance. Build-out of the mobile and fixed networks is managed by the Technology business unit in the Germany operating segment. As a pioneer of digitalization, the Germany operating segment offers its customers an individual service and product portfolio that is innovative while at the same time secure and simple.

Our **United States** operating segment combines all mobile activities in the U.S. market. T-Mobile US is the third largest provider in the United States and its mobile network offers the highest transmission speeds as well as high network coverage. T-Mobile's success on the U.S. mobile market has been built on the back of the various Un-carrier initiatives launched in the last few years. T-Mobile US expects the acquisition of online TV provider Layer3 TV completed on January 22, 2018 to further strengthen its TV and video portfolio. Layer3 TV has been included in Deutsche Telekom's consolidated financial statements as a fully consolidated subsidiary since the acquisition date. On April 29, 2018, T-Mobile announced that it had entered into a Business Combination Agreement with Sprint Corp. As a result of the merger, T-Mobile is expected to be able to rapidly launch a nationwide 5G network, accelerate innovation, and increase competition in the U.S. wireless, video, and broadband industries.

Our Europe operating segment comprises all fixed-network and mobile operations of the national companies in Greece, Romania, Hungary, Poland, the Czech Republic, Croatia, Slovakia, Austria, Albania, Macedonia, and Montenegro. The acquisition of cable network operator UPC Austria on July 31, 2018 has helped us to transform our subsidiary in Austria into an integrated provider. UPC Austria has been included in Deutsche Telekom's consolidated financial statements as a fully consolidated subsidiary since the acquisition date. In addition to consumer business, most of the national companies also offer ICT solutions for business customers. As part of our international wholesale business, Deutsche Telekom Global Carrier (TGC) sells wholesale telecommunications services to our operating segments as well as to third parties.

As a leading ICT service provider, our Systems Solutions operating segment offers business customers a portfolio of integrated products and solutions. With offerings for fixed and mobile communications, IT infrastructure, digitalization, and security, in addition to global partnerships, we offer our customers help and guidance to implement digital business models. Our Systems Solutions segment is realigning itself towards a portfolio-based structure under the transformation program launched at the start of 2018. Alongside an integrated and customer-centric sales unit, operations are split over ten portfolio units with full profit and loss accountability (TC Services, SAP, Digital Solutions, Public Cloud, Security, Internet of Things, Classified ICT, Road Charging, Managed Infrastructure Services and Private Cloud, and Dedicated SI Solutions), plus the emerging business unit, Health. A new organizational structure took effect on January 1, 2019 on the basis of these business areas. A comprehensive cost-saving program has also been launched.

Our Group Development operating segment comprises the entities T-Mobile Netherlands and Deutsche Funkturm (DFMG) and our equity investment in Ströer SE & Co. KGaA. We plan to actively manage these entities and investments and increase their value, with the aim of giving them the level of entrepreneurial freedom they need and thus promoting their strategic further development. The management teams maintain an intensive dialog with the segment management and the relevant supervisory and advisory boards. Deutsche Telekom Capital Partners (DTCP) and the Group functions of Mergers & Acquisitions and Strategic Portfolio Management have also been assigned to Group Development. Our financial stake in BT was transferred to the Group's own trust company, Deutsche Telekom Trust e.V., in March 2018 as capital funding to cover Deutsche Telekom's future pension obligations.

Group Headquarters & Group Services comprises all Group units that cannot be allocated directly to one of the operating segments. The segment also reports on our new Technology and Innovation Board department. As the organization that sets the direction and provides momentum, it defines strategic aims for the Group, ensures they are met, and becomes directly involved in selected Group projects. Group Services provides services to the entire Group; in addition to typical services such as financial accounting, human resources services, and operational procurement, Group Services also includes agency services, which are provided by our personnel service provider, Vivento. On the one hand, it is in charge of securing external employment opportunities for employees, mainly civil servants, predominantly in the public sector. On the other, Vivento also seeks to strategically place them internally, with the aim of retaining professional expertise within the Group, so as to reduce the use of external staff. We integrated Vivento Customer Services GmbH, a provider of call center services, into our Germany operating segment as of January 1, 2018; previously it was part of our Group Headquarters & Group Services segment. Further units are Group Supply Services (GSUS) for our real estate management and our strategic procurement, and MobilitySolutions, which is a full-service provider for fleet management and mobility services.

Our Technology and Innovation Board department unites the cross-segment network, innovation, and IT activities of our Germany, Europe and Systems Solutions operating segments. These include Deutsche Telekom IT, which focuses on the Group's internal national IT projects, and our central innovation unit, Product Innovation and Customer Experience (PIC), which works closely with our operating segments to develop new business areas and create products by focusing on the product and customer experience. Additional units are Network Infrastructure (NWI), Strategy & Technology Innovation (S&TI), and Pan-Net. NWI manages and operates a global network to offer voice and data communication services to wholesale customers. S&TI ensures efficient and customized research and provision of technologies, platforms, and services for mobile and fixed-network communications. Pan-Net is responsible for the shared pan-European network and for developing and providing services for our European national companies. The new Innovation Hub (IHUB), established as of October 1, 2018, pools the expertise required for future innovation projects within the Technology and Innovation Board department to ensure flexible innovation development.

MANAGEMENT AND SUPERVISION

As of December 31, 2018, Board of Management responsibilities were distributed across eight Board departments. Five of these are the central management areas:

- Chairman of the Board of Management

and the Board departments

- Finance
- Human Resources
- Data Privacy, Legal Affairs and Compliance
- Technology and Innovation

In addition, there are three segment-based Board departments:

- Germany
- Europe
- T-Systems

Changes in the composition of the Board of Management. Effective January 1, 2018, the Supervisory Board of Deutsche Telekom AG appointed Dr. Dirk Wössner to the Board of Management as the new Board member responsible for Germany and Adel Al-Saleh as the new Board member responsible for T-Systems. At its meeting on February 21, 2018, the Supervisory Board of Deutsche Telekom AG resolved to extend Timotheus Höttges' contract as Chairman of our Board of Management by five years. Timotheus Höttges was reappointed as Chairman of the Board of Management effective January 1, 2019. Also at its meeting on February 21, 2018, the Supervisory Board of Deutsche Telekom AG resolved to appoint Dr. Christian P. Illek as Chief Financial Officer (CFO) effective January 1, 2019. The former CFO, Thomas Dannenfeldt, left Deutsche Telekom AG for personal reasons when his contract expired at the end of 2018.

At its meeting on July 13, 2018, the Supervisory Board of Deutsche Telekom AG resolved to appoint Birgit Bohle as the new Board of Management member responsible for Human Resources and as Labor Director effective January 1, 2019. Birgit Bohle succeeded Dr. Christian P. Illek in this position.

At its meeting on September 4, 2018, the Supervisory Board of Deutsche Telekom AG resolved to appoint Thorsten Langheim as the Board of Management member responsible for USA and Group Development, a newly created Board of Management department, effective January 1, 2019. Deutsche Telekom AG thus has had nine Board departments since the start of 2019.

For details on the activities of the Supervisory Board in the reporting year, please refer to page 7 et seq.

Shareholders' representatives. Dr. Ulrich Schröder resigned from his position as a member of the Supervisory Board of Deutsche Telekom AG effective February 6, 2018. Dr. Günther Bräunig was initially court-appointed to the Supervisory Board of Deutsche Telekom AG effective March 21, 2018 and subsequently elected to this position by resolution of the shareholders' meeting on May 17, 2018. Margret Suckale was court-appointed to the Supervisory Board of Deutsche Telekom AG effective September 28, 2017 and subsequently elected to this position by resolution of the shareholders' meeting on May 17, 2018.

Sari Baldauf's term of office expired at the end of the shareholders' meeting of May 17, 2018. Harald Krüger was elected to the Supervisory Board of Deutsche Telekom AG by the shareholders' meeting of May 17, 2018.

Prof. Ulrich Lehner was elected for a further term of office on the Supervisory Board of Deutsche Telekom AG by the shareholders' meeting of May 17, 2018. The members of the Supervisory Board once again elected Prof. Lehner to the position of Chairman.

Johannes Geismann resigned from his position on the Supervisory Board of Deutsche Telekom AG as of the end of the shareholders' meeting of May 17, 2018. Dr. Rolf Bösinger was court-appointed to the Supervisory Board of Deutsche Telekom AG effective June 1, 2018.

Employees' representatives. Hans-Jürgen Kallmeier resigned from his position as a member of the Supervisory Board of Deutsche Telekom AG effective midnight, December 31, 2017. Odysseus D. Chatzidis was court-appointed to the Supervisory Board of Deutsche Telekom AG effective January 3, 2018.

Monika Brandl resigned from her position on the Supervisory Board of Deutsche Telekom AG effective midnight June 30, 2018. Nicole Seelemann-Wandtke was court-appointed to the Supervisory Board of Deutsche Telekom AG effective July 5, 2018.

The delegates' assembly on November 20, 2018 re-elected the employees' representatives Josef Bednarski, Odysseus D. Chatzidis, Nicole Koch, Petra Steffi Kreusel, Lothar Schröder, Nicole Seelemann-Wandtke, Sibylle Spoo, and Karin Topel to the Supervisory Board of Deutsche Telekom AG until the end of the 2023 shareholders' meeting and elected Constantin Greve and Frank Sauerland for the first time as Supervisory Board members for the same period. Klaus-Dieter Hanas and Michael Sommer did not stand for re-election and left the Supervisory Board of Deutsche Telekom AG on November 20, 2018.

The Supervisory Board of Deutsche Telekom AG advises the Board of Management and oversees its management of business. It is composed of 20 members: 10 represent the shareholders and 10 the employees.

The members of the Board of Management are appointed and discharged in accordance with § 84 and § 85 of the German Stock Corporation Act (Aktiengesetz – AktG) and § 31 of the German Codetermination Act (Mitbestimmungsgesetz – MitbestG).

Amendments to the Articles of Incorporation are made pursuant to § 179 and § 133 AktG and § 18 and § 21 of the Articles of Incorporation. According to § 21 of the Articles of Incorporation, the Supervisory Board is authorized, without a resolution by the shareholders' meeting, to adjust the Articles of Incorporation to comply with new legal provisions that become binding for the Company and to amend the wording of the Articles of Incorporation.

Composition of the Board of Management

Members of the Board of Management	Department
Timotheus Höttges	Chairman of the Board of Management (CEO)
Adel Al-Saleh	T-Systems
Dr. Dirk Wössner	Germany
Thomas Dannenfeldt (until December 31, 2018) Dr. Christian P. Illek (since January 1, 2019)	Finance (CFO)
Srini Gopalan	Europe
Dr. Christian P. Illek (until December 31, 2018) Birgit Bohle (since January 1, 2019)	Human Resources
Dr. Thomas Kremer	Data Privacy, Legal Affairs and Compliance
Claudia Nemat	Technology and Innovation
Thorsten Langheim	USA and Group Development (since January 1, 2019)

The compensation system for our Board of Management is oriented towards the long-term performance of our Group. Since 2013, the compensation for our Supervisory Board has no longer included any long-term remuneration components. The recommendations of the German Corporate Governance Code are complied with.

For a description of the compensation systems for the Board of Management and the Supervisory Board, please refer to the section "Other disclosures" in the combined management report, **page 129 et seq.**

GROUP STRATEGY

- **Deutsche Telekom expands position as leading telecommunications provider in Europe**
- **Group strategy successfully implemented again in 2018**

OUR CORPORATE STRATEGY: LEADING EUROPEAN TELCO

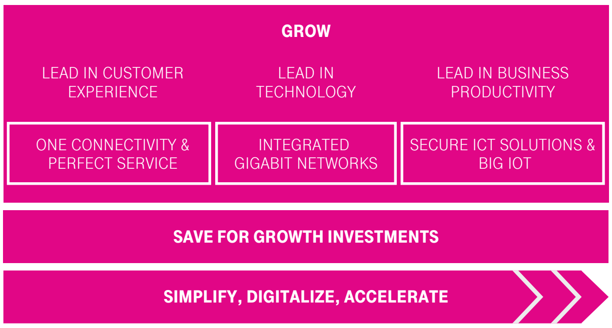
Since 2014, we have been aligning all of our corporate activities with our Leading European Telco strategy – with the aim of becoming Europe's leading telecommunications provider.

This strategy has proved very successful: In terms of market capitalization, we are Europe's highest-value telecommunications company (as of December 31, 2018). In the reporting year, we increased revenue, adjusted EBITDA, and free cash flow once again. At the same time, we see our Group as facing new challenges:

- The parallel build-out of broadband and mobile infrastructure (optical fiber and 5G) calls for high investments and innovative approaches to implementation. This situation is intensified by sustained public and political pressure on our build-out strategy, predominantly in Germany.
- Innovative technologies like artificial intelligence are increasingly becoming part of everyday life. Voice-controlled assistants and chatbots, to name just a couple of examples, are permanently changing the face of the customer experience, our working environment, and our responsibility in the digital society.
- Businesses need simple, end-to-end solutions for connecting their production operations and managing ever increasing data streams. Providers like Google and Microsoft are also entering the global connectivity field.
- On top of this, our direct competitors in the telecommunications industry are digitalizing more and more elements of their core business, improving efficiency, and enhancing the customer experience.

We are tackling these challenges head on. We continue to systematically implement our **Leading European Telco** strategy. As the graphic below shows, our claim to leadership ranges over three dimensions: customer experience, technology, and business customer productivity. From this we derive three specific action areas with which we are creating the foundation for future organic growth. Because only if we grow can we sustainably secure our earnings performance and continue to meet the demands of our investors. This growth target is supported by two areas of operation which provide the framework for our internal activities.

Leading European Telco corporate strategy



STRATEGIC AREAS OF OPERATION

One connectivity & perfect service

We want to offer our customers a seamless and technology-neutral telecommunications experience. Hence, we market fixed-network and mobile communications in one **convergent product** (fixed-mobile convergence, FMC). By the end of the reporting year, some 4.3 million customers in Germany had opted for MagentaEINS; that is more than 0.6 million more than in the prior year. The integrated national companies of our Europe operating segment won some 1.1 million new customers for MagentaOne and similar FMC offerings in 2018. Because we want to continue on this path of growth, we work continuously to improve and expand our convergent offer.

Our offer also includes attractive **TV content** across all screens and on any device. In 2018, we realigned our TV service in Germany under the MagentaTV brand, overhauling the user interface and adding further content. We aggregate linear television with extensive features, access to content from the biggest video-on-demand providers (Sky, Netflix, Maxdome, and Amazon Prime Video), exclusive TV series, and a wide range of sports content on a single platform. For the first time ever, customers can now access our TV content irrespective of their internet provider. The success of this product bears out our strategy: In the reporting year we won 0.2 million new TV customers in Germany. In the same period, the number of TV customers at our national companies in Europe grew in organic terms by 0.1 million. By standardizing our technical platforms and expanding our services to selected markets, we have consolidated our leading position.

As a premium provider, we set ourselves apart from our competitors with perfect **customer service**: In the reporting year, we presented several service improvement initiatives in Germany, including improved self-service options, callback services, a service for optimizing home Wi-Fi, and installation packages for the home network. Our top rating in the connect hotline test (number 1 spot among German broadband providers in 2018) shows that we are on the right track. We will continue our efforts in 2019 to offer customers the best service, for example by noticeably further improving our first-call resolution rate for customer queries. In the United States, T-Mobile US leads the competition in numerous service quality surveys. This year, we introduced the Team of Experts initiative in the United States with the aim of giving customers even more personal service and systematically removing frustration factors in customer service. This is one of the reasons why we won 4.9 million new mobile customers in the United States in 2018. At our national companies in Europe, we are currently focusing on increasing the level of digitalization in customer interaction; for example, using our specially developed service app. Following successful international rollout, this app aims to improve both the customer experience (e.g., with self-administration of contracts) and the monetization of our offerings (e.g., with customer-specific approaches).

We measure **customer satisfaction** using the globally recognized TRI*M method. Based on this performance indicator, we improve our customer contact processes, and our products and services. At the same time, we determine the loyalty of our customers towards the Company. The results are presented as a performance indicator, the TRI*M index, which ranges between minus 66 and plus 134 points. At the end of the reporting year, the indicator came in at 67.7 points versus an adjusted value of 67.2 points at the start of the year (measured on a comparable basis). Our goal for the coming years is to achieve a steady overall improvement in customer satisfaction.

Integrated gigabit networks

Convergent products require **integrated networks.** SDG 9 That is why we are systematically building out and interlinking our fixed and mobile networks, so that we can offer our customers the fastest possible connection at top quality, anytime, anyplace. As part of this, we are also striking out in new directions, for example, with innovative technologies like fixed-network substitution using mobile technology to offer speeds of over 1 Gbit/s, or the use of artificial intelligence to ensure infrastructure is built out in line with demand, as well as exploring new partnerships and joint ventures. Integrated management also improves the capacity utilization of our infrastructure and increases efficiency in operations and maintenance.

Fiber optic-based **fixed networks** are the basis for an integrated network experience. We already operate the largest fiber-optic network in Germany with around 500,000 kilometers of fiber-optic cable. In 2018, we added some 60,000 kilometers. We are currently investing over EUR 5 billion annually in building out and operating networks across Germany, with over EUR 4 billion of this attributable to the Germany operating segment. That's more than any of our competitors are investing. We continued to build out our network in the reporting year by deploying vectoring. At present, we can offer high-speed internet to some 28 million households using this technology – around 14 million of these are already benefiting from speeds of up to 250 Mbit/s. At the same time, we are resolutely pressing ahead with the transition to fiber-optic technology: By 2022, for example, we plan to supply around 3,000 business parks with fiber to the office and thus offer gigabit connections to around 80 percent of companies in business parks across Germany. SDG 8 In addition, existing customers are gradually being migrated to IP-based solutions and in consultation with the customers themselves. The migration of the German mass market will be completed in 2019 as planned. We have already completed the migration to IP lines in five national companies (Hungary, Croatia, Slovakia, Macedonia, and Montenegro) and will continue to move forward with our migration efforts in Greece on a step-by-step basis.

In **mobile communications**, we set ourselves apart from our competitors with the outstanding quality of our network. We have regularly come out on top in independent network tests. In 2018, we won the three big network tests – by connect, Chip, and Computer Bild – in Germany. Independent certification organization TÜV rated our mobile network as offering the best "quality to the customer." In our Europe operating segment, six national companies were rated as "best in test overall" by the P3 communications network experts, as was T-Mobile Netherlands. Furthermore, T-Mobile US was once again the clear winner in the OpenSignal tests in August 2018. We intend to remain a quality leader and hence are further building out our LTE networks: In Germany, we plan to cover approximately 99 percent of the population with LTE by the end of 2020; in our European national companies, coverage is to reach around 98 percent on average.

With the **fifth-generation mobile communications standard (5G)** SDG 9 , we will create a highly reliable mobile network with extremely low latency and high data throughput. To this end, network functions will be decoupled from the access medium (e.g., optical fiber, copper, or air). By distributing computing power in the network (mobile edge computing) and creating dedicated network layers for individual applications (network slicing), 5G creates the basis for future technologies such as virtual reality, autonomous driving, and the Internet of Things. Our goal is to work with policy-makers and industry to build the most powerful digital infrastructure for Germany – in cities and rural areas alike. We will continue to make massive investments in infrastructure, but at the same time need fair and reliable conditions to be in place.

Secure ICT solutions & big IoT

Our international **network solutions** remained popular among German business customers in 2018. Secure, reliable global connectivity is essential to the advancing digitalization of critical processes in companies and industry associations. We remain a dependable partner to German industry thanks to our portfolio of international communications solutions that combine the strengths of our national network infrastructure with our international network assets.

Our business with "traditional" IT outsourcing services for international corporate customers has been in decline for a number of years now, mainly due to persistent intense competition. For this reason, our Systems Solutions operating segment is currently undergoing a radical transformation comprising four key thrusts: a shift to portfolio-based business management, the integration of our sales organization, the reduction of interdisciplinary costs by streamlining processes and hierarchy levels, and a significant increase in the level of automation in service provision with a higher share of offshore/nearshore services. We made excellent progress with the transformation in the reporting year and will be able to implement the new portfolio-based organization in 2019 as planned. We will also tailor our **IT and cloud offers** even more closely to the needs of our SME customers in the future. In 2018, we generated revenue of some EUR 700 million in this area in our Germany operating segment, up once again by around 20 percent against 2017. As we expect this business to grow significantly over the coming years, we are expanding our IT and cloud ecosystem for SMEs together with market-leading technology partners.

For us, the biggest growth driver in the business customer environment is the **Internet of Things.** SDG 12 Over the next few years, we expect billions of new devices – means of production such as machines or tools, everyday objects like cars or fridges, but also public infrastructure like street lights or park benches – to be connected to the Internet. Our NarrowBand IoT networks (NB-IoT) alongside M2M connectivity create the basis for cost-effective and energy-efficient networking. In addition, we will provide our customers – e.g., in the automotive, healthcare and public sectors – with the platforms to manage these devices and use the data collected for their business. As a leading network operator in the NB-IoT environment, we also operate networks in ten countries, offering coverage nationwide in the Netherlands, Austria, Slovakia, and the United States. At present, we work with over 500 customers in Europe, helping them to prepare and roll out their NB-IoT-based hardware and applications. These customers include, for example, Ista (smart submetering), BMW (paperless displays), the City of Hamburg (smart parking), Veolia and Geotermia Zakopane in Poland (smart metering), and Dual Inventive (rail track monitoring).

We supplement these offers with our comprehensive **cybersecurity portfolio.** SDG 16 Telekom Security, which was established in early 2017, is today Germany's leading provider of cybersecurity solutions. In the medium term, we also want to take on a leading role in Europe. Since cyberattacks pose a growing threat to companies and our customers' need for data privacy and security is increasing, we expect growth rates in this business area to remain consistently high over the next few years.

SUPPORTING AREAS OF OPERATION

Save for growth investments

Future growth requires adequate investment. To this end, we are investing in our own innovativeness as well as integrating successfully new developments from outside our Company. Thanks to our strict cost discipline, we generate the funds we need to finance this investment and safeguard our competitiveness. We will therefore systematically continue on this path of cost transformation. In the long term, we also want to be Europe's leading telecommunications provider in terms of efficiency.

We take a value-oriented approach to managing our **investment portfolio**. Business areas that cannot be adequately developed within the Group are disposed of, while our growth ambitions are bolstered by means of equity investments and acquisitions. Since 2018, we can also offer convergent products from a single source in Austria and the Netherlands: The acquisition of cable provider UPC Austria by T-Mobile Austria was consummated. The European Commission also unconditionally approved the acquisition of Tele2 Netherlands by T-Mobile Netherlands.

We aim to strengthen our position in the U.S. mobile market through the business combination of T-Mobile US and Sprint, agreed in April 2018. Not only is the planned combination of business activities under the all-new, larger T-Mobile US consistent with our strategy of successfully developing our U.S. business, it will also bolster the customer-oriented Un-carrier strategy and allow us roll out 5G technology across the United States faster and better than before. After implementation of the planned combination, the new company will have a value of approximately USD 150 billion; the anticipated synergies will have a present value of around USD 43 billion (after integration costs).

Simplify, digitalize, accelerate

Simplicity in our offers and in our organization makes the digital transformation of our core business easier. In this way, we increase our **implementation speed** – both in the interaction with customers and in the implementation of new, strategic initiatives. This is why we want to become simpler, more digital, and ultimately more agile.

There are two main thrusts to our pursuit of **simplicity**. First, we want to offer our customers intuitive products and easy to understand rates: Our convergent products such as MagentaEINS are a first step in this direction. Going forward, we want to significantly further reduce product complexity. Second, we want our internal operation to be as efficient as possible, i.e., in terms of time and costs. Hence we will scrutinize our organization, processes, and decision-making procedures and further optimize them wherever possible.

8 DECENT WORK AND ECONOMIC GROWTH

RELATIONSHIPS

The **digitalization** of our core business is helping us to improve customer experience and increase our efficiency. Our innovative service app lets our customers in Germany and Europe view their data and contracts at any time and get the most benefit from our extensive services. The app is a resounding success: For example, our customers rate the MeinMagenta app for iOS with 4.4 out of 5 stars. Long term, our plan is to digitalize all value creation stages in their entirety. To this end, we are implementing more agile IT solutions and systematically expanding our expertise in innovative technologies like artificial intelligence. Data-based analyses are already helping us to maintain our hardware more proactively, understand customer needs better, and manage our networks more efficiently. Innovation that works: A study by Berlin University of Applied Sciences and CEBIT in the reporting year rated, for example, our chatbot at T-Mobile Austria – Tinka – the best chatbot out of all the DAX 30 and MDAX companies.

However, simplicity and digitalization also call for new organizational forms, new skills, and a cultural shift. Given this, in the reporting year we introduced the principle of end-to-end customer responsibility, particularly in areas close to the market, and implemented an agile organizational structure. We target and systematically develop our employees' abilities in line with the challenges being faced in the digital age and promote diversity as a source of change, innovation, and creativity across our entire Company. Future Work offers our employees modern, open office environments that provide the perfect setting to encourage flexibility and new ways of working together. SDG 8

8 DECENT WORK AND ECONOMIC GROWTH

EMPLOYEES

In summary, our Leading European Telco strategy is reflected in our goal:

To be the leading European telecommunications provider.

- We want to be a **leader** in terms of customer experience, technology, and the implementation of advances in productivity for our business customers. Because only when we lead can we **grow** and meet the demands of our investors in the long term.
- This growth will be made possible by carefully managing our **financial resources** and **systematically transforming** the Company to be simple, digital, and agile in every sense.
- We play a responsible and active role in **society**. We are a partner, not just at a social level, but also at a political one, and we work in the interests of ensuring the open, forward-looking development of all countries in which we are active. SDG 8

MANAGEMENT OF THE GROUP

We continue to be committed to the concept of value-oriented corporate governance. We want to strike a balance between the contrasting expectations of our stakeholders so that sufficient funding is available for an attractive dividend, debt repayment, responsible staff restructuring, and new investment for a positive customer experience.

- **Shareholders** expect an appropriate, reliable return on their capital employed.
- **Providers of debt capital** expect an appropriate return and that Deutsche Telekom is able to repay its debts.
- **Employees** expect jobs that are secure, prospects for the future, and that any necessary staff restructuring will be done in a responsible manner.
- **"Entrepreneurs within the enterprise"** expect sufficient investment funding to be able to shape Deutsche Telekom's future business and develop products, innovations, and services for the customer.

FINANCE STRATEGY

We presented our updated finance strategy for the years 2018 through 2021 at the Capital Markets Day in late May 2018. Our forecast for growth through to 2021 remains at the same high level we anticipated at our Capital Markets Day in 2015.

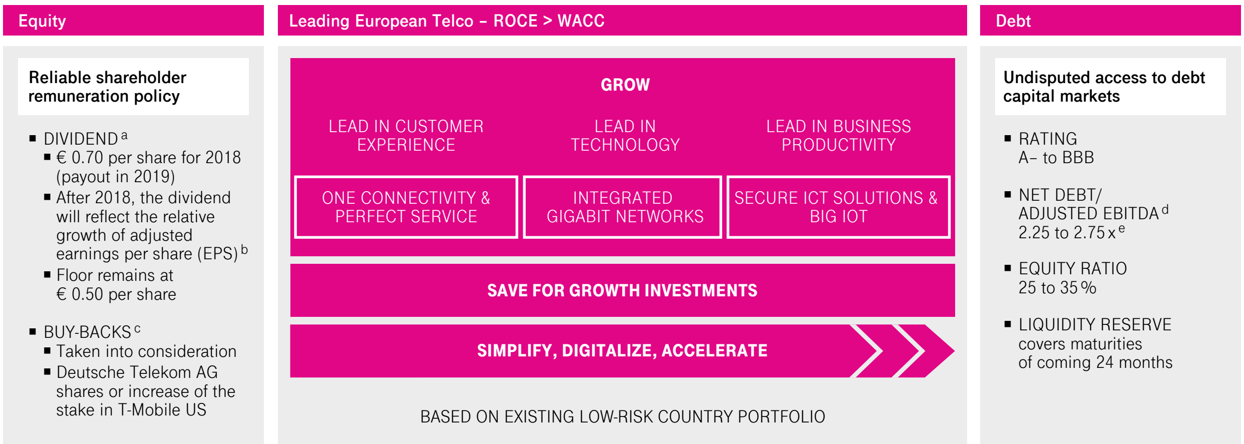
Part of our finance strategy is to achieve our target financial ratios – relative debt (ratio of net debt to adjusted EBITDA) and equity ratio – along with a liquidity reserve that covers our maturities of the coming 24 months at least. With these clear statements we intend to maintain our rating in a corridor from A– to BBB and safeguard undisputed access to the capital market.

There is a reliable dividend policy for shareholders, which is subject to approval by the relevant bodies and the fulfillment of other legal requirements. For the 2018 financial year, we will propose a dividend of EUR 0.70 per dividend-bearing share, which will also serve as a baseline for the dividend going forward. Starting from the 2019 financial year, the dividend is to reflect relative growth in earnings per share with a lower limit fixed at EUR 0.50 per dividend-bearing share. In terms of adjusted earnings per share, for 2018 we continue to expect a figure of around EUR 1.00 per share as announced at the Capital Markets Day in 2015 and expect this to rise to around EUR 1.20 per share through 2021. We thus offer our shareholders both an attractive return and planning reliability.

We will also take share buy-backs into consideration, both of Deutsche Telekom AG shares and shares in T-Mobile US. However, no shares will be bought back in the first three years after the successful closing of the business combination of T-Mobile US and Sprint.

Total capital expenditure is also to remain high in the next few years. The scope for investment is to be used to further roll out our broadband infrastructure and to accelerate the transformation of the Company to an IP-based production model. In mobile communications, the infrastructure build-out will focus on the LTE and 5G standards and, in the fixed network, on optical fiber and vectoring. The finance strategy supports the transformation of our Group into the Leading European Telco. In order to generate a sustainable increase in value, we intend to earn our cost of capital in the medium term. We aim to achieve this goal in part by optimizing the utilization of our non-current assets. We also intend to achieve our target of earning our cost of capital through strict cost discipline and improved cross-functional collaboration. Additionally, we focus our performance management on unadjusted EBIT. By taking capital expenditure into consideration, we can align EBIT more closely with the ROCE concept and support our rigorous focus on the efficient allocation of capital at the Deutsche Telekom Group.

Our finance strategy until 2021



[a] Subject to approval by the relevant bodies and the fulfillment of other legal requirements.
[b] Adjusted earnings per share (EPS) in 2018 as starting point.
[c] Not relevant for the first three years after the successful closing of the business combination of T-Mobile US and Sprint.
[d] Deviation from the target range for a short period after the successful closing of the business combination of T-Mobile US and Sprint.
[e] Target corridor raised due to the increase in net debt as a result of the mandatory application of the IFRS 16 accounting standard.

PERFORMANCE MANAGEMENT SYSTEM

In order to set and achieve our strategic goals more effectively, we pursue a Group-wide, value-oriented performance management approach. We use a specific set of performance indicators to reliably and transparently measure success.

The following tables and information provide an overview of our key financial and non-financial performance indicators.

Financial performance indicators

		2018	2017	2016	2015	2014
ROCE	%	4.7	5.8	5.7	4.8	5.5
Net revenue	billions of €	75.7	74.9	73.1	69.2	62.7
Profit (loss) from operations (EBIT)	billions of €	8.0	9.4	9.2	7.0	7.2
EBITDA (adjusted for special factors)	billions of €	23.3	22.2	21.4	19.9	17.6
Free cash flow (before dividend payments and spectrum investment)	billions of €	6.2	5.5	4.9	4.5	4.1
Cash capex (before spectrum investment)	billions of €	(12.2)	(12.1)	(11.0)	(10.8)	(9.5)
Rating (Standard & Poor's, Fitch)		BBB+	BBB+	BBB+	BBB+	BBB+
Rating (Moody's)		Baa1	Baa1	Baa1	Baa1	Baa1

PROFITABILITY

In order to underline the importance of the successful long-term development of our Group, we have incorporated sustainable growth in enterprise value into our medium-term aims and implemented it as a separate KPI (key performance indicator) for the entire Group. **Return on capital employed (ROCE)** is our central performance indicator. ROCE is the ratio of operating result after depreciation, amortization and impairment losses plus imputed taxes (net operating profit after taxes (NOPAT)) to the average value of the assets tied up for this purpose in the course of the year (net operating assets, NOA).

ROCE is the performance indicator that helps us to embed our aim of sustainably increasing the value of our Group across all operational activities. Additional value accrues when the return on capital employed exceeds the cost of capital. Our goal, therefore, is to achieve or exceed the return targets imposed on us by providers of debt capital and equity on the basis of capital market requirements. We measure return targets using the weighted average cost of capital (WACC).

Calculation of the ROCE financial performance indicator
millions of €

		2018	2017	2016
ROCE	%	**4.7**	**5.8**	**5.7**
Profit (loss) from operations (EBIT)		8,001	9,383	9,164
Share of profit (loss) of associates and joint ventures accounted for using the equity method		(529)	76	(53)
Interest component of unrecognized rental and lease obligations		630	525	573
Other NOP adjustments		1	0	0
NET OPERATING PROFIT (NOP)		**8,103**	**9,984**	**9,684**
Tax (imputed tax rate 2018: 27.8 %; 2017: 31.5 %; 2016: 30.3 %)		(2,253)	(3,145)	(2,934)
NET OPERATING PROFIT AFTER TAXES (NOPAT)		**5,850**	**6,839**	**6,750**
Cash and cash equivalents		3,679	3,312	7,747
Operating working capital		(511)	(3,555)	(5,056)
Intangible assets		64,950	62,865	60,599
Property, plant and equipment		50,631	46,878	46,758
Non-current assets and disposal groups held for sale[a]		145	161	372
Investments accounted for using the equity method		576	651	725
Other assets		331	410	279
Present value of unrecognized rental and lease obligations		15,760	13,127	14,320
Other provisions		(6,435)	(6,527)	(6,388)
Other NOA adjustments		0	0	0
NET OPERATING ASSETS (NOA)		**129,126**	**117,322**	**119,356**
AVERAGE NET OPERATING ASSETS (Ø NOA)		**124,024**	**118,927**	**119,101**

[a] Excluding the carrying amounts of companies accounted for using the equity method.

NOPAT is an earnings indicator derived from the income statement. As it does not take cost of capital into account, it also includes the interest component of unrecognized rental and lease obligations.

NOA includes all assets that make a direct contribution to revenue generation. These include all elements on the asset side of the consolidated statement of financial position that are essential to the rendering of services. Operating working capital is calculated from trade and other receivables, inventories, trade and other payables, as well as additional current and non-current assets and liabilities selected in line with the internal steering logic. NOA also includes rental and operating lease obligations recognized by the lessor where required for operations. The figure for other provisions is deducted as no return target exists for this.

We believe that ROCE best reflects the expectations of the four aforementioned stakeholders. The indicator measures how efficiently we generate revenues with the capital employed. ROCE is especially informative when taking a long-term view, because it takes into account both the immense value of the assets that are tied up in our capital-intensive infrastructure, and their utilization. This reveals the crucial advantage of this KPI. It does not focus on the absolute amount of the earnings generated, but rather how much earnings the capital employed generates.

REVENUE AND EARNINGS

Revenue corresponds to the value of our operating activities. Absolute revenue depends on how well we are able to sell our products and services on the market. The development of our revenue is an essential indicator for measuring the Company's success. New products and services as well as additional sales activities are only successful if they increase revenue.

EBITDA corresponds to EBIT (profit/loss from operations) before depreciation, amortization and impairment losses. EBIT and EBITDA measure the short-term operational performance and the success of individual business areas. We also use the EBIT and EBITDA margins to show how these indicators develop in relation to revenue. This makes it possible to compare the earnings performance of profit-oriented units of different sizes. Taking unadjusted EBIT/EBITDA as performance indicators means special factors are also taken into account. This promotes a holistic view of our costs. However, special factors have an impact on the presentation of operations, making it more difficult to compare performance indicators with corresponding figures for prior periods. For this reason, we additionally adjust our performance indicators to provide transparency. Without this adjustment, statements about the future development of earnings are only possible to a limited extent. The adjusted values are calculated on the basis of the unadjusted performance indicators.

For the reconciliation of EBITDA, EBIT, and net profit/loss to the respective figures adjusted for special factors, please refer to the table on page 54.

FINANCIAL FLEXIBILITY

We define free cash flow as net cash from operating activities less net cash outflows for investments in intangible assets (excluding goodwill) and property, plant and equipment. This indicator is the main yardstick for providers of debt capital and equity. It measures the potential for further developing our Company, for generating organic growth, and for the ability to pay dividends and repay debt.

Central free cash flow management is responsible for transparency, steering, forecasts, and performance measurement in relation to free cash flow and especially in relation to working capital. As part of our measures to optimize working capital over the long term, in the reporting year the focus was on further extending the period of payment for our payables in Germany and Europe, expanding inventories management there, and further optimizing receivables management in all our operating segments. We plan to continue down this route in the coming years by focusing on the following areas: extending the period of payment for payables and improving receivables and inventories management in the United States, Germany, and Europe.

Cash capex (before spectrum investment) relates to cash outflows for investments in intangible assets (excluding goodwill) and property, plant and equipment, which are relevant for cash outflows as a component of free cash flow.

A rating is an assessment or classification of the creditworthiness of debt securities and its issuer according to uniform criteria. Assessment of creditworthiness by rating agencies influences interest rates on debt securities and thus also our borrowing costs. As part of our finance policy, we have defined a target range for our ratings. We are convinced that with a rating between A– and BBB (Standard & Poor's, Fitch) or between A3 and Baa2 (Moody's) we essentially have the necessary entry to the capital markets to generate the required financing.

EFFECTS OF THE APPLICATION OF THE NEW IFRS 16 "LEASES" ACCOUNTING STANDARD ON OUR FINANCIAL PERFORMANCE INDICATORS

The mandatory first-time application of the new IFRS 16 "Leases" accounting standard as of January 1, 2019 has a material impact on Deutsche Telekom's consolidated financial statements. The new standard requires payment obligations from existing operating leases to be discounted and recognized as lease liabilities; as financial liabilities, they increase net debt. At the same time, the lessee capitalizes a right of use. Operating expenses previously recognized in connection with operating leases will in future be recognized either in depreciation charges for capitalized right-of-use assets or in interest expenses for discounted obligations from operating leases, as appropriate. This will significantly improve EBITDA without any attendant change in the economic circumstances. In the statement of cash flows, the repayment portion of the lease payments from existing operating leases will reduce net cash from/used in financing activities and no longer affect net cash from operating activities. Interest payments will remain in net cash from operating activities and thus also in free cash flow.

For further information on the first-time application of the accounting standards, please refer to the section "Summary of accounting policies" in the notes to the consolidated financial statements, page 153 et seq.

Since expenses and cash outflows for leases are substantial elements of our earnings performance and solvency, starting the 2019 financial year we will take into account the effects of the mandatory first-time application of the IFRS 16 accounting standard when determining our financial performance indicators. We also want to ensure maximum comparability with our previous performance indicators. In the future, our operational performance will be measured on the basis of "EBITDA after leases" (**EBITDA AL**) (previously EBITDA). EBITDA AL is calculated by adjusting EBITDA for depreciation of the capitalized right-of-use assets and for interest expenses on recognized lease liabilities. The "free cash flow" financial performance indicator will be replaced by "free cash flow after leases" (**free cash flow AL**). Free cash flow AL is determined by adjusting free cash flow for repayments of lease liabilities. To improve comparability of our performance indicators with the EBITDA and "free cash flow" indicators reported in the financial statements of T-Mobile US in accordance with U.S. GAAP, which in future will continue to differentiate between operating and finance leases, expenses and repayments for finance leases at T-Mobile US will not be taken into account when determining EBITDA AL and free cash flow AL.

The **ROCE** calculation method has to be adjusted effective the start of the 2019 financial year as a result of the mandatory first-time application of the IFRS 16 accounting standard. NOA will be determined taking capitalized right-of-use assets from leases into consideration. By contrast, the present value of unrecognized rental and lease obligations as well as adjustments to their respective interest components will no longer be taken into account when determining NOPAT. As part of these changes, the definition of ROCE will be both refined and simplified, since operating working capital will in future be calculated solely from trade and other receivables, inventories, and trade and other payables. No further adjustments to NOPAT, NOA, or other assets under NOA will be necessary. Overall, the new calculation method will have a minor effect on ROCE.

From the start of the 2019 financial year, we will take the effects of the mandatory first-time application of the IFRS 16 accounting standard into account when calculating the actual values for our financial performance indicators. As such, the statements made with regard to our two-year forecast already refer to the new "after leases" indicators.

For further information, please refer to the section "Forecast," page 102 et seq.

NON-FINANCIAL PERFORMANCE INDICATORS

		2018	2017	2016	2015	2014
Customer satisfaction (TRI*M index)		67.7	68.6	70.2	67.4	65.9
Employee satisfaction (commitment index)[a]		4.1	4.1	4.1	4.1	4.0
FIXED-NETWORK AND MOBILE CUSTOMERS						
Mobile customers	millions	178.4	168.4	165.0	156.4	150.5
Fixed-network lines	millions	27.9	27.9	28.5	29.0	29.8
Broadband customers[b, c]	millions	20.2	18.9	18.4	17.8	17.4
SYSTEMS SOLUTIONS						
Order entry[d]	millions of €	6,776	5,241	6,851	5,608	7,107

[a] Commitment index according to the most recent employee surveys in 2017 and 2015.
[b] Excluding wholesale.
[c] Starting in Q2 2018, we no longer report the number of broadband lines from a technical perspective. Instead, we report the number of broadband customers. The figures for 2016 and 2017 have been adjusted accordingly.
[d] The figure for 2016 was adjusted retrospectively due to the change in the structure of the Group implemented as of January 1, 2017.

We want our customers to be satisfied – or even delighted – as satisfied customers act as multipliers for our Company's success. As a responsible, service-oriented company, the needs and opinions of our customers are of great importance to us, and we want them to stay with our Company in the long term. For this reason, we measure **customer retention/satisfaction** in our companies using the globally recognized **TRI*M** method. The results of systematic surveys are expressed by an indicator known as the TRI*M index. To underscore the major significance of customer retention/satisfaction for our operations, since 2010 we have made this key indicator one of four parameters for the long-term variable remuneration (Variable II) for our Board of Management members. It is also used as a parameter in the long-term incentive plan, which was launched in 2015 and is offered to our managers (with the exception of Board of Management members). We take the TRI*M indexes calculated for the operating entities as an approximation of the respective entities' percentage of total revenue to create an aggregate TRI*M Group value. Over a period of four years, the eligible managers can benefit from the development of customer retention/satisfaction across the Group.

Our employees want to contribute to the further development of the Company and identify with it. We want to establish an open dialog and a productive exchange with our employees: New ways of working and modern means of communication help us achieve this, as do regular surveys. The most important feedback instruments across the Group (excluding T-Mobile US) for assessing **employee satisfaction** include regular employee surveys and the pulse survey carried out twice a year. In our Company, we measure the employee satisfaction performance indicator using the **commitment index** – derived from the results of the last employee survey and updated with the results of the last pulse survey. SDG 8

In view of the major significance of employee satisfaction for the success of the Company, Board members are now also being managed and incentivized by means of the long-term variable performance-based remuneration (Variable II). Employee feedback as one of four parameters has been relevant for Variable II since 2010, and for the long-term incentive plan which was relaunched in 2015 for our managers (excluding Board members). This allows Board members and eligible managers to benefit from the development of employee satisfaction across the Group.

As one of the leading providers of telecommunications and information technology worldwide, the development of our Group – and thus also our financial performance indicators – is closely linked to the development of **customer figures**. Acquiring and retaining customers are thus essential to the success of our Company. We have different ways of measuring the development of our customer figures according to the business activity in our operating segments: Depending on the activities of each segment, we measure the number of mobile customers and/or the number of broadband customers and fixed-network lines.

In our Systems Solutions operating segment, we use **order entry** as a non-financial performance indicator. We define and calculate order entry as the total of all amounts resulting from customer orders received in the financial year. Order entry in the form of long-term contracts is of great significance to the Group in order to estimate revenue potential. In other words, order entry is an indicator that provides a high degree of planning reliability.

THE ECONOMIC ENVIRONMENT

- Economic development in our core markets positive
- Regulatory intervention continues to impact negatively on the telecommunications market

MACROECONOMIC DEVELOPMENT

The global economy grew by 3.7 percent in the reporting year – more than in any single year in the period 2012 through 2016, and on a par with 2017. In our core markets, economic growth rates recorded positive trends overall in 2018. While growth in the United States was significantly stronger year-on-year, in the eurozone growth has tailed off in recent months.

GDP in Germany increased by 1.5 percent year-on-year, driven by consumer and public spending as well as investments. Average unemployment in 2018 was 5.2 percent, putting employment levels in Germany at a record high. The U.S. economy grew by 2.9 percent in the reporting year, with unemployment at 3.9 percent – its lowest level yet. The countries in our Europe operating segment posted consistently robust growth in 2018. The national economies continued to profit from rising domestic consumption and stable demand. The situation in the national labor markets in our Europe operating segment continued to improve thanks to positive economic growth.

The following table shows the GDP growth rate trends and the unemployment rates in our most important markets.

For further information on customer satisfaction, please refer to the section "Group strategy," **page 35 et seq.**

8 DECENT WORK AND ECONOMIC GROWTH

EMPLOYEES

For further information on employee satisfaction, please refer to the section "Employees," **page 97 et seq.**

Development of GDP and the unemployment rate in our core markets from 2016 to 2018
%

	GDP for 2016 compared with 2015	GDP for 2017 compared with 2016	GDP estimate for 2018 compared with 2017	Unemployment rate in 2016	Unemployment rate in 2017	Estimated unemployment rate for 2018
Germany	2.2	2.2	1.5	6.1	5.7	5.2
United States	1.6	2.2	2.9	4.9	4.4	3.9
Greece	(0.2)	1.5	2.1	23.6	21.5	19.6
Romania	4.8	7.0	4.2	5.9	4.9	4.3
Hungary	2.3	4.1	4.7	5.1	4.2	3.6
Poland	3.1	4.8	5.1	6.2	4.9	3.3
Czech Republic	2.5	4.4	2.9	4.0	2.9	2.4
Croatia	3.5	2.9	2.8	13.4	11.1	9.1
Netherlands	2.2	2.9	2.5	6.0	4.9	3.9
Slovakia	3.1	3.2	4.2	9.7	8.1	6.9
Austria	2.0	2.6	2.7	6.0	5.5	4.8

Source: National authorities, Eurostat, European Commission, consensus forecasts. January 2019.

TELECOMMUNICATIONS MARKET

Demand for high-speed broadband – over the fixed and mobile networks – remains high. According to estimates by Analysys Mason, data traffic over the fixed network grew by 38 percent worldwide in 2018. In the same period, estimates by Dialog Consult put the average data volume per fixed-line connection and month in Germany at 90 gigabytes – more than quadruple the level seen five years ago. Analysys Mason estimates that mobile data traffic grew worldwide in 2018 by 67 percent, almost representing a fifteen-fold increase in five years. For the telecommunications industry, these developments present both a challenge and the opportunity to monetize the strong growth in volume.

Worldwide, revenues on the market for information and communications technologies (ICT) grew by 4.1 percent in the reporting year to EUR 3.26 trillion. The high-tech association Bitkom (Federal Association for Information Technology, Telecommunications and New Media) and EITO (European Information Technology Observatory) expect the telecommunications market segment (services and equipment) to record an increase of 3.3 percent worldwide to EUR 1.82 trillion and the information technology (IT) market segment to record an increase of 5.1 percent for 2018.

In the European Union (EU), revenues in the telecommunications market segment increased by 1.3 percent in 2018. Revenues with telecommunications equipment rose by 3.2 percent, while revenues with telecommunications services only grew slightly by 0.6 percent. In the Central and Eastern European Countries (excluding Russia), revenues with telecommunications equipment and services grew by 3.7 percent in the reporting year. In 2018, telecommunications revenues in Europe continued to grow at a slower pace overall than in other major industrial nations: The United States posted growth of 2.6 percent and China of 3.1 percent. While telecommunications policy in the EU is designed to relentlessly drive price competition by way of regulatory intervention, outside of the EU the focus is much more on encouraging investments.

The telecommunications industry is characterized by intense competition. Consumers benefit from a greater range of products to choose from. Each of our markets is occupied by three or four mobile operators with their own network infrastructure. On top of this, we are seeing mobile providers becoming established in many markets using the network infrastructure of the mobile network operators. Competition is also intense in the fixed network. Established telecommunications companies are competing with cable network operators, city network operators, and resellers, who predominantly make use of regulated wholesale products. Added to this are internet companies with over-the-top (OTT) communication services that further intensify the competitive pressure.

The rapid technological transformation in the telecommunications sector calls for high investments to build out next-generation network infrastructure. The rollout of 5G networks is fast approaching and the telecommunications networks are continually being upgraded with optical fiber. Established telecommunications companies like Deutsche Telekom are investing a substantial portion of their revenues in building out network infrastructure and acquiring spectrum. To ensure that these efforts can continue, it is essential that the market environment, especially in the European markets, improves. In such a capital-intensive and innovative industry as telecommunications, consumers benefit first and foremost from high investments by telecommunications network operators. As such, economies of scale and fair conditions for private investment and build-out partnerships play a prominent role.

Alongside the supply of basic broadband infrastructure, looking ahead the focus will be on connecting billions of things, appliances, machines, and sensors of all kinds to create an Internet of Things (IoT). In the next few years, connectivity will not be restricted to millions of smartphones and computers – billions of appliances worldwide will also communicate with each other. The network infrastructures of the gigabit society must enable the transportation of growing data volumes in parallel with providing intelligent features and services that offer the best support for the diverging challenges generated by future applications, such as connected automated driving, IoT, Industry 4.0, e-health, and smart grids. The demands of these applications can vary a great deal with respect to real-time requirements, latency, availability, bandwidth, mobility, security, and energy efficiency, to name a few. For this reason, steps must be taken to ensure quality-assured services are possible both now and in the future. The infrastructures for the gigabit society will comprise an intelligent, application-specific mix of technologies at both a network and features level.

GERMANY

According to EITO, revenue from IT products and services, telecommunications, and consumer electronics increased by 2.1 percent to around EUR 138.2 billion in Germany in the reporting year. This was primarily attributable to the 2.5 percent growth in information technology. Telecommunications revenues (telecommunications services, hardware, and infrastructure systems) increased by 1.4 percent to around EUR 58.4 billion.

The number of broadband lines in Germany grew by 3.0 percent in 2018 to around 34.1 million at year-end, according to EITO. For 2019, the number of broadband lines is expected to grow by a further 2.3 percent to 34.9 million. Companies with their own infrastructure benefited the most from this market growth, along with resellers and regional providers. High-bandwidth lines are increasingly marketed in cable and VDSL/vectoring networks. The offerings in this area are supported by innovative hybrid connection technologies. The availability of high bandwidths in Germany and the large choice of HD content and video-on-demand services are stimulating customer growth in IPTV business. Convergent offers comprising fixed-network and mobile communications (fixed-mobile convergence, FMC) offer customers many advantages and help increase customer retention. The trend towards FMC offerings continued in the reporting year, with more and more providers expanding their portfolios. We launched our first convergent offering, MagentaEINS, on the market in fall 2014. Since then, we have been gradually enhancing the service both in the area of traditional communication and add-on services such as smart home, cloud computing, and security applications. SDG 9 Vodafone and O_2 made up ground in terms of convergent offers.

In the German mobile market, service revenues increased by 1.4 percent against 2017 to approximately EUR 20.0 billion. This moderate revenue growth was driven largely by the continued rise in data usage, which offset the aforementioned regulatory effects as well as sustained price and competitive pressure. The use of mobile data is growing exponentially, the percentage of voice and data rate plans is rising steadily. Traditional voice and text messaging services are increasingly being replaced by free IP messaging services like WhatsApp and social networks like Facebook. Connected products such as smartphones and tablets, as well as watches, shoes, bicycles, and much more, are growing ever more popular, pushing up demand for mobile broadband speeds and for large data volumes in the rate plan portfolios.

Digitalization is continuing apace, and as a result there is also growing demand by the industry for even more connectivity to allow machines and production sites to be networked and to tap efficiencies in value chains. Extensive IT and cloud solutions, as well as intelligent approaches to M2M communication (machine-to-machine) are needed in order to meet these demands.

UNITED STATES

The mobile communications market in the United States continues to be divided between four major nationwide providers – AT&T, Verizon Wireless, T-Mobile US, and Sprint – and various regional network operators. In addition there are a number of mobile virtual network operators, which rely on the networks of one or more of the four national carriers to transport their voice and data traffic. The two largest national network operators are AT&T and Verizon Wireless, followed by T-Mobile US and Sprint.

The market continues to be very dynamic. Comcast, Charter, DISH, TracFone, and Google have successfully entered or are on the verge of entering the wireless market, demonstrating the intensity of current competition in the sector. For example, the cable companies Comcast and Charter have both begun offering mobile services to their customers. Both Comcast's and Charter's mobile services leverage their respective existing Wi-Fi networks, falling back on Verizon's network when out of their respective Wi-Fi footprints. Both offerings have slowly churned subscribers away from the traditional wireless providers, exerting new and unique competitive pressures and blurring market boundaries. Altice, after announcing an MVNO partnership with Sprint last year, has been gradually building up its mobile department in preparation of a launch some time in 2019. DISH, which holds licenses to vast swathes of airwaves, has announced near-term plans for both a Narrowband IoT network and a 5G network (DISH has license obligations to build out much of its spectrum by 2020).

AT&T's USD 85.4 billion acquisition of Time Warner, Inc. has closed, but is still making its way through the courts. AT&T beat an antitrust challenge by the U.S. Department of Justice at court, with the decision on the appeal forthcoming. The consolidation and convergence of the U.S. telecommunications market is expected to continue, as fixed and wireless become more integrated and wireless companies acquire content providers. On April 29, 2018, T-Mobile US and Sprint announced their intention to merge. The transaction is subject to customary closing conditions, including regulatory, antitrust, and national security approvals.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

FINANCE

The FCC has issued a public notice requesting input from industry and analysts on the status of competition in the mobile wireless services market. Metrics are sought on total number of wireless connections, data usage trends, spectrum holdings, innovation and 5G, network quality, and market definition, etc. Although specific metrics are forthcoming, data consumption and smartphone penetration are steadily on the rise, and, with the advent of mobile 5G services expected in 2019, data consumption is expected to spike. For example, smartphone data usage is expected to surpass fixed broadband usage in 2018. With over 400 million mobile devices, there are more wireless devices in the United States than people – in fact, about 1.2 devices for every person in the country. More than 68 percent of these devices are data-intensive smartphones.

In the United States, 5G commercialization is moving at a swift pace. One of the four national service providers began deploying a 5G fixed wireless Internet service at the beginning of October 2018. Another has announced plans to deploy 5G based on the 3rd Generation Partnership (3GPP), a leading mobile standards body, 5G standard by the end of the year. The other two providers plan to launch mobile 5G services in early 2019.

11 SUSTAINABLE CITIES AND COMMUNITIES

FINANCE

For its part, the FCC has taken various steps to encourage investment in the wireless space. For example, to help providers prepare for the deployment of next generation networks, the FCC has cleared regulatory hurdles, and preempted several state and local obstacles, in efforts to streamline the impending build-out required to realize true 5G mobile networks. And on November 14, 2018, the FCC began auctioning off spectrum in the 28 GHz band (Auction 101), its first ever high-band 5G spectrum auction. This auction will be followed in early 2019 by a second auction of spectrum in the 24 GHz band (Auction 102), for a total of 1.55 gigahertz of spectrum. An additional auction is planned for 2019 for spectrum in the 37 GHz, 39 GHz, and 47 GHz bands. However, there are not yet any further details published by the FCC regarding the award of that spectrum.

EUROPE

In the 2018 financial year, the traditional telecommunications markets continued last year's growth trend in the highly competitive market environment of our Europe operating segment. Steady growth in broadband and TV services offset declining revenues from voice telephony in fixed-network business. Growth rates for mobile data usage remained high, especially due to the wide range of video services available. Overall, mobile business developed positively, making it a driver of growth in the traditional telecommunications markets. The continued levying in 2018 of special taxes on telecommunications services in some countries had a negative impact, for example in Greece and Hungary.

Compared with prior years, expenses for the acquisition of spectrum and extension of existing mobile licenses remained at a moderate level in 2018. Spectrum award proceedings were held primarily in Hungary. In the reporting year, several merger and takeover transactions were concluded in the countries of our Europe operating segment (for instance T-Mobile Austria and UPC Austria, Digi/Invitel and the sale of Telenor to PPF in Hungary, and Vodafone/Cyta in Greece).

The trend towards convergent product bundles combining fixed-network and mobile communications (FMC) continues, for example with Kombinieren & Sparen (combine & save) in Austria, Love in Poland, and MagentaOne and CosmoteOne in our subsidiaries with integrated telecommunications infrastructure. These offers are enjoying strong growth and, for some providers, already address the majority of consumers. Streaming video services like Netflix and Amazon Prime Video continue to be of limited significance in Southern and Eastern Europe: According to Ampere Analysis, the household penetration rate there was 6 percent in the reporting year compared with 30 percent in Western Europe. In the business customer segment, the advance of digitalization prompted massive growth in M2M/IoT applications. We participate in this growth with our smart city projects, for instance in Hungary, Romania, and Greece. SDG 11

SYSTEMS SOLUTIONS

In the information and communications technology (ICT) industry in our core market of Western Europe, the volume addressed by our portfolio in the Systems Solutions operating segment increased by 5.3 percent in the reporting year to over EUR 185 billion. However, this trend impacted the business areas of the market in very different ways.

In the telecommunications segment, the market was dominated by continued price erosion in telecommunications services and by intense competition. The focus in this segment continues to be on the substitution of elements of the portfolio and demand for stable, intelligent and secure network solutions with increasingly large bandwidths. Growth in ICT security (cyber security), the Internet of Things, cloud computing, and unified communications is leading to a long-term stabilization of the markets served by our operating segment. Substitution effects between fixed-network and mobile operations continue to intensify. The migration to all-IP solutions, e.g., the combination of Internet access, Voice over IP, IP VPN, and Unified Communications, continues to increase.

In terms of IT services, demand has grown further for cloud services and cybersecurity services, as has the importance of digitalization, intelligent networks, the Internet of Things (including Industry 4.0), and communication between machines (M2M). The advance of digitalization and the shift towards cloud solutions also transformed demand in the systems integration business. Traditional project business – application development and the associated integration – stagnated. By contrast, the market for consultation and integration services for cloud solutions grew by almost 25 percent.

The market for outsourcing computing and desktop services (CDS) grew marginally by 0.1 percent in the reporting year to EUR 54 billion. Two contrasting trends played a role in this context: Business from long-term, rather traditional outsourcing contracts declined by 4 percent, while the market for cloud computing grew by 13 percent.

Competitive and price pressure persisted in all submarkets of our Systems Solutions operating segment. This was caused in part by competitors such as BT Global Services and Orange Business Services in the telecommunications market and IBM, Atos, and Capgemini in the IT segment; in addition, the IT segment in particular came under price pressure from cloud providers such as Amazon Web Services, Google, and Microsoft. This effect is further intensified by providers of services rendered primarily offshore. We are positioning ourselves in this environment as a digital enabler, a cloud transformer, and an ICT operator, with a focus on quality, data security, and end-to-end responsibility for the transformation, integration, and operation of ICT services. Furthermore, we are increasingly entering into strategic partnerships with our competitors with the aim of offering our customers innovative solutions. SDG 9

GROUP DEVELOPMENT

The environment of our Group Development operating segment is largely dominated by the markets served by our companies T-Mobile Netherlands and Deutsche Funkturm (DFMG).

The mobile communications market in the Netherlands has been marked by high price and competitive pressure for quite some time, and this situation intensified again in 2018. One of the trends contributing toward this is the growing bundling of fixed-network and mobile products into convergent offers (FMC), an area that is dominated by the two companies KPN and VodafoneZiggo. As in the past, the trend towards bundled offers brings pressure to bear on prices for mobile products. The strong discount segment, comprising mobile providers' secondary brands and MVNOs, has further intensified competition. On November 27, 2018, the European Commission unconditionally approved the acquisition of telecommunications provider Tele2 Netherlands by T-Mobile Netherlands and the transaction was consummated on January 2, 2019.

DFMG is the biggest provider of passive wireless infrastructure for mobile communications and broadcasting in Germany. SDG 9 The market also saw increased demand for cell sites in the 2018 financial year, due on the one hand to the fact that network operators plan to close gaps in coverage, and on the other to the fact that demand for mobile data services is growing, which calls for a further increase in the density of mobile networks.

MAJOR REGULATORY DECISIONS

Our business activities are largely subject to national and European regulation, which is associated with extensive powers to intervene in our product design and pricing. We were again subject to extensive regulation in our mobile and fixed-network businesses in 2018. The focus was primarily on the regulation of services for wholesale customers and the corresponding charges as well as the award of mobile spectrum.

REGULATION

Supreme Administrative Court ruling in our favor provides legal certainty for rolling out VDSL in the direct vicinity of local exchanges. Competitors had appealed against the Federal Network Agency's decision of September 2016 to green-light the deployment of vectoring. In September 2018, the Supreme Administrative Court upheld the Agency's decision, simultaneously establishing legal certainty regarding the VDSL rollout.

Federal Network Agency decision on StreamOn. On December 15, 2017, the Federal Network Agency prohibited elements of the MagentaMobil StreamOn add-on option. According to the Federal Network Agency, two aspects of this option breached the EU Regulations on net neutrality and roaming. The ruling stipulates that we must transmit all StreamOn data traffic at the maximum available bandwidth and that this also cannot be deducted from the included data volume contingent when roaming within the EU. However, we believe that our service complies with EU law. We continue to seek a preliminary injunction against the Agency's decision with the Münster Higher Administrative Court.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
RELATIONSHIPS

Federal Network Agency decisions on bitstream charges. On March 8, 2018, we received the Federal Network Agency's final decision on our rate application dated September 21, 2017. The application relates to the rates we can charge to wholesale customers for access to our broadband lines for "layer 2 bitstream access." In its final decision, the Federal Network Agency confirmed its preliminary decision from December 2017 and largely approved the majority at the current levels. We had requested an increase in the monthly rate as part of contingent models. As per the preliminary decision, this application was not approved in the final decision. On September 18, 2018, the Agency published a draft consultation on bitstream charges for supervectoring, which is used to make download bandwidths of up to 250 Mbit/s available. The approved charges are higher than the charges for slower speeds and were adopted unchanged in the final decision on December 18, 2018. The Agency thus consistently acknowledges investments in higher bandwidths.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
STRUCTURE

Federal Network Agency grants preliminary approval of new interconnection rates. On December 17, 2018, the Agency provisionally approved the fixed-network interconnection rates. The charges for fixed-network termination were reduced by 20 percent from EUR 0.10/min. to EUR 0.08/min. and for call origination by around 43 percent from EUR 0.23/min. to EUR 0.13/min. These rates were approved through December 30, 2020 in the draft ruling. The draft approval of the final rates is now the subject of a national consultation process, to be followed by consultation on a European level. The final rates approval is expected mid-2019.

AWARDING OF SPECTRUM

In Germany, the terms and conditions for awarding spectrum in the 2.1 GHz and 3.4 to 3.7 GHz ranges in the coming auction turned into a central topic of political debate in the latter half of 2018. Attention focused predominantly on requests to close gaps in mobile data coverage and internet access (known as "white spots") alongside as rapid and comprehensive a rollout as possible of the new 5G mobile standard. The aim is to expand coverage to rural areas in particular and to all major transportation routes (road, rail, water). Given this, the final award conditions included extensive coverage obligations as well as legally disputed conditions on the granting of access between mobile network operators. Along with at least eight further market players, we have filed suit against the final award conditions.

For further information on the spectrum awards, please refer to the section "Risk and opportunity management," page 113 et seq.

The table below provides an overview of the main spectrum awards such as auctions as well as license extensions in Germany and at our international subsidiaries. It also indicates spectrum to be awarded in various countries in 2019.

Main spectrum awards

	Expected start of award procedure	Expected end of award procedure	Frequency ranges (MHz)	Award process	Acquired spectrum (MHz)	Spectrum investment
Germany	Q1 2019	Q2 2019	2,100/3,400 – 3,700	Auction (SMRA[a])	tbd	tbd
Greece	Q3 2019	Q4 2019	3,400 – 3,800	Auction (SMRA[a]), expected	tbd	tbd
Croatia	Q1 2019	Q2 2019	2,100 / 3,400 – 3,800	tbd	tbd	tbd
Macedonia	Q1 2019	Q2 2019	2,100	Extension of licenses	2x 15 MHz	No extension fees
Macedonia	Q1 2019	Q1 2019	1,800	Extension of licenses	tbd	tbd
Macedonia	Q2 2019	Q2 2019	700 / 2,100 / 3,400 – 3,800	Auction, details tbd	tbd	tbd
Netherlands	Q1 2020	Q2 2020	700 / 1,500 / 2,100	Auction, details tbd	tbd	tbd
Austria	Q1 2019	Q2 2019	3,400 – 3,800	Regional auction (CCA[b])	tbd	tbd
Austria	Q1 2020	Q2 2020	700 / 1,500 / 2,100	Auction (CCA[b]), expected	tbd	tbd
Poland	Q2 2019	Q4 2019	3,700 – 3,800	tbd	tbd	tbd
Poland	Q3 2020	Q4 2020	700 / 3,600 – 3,800	tbd	tbd	tbd
Romania	Q4 2019	Q4 2019	700 / 800 / 1,500 / 2,600 / 3,400 – 3,600	Auction, details tbd	tbd	tbd
Slovakia	Q3 2019	Q4 2019	700	Auction (SMRA[a]), expected	tbd	tbd
Czech Republic	Q3 2019	Q4 2019	700 / 1,800	Auction, details tbd	tbd	tbd
Hungary	Q4 2018	Q4 2018	2,100	Extension of licenses	2x 15 MHz	HUF 11 billion (approx. € 34 million)
Hungary	Q3 2019	Q3 2019	700 / 1,500 / 2,100 / 2,300 / 2,600 / 26,000	Auction, details tbd	tbd	tbd
United States	Q4 2018	Q2 2019	28,000	Auction (SMRA[a]), since Nov. 14, 2018	tbd	tbd
United States	Q1 2019	Q2 2019	24,000	Auction (CCA[b])	tbd	tbd

[a] Simultaneous electronic multi-round auction with ascending, parallel bids for all available frequency ranges.
[b] Combinatorial clock auction, three-stage, multi-round auction for spectrum from all available frequency ranges.

DEVELOPMENT OF BUSINESS IN THE GROUP

STATEMENT OF THE BOARD OF MANAGEMENT ON BUSINESS DEVELOPMENT IN 2018

Bonn, February 12, 2019

We closed another successful year with strong results. In 2018, we once again met our most important corporate targets and set a course for the future. Net revenue increased by 0.9 percent to EUR 75.7 billion – in organic terms, i.e., adjusted in particular for the negative currency translation effects in the reporting year, net revenue grew by as much as 3.1 percent. The U.S. business continued to record strong growth, but Europe also put in a very positive business performance, and we can certainly rely on our home market in Germany. This development is the result of the great response we are seeing from customers, in particular in mobile communications and broadband business – in Germany and Europe also in the success of our convergent product range. In addition to consumer and business customer services, these products remain the focus of our strategy. The acquisitions of UPC Austria and Tele2 Netherlands further improved our position in Europe, especially with regard to the convergent product offering. We want to further develop our good position in the U.S. business by means of the agreed business combination of T-Mobile US and Sprint.

Adjusted EBITDA grew by 5 percent to EUR 23.3 billion, mainly on account of the strong development of operations driven by revenue growth and a further improvement in cost efficiency – it was not only the United States, but also Germany and in particular Europe that bolstered the earnings trend. Free cash flow (before dividend payments and spectrum investment) totaled EUR 6.2 billion; this represents year-on-year growth of around 13.7 percent.

Profit from operations (EBIT) decreased by EUR 1.4 billion in the reporting year to EUR 8.0 billion, due to an increase in special factors in connection with staff-related measures and to the positive special factors which had increased EBIT in the prior year as a result of the reversal of impairment losses previously recognized for spectrum licenses at T-Mobile US, as well as of the sale of Strato and Scout24 AG. We also recorded higher depreciation and amortization compared with 2017 as a result of the high level of investment in building and expanding our mobile networks and fixed-network infrastructure, as well as for the forward-looking migration to IP as part of our integrated network strategy.

Net profit decreased by EUR 1.4 billion to EUR 2.1 billion. The positive trend in loss from financial activities was offset by an increase in the tax burden compared with the prior year. The prior-year burden was significantly reduced by the reduction in the U.S. federal tax rate, which resulted in a non-cash deferred tax benefit at T-Mobile US. ROCE decreased year-on-year due largely to the higher net special factors compared with the prior year.

Net debt increased from EUR 50.8 billion to EUR 55.4 billion, primarily due to the acquisition of UPC Austria, our share buy-back programs, and the ongoing high level of capital expenditure for network build-out and modernization in the United States, Germany, and Europe. Currency translation effects also had a negative impact.

We presented our revised strategy and the financial outlook at our Capital Markets Day in May 2018. Our forecast for growth through to 2021 remains at the same high level we anticipated at our Capital Markets Day in 2015. There is a reliable dividend policy for our shareholders, which is subject to approval by the relevant bodies and the fulfillment of other legal requirements. For the 2018 financial year, we will propose a dividend of EUR 0.70 per dividend-bearing share, which will also serve as a baseline for the dividend going forward. Starting from the 2019 financial year, the dividend is to reflect relative growth in earnings per share with a lower limit fixed at EUR 0.50 per dividend-bearing share.

The trends in the industry, in particular on the European telecommunications markets, remain challenging, e.g., rising competition and strict regulatory requirements. The market for information and communications technologies, however, continues to grow. In order to succeed in the future, we continue to invest heavily in the key to our success: our network infrastructure. In 2018, we made investments (before spectrum) of EUR 12.2 billion. In the fixed network, our focus was on investments in fiber-optic roll-out, IPTV, and the continued migration to an IP-based network. In mobile communications, we invested in LTE, increased network coverage, and upgraded capacity to meet increasing demand for high-speed data transmission rates. Including spectrum payments, this figure was EUR 12.5 billion. Despite this high level of investment, our rating remained solid through 2018, and we had unrestricted access to the capital market at all times.

Against this backdrop, we are reasserting our commitment to the strategic goal of being the leading European telecommunications provider. With this goal in mind, in 2018 we continued to focus intently on delivering state-of-the-art networks, products, and services that give our customers simple, convenient access to the digital world. This keeps us in a good position to remain the driving force in our markets behind the creation of a modern and competitive digital future.

COMPARISON OF THE GROUP'S EXPECTATIONS WITH ACTUAL FIGURES

In the 2017 Annual Report, we outlined expectations for the 2018 financial year for our financial and non-financial key performance indicators anchored in our management system. The following tables summarize the pro-forma figures for 2017, the results expected for the reporting year, and the actual results achieved in 2018. The performance indicators that we also forecast in the 2017 Annual Report and their development are presented in the individual sections.

Comparison of the expected financial key performance indicators with actual figures

		Pro-forma figures for 2017	Expectations for 2018	Results in 2018
ROCE	%	5.8	decrease	4.7
Net revenue	billions of €	74.9	slight increase	75.7
Profit (loss) from operations (EBIT)	billions of €	9.4	decrease	8.0
EBITDA (adjusted for special factors)	billions of €	22.2	23.6[a]	23.3
Free cash flow (before dividend payments and spectrum investment)	billions of €	5.5	6.3[a]	6.2
Cash capex (before spectrum investment)	billions of €	12.1	12.5	12.2
Rating (Standard & Poor's, Fitch)		BBB+	from A– to BBB	BBB+
Rating (Moody's)		Baa1	from A3 to Baa2	Baa1

Comparison of the expected non-financial key performance indicators with actual figures

		Pro-forma figures for 2017	Expectations for 2018	Results in 2018
Customer satisfaction (TRI*M index)		67.2	slight increase	67.7
Employee satisfaction (commitment index)[b]		4.1	stable trend	4.1
FIXED-NETWORK AND MOBILE CUSTOMERS				
GERMANY				
Mobile customers	millions	43.1	increase	44.2
Fixed-network lines	millions	19.2	decrease	18.6
Broadband lines	millions	13.2	increase	13.6
UNITED STATES				
Branded postpaid	millions	38.0	increase	42.5
Branded prepay	millions	20.7	increase	21.1
EUROPE				
Mobile customers	millions	48.8	increase	50.5
Fixed-network lines	millions	8.4	slight decrease	9.1
Broadband customers[c]	millions	5.5	increase	6.4
SYSTEMS SOLUTIONS				
Order entry	billions of €	5.2	increase	6.8

[a] Contrary to the forecasts published in the 2017 combined management report (2017 Annual Report, page 101 et seq.), we adjusted the forecast figures for 2018 during the course of the year (Interim Group Report as of March 31, 2018, page 26; Interim Group Report as of June 30, 2018, page 27; and Interim Group Report as of September 30, 2018, page 29).

[b] Commitment index as per the 2017 employee survey.

[c] Starting in Q2 2018, we no longer report the number of broadband lines from a technical perspective. Instead, we report the number of broadband customers.

We once again look back on a successful financial year. Our performance in 2018 was dominated by substantial growth in revenue and adjusted EBITDA. Revenue reached EUR 75.7 billion, achieving the expected rate of increase – adjusted for exchange rate effects and changes in the composition of the Group, this increase was even more pronounced. Adjusted EBITDA also followed this trend, reaching EUR 23.3 billion – adjusted for exchange rate effects and changes in the composition of the Group, it even surpassed our expectations of EUR 23.6 billion by EUR 0.2 billion. Adjusted for exchange rate effects and changes in the composition of the Group, free cash flow exceeded our expectations by EUR 0.1 billion. At EUR 12.2 billion, cash capex (before spectrum investment) fell short of the figure forecast. Adjusted for exchange rate effects and changes in the composition of the Group, this shortfall amounts to just under EUR 0.2 billion, due primarily to lower capital expenditure in our Systems Solutions operating segment.

Our key performance indicator ROCE (return on capital employed) declined by 1.1 percentage points in the reporting year to 4.7 percent. This negative trend was due to a decrease in net operating profit after taxes (NOPAT) while the average amount of net operating assets (NOA) increased slightly over the year. NOPAT was impacted by negative special factors of EUR 2.2 billion in 2018, in particular due to expenses for staff-related measures and for non-staff-related restructuring totaling EUR 1.3 billion, as well as impairment losses totaling EUR 0.7 billion recognized primarily on goodwill. Even the significant improvement in adjusted EBITDA could not completely offset these effects. In the prior year, NOPAT had been affected by negative special factors of EUR 0.4 billion, while positive special factors, such as the reversal of impairment losses previously recognized for spectrum licenses at T-Mobile US (EUR 1.7 billion) or the sale of Strato (EUR 0.5 billion) and of further shares in Scout24 AG (EUR 0.2 billion), had an offsetting effect. Overall, NOPAT amounted to EUR 5.9 billion in 2018, down from EUR 6.8 billion in 2017. NOA increased from EUR 118.9 billion to EUR 124.0 billion in 2018 as a result of growth in intangible assets and property, plant and equipment, as well as an increase in the present value of unrecognized rental and lease obligations, reflecting Deutsche Telekom's consistently high level of investment.

We are also very well on track with our non-financial key performance indicators, especially with regard to the development of fixed-network and mobile customer numbers. In our United States operating segment in particular, we again recorded continued strong mobile customer additions, both in the postpaid and prepay segments. The customer growth in our Europe operating segment is largely a result of the fixed-network lines added as part of the acquisition of UPC Austria. Even without this effect, the number of fixed-network lines grew by 3.2 percent. At the end of the reporting year, customer satisfaction came in at 67.7 points versus 67.2 points at the start of the year. Changes to the revenue shares contributed by each country and steps to harmonize the statistical units in the countries led to us recalculating the baseline figure for 2018 on the basis of the new structures these changes entailed. The new baseline thus diverges from the figure of 68.8 reported as of December 31, 2017. This moderate upward trend is attributable to a slight increase in the Europe operating segment. Germany and Systems Solutions each essentially matched their prior-year levels. Our goal for the coming years is to achieve a steady overall improvement in customer satisfaction. Order entry at our Systems Solutions operating segment improved markedly in 2018, thanks in part to the successful conclusion of major deals in the traditional IT business. Order entry in our growth areas also developed very well in the reporting year.

FIRST-TIME APPLICATION OF NEW ACCOUNTING STANDARDS AS OF JANUARY 1, 2018

The new accounting standards IFRS 15 "Revenue from Contracts with Customers" and IFRS 9 "Financial Instruments" took effect as of January 1, 2018. Prior-year comparatives were not adjusted.

IFRS 15 introduces an amended model for determining and recognizing revenue. The effects of the new regulations on our operating segments differ depending on the underlying business model and, for the most part, neutralize each other. For example, in our Germany operating segment – where the sale of subsidized handsets in combination with service contracts is still customary – the amortization of capitalized contract assets reduces revenue to a minor extent. In our United States operating segment – where customers are predominantly offered payment-by-installment models or lease models – there is a positive impact on revenue and EBITDA, mainly from the capitalization of customer acquisition costs and their distribution over the average customer retention period. At Group level, there is an insignificant effect on revenue and a positive effect on EBITDA.

IFRS 15 has a material impact on the presentation of the Group's results of operations and its financial position. The main effects are explained where the changes in the relevant items of the statement of financial position are discussed.

For details on remeasurement and reclassification effects, please refer to the section "Initial application of standards, interpretations, and amendments in the financial year" in the notes to the consolidated financial statements, **page 154 et seq.**

RESULTS OF OPERATIONS OF THE GROUP

NET REVENUE

In 2018, we generated net revenue of EUR 75.7 billion, which was 0.9 percent or EUR 0.7 billion up on the prior-year level. Adjusted for negative net exchange rate effects of EUR 1.6 billion, and for slightly positive effects of changes in the composition of the Group, revenue increased by EUR 2.3 billion or 3.1 percent.

Our United States operating segment in particular contributed to the positive revenue trend with an increase of 2.2 percent – or, adjusted for exchange rate effects, of a substantial 6.8 percent. This increase was due primarily to higher service revenues from the rise in the average branded customer base, triggered in particular by the continued growth in existing and greenfield markets, the growing success in new customer segments, along with lower customer churn. In our German home market, revenue declined by 1.1 percent compared with the prior year. Adjusted for the effects of IFRS 15, revenue was at a comparable level with the previous year, with revenue from mobile business rising year-on-year. Higher IT and broadband revenues almost compensated for the decrease in fixed-network revenue. In our Europe operating segment, revenue was up by 2.6 percent year-on-year; adjusted for exchange rate effects and without the inclusion of UPC Austria as of July 31, 2018, it increased by 1.5 percent. Revenues in business customer operations and in mobile business had a positive effect. Fixed-network revenue also increased slightly year-on-year, mainly due to the positive revenue effect from TV and broadband business. These increases were partially offset by a decline in wholesale business. In our Systems Solutions operating segment, revenue remained on a par with the prior-year level. Revenues developed positively in our growth business, while declining as expected in our traditional IT business, notably in the international corporate customer business and due to the general market contraction in the core market of Western Europe, as well as to deliberate portfolio decisions. Revenue generated by our Group Development operating segment decreased by 3.4 percent year-on-year, a decline attributable in part to forgone revenue following the deconsolidation of Strato as of March 31, 2017. Positive effects on revenue at T-Mobile Netherlands resulted from high mobile handset sales; however, these were more than offset by negative regulatory effects.

For further information on the trends in our main financial and non-financial key performance indicators, please refer to the relevant passages in this section as well as in the section "Development of business in the operating segments," **page 60 et seq.**

For further information on revenue development, please refer to the section "Development of business in the operating segments," **page 60 et seq.**

Contribution of the segments to net revenue
millions of €

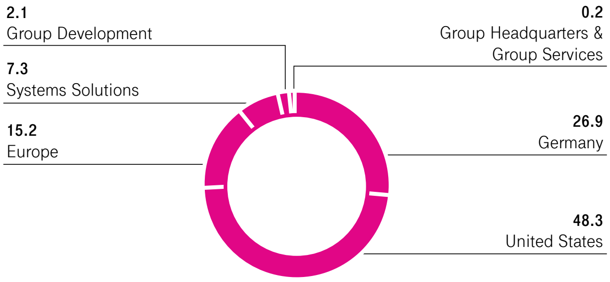
	2018	2017	Change	Change %	2016
NET REVENUE	**75,656**	**74,947**	**709**	**0.9**	**73,095**
Germany[a, b]	21,700	21,931	(231)	(1.1)	21,774
United States	36,522	35,736	786	2.2	33,738
Europe[b]	11,885	11,589	296	2.6	11,454
Systems Solutions[b]	6,936	6,918	18	0.3	6,993
Group Development[b]	2,185	2,263	(78)	(3.4)	2,347
Group Headquarters & Group Services[a, b]	2,735	2,935	(200)	(6.8)	3,460
Intersegment revenue	(6,307)	(6,425)	118	1.8	(6,670)

[a] We assigned Vivento Customer Services GmbH, a provider of call center services, to our Germany operating segment as of January 1, 2018; previously it was part of our Group Headquarters & Group Services segment. Comparative figures have been adjusted retrospectively. For further information on changes in the organizational structure, please refer to the section "Group organization," page 31 et seq. and Note 35 "Segment reporting" in the notes to consolidated financial statements, pages 226 et seq.

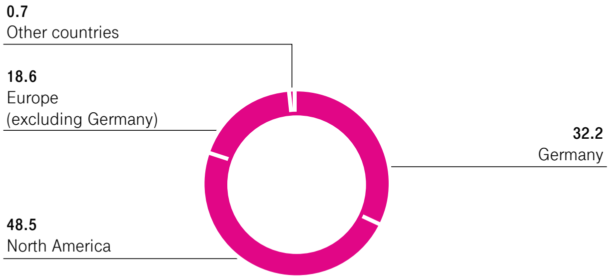
[b] Since January 1, 2017, we have reported on the Group Development operating segment and within the Group Headquarters & Group Services segment on the Board of Management department Technology and Innovation. Comparative figures have been adjusted retrospectively.

For further information, please refer to Note 35 "Segment reporting" in the notes to the consolidated financial statements, **page 226 et seq.**

Contribution of the segments to net revenue
%



Breakdown of revenue by region
%



For further information on the development of EBITDA/adjusted EBITDA in our segments, please refer to the section "Development of business in the operating segments," **page 60 et seq.**
For an overview of the development of special factors, please refer to the table on **page 54**.

At 48.3 percent, our United States operating segment again provided the largest contribution to net revenue of the Group. This was an increase of 0.6 percentage points compared with the prior year, due in particular to ongoing strong customer additions. The proportion of net revenue generated internationally continued to increase, from 67.2 percent to 67.8 percent.

EBITDA, ADJUSTED EBITDA

Excluding special factors, adjusted EBITDA increased year-on-year by EUR 1.1 billion or 5.0 percent to EUR 23.3 billion in 2018. Negative exchange rate effects, primarily from the translation of U.S. dollars into euros, decreased the carrying amount by EUR 0.5 billion. Excluding these effects, adjusted EBITDA increased by as much as EUR 1.6 billion or 7.2 percent.

Adjusted EBITDA in our United States operating segment increased substantially, primarily due to higher revenue – the application of IFRS 15 also had a positive effect. Positive trends were also recorded by our Germany and Europe operating segments thanks to lower personnel costs and the successful implementation of our efficiency and digitalization initiatives – even without taking into account the acquisition of UPC Austria as of July 31, 2018 in the Europe operating segment. The decrease in adjusted EBITDA at our Systems Solutions operating segment was mainly attributable to the higher costs involved in establishing operations in growth areas, especially in the Internet of Things and the healthcare market, and to higher expenses resulting from the ongoing migration to all IP. Adjusted EBITDA in our Group Development operating segment remained stable at the prior-year level.

EBITDA decreased by EUR 2.1 billion or 8.9 percent compared with the prior year to EUR 21.8 billion due to a EUR 3.2 billion decrease in special factors to EUR -1.5 billion. The decline was attributable to a EUR 0.6 billion rise in expenses for staff-related measures and expenses for non-staff-related restructuring totaling EUR 1.3 billion. The prior year included a partial reversal of impairment losses on spectrum licenses at T-Mobile US, increasing the carrying amount by EUR 1.7 billion. Other positive factors in 2017 were income of EUR 0.5 billion from the divestiture of Strato, EUR 0.2 billion from the sale of further shares in Scout24 AG, and EUR 0.2 billion from the settlement agreement with BT.

Contribution of the segments to adjusted Group EBITDA

	2018 millions of €	Proportion of adjusted Group EBITDA %	2017 millions of €	Proportion of adjusted Group EBITDA %	Change millions of €	Change %	2016 millions of €
EBITDA (ADJUSTED FOR SPECIAL FACTORS) IN THE GROUP	**23,333**	**100.0**	**22,230**	**100.0**	**1,103**	**5.0**	**21,420**
Germany[a, b]	8,610	36.9	8,412	37.8	198	2.4	8,161
United States	10,088	43.2	9,316	41.9	772	8.3	8,561
Europe[b]	3,880	16.6	3,749	16.9	131	3.5	3,866
Systems Solutions[b]	429	1.8	509	2.3	(80)	(15.7)	530
Group Development[b]	921	3.9	915	4.1	6	0.7	943
Group Headquarters & Group Services[a, b]	(515)	(2.2)	(661)	(3.0)	146	22.1	(594)
Reconciliation	(79)	(0.3)	(11)	(0.0)	(68)	n. a.	(48)

[a] We assigned Vivento Customer Services GmbH, a provider of call center services, to our Germany operating segment as of January 1, 2018; previously it was part of our Group Headquarters & Group Services segment. Comparative figures have been adjusted retrospectively. For further information on changes in the organizational structure, please refer to the section "Group organization," page 31 et seq., and Note 35 "Segment reporting" in the notes to consolidated financial statements, pages 226 et seq.

[b] Since January 1, 2017, we have reported on the Group Development operating segment and within the Group Headquarters & Group Services segment on the Board of Management department Technology and Innovation. Comparative figures have been adjusted retrospectively.

EBIT

Group EBIT stood at EUR 8.0 billion in the reporting year, down EUR 1.4 billion or 14.7 percent against the prior year. This decrease is partly due to the effects described under EBITDA. Depreciation, amortization and impairment losses stood at EUR 13.8 billion overall, down EUR 0.8 billion on the prior year. Impairment losses on intangible assets and property, plant and equipment – mainly on goodwill in our Europe operating segment in the national companies in Poland and Romania – reduced EBIT by EUR 0.7 billion. In the prior year, impairment losses totaling EUR 2.2 billion were recognized, mainly on goodwill in the Systems Solutions and Europe operating segments. Depreciation and amortization was EUR 0.7 billion higher than in the prior year.

PROFIT BEFORE INCOME TAXES

Profit before income taxes increased slightly from EUR 5.0 billion in the prior year to EUR 5.2 billion. At EUR 2.8 billion, the loss from financial activities was EUR 1.5 billion lower than a year earlier, offsetting the effects of the reduction in EBIT. The high loss in the previous year was due in particular to the EUR 1.5 billion impairment of our financial stake in BT that was recognized in profit or loss. In March 2018, we transferred our financial stake in BT to Deutsche Telekom Trust e.V., where it will be used as plan assets to cover our pension obligations. With effect from the beginning of 2018, changes in the value of our stake are recognized directly in equity (other comprehensive income) and no longer as profit/loss from financial activities in the income statement. Nor will future dividend income from the stake in BT be recognized in profit/loss from financial activities. Finance costs decreased by EUR 0.4 billion. This was essentially due to the fact that T-Mobile US has increasingly been financed internally since 2017, and that refinancing terms continue to be favorable. The share of profit/loss of associates and joint ventures accounted for using the equity method decreased to EUR -0.5 billion. This was mainly attributable to the settlement agreement reached to end the Toll Collect arbitration proceedings, which had a negative effect of EUR 0.6 billion. By contrast, the profit distribution of Toll Collect GmbH – EUR 0.1 billion of which is attributable to Deutsche Telekom – had a positive effect. Losses from financial instruments increased losses from financial activities by EUR 0.4 billion, primarily as a result of the remeasurement of derivatives, in particular at T-Mobile US. In the prior year, losses from financial instruments were impacted by negative effects totaling EUR 0.8 billion.

NET PROFIT/LOSS

Net profit decreased year-on-year by EUR 1.3 billion to EUR 2.2 billion in 2018. After recording a tax benefit of EUR 0.6 billion in the prior year, which was primarily attributable to the reduction in the U.S. federal tax rate from 35 percent to 21 percent and to related non-cash deferred tax benefits of EUR 2.7 billion, we recorded a tax expense of EUR 1.8 billion in 2018. Profit attributable to non-controlling interests decreased compared with 2017 by EUR 0.9 billion to EUR 1.2 billion. The recognized deferred tax benefit as well as the partial reversal in the prior year of impairment losses on spectrum licenses in our United States operating segment in particular contributed to this trend.

The following table presents a reconciliation of EBITDA, EBIT, and net profit/loss to the respective figures adjusted for special factors.

For further information, please refer to Note 26 "Depreciation, amortization and impairment losses" in the notes to the consolidated financial statements, **page 216**.

For further information, please refer to Note 30 "Income taxes" in the notes to the consolidated financial statements, **page 218 et seq.**

For further information on the development of our results of operations, please refer to the disclosures under "Notes to the consolidated income statement" in the notes to the consolidated financial statements, **page 214 et seq.**

Consolidated income statement and effects of special factors
millions of €

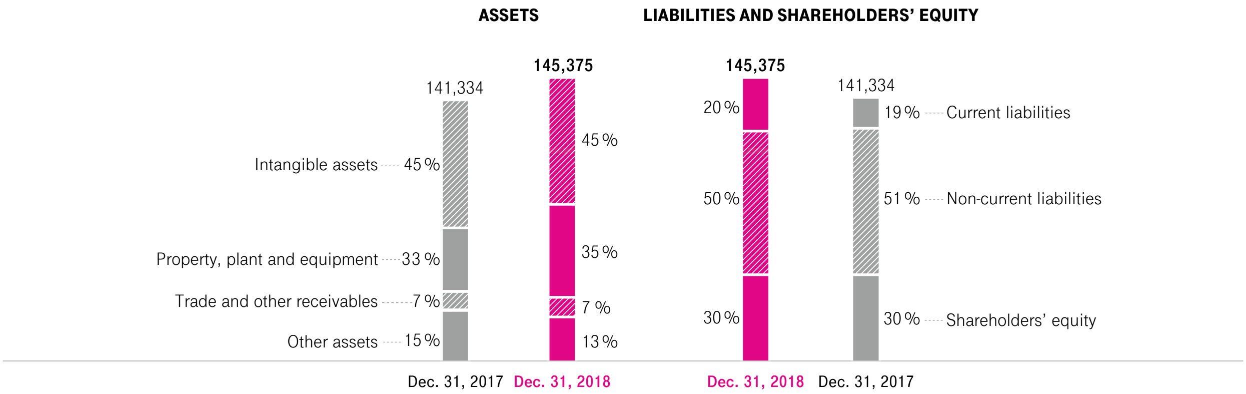
	EBITDA 2018	EBIT 2018	EBITDA 2017	EBIT 2017	EBITDA 2016	EBIT 2016
EBITDA/EBIT	**21,836**	**8,001**	**23,969**	**9,383**	**22,544**	**9,164**
GERMANY	**(598)**	**(598)**	**(308)**	**(308)**	**(905)**	**(905)**
Staff-related measures	(565)	(565)	(221)	(221)	(857)	(857)
Non-staff-related restructuring	(46)	(46)	(26)	(26)	(38)	(38)
Effects of deconsolidations, disposals and acquisitions	0	0	0	0	8	8
Impairment losses	0	0	0	0	0	0
Other	13	13	(61)	(61)	(18)	(18)
UNITED STATES	**(160)**	**(160)**	**1,633**	**1,633**	**406**	**406**
Staff-related measures	(15)	(15)	(7)	(7)	(11)	(11)
Non-staff-related restructuring	0	0	0	0	0	0
Effects of deconsolidations, disposals and acquisitions	(145)	(145)	(11)	(11)	417	417
Impairment losses	0	0	1,651	1,651	0	0
Other	0	0	0	0	0	0
EUROPE	**(122)**	**(797)**	**(130)**	**(995)**	**(93)**	**(277)**
Staff-related measures	(90)	(90)	(93)	(93)	(100)	(100)
Non-staff-related restructuring	0	0	(3)	(3)	(4)	(4)
Effects of deconsolidations, disposals and acquisitions	(14)	(14)	18	18	25	25
Impairment losses	0	(674)	0	(865)	0	(184)
Other	(19)	(19)	(53)	(53)	(14)	(14)
SYSTEMS SOLUTIONS	**(266)**	**(322)**	**(229)**	**(1,477)**	**(252)**	**(276)**
Staff-related measures	(194)	(194)	(132)	(132)	(136)	(136)
Non-staff-related restructuring	(4)	(4)	(2)	(2)	(5)	(5)
Effects of deconsolidations, disposals and acquisitions	0	0	0	0	0	0
Impairment losses	0	(56)	0	(1,248)	0	0
Other	(68)	(68)	(94)	(94)	(111)	(135)
GROUP DEVELOPMENT	**(27)**	**(27)**	**893**	**893**	**2,547**	**2,132**
Staff-related measures	(6)	(6)	1	1	(35)	(35)
Non-staff-related restructuring	0	0	(5)	(5)	(3)	(3)
Effects of deconsolidations, disposals and acquisitions	(21)	(21)	708	708	2,585	2,585
Impairment losses	0	0	0	0	0	(415)
Other	(1)	(1)	189	189	0	0
GROUP HEADQUARTERS & GROUP SERVICES	**(322)**	**(322)**	**(119)**	**(119)**	**(579)**	**(579)**
Staff-related measures	(288)	(288)	(107)	(107)	(499)	(499)
Non-staff-related restructuring	(59)	(59)	(49)	(49)	(31)	(31)
Effects of deconsolidations, disposals and acquisitions	(44)	(44)	63	63	(19)	(19)
Impairment losses	0	0	0	0	0	0
Other	69	69	(26)	(26)	(29)	(29)
GROUP	**(1,497)**	**(2,204)**	**1,740**	**(374)**	**1,125**	**502**
Staff-related measures	(1,159)	(1,159)	(559)	(559)	(1,638)	(1,638)
Non-staff-related restructuring	(109)	(109)	(85)	(85)	(81)	(81)
Effects of deconsolidations, disposals and acquisitions	(223)	(223)	778	778	3,015	3,015
Impairment losses	0	(707)	1,651	(463)	0	(599)
Other	(6)	(6)	(45)	(45)	(171)	(195)
EBITDA/EBIT (ADJUSTED FOR SPECIAL FACTORS)	**23,333**	**10,204**	**22,230**	**9,757**	**21,420**	**8,663**
Profit (loss) from financial activities (adjusted for special factors)		(2,091)		(2,895)		(2,323)
PROFIT (LOSS) BEFORE INCOME TAXES (ADJUSTED FOR SPECIAL FACTORS)		**8,114**		**6,863**		**6,340**
Income taxes (adjusted for special factors)		(2,225)		949		(1,858)
PROFIT (LOSS) (ADJUSTED FOR SPECIAL FACTORS)		**5,889**		**7,812**		**4,482**
PROFIT (LOSS) (ADJUSTED FOR SPECIAL FACTORS) ATTRIBUTABLE TO						
Owners of the parent (net profit (loss)) (adjusted for special factors)		4,545		6,039		4,114
Non-controlling interests (adjusted for special factors)		1,344		1,773		368

FINANCIAL POSITION OF THE GROUP

Condensed consolidated statement of financial position
millions of €

	Dec. 31, 2018	Change	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014
ASSETS						
CURRENT ASSETS	**21,870**	**1,478**	**20,392**	**26,638**	**32,184**	**29,798**
Cash and cash equivalents	3,679	367	3,312	7,747	6,897	7,523
Trade and other receivables	9,988	265	9,723	9,362	9,238	10,454
Contract assets	1,765	n. a.	n. a.	n. a.	n. a.	n. a.
Non-current assets and disposal groups held for sale	145	(16)	161	372	6,922	5,878
Other current assets	6,293	(903)	7,196	9,157	9,127	5,943
NON-CURRENT ASSETS	**123,505**	**2,562**	**120,943**	**121,847**	**111,736**	**99,562**
Intangible assets	64,950	2,085	62,865	60,599	57,025	51,565
Property, plant and equipment	50,631	3,753	46,878	46,758	44,637	39,616
Capitalized contract costs	1,744	n. a.	n. a.	n. a.	n. a.	n. a.
Investments accounted for using the equity method	576	(75)	651	725	822	617
Other non-current assets	5,604	(4,944)	10,548	13,765	9,252	7,764
TOTAL ASSETS	**145,375**	**4,041**	**141,334**	**148,485**	**143,920**	**129,360**
LIABILITIES AND SHAREHOLDERS' EQUITY						
CURRENT LIABILITIES	**29,144**	**1,778**	**27,366**	**33,126**	**33,548**	**28,198**
Financial liabilities	10,527	2,169	8,358	14,422	14,439	10,558
Trade and other payables	10,735	(236)	10,971	10,441	11,090	9,681
Current provisions	3,144	(228)	3,372	3,068	3,367	3,517
Contract liabilities	1,720	n. a.	n. a.	n. a.	n. a.	n. a.
Liabilities directly associated with non-current assets and disposal groups held for sale	36	36	0	194	4	6
Other current liabilities	2,982	(1,682)	4,664	5,001	4,648	4,436
NON-CURRENT LIABILITIES	**72,794**	**1,296**	**71,498**	**76,514**	**72,222**	**67,096**
Financial liabilities	51,748	2,577	49,171	50,228	47,941	44,669
Non-current provisions	8,793	(2,737)	11,530	11,771	11,006	10,838
Other non-current liabilities	11,668	870	10,798	14,515	13,275	11,589
Contract liabilities	585	n. a.	n. a.	n. a.	n. a.	n. a.
SHAREHOLDERS' EQUITY	**43,437**	**967**	**42,470**	**38,845**	**38,150**	**34,066**
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	**145,375**	**4,041**	**141,334**	**148,485**	**143,920**	**129,360**

Structure of the consolidated statement of financial position
millions of €



Total assets amounted to EUR 145.4 billion, up by EUR 4.0 billion against December 31, 2017.

The mandatory first-time application of the new accounting standards IFRS 9 and IFRS 15 as of January 1, 2018 resulted in remeasurement and reclassification effects recognized directly in equity. For example, assets increased as of January 1, 2018 on account of contract assets of EUR 1.8 billion to be capitalized for the first time in accordance with IFRS 15 and contract costs to be capitalized of EUR 1.2 billion. By contrast, reclassifications and remeasurements were made from trade and other receivables, decreasing them by EUR 0.3 billion compared with December 31, 2017. Liabilities and shareholders' equity also increased as of the date of first-time application as a result of the initial recognition of current and non-current contract liabilities amounting to EUR 2.5 billion. At the same time, current and non-current other liabilities decreased by a comparable amount.

For further information on the effects of the first-time application of the new accounting standards IFRS 9 and IFRS 15, please refer to the section "Summary of accounting policies" in the notes to the consolidated financial statements, page 153 et seq.

Cash and cash equivalents increased by EUR 0.4 billion year-on-year.

For further information, please refer to the section "Consolidated statement of cash flows," page 152, and Note 34 "Notes to the consolidated statement of cash flows," page 223 et seq., in the notes to the consolidated financial statements.

Trade and other receivables increased by EUR 0.3 billion to EUR 10.0 billion, mainly due to higher receivables in both the United States and Germany operating segments. In the United States operating segment, this increase was the result of the higher volume of receivables for terminal equipment sold under installment plans and the larger customer base. Exchange rate effects from the translation of U.S. dollars into euros also contributed to the increase, which was partially offset in particular by reclassification and remeasurement effects from the mandatory first-time application of the new accounting standards IFRS 9 and IFRS 15.

Other current assets developed as follows until December 31, 2018: Other current financial assets decreased by EUR 0.5 billion to EUR 2.8 billion, due, among other factors, to the remeasurement as of the reporting date of derivatives. Exchange rate effects from the translation of U.S. dollars into euros had an offsetting effect. Inventories decreased by EUR 0.2 billion to EUR 1.8 billion, mainly due to the reduction in the stock levels of terminal equipment (in particular higher-priced smartphone models) in the United States operating segment; exchange rate effects, mainly from the translation of U.S. dollars into euros, had an offsetting effect. Income tax receivables increased by EUR 0.3 billion.

Intangible assets grew by EUR 2.1 billion to EUR 65.0 billion, mainly due to additions totaling EUR 4.0 billion. They mainly comprised capital expenditures in the United States, Europe, and Germany operating segments and in the Group Headquarters & Group Services segment. Exchange rate effects of EUR 1.7 billion, particularly from the translation of U.S. dollars into euros, and effects of changes in the composition of the Group in the amount of EUR 1.5 billion resulting from the acquisition of the Austrian cable operator UPC Austria in the Europe operating segment and the online TV provider Layer3 TV in the United States operating segment, also increased the carrying amount. Depreciation and amortization of EUR 4.3 billion and impairment losses of EUR 0.7 billion reduced the carrying amount. In the Europe operating segment, the annual impairment test resulted in impairment losses on goodwill of EUR 0.6 billion in total in our national companies in Poland and Romania. The first-time application of IFRS 15 as of January 1, 2018 produced effects that reduced the carrying amount by EUR 0.1 billion.

Property, plant and equipment increased by EUR 3.8 billion to EUR 50.6 billion. Additions of EUR 11.3 billion, primarily in the United States and Germany operating segments, increased the carrying amount. They included, in particular, capital expenditure in connection with the modernization of the T Mobile US network as well as for broadband and fiber-optic build-out, the IP transformation, and mobile infrastructure in the Germany operating segment. They also included EUR 0.9 billion for capitalized higher-priced mobile handsets in connection with the JUMP! On Demand business model at T-Mobile US, under which customers do not purchase the device but lease it. Changes in the composition of the Group, particularly the acquisition of UPC Austria and Layer3 TV, also increased the carrying amount by EUR 1.4 billion. Exchange rate effects, primarily from the translation of U.S. dollars into euros, increased the carrying amount by EUR 0.6 billion. By contrast, depreciation, amortization and impairment losses of EUR 8.8 billion overall, and disposals of EUR 0.6 billion reduced the carrying amount. Of these disposals, EUR 0.3 billion was attributable to terminal equipment returned by customers under the JUMP! On Demand model.

Other non-current assets developed as follows until December 31, 2018: Other non-current financial assets decreased by EUR 4.1 billion to EUR 1.6 billion. On March 23, 2018, we transferred our 12 percent financial stake in BT, which was worth EUR 3.1 billion at the time, to the Group's own trust, Deutsche Telekom Trust e.V., where it will serve as plan assets to cover pension entitlements. The impairment loss on the exchange-traded stake in BT – which was recognized in other comprehensive income for the period from January 1, 2018 until the date of transfer – reduced the carrying amount by EUR 0.7 billion. Negative effects from the remeasurement of derivative financial instruments as of the reporting date also reduced the carrying amount.

Our current and non-current financial liabilities increased by EUR 4.7 billion compared with the prior year to EUR 62.3 billion in total. This was mainly due to the euro bonds with a total volume of EUR 3.4 billion issued by Deutsche Telekom International Finance B.V., U.S. dollar bonds with a total volume of EUR 1.5 billion (USD 1.75 billion), and pound sterling bonds with a total volume of EUR 0.3 billion (GBP 0.3 billion), as well as to the bonds issued by T-Mobile US with a volume of EUR 2.0 billion (USD 2.5 billion). In addition, OTE issued a euro bond with a volume of EUR 0.4 billion. The settlement agreed in the Toll Collect arbitration proceedings increased financial liabilities by EUR 0.6 billion. Payment of the first tranche of EUR 0.2 billion in the reporting year reduced financial liabilities. The early repayment of T-Mobile US' debt instruments in the amount of EUR 2.7 billion (USD 3.4 billion) and regular repayments in the Group of euro bonds of EUR 1.1 billion and U.S. dollar bonds of EUR 0.7 billion (USD 0.85 billion) also decreased the carrying amount of financial liabilities. The initial recognition and measurement of forward-payer swaps with a total volume of USD 9.6 million in the United States operating segment gave rise to a remeasurement loss recognized directly in equity of EUR 0.4 billion.

Trade and other payables decreased from EUR 11.0 billion at the end of 2017 to EUR 10.7 billion. A decline in liabilities in the United States operating segment was offset by a slight increase in liabilities in the Germany operating segment. Exchange rate effects from the translation from U.S. dollars into euros had an increasing effect.

Current and non-current **provisions** decreased substantially against the prior-year level by EUR 3.0 billion to EUR 11.9 billion, of which EUR 5.5 billion (December 31, 2017: EUR 8.4 billion) related to provisions for pensions and other employee benefits. The decrease is mainly due to the transfer of our stake in BT and the associated netting of these plan assets with the defined benefit obligations. At EUR 6.4 billion, other provisions were slightly lower than in the prior year.

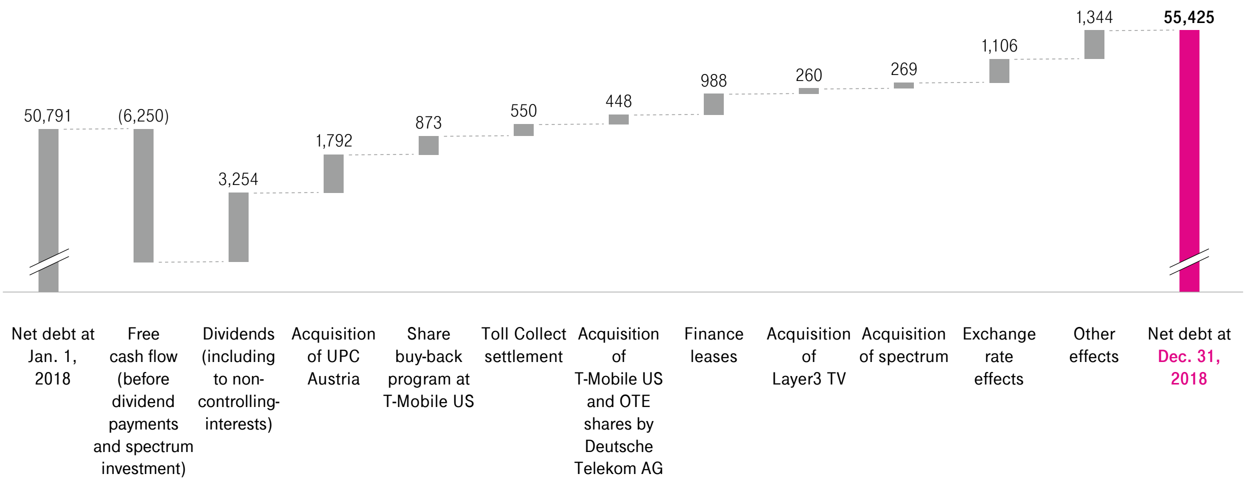
Shareholders' equity increased from EUR 42.5 billion as of December 31, 2017 to EUR 43.4 billion. This increase was attributable in particular to the net profit of EUR 3.3 billion and to the transition to IFRS 9 and 15. The cumulative effect of this was an increase of EUR 1.5 billion in retained earnings (including shares attributable to non-controlling interests) recognized directly in equity as of January 1, 2018. Currency translation effects of EUR 1.0 billion recognized directly in equity and capital increases from share-based payments of EUR 0.4 billion, especially in our United States operating segment, also increased shareholders' equity. By contrast, the carrying amount was reduced in particular by dividend payments for the 2017 financial year to Deutsche Telekom AG shareholders in the amount of EUR 3.1 billion and to non-controlling interests in the amount of EUR 0.2 billion. In addition, transactions with owners reduced shareholders' equity by a further EUR 1.4 billion. These transactions include EUR 0.9 billion for T-Mobile US' share buy-back program, EUR 0.3 billion for the acquisition of another 5 percent stake in the Greek subsidiary OTE, and EUR 0.2 billion for the T-Mobile US shares acquired by Deutsche Telekom in the first quarter of 2018. Furthermore, the subsequent measurement in other comprehensive income of equity instruments held reduced the carrying amount by EUR 0.6 billion; this figure includes the impairment loss of EUR 0.7 billion on the exchange-traded stake in BT that was recognized in other comprehensive income for the period from January 1, 2018 through March 23, 2018.

For further information on the development of financial liabilities, please refer to Note 12 "Financial liabilities" in the notes to the consolidated financial statements, **page 196 et seq.**

Calculation of net debt
millions of €

	Dec. 31, 2018	Dec. 31, 2017	Change	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014
Financial liabilities (current)	10,527	8,358	2,169	14,422	14,439	10,558
Financial liabilities (non-current)	51,748	49,171	2,577	50,228	47,941	44,669
FINANCIAL LIABILITIES	**62,275**	**57,529**	**4,746**	**64,650**	**62,380**	**55,227**
Accrued interest	(719)	(692)	(27)	(955)	(1,014)	(1,097)
Other	(928)	(781)	(147)	(1,029)	(857)	(1,038)
GROSS DEBT	**60,628**	**56,056**	**4,572**	**62,666**	**60,509**	**53,092**
Cash and cash equivalents	3,679	3,312	367	7,747	6,897	7,523
Available-for-sale financial assets/financial assets held for trading	0	7	(7)	10	2,877	289
Derivative financial assets	870	1,317	(447)	2,379	2,686	1,343
Other financial assets	654	629	25	2,571	479	1,437
NET DEBT	**55,425**	**50,791**	**4,634**	**49,959**	**47,570**	**42,500**

Changes in net debt
millions of €



Our **net debt** increased by EUR 4.6 billion year-on-year to EUR 55.4 billion. The reasons for this are presented in the graphic above. Other effects of EUR 1.3 billion include, among other factors, liabilities for the acquisition of media broadcasting rights and financing options under which the payments for trade payables become due at a later point in time by involving banks in the process. Remeasurement losses from forward payer swaps recognized directly in equity are also included.

Off-balance sheet assets and other financing formats. In addition to the assets recognized in the statement of financial position, we use off-balance-sheet assets. This primarily relates to leased property.

For further information, please refer to Note 37 “Leases,” **pages 232 and 233**, and Note 38 “Other financial obligations,” **page 234**, in the notes to the consolidated financial statements.

Off-balance-sheet financial instruments mainly relate to the sale of receivables by means of factoring. Total receivables sold as of December 31, 2018 amounted to EUR 4.7 billion (December 31, 2017: EUR 4.7 billion). This mainly relates to factoring agreements in the United States and Germany operating segments. The agreements are used in particular for active receivables management.

Furthermore, in the reporting year, we chose financing options totaling EUR 0.2 billion (2017: EUR 0.3 billion) which extended the period of payment for trade payables from operating and investing activities by involving banks in the process and which upon payment are shown under cash flows used in/from financing activities. As a result, we show these payables under financial liabilities in the statement of financial position.

In 2018, we leased network equipment for a total of EUR 1.0 billion (2017: EUR 1.0 billion), primarily in the United States operating segment, which is recognized as a finance lease. In the statement of financial position, we therefore also recognize this item under financial liabilities and the future repayments of the liabilities in net cash from/used in financing activities.

Finance management. Our finance management ensures our Group’s ongoing solvency and hence its financial equilibrium. The fundamentals of Deutsche Telekom’s finance policy are established each year by the Board of Management and overseen by the Supervisory Board. Group Treasury is responsible for implementing the finance policy and for ongoing risk management.

The rating of Deutsche Telekom AG

	Standard & Poor’s	Moody’s	Fitch
LONG-TERM RATING			
Dec. 31, 2014	BBB+	Baa1	BBB+
Dec. 31, 2015	BBB+	Baa1	BBB+
Dec. 31, 2016	BBB+	Baa1	BBB+
Dec. 31, 2017	BBB+	Baa1	BBB+
DEC. 31, 2018	**BBB+**	**Baa1**	**BBB+**
OUTLOOK	**CreditWatch negative**	**Negative**	**Stable**
SHORT-TERM RATING	**A-2**	**P-2**	**F2**

Financial flexibility

	2018	2017	2016	2015	2014
RELATIVE DEBT: Net debt / EBITDA (adjusted for special factors)	2.4 x	2.3 x	2.3 x	2.4 x	2.4 x
EQUITY RATIO %	29.9	30.0	26.2	26.5	26.3

To ensure financial flexibility, we primarily use the KPI relative debt. This is a core component of our finance strategy and an important performance indicator for investors, analysts, and rating agencies.

Condensed consolidated statement of cash flows
millions of €

	2018	2017	2016
NET CASH FROM OPERATING ACTIVITIES	17,948	17,196	15,533
Cash outflows for investments in intangible assets (excluding goodwill and before spectrum investment) and property, plant and equipment (CASH CAPEX)	(12,223)	(12,099)	(10,958)
Proceeds from disposal of intangible assets (excluding goodwill) and property, plant and equipment	525	400	364
FREE CASH FLOW (BEFORE DIVIDEND PAYMENTS AND SPECTRUM INVESTMENT)	6,250	5,497	4,939
NET CASH USED IN INVESTING ACTIVITIES	(14,297)	(16,814)	(13,608)
NET CASH USED IN FINANCING ACTIVITIES	(3,259)	(4,594)	(1,322)
Effect of exchange rate changes on cash and cash equivalents	(17)	(226)	250
Changes in cash and cash equivalents associated with non-current assets and disposal groups held for sale	(8)	3	(3)
Net increase (decrease) in cash and cash equivalents	367	(4,435)	850
CASH AND CASH EQUIVALENTS	3,679	3,312	7,747

Free cash flow. Free cash flow of the Group before dividend payments and spectrum investment grew from EUR 5.5 billion in the prior year to EUR 6.2 billion, with **net cash from operating activities** increasing by EUR 0.8 billion to EUR 17.9 billion. Exchange rate effects adversely affected the positive business trend in the United States operating segment. In addition, positive effects from factoring agreements – in particular in the Systems Solutions and Germany operating segments – on net cash from operating activities were EUR 0.3 billion lower than in the prior year. A EUR 0.1 billion increase in income tax payments compared with the prior year also had a negative impact. Furthermore, the comparable figure in the prior year included a EUR 0.1 billion higher dividend payment from BT (totaling EUR 0.2 billion), while the profit of EUR 0.1 billion distributed by Toll Collect GmbH was a key component in the reporting year. A decrease of EUR 0.8 billion in net interest payments compared with the prior year, mainly due to the fact that T-Mobile US has increasingly been financed internally since 2017, and that refinancing terms continue to be favorable, had a positive effect on the trend in net cash from operating activities.

Cash capex (before spectrum investment) increased by EUR 0.1 billion compared with 2017. Capital expenditures were focused primarily on the United States, Germany, and Europe operating segments and went toward the build-out and upgrade of our networks. Adjusted for exchange rate effects, cash capex was significantly higher overall than in the prior year.

For further information on the statement of cash flows, please refer to Note 34 "Notes to the consolidated statement of cash flows" in the notes to the consolidated financial statements, page 223 et seq.

For detailed information, please refer to the IR back-up at **www.telekom.com/en/investor-relations** (content not audited by the external auditor).

DEVELOPMENT OF BUSINESS IN THE OPERATING SEGMENTS

GERMANY

CUSTOMER DEVELOPMENT

For information on changes in the organizational structure, please refer to the section "Group organization," **page 31 et seq.**, and Note 35 "Segment reporting" in the notes to the consolidated financial statements, **page 226 et seq.**

thousands

	Dec. 31, 2018	Dec. 31, 2017	Change	Change %	Dec. 31, 2016
Mobile customers	44,202	43,125	1,077	2.5	41,849
Contract customers	25,435	25,887	(452)	(1.7)	25,219
Prepay customers	18,767	17,238	1,529	8.9	16,630
Fixed-network lines [a]	18,625	19,239	(614)	(3.2)	19,786
Of which: retail IP-based	15,356	11,996	3,360	28.0	9,042
Retail broadband lines [b]	13,561	13,209	352	2.7	12,922
Of which: optical fiber	7,236	5,803	1,433	24.7	4,250
Television (IPTV, satellite)	3,353	3,139	214	6.8	2,879
Unbundled local loop lines (ULLs)	5,236	6,138	(902)	(14.7)	7,195
Wholesale broadband lines	6,722	5,639	1,083	19.2	4,377
Of which: optical fiber	4,970	3,783	1,187	31.4	2,555

[a] The baseline as of January 1, 2018 increased (by 62 thousand) due to the inclusion of new products launched in the Business Customer portfolio. Prior-year comparatives were not adjusted.
[b] The baseline as of January 1, 2018 increased (by 53 thousand) due to the inclusion of new products launched in the Business Customer portfolio. Prior-year comparatives were not adjusted.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

FINANCE

Total

In Germany we continue to be market leader both in terms of fixed-network and mobile revenues. This success is attributable to our high-performance networks. SDG 9 We offer best customer experience with multi-award winning network quality – like in the connect readers' choice awards where we came top of the fixed and mobile provider categories – and a broad portfolio of products. Due to the growing demand for our convergent product MagentaEINS the number of new customers increased by 642 thousand year-on-year, bringing the total number of customers to 4.3 million at the end of 2018.

In mobile communications, we won another 1,077 thousand customers in 2018. High demand for mobile rate plans with included data volumes resulted in an increase in the number of branded contract customers under the Telekom and congstar brands. Business fluctuations at one of our service providers in 2018, due in part to the deregistration of inactive SIM cards, had a negative impact overall on customer development. We recorded growth in the number of prepay customers.

By the end of 2018, we had migrated 21.9 million retail and wholesale lines to IP, which corresponds to an overall migration rate of 86 percent.

We continued to see strong demand for our fiber-optic products. As of the end of 2018, the number of lines had increased to 12.2 million overall. In other words, we connected another 2.6 million lines to our fiber-optic network in Germany in the course of the reporting year. With the progress made in fiber-optic rollout and innovative vectoring technology, we also drove the marketing of higher bandwidths.

Mobile communications

In 2018, we won a total of 329 thousand contract customers under the Telekom and congstar brands and at Telekom Deutschland Multibrand GmbH. The number of mobile contract customers with service providers decreased, primarily due to business fluctuations – in part from the deregistration of inactive SIM cards – at one of our service providers. The number of prepay customers increased by 1,529 thousand.

Fixed network

Due to the persistently challenging development in the fixed-network market, primarily owing to aggressive pricing offers of competitors, we are pursuing new paths in marketing. Our focus is on convergent offerings, such as the market launch of MagentaTV in October 2018 with exclusive access to a wide range of extra content from the German TV stations ARD and ZDF, and our TV and fiber-optic lines. As a result, in 2018 the number of broadband lines grew by 299 thousand and the number of TV customers by 214 thousand. In the traditional fixed network, the number of lines decreased by 676 thousand.

Our MagentaZuhause rate plans offer a comprehensive product portfolio for the fixed network based on IP technology and rate plan-specific bandwidths. MagentaZuhause Hybrid bundles fixed-network and mobile technology in a single router. To date, 458 thousand customers, primarily based in rural areas, have selected this innovative product.

Wholesale
As of December 31, 2018, fiber-optic lines accounted for 41.6 percent of all lines – 9.5 percentage points higher than the prior-year figure. This accelerated growth was driven largely by high demand for our contingent model. The number of unbundled local loop lines decreased by 902 thousand or 14.7 percent compared with the end of the prior year. This is due first to the move to higher-quality fiber-optic lines, and second to retail customers switching to cable operators. In addition, wholesale customers are migrating their retail customers to their own fiber-optic lines. The total number of lines in the wholesale sector increased compared with 2017 to 12.0 million.

DEVELOPMENT OF OPERATIONS

millions of €

		2018	2017	Change	Change %	2016
TOTAL REVENUE		21,700	21,931	(231)	(1.1)	21,774
Consumers		11,543	11,797	(254)	(2.2)	11,739
Business Customers[a]		6,082	6,017	65	1.1	5,923
Wholesale		3,720	3,747	(27)	(0.7)	3,742
Other[a]		355	370	(15)	(4.1)	370
Profit from operations (EBIT)		3,969	4,276	(307)	(7.2)	3,552
EBIT margin	%	18.3	19.5			16.3
Depreciation, amortization and impairment losses		(4,042)	(3,828)	(214)	(5.6)	(3,703)
EBITDA		8,012	8,104	(92)	(1.1)	7,256
Special factors affecting EBITDA		(598)	(308)	(290)	(94.2)	(905)
EBITDA (ADJUSTED FOR SPECIAL FACTORS)		8,610	8,412	198	2.4	8,161
EBITDA margin (adjusted for special factors)	%	39.7	38.4			37.5
CASH CAPEX		(4,240)	(4,214)	(26)	(0.6)	(4,031)

[a] As of July 1, 2017, a share of revenue previously recognized under “Other” was assigned to Business Customers on account of a reorganization. Prior-year comparatives were not adjusted.

Total revenue
Total revenue decreased by 1.1 percent year-on-year in 2018. Adjusted for the effects of the IFRS 15 accounting standard, the application of which is mandatory from January 1, 2018, total revenue developed on a par with the prior year. In mobile business, revenue declined by 2.0 percent year-on-year; excluding the effects of IFRS 15, revenue increased compared with the prior year. Higher IT and broadband revenues had a positive impact on fixed-network revenue. This was sufficient to almost completely offset the year-on-year decrease in fixed-network revenues (primarily from voice components).

Revenue from Consumers declined by 2.2 percent year-on-year; adjusted for the effects of IFRS 15, the decline was only marginal. Volume-related revenue decreases continued to affect traditional fixed-network business. By contrast, revenue from broadband business increased.

Revenue from Business Customers grew by 1.1 percent; this growth was even slightly stronger once adjusted for the effects of IFRS 15. Mobile revenues increased by 2.6 percent and IT revenues by 22.1 percent compared with 2017. In the fixed network, by contrast, a decline was recorded in traditional voice telephony, due largely to the increasing number of customers moving to flat-rate plans.

Wholesale revenue was down slightly year-on-year. Adjusted for the effects of IFRS 15, revenue would have grown.

EBITDA, adjusted EBITDA
EBITDA amounted to EUR 8.0 billion in 2018, a decline of 1.1 percent against the prior year, due mainly to higher special factors for expenses in connection with our staff restructuring. EBITDA adjusted for special factors totaled EUR 8.6 billion in the reporting year, up 2.4 percent compared with the prior year. This year-on-year increase was attributable largely to the lower headcount and the successful implementation of our efficiency and digitalization initiatives. Our adjusted EBITDA margin increased to 39.7 percent, up from 38.4 percent in the prior year.

EBIT
Profit from operations decreased by 7.2 percent year-on-year to EUR 4.0 billion. In addition to the effects described under EBITDA, depreciation, amortization and impairment losses increased on account of sustained high investments in our network infrastructure.

Cash capex
Cash capex increased by 0.6 percent year-on-year. As part of our integrated network strategy, we again made significant investments in the broadband and fiber-optic rollout, our IP transformation, and our mobile infrastructure.

For information on changes in the organizational structure, please refer to the section "Group organization," page 31 et seq.

UNITED STATES
CUSTOMER DEVELOPMENT

thousands

	Dec. 31, 2018	Dec. 31, 2017	Change	Change %	Dec. 31, 2016
Mobile customers	79,651	72,585	7,066	9.7	71,455
Branded customers [a]	63,656	58,715	4,941	8.4	54,240
Branded postpaid [a]	42,519	38,047	4,472	11.8	34,427
Branded prepay [a]	21,137	20,668	469	2.3	19,813
Wholesale customers [b]	15,995	13,870	2,125	15.3	17,215

[a] Due to certain acquisitions by T-Mobile US at the beginning of 2018, the number of branded postpaid customers as of the first quarter of 2018 included an adjustment of 13 thousand and the number of branded prepay customers as of the first quarter of 2018 included an adjustment of 9 thousand.

[b] T-Mobile US believes current and future regulatory changes have made the Lifeline program offered by T-Mobile US' wholesale partners uneconomical. T-Mobile US will continue to support its wholesale partners offering the Lifeline program, but has excluded the Lifeline customers from the reported wholesale subscriber base resulting in the removal of 4,528 thousand reported wholesale customers in 2017.

Total

At December 31, 2018, the United States operating segment (T-Mobile US) had 79.7 million customers, compared to 72.6 million customers at December 31, 2017. Net customer additions were 7.0 million for the year ended December 31, 2018, compared to 5.7 million net customer additions for the year ended December 31, 2017 due to the factors described below.

Branded customers. Branded postpaid net customer additions were 4,459 thousand for the year ended December 31, 2018, compared to 3,620 thousand branded postpaid net customer additions for the year ended December 31, 2017. The increase in branded postpaid net customer additions was due primarily to higher gross customer additions from wearables, specifically the Apple watch, lower churn, continued growth in existing and greenfield markets, and the growing success of new customer segments such as T-Mobile ONE™ Unlimited 55+, T-Mobile ONE Military and T-Mobile for Business. These increases were partially offset by the impact from more aggressive service promotions and the launch of Un-carrier Next – All Unlimited (with taxes and fees) in the first quarter of 2017.

Branded prepay net customer additions were 460 thousand for the year ended December 31, 2018, compared to 855 thousand branded prepay net customer additions for the year ended December 31, 2017. The decrease was due primarily to increased competitive activity in the marketplace, partially offset by lower migrations to branded postpaid plans.

Wholesale customers. Wholesale net customer additions were 2,125 thousand for the year ended December 31, 2018, compared to 1,183 thousand for the year ended December 31, 2017. The increase was due primarily to lower deactivations driven by the removal of Lifeline program customers during 2017.

DEVELOPMENT OF OPERATIONS

millions of €

		2018	2017	Change	Change %	2016
TOTAL REVENUE		36,522	35,736	786	2.2	33,738
Profit from operations **(EBIT)**		4,634	5,930	(1,296)	(21.9)	3,685
EBIT margin	%	12.7	16.6			10.9
Depreciation, amortization and impairment losses		(5,294)	(5,019)	(275)	(5.5)	(5,282)
EBITDA		9,928	10,949	(1,021)	(9.3)	8,967
Special factors affecting EBITDA		(160)	1,633	(1,793)	n. a.	406
EBITDA (ADJUSTED FOR SPECIAL FACTORS)		10,088	9,316	772	8.3	8,561
EBITDA margin (adjusted for special factors)	%	27.6	26.1			25.4
CASH CAPEX		(4,661)	(11,932)	7,271	60.9	(5,855)

Total revenue
Total revenue for the United States operating segment of EUR 36.5 billion in 2018 increased by 2.2 percent, compared to EUR 35.7 billion in 2017. In U.S. dollars, T-Mobile US' total revenues increased by 6.8 percent year-on-year due primarily to growth in service revenue from increases in T-Mobile US' average branded customer base primarily from the continued growth in existing and greenfield markets, the growing success of new customer segments such as T-Mobile ONE™ Unlimited 55+, T-Mobile ONE Military, and T-Mobile for Business, along with lower postpaid churn in 2018, and higher connected devices, partially offset by lower branded postpaid Average Revenue per User (ARPU). Additionally, the increase in equipment revenues from a higher average revenue per device sold due to an increase in the high-end device mix and a positive impact from IFRS 15 since January 1, 2018, partially offset by a decrease in the number of devices sold and lower volumes of purchased leased devices at the end of the lease term, also contributed to the increase in total revenues.

EBITDA, adjusted EBITDA
In euros, adjusted EBITDA increased by 8.3 percent to EUR 10.1 billion in 2018, compared to EUR 9.3 billion in 2017. Adjusted EBITDA margin increased to 27.6 percent in 2018, compared to 26.1 percent in 2017. In U.S. dollars, adjusted EBITDA increased by 13.6 percent during the same period. Adjusted EBITDA increased due primarily to higher total revenues as discussed above, the positive impact of the reimbursements from our insurance carriers, net of costs incurred related to hurricanes, for 2018 of USD 247 million, compared to costs incurred related to hurricanes for 2017 of USD 294 million, as well as from the positive impact from IFRS 15 and lower losses on equipment sales. These increases were partially offset by higher employee-related costs, costs related to managed services, higher lease, employee-related and repair and maintenance costs associated with network expansion, higher commissions, and lower gains on the disposal of spectrum.

EBITDA for 2018 included special factors of EUR -0.2 billion compared to special factors of EUR 1.6 billion for 2017. Special factors in 2018 mainly included costs related to the proposed Sprint transaction. The decrease in special factors was primarily due to a spectrum impairment reversal in 2017. Overall, EBITDA decreased by 9.3 percent to EUR 9.9 billion in 2018, compared to EUR 10.9 billion in 2017, due to the factors described above, including special factors.

EBIT
EBIT decreased to EUR 4.6 billion in 2018 compared to EUR 5.9 billion in 2017 driven by lower EBITDA and higher depreciation related to the continued build-out of our 4G LTE network, and the implementation of the first component of our new billing system.

Cash capex
Cash capex decreased to EUR 4.7 billion in 2018, compared to EUR 11.9 billion in 2017. In U.S. dollars, cash capex decreased to USD 5.5 billion compared to USD 13.2 billion in 2017, due primarily to spectrum licenses acquired in 2017. Excluding the effects of spectrum acquisitions, the increase in cash capex from 2017 to 2018 was not significant. Cash capex in 2018 was related to network build and the continued deployment of 600 MHz.

For information on changes in the organizational structure, please refer to the section “Group organization,” page 31 et seq., and Note 35 “Segment reporting” in the notes to the consolidated financial statements, page 226 et seq.

EUROPE
CUSTOMER DEVELOPMENT

thousands

		Dec. 31, 2018	Dec. 31, 2017	Change	Change %	Dec. 31, 2016
EUROPE, TOTAL	Mobile customers	50,542	48,842	1,700	3.5	47,952
	Contract customers	26,665	25,483	1,182	4.6	24,315
	Prepay customers	23,877	23,359	518	2.2	23,637
	Fixed-network lines	9,068	8,439	629	7.5	8,531
	Of which: IP-based	7,420	5,734	1,686	29.4	5,016
	Broadband customers [a]	6,405	5,530	875	15.8	5,291
	Television (IPTV, satellite, cable)	4,835	4,244	591	13.9	4,049
	Unbundled local loop lines (ULLs)/wholesale PSTN	2,275	2,265	10	0.4	2,259
	Wholesale broadband lines	411	389	22	5.7	370
GREECE	Mobile customers	7,893	7,981	(88)	(1.1)	7,725
	Fixed-network lines	2,566	2,547	19	0.7	2,564
	Broadband customers [a]	1,893	1,757	136	7.7	1,631
ROMANIA	Mobile customers	5,360	5,258	102	1.9	5,722
	Fixed-network lines	1,741	1,865	(124)	(6.6)	1,969
	Broadband customers [a]	1,101	1,134	(33)	(2.9)	1,148
HUNGARY	Mobile customers	5,330	5,293	37	0.7	5,332
	Fixed-network lines	1,663	1,632	31	1.9	1,629
	Broadband customers [a]	1,148	1,073	75	7.0	1,012
POLAND	Mobile customers	10,787	10,454	333	3.2	10,634
	Fixed-network lines	18	32	(14)	(43.8)	20
	Broadband customers [a]	18	25	(7)	(28.0)	40
CZECH REPUBLIC	Mobile customers	6,188	6,176	12	0.2	6,049
	Fixed-network lines	318	197	121	61.4	140
	Broadband customers [a]	251	176	75	42.6	141
CROATIA	Mobile customers	2,273	2,244	29	1.3	2,234
	Fixed-network lines	931	967	(36)	(3.7)	1,001
	Broadband customers [a]	618	624	(6)	(1.0)	618
SLOVAKIA	Mobile customers	2,369	2,243	126	5.6	2,225
	Fixed-network lines	853	858	(5)	(0.6)	850
	Broadband customers [a]	543	516	27	5.2	479
AUSTRIA [b]	Mobile customers	7,194	5,702	1,492	26.2	4,594
	Fixed-network lines	644	0	644	n. a.	0
	Broadband customers [a]	594	0	594	n. a.	0
OTHER [c]	Mobile customers	3,149	3,490	(341)	(9.8)	3,438
	Fixed-network lines	333	340	(7)	(2.1)	358
	Broadband customers [a]	238	225	13	5.8	222

[a] Starting Q2 2018, we no longer report the number of retail broadband lines from a technical perspective. Instead we report the number of broadband customers. Prior-year comparatives have been adjusted.

[b] Following the acquisition of UPC Austria, we report fixed-network lines and broadband customers in Austria for the first time from Q3 2018.

[c] “Other”: national companies of Albania, Macedonia, and Montenegro, as well as the lines of the GTS Central Europe group in Romania.

Total

The markets in our segment remained intensely competitive throughout the reporting year. We rose to the challenge in several ways, for instance by achieving substantial growth in 2018 of 49.9 percent in the number of FMC customers (fixed-mobile convergence), thanks in part to our convergent product portfolio, MagentaOne. The acquisition of UPC Austria as of July 31, 2018 in particular contributes to our aim of becoming an integrated provider of mobile and fixed-network products across our entire segment. We also concluded an agreement with Orange in July of this year that will enable us to offer comprehensive convergent services in Poland in the future, thanks to the shared use of Orange's fiber-optic network. In addition to the agreement with Orange, T-Mobile Polska signed another wholesale FTTH agreement with network operator Nexera, covering more than 450 thousand further households to be connected by the end of 2020. Our broadband and TV operations are becoming consistent revenue drivers, not least thanks to the large-scale build-out of our network with state-of-the-art fiber-optic-based lines (FTTH, FTTB, and FTTC). As a result, the number of IP lines increased by 29.4 percent to 7.4 million as of December 31, 2018, primarily thanks to the migration from traditional PSTN lines to IP technology. Our mobile operations recorded growth overall, with increases in both the number of high-value contract customers and the number of prepay customers compared with the end of the prior year.

Mobile communications

The number of mobile customers totaled 50.5 million at the end of the reporting year, up by 3.5 percent or 1.7 million customers compared with the end of 2017. The number of contract customers continued to grow throughout the fourth quarter of 2018, bringing the total number of customers won in the reporting year to 1.2 million, an increase of 4.6 percent. These additions include the customer base of UPC Austria starting from the third quarter of 2018. Overall, our national companies reported positive trends in their customer base, especially in Poland, Romania, Hungary, Austria, and the Czech Republic. Contract customers accounted for 52.8 percent of the total customer base. Our customers benefited not only from our innovative services/rate plans, but also from greater coverage with fast mobile broadband – a result of our integrated network strategy. As of December 31, 2018, we already covered 97 percent of the population in the countries of our operating segment with LTE, reaching around 109 million people in total. Customer demand for high data volumes has risen sharply due to the explosion in data traffic driven by video streaming services, for example. The number of prepay customers grew by 2.2 percent or 518 thousand.

Fixed network

Our TV and entertainment services saw substantial growth of 13.9 percent as of December 31, 2018, driven primarily by the acquisition of UPC Austria. But even without this effect, customer growth would have stood at 3.2 percent, with our national companies in Hungary, the Czech Republic, and Slovakia accounting for the majority of these net customer additions. With both telecommunication providers and OTT players offering TV services in the countries of our segment, the TV market there is highly contested.

The number of broadband customers increased by 15.8 percent as of the end of the reporting year to 6.4 million, with the acquisition of UPC Austria accounting for the majority of these net customer additions. Without this effect, there would have been growth of 5.7 percent. In particular, the customer bases of our national companies in Greece, the Czech Republic, Hungary, and Slovakia saw growth, partly on the back of increased investment in innovative fiber-optic-based technologies. We continued to extend our fiber-optic coverage and, as of December 31, 2018, had reached 7.6 million households.

Consistent growth in IP-based lines as a percentage of all fixed-network lines confirms that we are making good progress: At the end of December 2018, this share amounted to 81.8 percent. The acquisition of UPC Austria increased the number of fixed-network lines in our Europe operating segment to 9.1 million overall, an increase of 7.5 percent. Without this effect, development would have remained stable.

FMC – fixed-mobile convergence

Our portfolio of convergent products, MagentaOne, remained highly popular with consumers across all of our integrated national companies. As of December 31, 2018, we had 3.3 million FMC customers; this corresponds to significant growth of 49.9 percent or 1.1 million net additions year-on-year. Our national companies in Greece and Hungary were the main drivers of this trend. We have also been increasingly successful in marketing our MagentaOne Business product to business customers.

DEVELOPMENT OF OPERATIONS

millions of €

		2018	2017	Change	Change %	2016
TOTAL REVENUE [a]		11,885	11,589	296	2.6	11,454
Greece		2,888	2,846	42	1.5	2,883
Romania		933	972	(39)	(4.0)	985
Hungary		1,889	1,808	81	4.5	1,673
Poland [a]		1,526	1,509	17	1.1	1,488
Czech Republic		1,047	1,011	36	3.6	959
Croatia		966	955	11	1.2	925
Slovakia		761	748	13	1.7	766
Austria		1,055	900	155	17.2	855
Other [b]		1,031	1,069	(38)	(3.6)	1,132
Profit from operations **(EBIT)**		744	462	282	61.0	1,184
EBIT margin	%	6.3	4.0			10.3
Depreciation, amortization and impairment losses		(3,013)	(3,157)	144	4.6	(2,589)
EBITDA		3,757	3,619	138	3.8	3,773
Special factors affecting EBITDA		(122)	(130)	8	6.2	(93)
EBITDA (ADJUSTED FOR SPECIAL FACTORS) [a]		3,880	3,749	131	3.5	3,866
Greece		1,180	1,135	45	4.0	1,120
Romania		138	166	(28)	(16.9)	175
Hungary		547	545	2	0.4	539
Poland [a]		390	419	(29)	(6.9)	482
Czech Republic		444	406	38	9.4	400
Croatia		398	386	12	3.1	374
Slovakia		322	315	7	2.2	302
Austria		345	266	79	29.7	258
Other [b]		116	110	6	5.5	215
EBITDA margin (adjusted for special factors)	%	32.6	32.3			33.8
CASH CAPEX		(1,887)	(1,874)	(13)	(0.7)	(2,600)

The contributions of the national companies correspond to their respective unconsolidated financial statements and do not take consolidation effects at operating segment level into account.

[a] The business of T-Systems Polska Sp. z o.o., which, in organizational terms, was previously assigned to the Systems Solutions operating segment, is now disclosed under the Europe operating segment as of September 1, 2017. Prior-year comparatives were not adjusted.

[b] "Other": national companies of Albania, Macedonia, and Montenegro, as well as IWS (International Wholesale), consisting of Deutsche Telekom Global Carrier (TGC, formerly International Carrier Sales & Solutions (ICSS)) and units assigned to TGC in the national companies, as well as the GTS Central Europe group in Romania, and the Europe Headquarters.

Total revenue

Our Europe operating segment generated total revenue of EUR 11.9 billion in the reporting year, a year-on-year increase of 2.6 percent. In organic terms, i.e., assuming constant exchange rates and adjusted for the inclusion of UPC Austria as of July 31, 2018, revenue increased slightly by 1.5 percent. The mandatory first-time application of the IFRS 15 accounting standard as of January 1, 2018 did not have a material effect on the development of revenues at segment level.

Our business customer operations made the biggest contribution to organic growth, driven mainly by the good development of ICT business in Hungary. Mobile revenue also increased year-on-year, with most of the countries in our operating segment contributing to this trend. Fixed-network revenue at segment level also increased slightly year-on-year in the core business, mainly due to the positive revenue effect from broadband and TV business, especially in Greece, Hungary, and Slovakia. These increases were offset by a decline in wholesale business.

Intense competition on the telecommunications markets had a negative impact on our revenue in some countries of our operating segment.

Revenue from **Consumers** increased by 3.4 percent compared with the prior year, driven mainly by mobile business. Revenue from fixed-network business rose, too, on the back of the trend in TV and broadband operations driven by our innovative TV and program management activities as well as the continuous rollout of fiber-optic technology in most of our national companies. In addition to higher terminal equipment revenues, strong growth in the number of FMC customers had a positive impact on revenue. This offset declining voice telephony revenues.

Revenue from **Business Customers**, especially in ICT, grew again in 2018, increasing 3.7 percent year-on-year. Core business with fixed-network and mobile communications remained stable as a result of our convergent SME solutions (MagentaOne Business), which we sell on the markets. We generated double-digit percentage figures compared with the prior year with our corporate customers in key ICT/cloud computing business as well as in the innovative smart city/IoT fields. In terms of digitalization, in 2018 we showed our customers in countries including Hungary and Croatia new, simpler, and faster ways to manage their contracts with Deutsche Telekom, using self-service apps and portals.

Wholesale revenue declined year-on-year, driven largely by falling levels of minute volumes resulting from the substitution of voice telephony with messenger services as well as negative price effects.

Looking at the development by country, our national companies in Hungary, Greece, Slovakia, and Poland made the largest contributions to the organic development of revenue in the reporting year. This more than offset the decline in revenue in Romania in particular, which was attributable to lower fixed-network revenue from voice telephony in particular. A smaller customer base combined with lower prices also had a negative impact on broadband and TV business. B2B/ICT business customer operations made a positive revenue contribution. Mobile business remained stable compared with the prior-year level – the positive effect of the increase in customer numbers was offset by lower prices.

EBITDA, adjusted EBITDA

Our Europe operating segment generated adjusted EBITDA of EUR 3.9 billion in the reporting year, a year-on-year increase of 3.5 percent. In organic terms, i.e., assuming constant exchange rates and adjusted for the inclusion of UPC Austria, adjusted EBITDA increased by 1.8 percent. We thus ended 2018 posting year-on-year growth for four quarters in succession.

The positive trend in adjusted organic EBITDA was driven both by the growth in revenue and by savings made in indirect costs, especially in Romania, Croatia, the Czech Republic, and Greece – in the latter primarily as a result of lower personnel costs. By contrast, in terms of direct costs, market investments and costs relating to the B2B/ICT operations increased. In addition, regulatory effects, including the reduction in EU roaming charges, reduced adjusted EBITDA.

Looking at the development by country, the increase in adjusted organic EBITDA was largely attributable to the positive trends at our national companies in Greece, the Czech Republic, Hungary, and Austria. Contrasting developments were reported primarily at the national companies in Poland and Romania. In Romania, adjusted EBITDA was down 16.9 percent year-on-year, attributable on the one hand to the lower revenue contribution and on the other to higher direct costs resulting in part from higher market investments and regulation-induced higher roaming costs. The decline in adjusted EBITDA was partially offset by improved cost efficiency with regard to staff-related expenses.

Our EBITDA increased by 3.8 percent year-on-year to EUR 3.8 billion, due primarily to higher adjusted EBITDA. At EUR -122 million, special factors were EUR 8 million lower than in the prior year. In organic terms, EBITDA grew by 2.1 percent.

Development of operations in selected countries

Greece. In Greece, revenue stood at EUR 2.9 billion in the reporting year, up year-on-year by 1.5 percent. This was driven primarily by higher mobile revenue and consistently high fixed-network revenue. Broadband business posted particularly strong growth as a result of the marketing of fiber-optic and vectoring lines. The growth trend continued in our B2B/ICT business customer operations and wholesale business. Intense competitive pressure caused TV revenues to decline year-on-year. The FMC offering developed positively, with rising customer numbers and corresponding revenues.

In the reporting year, adjusted EBITDA in Greece increased substantially year-on-year by 4.0 percent to EUR 1.2 billion, driven largely by improved cost efficiency, especially with regard to personnel costs.

Hungary. In Hungary, revenue in the reporting year grew substantially by 4.5 percent compared with the prior year to EUR 1.9 billion. In organic terms, it increased by 7.8 percent. This growth was driven by rising mobile service revenues and by fixed-network business with sustained clear revenue growth in B2B/ICT business customer operations. Broadband and TV business also made a positive contribution to revenue. Our MagentaOne portfolio of FMC products is enjoying success among consumers and business customers alike, a trend that is underpinned by growing customer numbers and a corresponding rise in revenue. Both service revenues and terminal equipment business performed well, which was attributable to our high-speed, high-reach mobile network.

At EUR 547 million, adjusted EBITDA remained virtually at the prior-year level. Organically, adjusted EBITDA increased by 3.7 percent.

Austria. In Austria, we generated revenue of EUR 1,055 million in the reporting year, up 17.2 percent compared with the prior year. This increase is attributable to the effects of the acquisition of UPC Austria, which now allows us to offer fixed-network technology in addition to the mobile broadband internet services already being successfully marketed to our customers. In organic terms, i.e., adjusted for the inclusion of UPC Austria, revenue would remain on a par with the prior-year level.

The increase in revenue also impacted adjusted EBITDA, which increased by 29.7 percent year-on-year to EUR 345 million. Adjusted for the acquisition of UPC Austria, adjusted EBITDA would have been 3.3 percent higher year-on-year.

Poland. Revenue at our national company in Poland increased by 1.1 percent year-on-year to EUR 1.5 billion; in organic terms, it increased by 1.2 percent. This was mainly a result of higher revenue in B2B/ICT business following the integration of our Systems Solutions operations in the prior year. Mobile business remained on a par with the prior-year level; the positive effect of the increase in customer numbers was offset by a negative price effect. Fixed-network business posted a decline in wholesale revenue.

Adjusted EBITDA stood at EUR 390 million, down 6.9 percent year-on-year. In organic terms, adjusted EBITDA decreased by 6.7 percent. The positive revenue contribution was offset by higher direct costs – in particular higher interconnection costs and regulation-induced higher roaming costs. Indirect costs also reduced adjusted EBITDA marginally year-on-year as a result of higher personnel costs in connection with setting up new shops. Overall, the revenue trend, especially in the sale of terminal equipment and in fixed-network business, as well as a need for increased investment due to technological development and requirements, resulted in a lowering of revenue and earnings expectations in Poland.

EBIT

EBIT in our Europe operating segment increased significantly by 61.0 percent in the reporting year to EUR 744 million, driven by the positive development in EBITDA and a 4.6 percent reduction in depreciation, amortization and impairment losses. The cyclical impairment tests carried out at the year-end resulted in impairment losses recognized on goodwill totaling EUR 0.6 billion in Poland and Romania. In the prior year, impairment losses on goodwill and on property, plant and equipment had reduced EBIT by EUR 0.9 billion. Impairment losses amounting to EUR 35 million were recognized on property, plant and equipment and intangible assets in the reporting year in connection with the sale of the shares in Telekom Albania agreed in January 2019.

Cash capex

In 2018, our Europe operating segment reported cash capex of EUR 1.9 billion, putting it on a par with the prior-year level. Alongside subdued investments at individual national companies, our capital expenditures were focused primarily on building out our broadband and fiber-optic technology in the Czech Republic and Austria as part of our integrated network strategy. We acquired a small number of spectrum licenses in the reporting year, predominantly in Hungary.

SYSTEMS SOLUTIONS
ORDER ENTRY

millions of €

	2018	2017	Change	Change %	2016
ORDER ENTRY	6,776	5,241	1,535	29.3	6,851

Development of business

We realigned our strategy for the Systems Solutions operating segment with a focus on returning to sustained growth in this area. Our previous investments in growth areas and innovation fields (such as the public cloud, the Internet of Things, all IP) along with efforts to scale back the number of risk-prone legacy contracts in our traditional IT operations mark important steps on our transformation journey. On this basis, we continue to realign the segment strategy to focus on consistently moving the business into strategic growth areas while simultaneously strengthening our telecommunications business and successfully managing the decline in traditional IT business.

With this in mind, we launched a comprehensive transformation program under which we realigned our organization and workflows, developed a new strategy for our portfolio, and created three offering clusters. Ten portfolio units and one emerging business unit will in future look after not only our traditional IT and telecommunications business, but also our growth areas (SAP, digital solutions, public cloud, security, Internet of Things, classified ICT, health, and toll collection systems).

Order entry in our Systems Solutions operating segment was up by 29.3 percent in the reporting year, marking a particularly positive development compared with the prior year. This is due in part to a number of big deals that we closed in traditional IT business this year, which compare with a lower volume included in the prior-year figure. Order entry in our growth areas also developed very well in the reporting year.

DEVELOPMENT OF OPERATIONS[a]

millions of €

		2018	2017	Change	Change %	2016
TOTAL REVENUE		6,936	6,918	18	0.3	6,993
Of which: external revenue		5,497	5,504	(7)	(0.1)	5,678
Loss from operations **(EBIT)**		(291)	(1,356)	1,065	78.5	(150)
Special factors affecting EBIT		(322)	(1,477)	1,155	78.2	(276)
EBIT (adjusted for special factors)		32	121	(89)	(73.6)	126
EBIT margin (adjusted for special factors)	%	0.5	1.7			1.8
Depreciation, amortization and impairment losses		(453)	(1,636)	1,183	72.3	(428)
EBITDA		163	280	(117)	(41.8)	278
Special factors affecting EBITDA		(266)	(229)	(37)	(16.2)	(252)
EBITDA (ADJUSTED FOR SPECIAL FACTORS)		429	509	(80)	(15.7)	530
EBITDA margin (adjusted for special factors)	%	6.2	7.4			7.6
CASH CAPEX		(462)	(383)	(79)	(20.6)	(402)

[a] The business of T-Systems Polska Sp. z o.o., which, in organizational terms, was previously assigned to the Systems Solutions operating segment, is now disclosed under the Europe operating segment as of September 1, 2017. Prior-year comparatives were not adjusted.

Total revenue

Total revenue in our Systems Solutions operating segment in the financial year amounted to EUR 6.9 billion, on a par with the prior-year level. Revenue in our growth areas developed positively, driven mainly by the public cloud, the Internet of Things, the healthcare industry, and toll collection systems. By contrast, revenue with traditional IT business declined year-on-year. This was primarily a result of the decline in our international corporate customer operations and the general falling market trend in our core market of Western Europe, as well as to deliberate portfolio decisions (such as the termination of end-user services).

EBITDA, adjusted EBITDA

In the reporting year, adjusted EBITDA at our Systems Solutions operating segment declined by EUR 80 million to EUR 429 million, which was in line with our expectations. The decrease was attributable primarily to the higher costs involved in establishing operations in growth areas, in particular in the Internet of Things and the healthcare market, and to higher financial burdens in our telecommunications business due to the ongoing migration to all IP. EBITDA decreased by EUR 117 million year-on-year to EUR 163 million, mainly due to the effects described under adjusted EBITDA. Special factors were up EUR 37 million year-on-year, attributable primarily to restructuring measures.

EBIT, adjusted EBIT

Adjusted EBIT in our Systems Solutions operating segment declined by EUR 89 million year-on-year, coming in at EUR 32 million. The effects described under adjusted EBITDA were the main drivers of this decrease. EBIT increased significantly year-on-year to EUR -291 million, attributable largely to an impairment loss on goodwill of EUR 1.2 billion that had been recognized in the prior year.

Cash capex

Cash capex in the Systems Solutions operating segment stood at EUR 462 million in the reporting year, compared with EUR 383 million in the prior year. Capital expenditures remain focused on developing our operations in growth areas, such as digital solutions, the Internet of Things, and toll collection systems. In parallel, we are investing in the upgrade of our in-house IT systems.

GROUP DEVELOPMENT

CUSTOMER DEVELOPMENT

thousands

		Dec. 31, 2018	Dec. 31, 2017	Change	Change %	Dec. 31, 2016
NETHERLANDS	Mobile customers	4,021	3,850	171	4.4	3,746
	Fixed-network lines	241	191	50	26.2	164
	Broadband customers	241	191	50	26.2	164

After successfully repositioning itself in the market, T-Mobile Netherlands posted year-on-year growth of 4.4 percent for the 2018 financial year with its mobile services for consumers and business customers. This was driven by a positive response to the rate plan portfolio, made particularly attractive thanks to high-volume and unlimited data packages, as well as growth in the business customer base. Despite intense competition, the number of fixed-network consumers increased by 50 thousand as a result of our attractive rate plan portfolio.

DEVELOPMENT OF OPERATIONS

millions of €

		2018	2017	Change	Change %	2016
TOTAL REVENUE		2,185	2,263	(78)	(3.4)	2,347
Of which: Netherlands		1,322	1,355	(33)	(2.4)	1,331
Profit from operations (EBIT)		560	1,504	(944)	(62.8)	2,730
Depreciation, amortization and impairment losses		(334)	(304)	(30)	(9.9)	(760)
EBITDA		893	1,808	(915)	(50.6)	3,490
Special factors affecting EBITDA		(27)	893	(920)	n. a.	2,547
EBITDA (ADJUSTED FOR SPECIAL FACTORS)		921	915	6	0.7	943
Of which: Netherlands		425	421	4	1.0	358
EBITDA margin (adjusted for special factors)	%	42.2	40.4			40.2
CASH CAPEX		(271)	(290)	19	6.6	(271)

Total revenue

Total revenue in our Group Development operating segment decreased in 2018 by 3.4 percent year-on-year, due to the forgone revenue following the sale of Strato effective March 31, 2017. Revenue at DFMG remained almost unchanged against the prior year. The positive effects on revenue at T-Mobile Netherlands of high mobile handset sales and growing fixed-network business were more than offset by negative effects from the mandatory application of the new IFRS 15 accounting standard as of January 1, 2018, as well as by regulatory effects including lower EU roaming charges and national termination rates.

EBITDA, adjusted EBITDA

EBITDA decreased year-on-year from EUR 1.8 billion to EUR 0.9 billion. Regular reviews of our investment portfolio prompted us to sell our stake in Strato and our remaining shares in Scout24 AG last year. The disposals resulted in income recognized as special factors of around EUR 0.7 billion. In addition, the prior year had included positive special factors of EUR 0.2 billion originating from a settlement agreement with BT concluded in July 2017.

Adjusted EBITDA in our Group Development operating segment was on a par with the prior-year level. Forgone earnings following the deconsolidation of Strato caused a decline. At T-Mobile Netherlands, adjusted EBITDA was up by 1.0 percent in the 2018 financial year due to positive customer development. Adjusted EBITDA at DFMG increased substantially by 3.7 percent year-on-year.

EBIT

EBIT decreased by EUR 0.9 billion year-on-year to EUR 0.6 billion, due primarily to the same factors described under EBITDA. Depreciation, amortization and impairment losses were higher than in the prior-year period, mainly due to higher capital expenditure on network capacity and quality at T-Mobile Netherlands.

Cash capex

Cash capex at our Group Development operating segment decreased in the 2018 financial year by 6.6 percent year-on-year as a result of lower investments in network build-out at T-Mobile Netherlands.

GROUP HEADQUARTERS & GROUP SERVICES

DEVELOPMENT OF OPERATIONS

millions of €

	2018	2017	Change	Change %	2016
TOTAL REVENUE	2,735	2,935	(200)	(6.8)	3,460
Loss from operations (EBIT)	(1,662)	(1,437)	(225)	(15.7)	(1,848)
Depreciation, amortization and impairment losses	(825)	(657)	(168)	(25.6)	(676)
EBITDA	(837)	(780)	(57)	(7.3)	(1,172)
Special factors affecting EBITDA	(322)	(119)	(203)	n. a.	(579)
EBITDA (ADJUSTED FOR SPECIAL FACTORS)	(515)	(661)	146	22.1	(594)
CASH CAPEX	(1,078)	(1,005)	(73)	(7.3)	(936)

For information on changes in the organizational structure, please refer to the section "Group organization," page 31 et seq., and Note 35 "Segment reporting" in the notes to the consolidated financial statements, page 226 et seq.

Total revenue

Total revenue in our Group Headquarters & Group Services segment in 2018 decreased by 6.8 percent year-on-year. This decline was mainly due to the fact that, as of January 2016, the costs of intragroup development services newly commissioned from Deutsche Telekom IT in Germany are no longer charged internally. Other reasons for the decrease were lower revenues from land and buildings, largely due to the ongoing optimization of space, and the forgone revenue from DeTeMedien following the completion of its sale in June 2017. Higher intragroup revenue at Deutsche Telekom IT from the licensing of the Group-wide ERP system had a positive effect.

EBITDA, adjusted EBITDA

Adjusted EBITDA at our Group Headquarters & Group Services improved by EUR 146 million year-on-year in the reporting year, mainly due to higher revenue at Deutsche Telekom IT from the licensing of the Group-wide ERP system, which does not impact on earnings at Group level. The reduction in headcount brought about by ongoing restructuring of the Vivento workforce also had a positive effect. By contrast, lower revenue from land and buildings had a negative impact on adjusted EBITDA.

Overall, negative net special factors of EUR 322 million affected EBITDA in the reporting year. Expenses for staff-related measures were partially offset by the positive effect of the reversal of provisions for legal risks in connection with the Toll Collect arbitration proceedings. In the prior year, negative net special factors totaled EUR 119 million and mainly comprised expenses for staff-related measures on the one hand and income from the sale of DeTeMedien on the other.

EBIT

EBIT declined by EUR 225 million year-on-year largely as a result of the same effects described under EBITDA and a EUR 168 million increase in depreciation, amortization and impairment losses. This increase was due, in particular, to higher depreciation and amortization caused by increased levels of capitalization at Deutsche Telekom IT. The latter were attributable to the fact that the costs of newly commissioned intragroup development services in Germany are no longer charged internally. This development was partially offset by lower depreciation, amortization and impairment losses from land and buildings as a result of our continued optimization of the real estate portfolio.

Cash capex

Cash capex increased by EUR 73 million year-on-year, primarily owing to increased investment in technology and innovation, mainly for development activities. In addition, cash capex for vehicles and the procurement of licenses increased, offset partially by lower investments in real estate-related construction and project services.

DEVELOPMENT OF BUSINESS AT DEUTSCHE TELEKOM AG

Deutsche Telekom AG prepares its annual financial statements in accordance with the principles of German GAAP, as specified in the German Commercial Code (Handelsgesetzbuch – HGB) and the German Stock Corporation Act (Aktiengesetz – AktG).

As the Headquarters of the Deutsche Telekom Group, we perform strategic and cross-segment management functions and provide services for other Group companies. The profits and losses of our subsidiaries and Group financing measures have a material effect on our financial position and results of operations. In our home market, revenue was at a comparable level with the prior year. Mobile revenues increased year-on-year, while higher IT and broadband revenues almost compensated for the decrease in revenue from the traditional fixed-network business. In our Systems Solutions operating segment, we recorded an upward trend in revenue in our growth business (in particular in cloud, Internet of Things, digital solutions, toll collection, and SAP), which, however, was offset by a year-on-year decrease in revenues from the traditional IT business. A positive revenue trend in our growth areas, but also lower roaming charges and ongoing intense competition had an impact on the Europe operating segment in 2018. In the United States operating segment, revenue increased as a result of higher service revenues. This increase was attributable to continued growth in existing and greenfield markets, the growing success of new business areas, along with lower postpaid churn, and higher connected devices.

Deutsche Telekom AG reported income after taxes for the 2018 financial year of EUR 4.2 billion. In addition to the operating business, the development of business in the reporting year was influenced by a number of very different factors, including the intragroup restructuring within the DFMG group, the equity repayment by T-Mobile Global Holding GmbH, Bonn, to T-Mobile Global Zwischenholding GmbH, Bonn, calculated at fair value, and the agreement in the Toll Collect arbitration proceedings.

RESULTS OF OPERATIONS OF DEUTSCHE TELEKOM AG

Statement of income of Deutsche Telekom AG under German GAAP (total cost method)
millions of €

	2018	2017	Change	Change %	2016
NET REVENUE	**3,546**	**3,603**	**(57)**	**(1.6)**	**3,927**
Other own capitalized costs	7	4	3	75.0	4
TOTAL OPERATING PERFORMANCE	**3,553**	**3,607**	**(54)**	**(1.5)**	**3,931**
Other operating income	2,672	2,769	(97)	(3.5)	2,120
Goods and services purchased	(1,024)	(1,060)	36	3.4	(1,151)
Personnel costs	(2,537)	(2,732)	195	7.1	(3,516)
Depreciation, amortization and write-downs	(289)	(341)	52	15.2	(338)
Other operating expenses	(4,521)	(4,251)	(270)	(6.4)	(3,570)
OPERATING RESULTS	**(2,146)**	**(2,008)**	**(138)**	**(6.9)**	**(2,524)**
Financial income (expense), net	6,488	7,151	(663)	(9.3)	4,717
Income taxes	(143)	(198)	55	27.8	(154)
INCOME AFTER INCOME TAXES	**4,199**	**4,945**	**(746)**	**(15.1)**	**2,039**
Other taxes	(13)	(18)	5	27.8	(19)
INCOME AFTER TAXES	**4,186**	**4,927**	**(741)**	**(15.0)**	**2,020**

The negative operating results increased by approximately EUR 0.1 billion year-on-year, due mainly to EUR 0.3 billion higher other operating expenses and a EUR 0.1 billion lower operating income compared with the prior year. Lower personnel costs of EUR 0.2 billion and a decline of EUR 0.1 billion in depreciation, amortization and write-downs had an offsetting effect.

Net revenue remained more or less unchanged from the prior-year level.

A decrease of EUR 0.4 billion in foreign currency translation gains and lower income from derivatives in connection with U.S. dollar contracts, and a decrease of EUR 0.2 billion in income from asset disposals were the main drivers of the year-on-year decline in other operating income, which was down by EUR 0.1 billion overall. By contrast, the write-ups on Deutsche Telekom Europe Holding GmbH, Bonn, of EUR 0.4 billion, and on T-Mobile Global Zwischenholding GmbH, Bonn, of EUR 0.1 billion, had a positive effect on other operating income.

The increase of EUR 0.3 billion in other operating expenses was mainly attributable to an expense of EUR 0.6 billion in connection with the agreement in the Toll Collect arbitration proceedings, an increase of EUR 0.1 billion in derivatives in connection with U.S. dollar contracts, and an increase of EUR 0.1 billion in other employee-related expenses. These effects were offset by a decrease of EUR 0.6 billion in foreign currency transaction losses resulting in particular from U.S. dollar contracts.

The year-on-year decrease in personnel costs of EUR 0.2 billion is mainly attributable to lower expenses arising from the early retirement program for civil servants.

Net financial income declined by EUR 0.7 billion to EUR 6.5 billion, primarily as a result of a EUR 1.5 billion decrease in income related to subsidiaries, associated and related companies. A decrease in write-downs on financial assets of EUR 1.0 billion compared with the previous year had an offsetting effect.

Income related to subsidiaries, associated and related companies, which declined by EUR 1.5 billion compared with the prior year, was positively affected in the reporting year by profits transferred by Telekom Deutschland GmbH, Bonn, of EUR 3.7 billion (2017: EUR 3.9 billion), DFMG Holding GmbH, Bonn, of EUR 2.5 billion (2017: EUR 3.8 billion), and T-Mobile Global Zwischenholding GmbH, Bonn, of EUR 1.6 billion (2017: EUR 1.4 billion). The transfer of the losses from Deutsche Telekom IT GmbH, Bonn, of EUR 0.7 billion (2017: EUR 0.5 billion) and T-Systems International GmbH, Frankfurt/Main, of EUR 0.3 billion (2017: EUR 0.3 billion), had an offsetting effect.

In addition to the operating business of the consolidated subsidiaries, the income related to subsidiaries, associated and related companies resulted from effects arising from reorganization measures as well as from an equity repayment, calculated at fair value, by T-Mobile Global Holding GmbH, Bonn. The loss arising from the intragroup sale, based on a valuation report, of the indirectly held interests in the BT Group plc, London, United Kingdom, had a negative effect on income related to subsidiaries, associated and related companies.

The increase in the net interest expense of EUR 0.2 billion compared with the prior year was primarily the result of an increase in expenses in connection with the interest added back on non-current accruals.

Income after income taxes was particularly impacted by the aforementioned effects and decreased by EUR 0.7 billion year-on-year in 2018.

Other tax expense of EUR 13 million combined with the aforementioned factors resulted in income after taxes of EUR 4,186 million in 2018. Taking into account EUR 2,845 million in unappropriated net income carried forward, unappropriated net income totaled EUR 7,031 million.

FINANCIAL POSITION OF DEUTSCHE TELEKOM AG

Balance sheet of Deutsche Telekom AG under German GAAP
millions of €

	Dec. 31, 2018	Dec. 31, 2018 %	Dec. 31, 2017	Change	Dec. 31, 2016
ASSETS					
Intangible assets	186	0.2	195	(9)	249
Property, plant and equipment	2,376	1.9	2,698	(322)	2,993
Financial assets	94,431	77.3	93,807	624	81,240
NONCURRENT ASSETS	**96,993**	**79.4**	**96,700**	**293**	**84,482**
Inventories	1	0.0	1	0	1
Receivables	22,325	18.3	22,073	252	16,308
Other assets	1,630	1.3	1,659	(29)	1,629
Cash and cash equivalents	680	0.6	157	523	208
CURRENT ASSETS	**24,636**	**20.2**	**23,890**	**746**	**18,146**
Prepaid expenses and deferred charges	522	0.4	676	(154)	516
Difference between plan assets and corresponding liabilities	7	0.0	51	(44)	36
TOTAL ASSETS	**122,158**	**100.0**	**121,317**	**841**	**103,180**
SHAREHOLDERS' EQUITY AND LIABILITIES					
Capital stock and reserves	53,015	43.4	53,011	4	51,651
Unappropriated net income	7,031	5.8	5,928	1,103	3,795
SHAREHOLDERS' EQUITY	**60,046**	**49.2**	**58,939**	**1,107**	**55,446**
Pensions and similar obligations	3,747	3.1	3,164	583	3,247
Tax accruals	238	0.2	238	0	238
Other accruals	2,377	1.9	2,321	56	1,642
ACCRUALS	**6,362**	**5.2**	**5,723**	**639**	**5,127**
Debt	6,705	5.5	6,398	307	5,021
Other liabilities	48,904	40.0	50,101	(1,197)	37,413
LIABILITIES	**55,609**	**45.5**	**56,499**	**(890)**	**42,434**
Deferred income	141	0.1	156	(15)	173
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES	**122,158**	**100.0**	**121,317**	**841**	**103,180**

In addition to shareholders' equity, our financial position is mainly determined by noncurrent assets and receivables from and payables to Group companies. Loans recognized under financial assets as well as receivables from and payables to subsidiaries primarily resulted from financing relationships between Deutsche Telekom AG and its subsidiaries, whereby financing on the external capital market is generally handled by Deutsche Telekom AG International Finance B.V., Maastricht, and passed on to Deutsche Telekom AG.

The balance sheet total increased by EUR 0.8 billion year-on-year to EUR 122.2 billion.

The development of total assets was primarily attributable to the increase of EUR 0.3 billion in noncurrent assets, of EUR 0.3 billion in receivables, and of EUR 0.5 billion in cash and cash equivalents. By contrast, prepaid expenses and deferred charges decreased by EUR 0.2 billion.

The growth in financial assets of EUR 0.6 billion year-on-year was mainly due to the capital increase at Deutsche Telekom Europe Holding GmbH, Bonn, of EUR 1.8 billion, and to write-ups on interests in subsidiaries of EUR 0.5 billion. Financial assets also increased as a result of the purchase of shares in Hellenic Telecommunications Organization S.A. (OTE), Athens, of EUR 0.3 billion, and due to loans to T-Mobile USA, Inc., Bellevue, and to Telekom Deutschland GmbH, Bonn, of EUR 0.1 billion in each case. The equity repayment by CTA Holding GmbH, Bonn, of EUR 1.3 billion and the intragroup sale of shares in CTA Holding GmbH, Bonn, of EUR 1.0 billion had an offsetting effect.

The decrease of EUR 0.3 billion in property, plant and equipment was primarily due to the depreciation of real estate.

The increase of EUR 0.3 billion in receivables was mainly due to an increase of EUR 0.8 billion in receivables from cash management, offset by a decline of EUR 0.5 billion in financial receivables from subsidiaries.

The decline in prepaid expenses and deferred charges was mainly attributable to a decline of EUR 0.1 billion in deferred personnel costs.

The development of total shareholders' equity and liabilities was mainly influenced by the increase of EUR 1.1 billion in shareholders' equity, and of EUR 0.6 billion in accruals for pensions and similar obligations. By contrast, other liabilities decreased by EUR 1.2 billion.

The increase in shareholders' equity was mainly due to income after taxes for the financial year of EUR 4.2 billion and its effect on unappropriated net income. The EUR 3.1 billion dividend payment for the previous year had an offsetting effect.

The increase in accruals for pensions and similar obligations is mainly attributable to an effect of EUR 0.3 billion due to a lower notional interest rate for the calculation of pension accruals compared with the prior year, and an effect of EUR 0.2 billion due to the refund of plan assets.

Other liabilities declined year-on-year in particular as a result of loan repayments to CTA Holding GmbH, Bonn, of EUR 5.4 billion. Loans of EUR 4.0 billion taken out from Deutsche Telekom International Finance B.V., Maastricht, had an offsetting effect.

Statement of cash flows of Deutsche Telekom AG under German GAAP
millions of €

	2018	2017	Change	2016
INCOME AFTER TAXES	**4,186**	**4,927**	**(741)**	**2,020**
Net cash provided by (used for) operating activities	4,409	2,988	1,421	(1,531)
Net cash provided by (used for) investing activities	1,940	(12,890)	14,830	4,156
Net cash (used for) provided by financing activities	(5,826)	9,851	(15,677)	(2,638)
NET CHANGE IN CASH AND CASH EQUIVALENTS	**523**	**(51)**	**574**	**(13)**
Cash and cash equivalents, at the beginning of the year	157	208	(51)	221
CASH AND CASH EQUIVALENTS, AT THE END OF THE YEAR	**680**	**157**	**523**	**208**

Net cash provided by for operating activities increased year-on-year by EUR 1.4 billion, resulting in net cash provided by operating activities of EUR 4.4 billion. This increase was due mainly to the EUR 2.8 billion lower net increase in receivables from cash management compared with the previous year, and a EUR 0.5 billion smaller decrease in liabilities from the early retirement program for civil servants compared with the previous year. The decrease in income after taxes, which was adjusted for non-cash write-downs and write-ups on financial assets, had an offsetting effect.

In contrast to the prior year, when net cash used for investing activities resulted in particular from medium- and long-term investments at subsidiaries of EUR 10.8 billion, net cash provided by investing activities in the reporting year was largely influenced by an equity repayment by CTA Holding GmbH, Bonn, of EUR 1.3 billion, cash inflows from the intragroup sale of shares in CTA Holding GmbH, Bonn, of EUR 1.0 billion, and the repayment of a short-term investment by T-Mobile Netherlands B.V., The Hague, to Deutsche Telekom AG of EUR 0.5 billion. Net cash provided by investing activities also included interest received of EUR 0.9 billion. A capital increase at Deutsche Telekom Europe Holding GmbH, Bonn, of EUR 1.8 billion in connection with the takeover of all shares in UPC Austria GmbH, Vienna, by T-Mobile Austria Holding GmbH, Vienna, in particular had an offsetting effect.

Net cash used for financing activities increased by EUR 15.7 billion year-on-year to EUR 5.8 billion. In contrast to the prior year, when net cash provided by financing activities was impacted by the net issuance of liabilities of EUR 12.5 billion, in the reporting year, it was mainly the result of net repayments of current financial liabilities of EUR 7.4 billion, interest payments of EUR 1.1 billion, and the payment of the dividend for the 2017 financial year of EUR 3.1 billion. The net issuance of medium- and long-term liabilities of EUR 5.8 billion had an offsetting effect.

In all, this resulted in an increase in cash and cash equivalents of EUR 523 million in the reporting year.

RISK MANAGEMENT IN HEDGE ACCOUNTING

We use derivatives to hedge interest rate and currency exposures; i.e., exclusively for hedging purposes, not for speculative gains. In the process, we monitor the effectiveness of the hedges on a regular basis.

CORPORATE RESPONSIBILITY AND NON-FINANCIAL STATEMENT

- Act responsibly. Enable sustainability.

We are more than a company providing society with telecommunications infrastructure. In an ever more complex and digital world, we are a trusted adviser through every stage of life. As such, we take our responsibility for society and the environment very seriously. We work systematically to minimize the potentially negative impact of our business activities while creating effective, positive impetus for sustainable change. We have been transparently reporting on our corporate responsibility (CR) activities for over 20 years. In our CR report and annual report, and on our website, we provide comprehensive information every year on the challenges we are facing and the progress we have made as a responsible company focused on sustainable action. Since the 2016 financial year, we have also explained how our core business contributes to achieving the UN Sustainable Development Goals (SDGs), which have been set as part of the 2030 Agenda. In addition, this year's management report is the first in which we are also highlighting how our activities are having a positive impact on our business development (i.e., adding value).

For further information on our business model, please refer to the sections "Group organization," page 31 et seq., and "Group strategy," page 35 et seq.

For further information, please refer to the section "Sustainable development goals," page 22

Since the 2017 reporting year, we have published a combined non-financial statement (NFS) as part of our management report, thereby fulfilling our reporting obligation as per the CSR Directive Implementation Act. When selecting the subjects for the present 2018 NFS, we again not only considered legal requirements, but also incorporated the results of our materiality process. Regularly analyzing materiality in this way helps us align our sustainability activities with our stakeholders' expectations and structure our reporting accordingly. SDG 17

17 PARTNERSHIPS FOR THE GOALS

RELATIONSHIPS

The Supervisory Board of Deutsche Telekom AG is responsible for the review of the content of the NFS. In the reporting year, it did this with the support of PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (independent auditor) in the form of a limited assurance engagement. This audit was based on the International Standard on Assurance Engagements ISAE 3000 (as amended). Unless otherwise stated, all disclosures in this NFS apply in equal measure to the Group and the parent company. To avoid repetitions within the management report, we refer to further information provided in other sections wherever relevant. References to disclosures not contained in the combined management report are provided as background information; these disclosures are not part of the NFS and thus are not covered by the review. By publishing our 2018 CR report in March 2019, we are using a tried-and-tested format to fulfill our stakeholders' expectations of transparency, basing our work as usual on the guidelines of the Global Reporting Initiative (GRI). The concepts described in this NFS are consistent with this long-standing reporting tradition and make reference to the GRI standards, while also taking statutory requirements into consideration.

In 2018, we received a further accolade for our sustainability performance and our associated reporting, taking the top spot in the Good Company Ranking, which rates the sustainability performance of all DAX 30 companies based on audited publications. In addition, our 2017 Annual Report secured us a double victory in the Investors' Darling 2018 capital market competition, in the categories of "Corporate social responsibility" and "Strategy reporting."

EXPLANATION OF THE BUSINESS MODEL

We are one of the leading telecommunication companies worldwide. We offer our consumers fixed-network/broadband, mobile, internet, and internet-based TV products and services, as well as ICT solutions for our business and corporate customers.

STRATEGIC AND ORGANIZATIONAL APPROACH TO SUSTAINABILITY

We see ourselves as a responsible company on the basis of our Leading European Telco strategy: We want to be the leading telecommunications provider in Europe. For us, social and ecological responsibility is inextricably linked with such a leadership role. Our mission statement is "Act responsibly. Enable sustainability." We are committed to implementing sustainability along our entire value chain – and to playing an important role in meeting today's environmental, economic, and social challenges. We are expressly committed to the principles of the United Nations Global Compact, the German Sustainability Code, and Germany's Code of Responsible Conduct for Business. Furthermore, we support the SDGs of the United Nations (UN), in particular contributing to the following goals: (3) Good health and well-being, (4) Quality education, (5) Gender equality, (8) Decent work and economic growth, (9) Industry, innovation and infrastructure, (11) Sustainable cities and communities, and (13) Climate action.

Our CR strategy, which is oriented to our core business, includes three fields of action: "Connected life and work – enabling a sustainable lifestyle," "Connect the unconnected – access to and participation in the information and knowledge society," and "Low-carbon society." In addition, the following topics are of particular importance within our sustainability management system: data security and data privacy, digitalization, sustainable supply chains, human rights, circular economy and resource decoupling, as well as being a responsible employer.

Our Board of Management bears overall responsibility for our CR goals, discussing and making decisions on key CR-related issues. The Group Corporate Responsibility (GCR) unit develops Group-wide policies and guidelines. It is also responsible for positioning and aligning CR strategically, and monitors all of the corresponding processes. The CR managers from the different business units and national companies are responsible for implementing our CR strategy, and work closely together in the international CR Manager Network. GCR is also advised by the CR Board, composed of the heads of key Group areas, in order to ensure direct feedback is always shared between CR and our core business. Our values and basic principles are anchored in our Guiding Principles, the Code of Conduct, the Code of Human

Rights & Social Principles, and other subject-specific policies. The cornerstones of our sustainability management activities are formally set out in our CR Policy, which is binding for all Group units. As part of our CR controlling system, we record environmental, social, and governance (ESG) data and performance indicators. We use this data primarily to calculate our Group-wide ESG KPIs (key performance indicators), which we use to measure and control our CR performance. We regularly review these KPIs to ensure they provide reliable information, revising them as needed. In some cases, the KPIs and other metrics can also be linked to the SDGs to show the progress we are making in the SDG focus areas.

We use the Socially Responsible Investment ESG KPI to determine how the finance markets rate our sustainability activities. This indicator measures the proportion of T-Shares held by investors whose investment strategy is based not only on economic but also, at least in part, on environmental and social aspects of corporate governance. As of September 30, 2018, around 18 percent of all T-Shares were held by SRI (socially responsible investment) investors, and 3 percent were held by investors who manage their funds primarily in accordance with SRI aspects. In addition, during the reporting year, our shares were again listed on leading sustainability indexes, such as RobecoSAM's prominent DJSI World and DJSI Europe. Our share also continued to be listed on the FTSE4Good and UN Global Compact 100 indexes. SDG 8

8 DECENT WORK AND ECONOMIC GROWTH

FINANCE

Listing of the T-Share in sustainability indexes/ratings

Rating agency	Indexes/ratings/ranking	2018	2017	2016	2015	2014
RobecoSAM	DJSI World	✓	✓	✓	✓	✗
	DJSI Europe	✓	✓	✓	✓	✗
CDP	STOXX Global Climate Change Leaders	✓	✓	✓	✓	✓
oekom research AG	"Prime" (Sector Leader)	✓	✓	✓	✓	✓
Sustainalytics	STOXX Global ESG Leaders	✓	✓	✓	✓	✓
	iSTOXX 50 SD KPI	✓	✓	✓	✓	✓
	UN Global Compact 100	✓	✓	✓	✓	✓
FTSE Financial Times Stock Exchange	FTSE4Good	✓	✓	✓	✓	✓

✓ Successfully listed ✗ Not listed

Our aim is to continuously improve the effects our products, solutions, and programs have on society. To this end, we need to quantify the extent to which our business activities help solve social challenges. In 2018, we initiated a pilot project for measuring this impact and are defining a uniform process for evaluating our products, solutions, and programs. This pilot project is intended to lay the foundations for managing our sustainability activities with a focus on their effects. You can find in-depth information about the project in our 2018 CR report, which is due to be published in March 2019. SDG 12

PROCESS FOR DETERMINING SIGNIFICANT TOPICS

By following a comprehensive materiality process that we evolve and adapt every year, we aim to determine what topics are relevant for our reporting and to develop our sustainability strategy along these lines. In 2018, we incorporated a document analysis into the process, which we have used to evaluate aspects such as current legislation and determine the impact of the topics covered on the ICT sector and our value chain. For more detailed information on our approach, please refer to our CR report for 2018.

We have reviewed whether and to what extent the result of our materiality analysis requires us to amend the concepts covered in the previous year's NFS. This was done to ensure the present NFS for 2018 adheres to the requirements set out in the CSR Directive Implementation Act. This involved considering the main topics key to understanding business operations, the operating result, the Company's situation, and the effects on non-financial aspects. It was confirmed there was no need to extend the range of topics covered in the previous year. Nonetheless, conserving resources is becoming an increasingly debated topic both in the public arena and among our own workforce. This reporting year, we therefore decided to address this issue under Aspect 1: "Environmental concerns" – despite the fact that the operations of Deutsche Telekom as a service provider have a relatively minor impact in this regard.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

FINANCE

As part of our comprehensive risk and opportunity management system, we also determine existing and potential risks and opportunities arising from environmental, economic, or social aspects, and from how our Company is managed. Topics such as climate protection, suppliers, data privacy and data security, health and the environment involve potential risks, which we have outlined in the section "Risk and opportunity management." We maintain this practice to provide the transparency our stakeholders expect, even if the risk assessment has found that these topics have a "low" risk significance and therefore do not need to be rated as "very likely severe" in the meaning of the CSR Directive Implementation Act. The present NFS focuses on these risks and opportunities in relation to the relevant aspects.

For further information, please refer to the section "Risk and opportunity management," page 113 et seq.

ASPECT 1: ENVIRONMENTAL CONCERNS

"We assume responsibility for a low-carbon society" is one of the action areas of our CR strategy. It not only expresses our commitment to minimize the impact our business activities may exert on the climate, but also our desire to tap into the opportunities for sustainable development offered by digitalization.

For further information, please refer to "Deployment of ICT products to the benefit of society" in this section under Aspect 3: "Social concerns," **page 82 et seq.**

In our 2018 CR report, we will discuss environmental topics where our business activities have a comparatively low impact, with examples including the preservation of biodiversity and water consumption.

Our comprehensive environmental management system is based on the international ISO 14001 standard. Furthermore, in May 2018 we published a new environmental guideline that summarizes and complements the existing voluntary commitments in force across the entire Group. You can access this guideline on our Group website.

For further information, please refer to the section "Development of business in the operating segments," **page 60 et seq.**

CLIMATE PROTECTION AND RESOURCE CONSERVATION SDG 13

13 CLIMATE ACTION

ENVIRONMENT

Demand for faster data services with full-coverage availability is growing rapidly. That is why we continue to drive forward the build-out of our infrastructure and increase data transmission rates. Our investments in the network build-out make us one of the biggest investors in the industry. Operating our network consumes energy. Increasing energy consumption is associated not only with higher costs, but can also lead to an increase in CO_2 emissions and thereby accelerate climate change. We must therefore ensure our energy consumption grows to a much lesser extent than the volumes of data we transmit and, at the same time, promote the use of renewable energies to set energy consumption apart from CO_2 emissions. We also need to harness the opportunities opened up by digitalization – which, when implemented properly, can help save energy and thus slow down climate change.

For further information about the opportunities and risks associated with climate protection, please refer to the section "Risk and opportunity management," **page 113 et seq.**

Our integrated climate strategy includes four aspects of climate protection: CO_2 emissions, renewable energy, energy efficiency, and sustainable products. The climate strategy applies Group-wide and is implemented on an interdisciplinary and decentralized basis at the level of the national companies. Our Board of Management set a climate-related goal as early as in 2013. By 2020, we aim to reduce total CO_2 emissions in the Group (excluding T-Mobile US) by 20 percent compared to 2008. In 2018, we modified how we calculate CO_2 emissions for our climate goal in line with the market-based method used by the Greenhouse Gas (GHG) protocol in order to place greater emphasis on the use of renewable energy as a means of lowering emissions.

In all, 40 business units in 29 countries have undertaken to work toward our climate goal. Our national companies are helping us achieve this goal in different ways and to different extents, depending on developments in their local markets. GCR reports to the Board of Management on the status quo on an annual basis. Despite the challenges posed by rapidly growing data volumes and the continuous network build-out this entails, we continue to stand by our climate goal. Over the past few years, we have succeeded in moderately reducing our emissions. According to this calculation method, we are at the level forecast for 2018. To achieve our current climate goal, we are focusing on areas that consume particularly high amounts of energy, first and foremost our networks and data centers. For instance, we are migrating our network infrastructure to IP technology, which is more powerful yet consumes less electricity. We are working to process data traffic from no more than a few, particularly efficient data centers. The PUE metric serves as an indicator for enhancing energy efficiency. We determine this metric using the method recommended by The Green Grid Association, which takes the total energy consumed by data centers into account, not only that used to operate the servers. In 2018, the global PUE metric for our T-Systems data centers was 1.63. From 2008 to 2018, we reduced the average PUE metric for T Systems data centers in Germany from 1.85 to 1.57. Our data center in Biere, Saxony-Anhalt, is extremely efficient. It was also awarded the respected LEED Gold sustainability certification (Leadership in Energy and Environmental Design). By taking steps such as migrating data from inefficient data centers to Biere, we achieved a PUE metric of 1.36 by the end of 2018.

In 2017, we set about updating our climate strategy and devising new climate targets for the period after 2020. We are developing the new goals for reducing our CO_2 emissions (Scope 1, 2, and 3) based on current scientific and political conditions. In 2018, we established such goals in the United States and Hungary using the Science-Based Targets method and submitted them to the Science-Based Targets initiative, which has already endorsed those set for the United States. Our climate strategy also focuses on further increasing the share of renewable energy in electricity consumption.

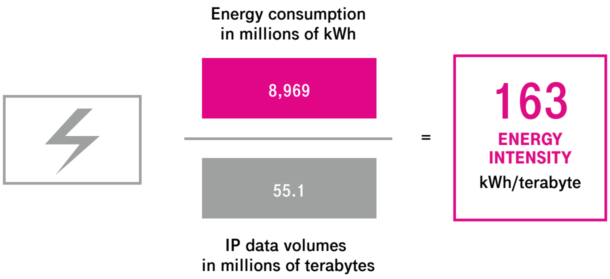
We obtain renewable energy through direct purchases, in the form of certificates for electricity from renewable sources and, to a small extent, by producing it ourselves. Whenever it is possible and practicable, we also invest in our own systems – for instance in the construction of cogeneration plants and the installation of photovoltaic systems. SDG 7

7 AFFORDABLE AND CLEAN ENERGY

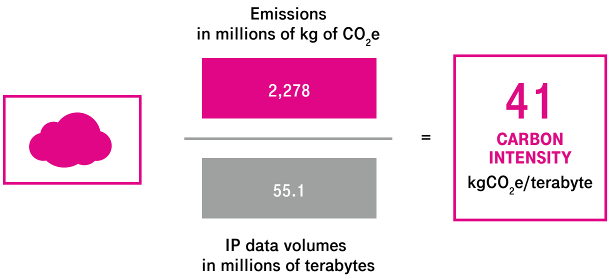
ENVIRONMENT

We determine the effectiveness of our climate protection measures using key performance indicators (KPIs). The KPIs Energy Intensity and Carbon Intensity for Deutsche Telekom are shown in the following graphics. Both KPIs reflect our energy consumption and our CO_2 emissions in relation to the volume of data transmitted, thus demonstrating how our network's energy and emissions efficiency has developed in practice. The result for the Energy Intensity KPI is 163 and 41 for the Carbon Intensity KPI. For the Group as a whole in Germany, the Energy Intensity KPI stands at 110 and the Carbon Intensity KPI at 26. The Renewable Energy KPI shows how much of our Company's overall electricity consumption is obtained from renewable sources. In 2018, this amounted to 52 percent. When calculating this KPI, we also look at direct purchases, Guarantees of Origin, Renewable Energy Certificates, the renewable energy we produce ourselves, and the proportion of renewable energy used across the countries. We use the Enablement Factor ESG KPI to calculate the positive CO_2 effects facilitated for our customers through using our products.

Energy Intensity ESG KPI
Deutsche Telekom Group in 2018



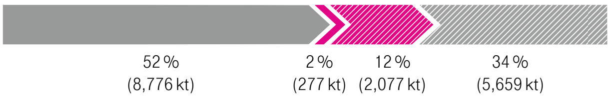
Carbon Intensity ESG KPI
Deutsche Telekom Group in 2018



We use the internationally recognized GHG protocol to calculate our CO_2 emissions. This allows us to take measures to reduce our ecological footprint at the corporate and product levels. The standard distinguishes between three CO_2 emissions categories (Scope 1, 2, and 3). We report on these in June each year as part of the CDP.

The following graphic visualizes the emissions of the different scopes resulting from our business activities, shown as CO_2-equivalent emissions (CO_2e emissions).

CO_2e emissions (Scope 1–3)
Deutsche Telekom Group in 2018 in % and kilotons of CO_2e



Scope 3 emissions from upstream activities:
Transport services, products and services purchased, capital goods, production waste, energy and fuel upstream chains, business travel, and journey to work.

Scope 1 emissions from Deutsche Telekom's own activities:
Emissions from the operation of Deutsche Telekom's systems, buildings and vehicles.

Scope 2 emissions from energy procured:
Emissions from the generation of electricity and district heating procured by Deutsche Telekom.

Scope 3 emissions from downstream activities:
Emissions from the transport of products sold to the customer, use of products sold or leased, and disposal and recycling of products sold.

For further information, please refer to "Deployment of ICT products to the benefit of society" in this section under Aspect 3: "Social concerns," **page 82 et seq.**

We are aware that effectively combating climate change calls for everyone involved to work together and take determined action, which is why we participate in many national and international associations and organizations. Particularly noteworthy here is the Global e-Sustainability Initiative – a corporate association with the vision of making society more climate-friendly and sustainable with ICT solutions. We are also working systematically and successfully on improving climate protection throughout our supply chain. Since 2016, the CDP's supplier engagement rating has assessed how well companies have integrated the topic of climate protection into their supply chains. In 2018, we were awarded an A rating by CDP and included on its Supplier Engagement Leader Board. Over 70 percent of our procurement volume is covered by disclosures collected from our suppliers by rating organization CDP as part of its 2018 supply chain program. SDG 17

17 PARTNERSHIPS FOR THE GOALS

ENVIRONMENT

Last but not least, handling valuable resources responsibly also plays a vital role in a holistic approach to climate protection. In light of the islands of plastic gathering in the sea, growing mountains of waste, and the resulting consequences for humanity and the environment, people are increasingly turning their attention to the topic of resource efficiency. An employee survey conducted at Deutsche Telekom in September 2018 confirmed this fact, leading CEO Tim Höttges to launch the Stop Wasting – Start Caring! initiative, which provides a new platform for the Group's long-lasting commitment to greater resource efficiency. Its core aim is to deploy and recycle resources as efficiently as possible in keeping with the concept of a circular economy – for example by reducing the amount of plastic, paper, and packaging we use even further and pursuing alternatives wherever possible. The approach taken to achieve this goal covers everything from product procurement, design, internal processes right through to the end product and its usage. We are leading the way when it comes to taking back old devices. In addition to this, we are notably promoting resource efficiency by virtualizing our products and advocating sharing economy models through the use of our network, which help conserve resources by dispensing with the need for purchased goods. In September 2018, Tim Höttges called upon every employee to assume a creative role in the initiative at their place of work, stating: "We need to adopt a more sustainable manner of thinking in everything we do." Our national companies are also putting resource conservation into practice in a number of projects. A prime example is the OTE group, which became the first company in Greece to offer to recycle terminal equipment (ADSL, VDSL, VoIP modems, and TV decoders), collecting and recycling a huge quantity of devices in 2018. SDG 12

ASPECT 2: EMPLOYEE CONCERNS

The digital transformation is expected to improve everyone's lives. That is why people will remain a priority for us. This applies in particular to the 216,000 or so employees working in our Company. They use their commitment, their expertise, and their abilities to smooth the path towards a digital society and thus make a key contribution to our business success. Five Guiding Principles, representing our values, form the cornerstones for collaboration within our Company. These Guiding Principles are stated in the section "Group organization." Our strategic priorities in HR focus on four areas. We attach great importance to employee involvement and fair behavior toward colleagues, promote diversity, and engage in systematic health management. SDG 8

For further information, please refer to the "Employees" section, page 97 et seq.

COLLABORATION WITH EMPLOYEES' REPRESENTATIVES AND TRADE UNIONS SDG 17

Digitalization is fundamentally changing the way we work together. Employees are expected to demonstrate greater flexibility, social skills, and autonomy, to continue learning throughout their lives, and to work with greater independence. We have made it our goal to support our employees in this transformation – and to help them not just overcome change, but take an active role in shaping it.

Codetermination rights play a key role in the digital transformation. Together with employees' representatives and trade unions, we want to create the working world of the future – with an eye to the needs of our workforce and the success of our Company. We negotiated and signed over 150 agreements in 2018 through constructive dialog with our works councils. In the same year, we ran two organizational programs – "Technology & Innovation 2018" and "T Systems Transformation" – as key transformation projects in close collaboration with the works councils. The relevant business areas were restructured as these projects progressed, which has led to the optimization of organizations and processes, the establishment of flexible forms of organization, as well as the workforce being restructured as required in a socially responsible way. In addition, 85 collective agreements were concluded with the trade union ver.di in the course of 2018. Besides collective wage agreements, the focus in 2018 was placed on collectively agreed arrangements to harmonize the Group's pay systems as closely as possible. As the underlying laws and contracts vary from country to country, codetermination matters are managed locally with trade unions and employees' representatives. Group management is involved in all major issues as a matter of principle.

The works councils, central works councils, and Group Works Council represent the interests of Group employees in Germany. Our partner representing the employees' interests on a European level is the European Works Council (EWC). We also have executive staff representation committees and representatives of disabled employees at unit, company, and Group level. The EWC, which has 32 members, has been one of our established key dialog partners for many years, representing the interests of Group employees in countries within the European Union and the European Economic Area. Collective bargaining plays an important role and has a long tradition at our Company, a fact made clear by the percentage of employees covered by collective agreements. As of December 31, 2017, 72.76 percent of employees in Germany were covered by collective agreements. For the Group as a whole, the coverage rate was 52.28 percent. We carefully monitored the trade union matters in the United States over the course of 2018. The responsibility for national human resources management matters in the United States lies with T-Mobile US' management. This responsibility is assumed with a great deal of commitment and accompanied by excellent customer satisfaction results.

Across the globe, Deutsche Telekom respects the rights to freedom of association and collective bargaining in accordance with national law. This naturally also applies to the United States, with each employee at T-Mobile US entitled to form or join a trade union. At the same time, employees are also free to choose not to do so. T-Mobile US will not exert any influence in this respect, neither favoring nor discriminating against employees because of a decision they have made.

The results of employee surveys conducted at T-Mobile US in 2018 showed that 93 percent of respondents take pride in working for the company. 89 percent said they would recommend T-Mobile US as a great place to work, and 84 percent believe the company inspires them to go above and beyond their usual work-related duties. These results are among the highest in the Group. T-Mobile US has been awarded numerous accolades in recent years for its appeal as an employer. In 2018, T-Mobile US was named "Best Place to Work" by the independent employee platform Glassdoor and ranked 86th in the top 100 Fortune U.S. companies in the categories "Great Place to Work for Diversity" and "Great Place to Work for Families." For ten years in succession, T-Mobile US was rated one of the most ethical businesses worldwide by Ethisphere Institute and for eleven years in succession as one of the United States' top military friendly employers. T-Mobile US also received a perfect score of 100 in the Human Rights Campaign Corporate Equality Index for the fifth time in a row, making it the best place to work for the equal treatment of gay, lesbian, bisexual, and transgender employees.

Collaboration with employees' representatives is founded on our commitment to trusting cooperation – anchored in our Group-wide Employee Relations Policy, which sets out eleven core elements describing what we stand for as an employer around the world. The policy also describes our aspiration with regard to the following HR topics: employee development, responsible handling of changes, health and sustainability, fair pay, work-life balance, leadership, diversity, the prohibition of discrimination, and how we communicate and work together with employees' representatives. In order to ensure the Employee Relations Policy is implemented throughout the Group, two or three national companies undergo an internal review process each year. If the results of this review deviate from the norm, we initiate improvement measures. Our Code of Human Rights & Social Principles also includes a voluntary commitment to safeguarding the freedom of association and the right to collective bargaining (in compliance with national law in each case).

Our employee survey, carried out every two years, is a key indicator of the relationship between our Company and its workforce. We supplement it with pulse surveys, which give us a snapshot of the mood across the Group twice a year. In the most recent employee survey (excluding T-Mobile US) from 2017, the commitment index came in at 4.1 (on a scale of 1.0 to 5.0) and therefore remained at a high level. This result was underscored by the pulse survey carried out in November 2018.

DIVERSITY AND EQUAL OPPORTUNITY SDG 10

Just as much as demographic developments and different perceptions of roles, social trends such as globalization must not lead to certain groups being shut out of the labor market. Equal opportunities are essential for social stability and business alike. Respecting human individuality and harnessing individuals' distinctive traits for joint success is just as important for our Group as developing a shared identity. A Culture & Diversity team, based in the HR Development unit, was created specifically for this task.

Women and men, young and old, as well as people with different abilities and cultural backgrounds from roughly 150 countries work together very effectively at our Company. This diversity helps us remain competitive around the world with good ideas and outstanding products, and consolidate our position as an attractive employer. Developments in the proportion of women in leadership positions and serving on the supervisory boards are reported to and discussed in-depth by the Board of Management every six months, while the age structure and internationality of the workforce is recorded on an annual basis in our Personnel Structure Report. For us, diversity also means offering our employees numerous opportunities to develop personally and grow professionally, regardless of their gender, age, sexual preference, health situation, ethnic background, religion, or culture. Our Group-wide Diversity Policy, five Guiding Principles, the Employee Relations Policy, and Code of Human Rights & Social Principles form the foundation of our commitment to diversity. We are also a founding member of the corporate Diversity Charter initiative and strive to promote diversity within and outside of our Company.

We meet the requirements set out in the Act to Promote Transparency of Pay Structures by publishing a remuneration report every five years. The last time we did so was as part of our 2017 Annual Report.

OCCUPATIONAL HEALTH AND SAFETY SDG 3

Measures that promote health within the Company not only help individual employees and ensure long-term business success, but also have positive effects beyond that on society as a whole. We use health management to take on social responsibility and promote a proactive culture of health. We support our employees in maintaining their health and occupational safety with a host of target audience-specific measures and extensive prevention programs. We consider the statutory requirements to be only the minimum standard we must achieve. Our corporate occupational health and safety measures are effectively incorporated into our structures via certified management systems and appropriate policies and guidelines. We support this Group-wide approach with an internationally standardized health, safety, and environmental management system based on the OHSAS 18001, ISO 45001, ISO 14001, and ISO 9001 international standards for health, occupational and environmental safety, and quality.

The Board of Management bears overarching responsibility for safeguarding health, occupational safety, and the environment. Quarterly reports on the health rate are just one example of its commitment in this area. Our Health & Safety Environment handbook outlines our health and safety management system, including the parties involved, their duties, and the programs in force. The handbook serves to harmonize, simplify, and align our management system with common targets across the Group. We pool together and manage our occupational safety and health protection programs at a Group level, with on-site health and safety managers responsible for putting them into practice. We systematically review our programs to ensure they are effective. To do so, we review the results of our employee survey, evaluating stress prevention measures under collective agreements, competitor benchmarks, and other relevant indicators. We analyze this data each year to derive measures that exceed the statutory requirements. Raising awareness, prevention, and encouraging individual responsibility are high priorities at our Company.

Group-wide initiatives serve to promote health awareness and health literacy among all employees. For example, all teams across 30 countries are issued recommendations and granted access to services depending on their health index rating. These include services that can be used by all teams in 30 countries based on the results of the health index, which is determined every two years. Occupational health promotion in Germany covers a range of services for employees such as stress prevention programs; flu vaccinations; colon cancer screening; information on diet and nutrition, exercise, and relaxation; and a comprehensive annual health check-up. We also offer psychosocial support to our employees and managers.

For further information, please refer to the "Employees" section, page 97 et seq.

3 GOOD HEALTH AND WELL-BEING

EMPLOYEES

For further information, please refer to the "Employees" section, page 97 et seq.

10 REDUCED INEQUALITIES

EMPLOYEES

Standards in Germany serve to improve occupational safety by regulating aspects such as safe, ergonomic environments in buildings and vehicles. Furthermore, we offer all employees and their relatives driver safety training (for passenger vehicles and motorcycles), as well as cycling schemes for employees at various locations across Germany. Alongside generally available services, we also have target group-specific programs in place, such as driver safety training for specific areas of work, and the "Tritt sicher" (step safely) campaign developed in cooperation with Berufsgenossenschaft Verkehr, the German professional association for transport and traffic, to prevent trips and falls. By raising awareness and implementing preventive measures, our aim is to promote employees' health, boost their motivation, improve the health rate, and continue to reduce the accident rate.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

FINANCE

A variety of key figures demonstrate the effectiveness of our corporate health management services. The health rate (including long-term illnesses) at Telekom Deutschland was 93.6 percent in 2018 (prior year: 93.7 percent). Excluding long-term illnesses, the health rate in 2018 stood at 95.3 percent (prior year: 95.4 percent). The target for 2018 was 95.6 percent. The health rate is reported to the Board of Management at the end of each quarter. In 2017, we launched a project designed to steadily improve the health rate by 2020. We aim to bring the Group-wide health rate up to 95.9 percent by 2020 (excluding long-term illnesses). The total number of work-related accidents continued to decline in the reporting year in comparison with the previous year. With 8.7 accidents (resulting in over three days of absence) per thousand employees, the accident rate in Germany was well below the industry average. The Group-wide health index – calculated in 30 countries as part of the last employee survey in 2017 – increased by 0.1 to 3.6 (on a scale from 1.0 to 5.0). As in previous years, 2018 saw a range of new measures being taken to raise the health rate, such as a workshop where management staff learned about different short-, medium- and long-term strategies for promoting health. Plans are in place to implement further health promotion measures throughout the Group by 2020. With digital transformation set to take on an increasingly important role in the context of health, we are looking into potential strains that digitalization may cause. Step by step, we are adapting our health programs to the needs raised by progressive virtualization, digitalization, and internationalization. For example, we already offer web-based training for managers on health and safety, mental health, and operational integration management. In 2018, we teamed up with BARMER health insurance to further expand our Digitalization and Health project launched the previous year. For example, Deutsche Telekom employees were given the opportunity to test the M-sense app, which enables users to analyze the specific causes of their headaches and migraines, and draw up a personal treatment plan. Based on the results, a decision will be made whether and how M-sense will continue to be used at Deutsche Telekom.

For further information, please refer to the section "Risk and opportunity management," **page 113 et seq.**

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

STRUCTURE

FINANCE

ASPECT 3: SOCIAL CONCERNS

We are finding new solutions to many different challenges our society is currently facing as a result of the digital transformation. Since this development affects every area of our lives, access to state-of-the-art information technologies is key to participating in a knowledge and information society. As a telecommunications company, we are responsible for providing such access to as many people as possible and for promoting the competent use of ICT. The security of our customers' data is our top priority in this respect. When used properly, ICT can also make a valuable contribution to sustainable development.

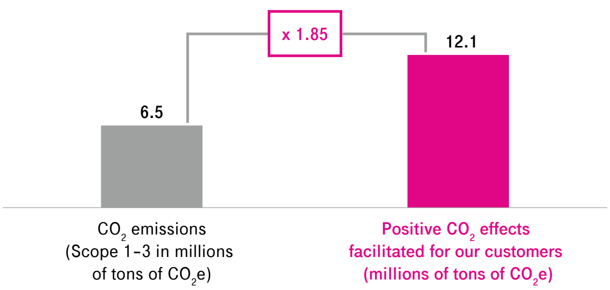
DEPLOYMENT OF ICT PRODUCTS TO THE BENEFIT OF SOCIETY SDG 12

One of the biggest challenges we must face up to is climate change. Given our desire to help limit global warming to below two degrees Celsius, we are systematically working toward shrinking our carbon footprint. We can make a very significant contribution with our products and services. According to the SMARTer2030 study conducted by GeSI, ICT products have the potential to save almost ten times as much CO_2 emissions in 2030 in other industries as the ICT industry itself produces. We can also use our products, services, and activities to contribute to tackling many other environmental and social challenges, as was made clear in a comparison with the 17 sustainability goals (SDGs) adopted by the United Nations. For instance, ICT solutions can help reduce resource consumption in agriculture and increase harvests, shape cities up for the future in terms of sustainability, stabilize power supply grids, or improve access to education and medical care – areas of application that offer market opportunities for our Company. SDG 12 In order to evaluate the concepts described in this NFS, it is important to also look to the opportunities digitalization opens up for sustainable development. For this reason, we are addressing the topic here, even though it is not a holistic concept within the meaning of the CSR Directive Implementation Act. The individual national companies are responsible for developing new products and solutions.

Since 2014, we have been analyzing the scope of the sustainability benefits offered by selected products. With such benefits including better air quality in urban environments, we are currently carrying out three smart city projects in Romania, where monitoring stations continuously analyze data on the humidity, pressure, and CO_2, ozone, and sulfur dioxide content of the air. SDG 11 In Greece, we developed an integrated ICT solution as part of our Digital Service for Warning & Firefighting project that makes it easier to manage fire-related incidents, coordinate available firefighting resources, and communicate with local authorities. Using this solution, emergency response teams can access information at any time on a range of different devices such as smartphones, tablets, or personal navigation devices (PNDs) to ensure fire rescue missions progress swiftly and are more effective. The project was carried out by a team of different businesses led by our Greek national company. SDG 15 ICT can even help better understand illnesses and improve treatment – like our cell phone game Sea Hero Quest, which is helping with dementia research. SDG 3 In 2018, we expanded our detailed analyses of how our product groups contribute to sustainability, and have already examined a total of 29 product groups thus far. Using the Sustainable Revenue Share ESG KPI, we determine how much revenue (excluding T-Mobile US) we generate with these products; in 2018, the figure stood at around 42 percent.

We also calculate the positive CO_2 effects facilitated for our customers through using our products. We combine this figure with our own CO_2 emissions to determine the enablement factor, which we use to measure our overall performance in relation to climate protection. According to this figure, the positive CO_2 effects facilitated for our customers in Germany were 85 percent higher in 2018 than our own CO_2 emissions (enablement factor of 1.85 to 1).

Enablement Factor ESG KPI
Deutsche Telekom Group in Germany in 2018



Sustainable products are another key competitive factor at our Company. In order to highlight these sustainability benefits to our customers, we aim to have our products certified by recognized environmental labels such as the Blue Angel. The majority of Telekom Deutschland's fixed-network devices and media receivers, for example, carry the Blue Angel seal of approval. The strict requirements for these environmental awards not only provide us with ways to further improve our products, but also encourage us to do so.

CONNECTING THE UNCONNECTED – ACCESS TO AND PARTICIPATION IN THE INFORMATION AND KNOWLEDGE SOCIETY

All around the world, having access to state-of-the-art information technologies is a precondition for economic performance and participation in a knowledge and information society. That is why we continue to rapidly expand our infrastructure and improve transmission speeds with new, secure technology. At the same time, we use our social initiatives to reduce potential obstacles to ICT use. Responsibility for shaping the digital transformation has to be assumed by society as a whole. The Board of Management of Deutsche Telekom AG plays an active role in this discussion, which entails looking at matters such as how we can use artificial intelligence (AI) responsibly. AI is a well-hidden feature in an ever-growing number of ICT products and services. We use it on a daily basis, for example while searching the internet or using a satnav. It opens up new opportunities, but also presents fresh challenges. In 2018, under the auspices of Group Compliance Management, we therefore established guidelines for the ethical use of artificial intelligence. These guidelines serve to define how we at Deutsche Telekom aim to adopt a responsible approach to AI and develop our AI-based products and services in the future. Far from claiming our guidelines, as they currently stand, set out universal rules for the responsible use of AI, we are keen to develop them further in discussions with our employees and external stakeholders. SDG 8

Demand for faster data services with full-coverage availability is growing continuously. The majority of the Group's investment volume in Germany, which currently amounts to over EUR 5 billion a year, is for the build-out of broadband networks. This build-out is based on the goals of our Europe-wide integrated network strategy, which we use to help achieve the EU Commission's network build-out targets and the Federal Government's Digital Agenda and broadband strategy. Founded on two pillars – building out mobile networks and rolling out optical fiber – our strategy sets out, among other elements, to upgrade our mobile networks with 4G/LTE technology so as to offer greater network coverage with fast mobile broadband. By the end of 2018, we had already covered more than 97 percent of the German population with LTE. Moreover, we are in the process of developing the upcoming 5G standard, having demonstrated the first 5G data connection in Europe's live network in Berlin in 2018, for example. At the end of 2018, our fixed network provided 28 million households in Germany with at least 50 Mbit/s; that's 65 percent of the population. In addition to vectoring technology, we are using other innovative products, such as our hybrid router, For further information on our build-out targets, please refer to the section "Group strategy," page 35 et seq.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

STRUCTURE

For further information, please refer to the section "Risk and opportunity management," page 113 et seq.

3 GOOD HEALTH AND WELL-BEING

ENVIRONMENT

4 QUALITY EDUCATION

RELATIONSHIPS

www.medienabersicher.de/en/

www.teachtoday.de/en/

which combines the transmission bandwidths of fixed-network and mobile communications, thus attaining significantly higher transmission speeds – particularly in rural areas. SDG 9

In general, we want to make our network infrastructure and our products as efficient, environmentally friendly, and harmless to health as possible. That is why we are committed to addressing the topic of mobile communications and health responsibly. Our Group-wide EMF Policy (EMF being short for "electro-magnetic fields") has played a key role in this process since 2004, defining the standard requirements – which considerably exceed the applicable national legal requirements – for addressing mobile communication and health-related matters. SDG 3

But access to technology alone is not enough to ensure everyone can participate in the knowledge and information society – people also need to know how to use digital media safely, competently, and responsibly. More and more, this issue not only has a private dimension – the protection of personal data – but also a social and political one. Incorrect information and hate posts shape public opinion and can even influence elections. That is why we are working to build media literacy skills in broad swaths of society. Group Corporate Responsibility is in charge of coordinating this topic at Group level. The individual national companies are responsible for developing and implementing media literacy projects, which allows regionally specific conditions to be better taken into account. One example of our national companies' dedicated efforts is the programming workshops for children and young people that Telekom Romania has been offering in collaboration with the CoderDojo charity since 2011. At this stage of the 2018-19 school year, approximately 450 children and young people have so far attended these free workshops. In addition, Telekom Romania's Smart Education package provides schools with internet access, online teaching material, and electronic devices to be used in the classroom. The package is already available in more than half of districts throughout the country – both in urban and rural areas. SDG 4

We present all our initiatives in Germany on our "Media, sure! But be secure." website. One example is our multi-award-winning Teachtoday initiative, in which we help children and young people learn how to navigate the internet safely and skillfully. But children are not the only ones who need help finding their way through the digital world, which is why we provide informational material for all ages. Together with the German National Association of Senior Citizens' Organizations (BAGSO), for instance, we support media literacy projects for the elderly. Teaching media literacy skills is also a core focus of our corporate volunteering programs, where employees devote their free time so as to share their expertise.

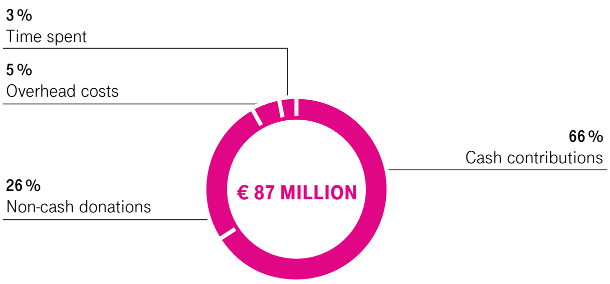
Being able to tell the difference between reliable information and intentionally misleading statements is a key aspect of media literacy. Our 1001 TRUTH initiative, launched in 2018, and the digital platform of the same name aim to promote responsible and critical use of media. Topical issues relating to the digital world are presented on the platform in easy-to-understand modules that range from "opinion making on the internet" to "digital estate" and "data protection and security." The content is suitable for self-study, but is also aimed at coaches working with learning groups. The modules are available in German and English, with simple language versions being progressively added.

Data security is another focal point of our efforts. Our German-language online advisory service www.telekom.com/en/corporate-responsibility/data-protection-data-security/digitally-secure and our app-based "We care" magazine in German and English offer practical advice on how to use digital media safely and securely.

As one of Germany's major corporate foundations, the Deutsche Telekom Foundation is dedicated to improving education in STEM subjects (science, technology, engineering, and mathematics) in the digital world. Since 2018, the foundation has supported the initiative "The Future of STEM Learning," developing and testing concepts for high-quality STEM lessons and integrating them into teacher training programs in collaboration with five German universities. In total, the Deutsche Telekom Foundation has invested EUR 1.6 million in this project.

We measure the impact of our Group's social commitment with a set of three ESG KPIs. The Community Investment ESG KPI maps our social commitment in terms of financial, human, and material resources. In 2018, this amounted to EUR 87 million. The marked year-on-year rise (EUR 57 million) is attributable to a special donation by Telekom Deutschland and a redoubled commitment to education at T-Mobile US. The Beneficiaries ESG KPI shows the number of people involved in community activities and how many people we have reached – 15 million in 2018. The Media Literacy ESG KPI calculates the proportion of the target group reached through media literacy programs as part of our social commitment efforts. In 2018, this KPI increased slightly to 42 percent, up from 41 percent in the prior year. We aim to reach 45 percent by 2020. The 2018 ESG KPIs for the Deutsche Telekom Group in Germany were EUR 55 million (Community Investment), 13 million people reached (Beneficiaries), and 47 percent (Media Literacy).

Community Investment ESG KPI
%



Helping refugees integrate into the German labor market constitutes another core element of our social commitment efforts. For example, we offer internships for which we hire suitable candidates at specially organized application events. Our focus in 2018, however, was to promote longer-term integration, for example by offering openings that allow candidates to transition from an internship to vocational training or a cooperative study program. We have succeeded in filling around 30 percent of the longer-term positions with candidates who had previously completed an internship. Our "Internship PLUS direct entry" program also focuses on the longer term, offering a two-year employment contract following an orientation period of three to six months. This program is aimed at refugees encountering difficulties integrating into the German labor market – perhaps because their vocational qualifications are not recognized in Germany – for whom an apprenticeship would not be a suitable course of action. We developed this program further in 2018 and created new jobs in areas such as customer service, which are in particularly urgent need of staff. Through our various programs, we made approximately 440 offers to refugees in 2018 – 250 of which were new openings created during the reporting year. SDG 4

DATA PRIVACY AND DATA SECURITY SDG 16

The process of digitalization comes with new kinds of threats, such as hacker attacks on the sensitive data of private individuals or companies. People will only actually use new ICT solutions if they trust in the security of their personal data – and only then can these solutions develop their true potential for more sustainable development. Specifically as an ICT company, gaining our customers' trust is hugely important for our business to succeed – which is why we attach particularly great importance to protecting and securing their data.

In 2008 we set up a Board of Management department for Data Privacy, Legal Affairs and Compliance as well as the Group Privacy unit. Since 2009, the Board of Management has been advised by an independent Data Privacy Advisory Council comprising reputable experts from politics, science, business, and independent organizations. Furthermore, our data privacy-related compliance management systems outlines the measures, processes, and audits we use to ensure compliance with laws, regulations, and voluntary commitments to uphold data privacy in the Group.

Data privacy and data security are subject to both the Binding Corporate Rules Privacy (BCRP), which govern how the Group treats personal data, and the Group Security Policy. The EU General Data Protection Regulation (GDPR) entered into force in May 2016 and became binding on May 25, 2018, following a two-year transition period. As laws always need to be interpreted as to how they should be implemented in day-to-day life, the Group Privacy unit took the initial step of preparing rules called Binding Interpretations, which apply consistently across the entire Group. Compiled in collaboration with data privacy experts in the national companies, the Binding Interpretations contain specific recommendations and best-practice examples for implementing the GDPR. For example, they explain what a customer consent must entail and how customer data must be deleted, if requested. In light of the GDPR, we have provided our customers with comprehensive information on our website, too. The Group Security Policy contains significant security-related principles valid within the Group, which are based on the international ISO 27001 standard. These policies allow us to guarantee an adequately high and consistent level of security and data privacy throughout our entire Group.

Every year since 2014, Deutsche Telekom has published a transparency report for Germany, which covers the types and amount of information we disclose to security agencies. In doing so, we are fulfilling our statutory duty as a telecommunications company. Since 2016, our national companies have also published such transparency reports.

For further information, please refer to the section "Risk and opportunity management," page 113 et seq.

In order to ensure even better data privacy and data security within our Group, our corporate units are audited and certified regularly by internal and external professionals. This involves regularly conducting Group-wide internal security checks as well as audits of individual Group units as part of our Security Maturity Reporting to help us evaluate by way of self-assessment how we are faring overall with regard to security in our Group.

We use two surveys – the Group Data Privacy Audit (GDPA) and Online Awareness Survey (OAS) – to measure our employees' awareness of data privacy and security by means of annual random checks. For the GDPA, we survey 50,000 Deutsche Telekom employees on topics related to data privacy and data security. The results are used to calculate the Data Protection Award indicator – which quantifies the level of data protection in the units on a scale from 0 to 100 percent. It is based on what the employees said they thought, did, and knew about data protection. In 2018, the Data Protection Award indicator was 76 percent (excluding T-Mobile US, prior year: 75 percent). The OAS, which we have conducted since 2005, surveys roughly 42,000 employees and provides key data on their awareness of security issues. With academic support, we use the results from this survey to determine the Security Awareness Index (SAI). In 2018, the index was 78.3 (excluding T-Mobile US, prior year: 78.4) of a maximum of 100 points (higher than in any other benchmark company). We also have our processes and management systems as well as products and services certified by external, independent organizations such as TÜV, DEKRA, and auditing firms. The most recent proof that the IT systems at Telekom Deutschland are secure was provided by TÜV Nord in 2017, when it issued a three-year certificate.

17 PARTNERSHIPS FOR THE GOALS

RELATIONSHIPS

Telecommunications companies are required to train their employees on issues related to data protection law when they begin their employment. Deutsche Telekom goes above and beyond these legal requirements: Every two years, we train all of our employees in Germany and place them under an obligation to uphold data privacy and telecommunications secrecy. We have also implemented corresponding requirements in our international companies. Where there is a greater risk of data such as customer or employee information being misused, we also provide online training designed for self-study, give data privacy presentations, and host classroom training courses on specialized topics such as data privacy in call centers. This helps ensure that all employees have an in-depth understanding of the relevant data privacy provisions.

3 GOOD HEALTH AND WELL-BEING

RELATIONSHIPS

Founded in January 2017, the Telekom Security unit is responsible for internal security matters and also offers security solutions for consumers, business customers, public authorities, and state agencies. In 2018, the unit broadened its cyber defense and threat intelligence capacities, and gained further DAX-listed companies as customers. Following its inauguration in 2017, we welcomed numerous politicians, representatives of interest groups, and customers at our Cyber Defense and Security Operations Center throughout 2018. Guests learned about the latest IT security issues during their visits to the center, which is one of the largest and most advanced in Europe. Around 200 experts work there around the clock to monitor our own and our customers' systems.

We react to new emerging threats and continuously develop innovative processes for defending against attacks. In 2018, Telekom Security once again launched a range of new security solutions for retail customers, businesses, public authorities, and state agencies. We have our security management systems externally certified to standards such as the ISO 27001 for information security management systems (ISMS). Running its own critical infrastructure, Telekom Security also provides customers such as energy providers and power plant operators with consultancy services for other critical areas. In 2018, we hosted the third Telekom Security congress in Bonn, Germany, inviting partners and customers to discuss current developments and discover new security trends and solutions.

We work with research institutes, industry partners, initiatives, standardization bodies, public institutions, and other internet service providers worldwide with a view to fighting cybercrime and enhancing internet security together. For instance, we collaborate with the German Federal Office for Information Security throughout Germany and with the European Union Agency for Network and Information Security at a European level. SDG 17

Data privacy and security play an important role that starts during the development of our products and services. We review the security of our systems at every step of development using the Privacy and Security Assessment process both for new systems and for existing systems when the technology or method of data processing is modified. We use a standardized procedure to also document the data privacy and data security status of our products throughout their entire life cycle.

Youth protection aspects are also taken into consideration in our product and service design. When we develop services that could be relevant in terms of youth protection in Germany, we consult our Youth Protection Officer for suggestions of restrictions or changes. In 2014, we appointed a Child Safety Officer (CSO) in each of our national companies in Europe. The CSO acts as a central contact for the relevant stakeholders of the community, and plays a key internal role in coordinating issues relevant to youth protection. Since protecting minors when they interact with media is a challenge across many different industries, we cooperate with different youth protection organizations and participate in alliances such as the "Alliance to better protect minors online," which aims to make the internet a safer place for children and young people. SDG 3

ASPECT 4: RESPECTING HUMAN RIGHTS

Compliance with human rights is highly important to our Group. This applies both internally within our Company and equally so to our business partners and our approx. 20,000 suppliers in more than 80 countries – whom we explicitly place under the same obligations.

LABOR STANDARDS IN THE SUPPLY CHAIN AND IN THE GROUP SDG 10

There are still places in the world where human rights are not a given. As part of our global procurement activities, we can be exposed to country- and supplier-specific risks. These include, for example, the use of child labor and inadequate local working and safety conditions. Violations cause severe damage to those affected, and can also result in reputational damage and negative financial consequences for companies.

As a responsible company, we have made an express commitment to upholding the UN Guiding Principles on Business and Human Rights adopted by the United Nations Human Rights Council in 2011 (Ruggie Principles). The obligation to respect human rights is anchored in our core regulations – i.e., our Guiding Principles and our Code of Human Rights & Social Principles. The latter underscores our commitment to protecting human rights and to the goals of the German National Action Plan on Business and Human Rights adopted by the Federal Government in 2016. At the same time, the code embodies our commitment to complying with the principles laid down by the International Labour Organization (ILO), the Organisation for Economic Co-operation and Development (OECD), the Universal Declaration of Human Rights, and the UN Global Compact. We also require our suppliers to comply with all our guidelines related to human rights. Within the Group, our primary focus is on safeguarding the right to conclude collective agreements and on guaranteeing diversity and equal opportunity.

The UN Guiding Principles on Business and Human Rights require businesses to systematically identify the impact their operations have on human rights, and to prevent, mitigate, or compensate these where necessary. In order to meet these requirements, we have developed an extensive program to implement the UN Guiding Principles throughout our Group and introduced an ongoing process comprising several interconnected measures and tools. The program includes promoting awareness, a mechanism for lodging complaints, a risk and impact analysis, and reporting.

We primarily use two instruments to review our Code of Human Rights & Social Principles. Firstly, we prepare an annual Human Rights & Social Performance Report. In 2018, all 120 companies surveyed for the report declared that they are in compliance with the requirements of the Code of Human Rights & Social Principles, with the report showing no violations for that year. Secondly, we provide a central point of contact for human rights issues, available at the email address humanrights@telekom.de or through an anonymous whistleblower system. We have summarized all relevant contact information on our whistleblower portal Tell me!. We look into all tip-offs received and introduce countermeasures, provided the information is identified as plausible. In 2018, nine tip-offs relating to human rights issues were received either directly via the central point of contact or through the (anonymous) whistleblower system. Not all of these tip-offs were deemed plausible. Whenever necessary, we carry out review processes at our national companies to assess employer-employee relationships. To do so, we compile five human rights-related key performance indicators, such as employee satisfaction, then assess these using a traffic light system. In addition, we conduct an annual formal review of compliance with the Employee Relations Policy. The results are discussed with the regional managers in our national companies. If necessary, we agree upon measures such as the Human Rights Impact Assessment, which provides a means of evaluating the effects business operations have or could potentially have on human rights, and the organization's ability to prevent, mitigate, or remedy such effects. In 2018, we carried out such an assessment at T-Systems Malaysia and T-Systems Singapore, and conducted an Employee Relations Policy review at Magyar Telekom. We also launched a special human rights training course for employees throughout the entire Group in 2018.

The public increasingly expects companies to take responsibility for their entire value chain and fully utilize the opportunities open to them to influence specific issues. We have been working to improve sustainability throughout our supply chain for many years. We derive our sustainability strategy in procurement from our CR strategy; it is anchored in the purchasing processes used throughout our Group. The heads of the CR and Procurement units are jointly responsible for implementing sustainable procurement practices. They report to the CHRO and CFO, respectively. An escalation process calls for decisions to be made at Board of Management level in severe cases. The Sustainable Procurement working group supports international procurement units in meeting sustainability requirements. Our sustainability principles for procurement are laid down in the Global Procurement Policy; the associated Procurement Practices provide specific instructions for procurement in Germany and serve as recommendations for our national companies. We train our employees throughout the Group using an e-learning tool. In addition, a buyer handbook has been available since 2016 to provide an overview of which CR criteria must be considered at which point of the procurement process. SDG 8

10 REDUCED INEQUALITIES

EMPLOYEES

For further information, please refer to the section "Risk and opportunity management," page 113 et seq.

For further information about employee satisfaction, please refer to the "Employees" section, page 97 et seq.

For further information, please refer to the passages entitled "Collaboration with employees' representatives and trade unions" and "Diversity and equal opportunity" in this section under Aspect 2: "Employee concerns," pages 80 and 81.

8 DECENT WORK AND ECONOMIC GROWTH

RELATIONSHIPS

Basic ethical, social, and environmental principles as well as fundamental human rights are set out in our Supplier Code of Conduct, which is part of our General Terms and Conditions for Purchasing and must therefore be recognized by all of our suppliers. When selecting a supplier after issuing an invitation to tender, sustainability factors are given a weighting of 10 percent.

We cannot guarantee that all our suppliers will conform to the principles of our Supplier Code of Conduct. We review compliance regularly to minimize risks and further develop suppliers, working closely with them on these issues. We do so using a four-phase approach. The Supplier Code of Conduct is an integral part of all supplier agreements, and as such binding on all of our suppliers (phase 1). As the business relationship proceeds, we ask strategically relevant or high-risk suppliers to enter more detailed information about their practices into the EcoVadis information system. We go one step further with certain suppliers that exhibit a higher CR risk, and conduct on-site social audits (phase 2). Our focus here is not only on our direct suppliers but also, wherever possible, on downstream suppliers. We also boost the effectiveness of our audits by collaborating with sixteen other companies in the Joint Audit Cooperation (JAC). In 2018, we completed a total of 117 social audits – 29 at our direct and 88 at our indirect suppliers. As in previous years, we concentrated our auditing activities on suppliers in Asia, in particular in China and their neighboring countries such as India, Malaysia, South Korea, and Thailand, as well as in Brazil, Mexico, and Eastern Europe. Audited suppliers included manufacturers in the areas of IT hardware, software and services, as well as networks and devices. SDG 10

16 PEACE, JUSTICE AND STRONG INSTITUTIONS
EMPLOYEES

10 REDUCED INEQUALITIES
RELATIONSHIPS

We use the information provided by the companies themselves and audit findings to classify and rate suppliers, primarily those that offer several material groups, according to CR criteria (phase 3). As part of our multi-award-winning Supplier Development Program (phase 4), we have developed solutions in cooperation with our suppliers for areas such as environmental protection, working hours regulations, and health protection over the past few years. In 2018, we placed our supplier program as an industrial approach under the umbrella of the ICT sector's Global e-Sustainability Initiative (GeSI), where it is being continued as the Sustainable Development Program (SDP). In this way, we hope to help make the global supply chains for ICT products more sustainable, even beyond our own value chain. In the second half of 2018, we initiated the GeSI SDP as a pilot project with four suppliers. Other ICT companies, their suppliers, and sub-suppliers will join the program as of 2019. We expect to see these companies obtain similar results to those achieved by the participants of our previous supplier program, whom we were able to help derive social, environmental, and even quantifiable economic benefits – with better working conditions reducing the number of employee absences, boosting their motivation, and increasing productivity. All this also improves product quality, which in turn reduces the number of complaints about our products. The environmental improvements include reduced consumption of resources such as water. SDG 17

17 PARTNERSHIPS FOR THE GOALS
ENVIRONMENT

We use the Sustainable Procurement ESG KPI to measure and manage our sustainability performance in procurement. This KPI represents the procurement volume attributable to suppliers who have accepted our Supplier Code of Conduct and have been checked on the basis of the information they have disclosed, for example, via EcoVadis or during a social audit, with regard to social and environmental criteria. This calculation relates to our procurement volume throughout the entire Group (from 2018 without T-Mobile US). At around 81 percent, the share of the procurement volume subjected to a risk assessment in 2018 was on a par with the prior year and in line with the level forecast. Our goal continues to be attaining at least 80-percent coverage by 2020.

ASPECT 5: FIGHTING CORRUPTION

Corruption and unfair business practices violate national and international law. We reject every form of corruption, which is why we focus on corruption avoidance measures.

ETHICAL BUSINESS PRACTICES AND COMPLIANCE SDG 16

We feel it is highly important that all staff and executive bodies in our Group act with integrity and comply with our values, rules of conduct, and applicable laws at all times. The goal of our compliance activities is to prevent violations and improper business behavior and to integrate compliance into our business processes early on and enduringly. Our customers need to be able to trust that our actions meet the highest standards for compliance and integrity around the world. This is essential if we are to be seen as a reliable partner.

We have expressed our commitment to complying with ethical principles and current legal standards. We have anchored this pledge in our Guiding Principles and our Code of Conduct. The Code of Conduct is valid throughout the Group and will be introduced in all of our national companies.

Group Compliance Management, our central compliance organization, also plays a key role in establishing corporate governance structures and a corporate culture that focus on integrity. It promotes a compliance culture and establishes a set of values centering around the issue of compliance at our Company, and encourages managers and employees to internalize these values. Our understanding of compliance therefore far exceeds simply conducting business legally, i.e., in line with laws and internal regulations, and aims to ensure everyone in our Group behaves with integrity.

We have introduced a comprehensive compliance management system that addresses both of these aspects as a way to reduce risks and make sure conduct throughout the Group abides by the regulations in place. All our activities comply both with legal and statutory requirements and with our own policies and internal data privacy regulations. Responsibility for the compliance management system lies with the Board of Management department for Data Privacy, Legal Affairs and Compliance. In addition, one person at management or Board of Management level in each Group company is in charge of compliance. Our Chief Compliance Officer is responsible for the Group-wide design, advancement, and implementation of the compliance management system. Compliance officers implement the compliance management system and our compliance goals locally at the level of our operating segments and national companies.

We take many different actions and measures to prevent and fight corruption. Our compliance management system is based on the Compliance Risk Assessment (CRA), which we use to identify and assess compliance risks and introduce suitable preventative measures. We have established an annual process for this purpose throughout the Group that we use to identify responsibilities and define clear assessment criteria that are documented in a traceable manner. The companies that will take part in the CRA are selected according to the level of maturity of their compliance management system (maturity-based model). In the reporting year, the CRA included 72 companies and covered almost 98 percent of the workforce (according to the headcount figures for the fully consolidated companies as of September 2018). The individual Group companies are responsible for conducting the CRA, with support and advice given from the central compliance organization. After the management/managing boards in the national companies have been informed of the CRA findings, these findings are used to outline the compliance program for the following year: Measures and responsibilities are defined and management approves the program. These activities are monitored closely to ensure the measures are carried out. We have our compliance management system regularly certified, with particular attention paid to anti-corruption measures. In 2016, 10 German companies were examined. During 2017 and 2018, 15 international companies received certification, 3 of these in the reporting year.

We regularly provide risk-oriented and target group-specific compliance and anti-corruption training. We have set up the Ask me! advice portal to address all kinds of issues relating to compliance. The portal contains reliable information for employees on laws, internal policies, and rules of conduct relevant to their daily activities.

Despite the best preventative measures, we are not always able to prevent breaches of law or violations of regulations at the Company. The Tell me! whistleblower portal is available to employees and external parties for reporting breaches or suspected breaches of the law or of internal policies and regulations. In 2018, 137 compliance-related tip-offs were submitted via the Tell me! portal (prior year: 146 tip-offs). Over the course of the year, 46 of these were confirmed to be cases of misconduct and dealt with accordingly. We systematically pursue all tip-offs, including those that reach us via other channels, within the scope of the legal framework available to us, and implement commensurate sanctions. We have introduced a Group-wide reporting process to control and monitor these activities. This primarily includes reporting on Group-wide compliance cases and the status of the compliance program.

By signing our Supplier Code of Conduct, our suppliers undertake to refrain from any kind of corruption or conduct that could be interpreted as such. We expect, and work to ensure, that our suppliers observe these obligations, principles, and values, and take all necessary measures to prevent and penalize active and passive corruption. Since 2014, we have offered our suppliers regular e-learning training courses on compliance, besides providing them with a compliance guideline. We select our business partners based on compliance criteria and conduct risk-oriented compliance business assessments. SDG 17

17 PARTNERSHIPS FOR THE GOALS
RELATIONSHIPS

INNOVATION AND PRODUCT DEVELOPMENT

SDG 9

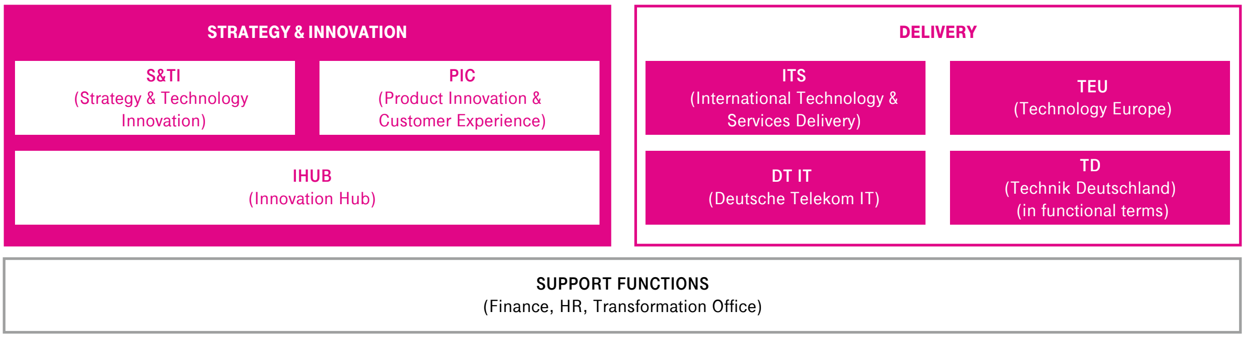
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
FINANCE

OUR FOCUS FOR INNOVATION – EXPLORE. DEVELOP. DELIVER.

Digitalization is the major change in our time. And this ongoing change challenges everyone, the users, the customers, and the providers. Intelligent robots and smart factories, self-driving cars, or artificial intelligence are increasingly finding their way into our daily lives; the real and virtual world are merging in the Internet of Things.

The new organization within the Board of Management department Technology and Innovation (VTI) helps ensure Deutsche Telekom can react faster and more flexibly to these changes. After the Technology and Innovation Board department was set up in 2017, the first step involved joining all relevant functions under a common leadership to ensure a tighter integration of innovation, network, and IT. To develop our products faster and provide them more efficiently, the following core elements were implemented in 2018: focusing the individual units on a single purpose (Explore. Develop. Deliver.), reducing organizational hierarchy levels, and rolling out more flexible, more competence-oriented structures. At VTI people work on comprehensive technology and provide innovation in the long run. VTI sees itself as a customer's advocate that satisfies today's customer needs while seeking future requirements at the same time. The ambition is to be the central product developer for Deutsche Telekom's markets and customers and to drive relevant innovation in the technology space.

Reorganization of the Technology and Innovation Board department



To further strengthen and optimize VTI, the following key steps were implemented in the reporting year:

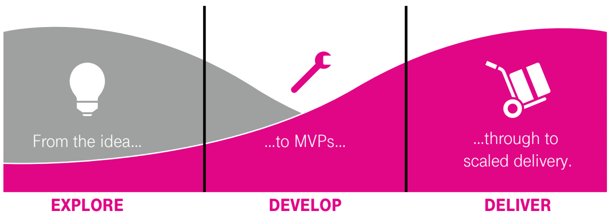
- Creating the new unit Strategy & Technology Innovation (S&TI) to combine all research and technology topics
- Creating the new unit Product Innovation & Customer Experience (PIC) to put more emphasis on product and customer experience
- Establishing the new Innovation Hub (IHUB) for more flexible innovation development
- Optimizing structures within International Technology & Services Delivery (ITS)
- Starting a cultural transformation

VTI consistently combines research, development, and innovation with the ability to deliver.

VTI OPERATING MODEL – FROM IDEA TO MARKETABLE PRODUCT

The operating model describes the responsibilities within the organization, processes, and interfaces as well as interaction between the VTI units. Every unit is given a purpose and focus along the value chain (Explore. Develop. Deliver.).

The operating model of the Technology and Innovation Board department



The model ensures that collaboration between the units works smoothly, highlights the particular responsibilities, and forms the basis for more flexibility as well as allowing projects to be set up swiftly and effectively. This will help develop new products and services more easily and more efficiently than ever before. Project teams can work together with the necessary specialists from other units. If requirements change, staffing for projects can be adjusted easily. Innovative methods are applied and prototypes developed in agile projects. In this respect, VTI acts mainly in the area of jointly defined strategic priorities such as 5G, Edge, campus networks, home, or smart city, while, however, also focusing on new fields.

Phase 1: Explore – identify promising innovation ideas
Innovation needs exploration giving ideas the scope they need to develop into innovative products and services. This approach aims to translate the needs of customers into products and experiences that really matter to them. The first step toward developing valuable solutions involves listening closely to the customer. But we also use partnerships and start-ups as a channel for innovations and new ideas. The main steps during exploration are: ideation, filtering the ideas in line with the strategy, identifying opportunities for new products, selection of the most promising ideas, start of validation. SDG 9

Phase 2: Develop – bring opportunities swiftly to market maturity and prove market relevance
Our teams must be agile and flexible in how they manage and budget innovation projects. In this phase, innovation leads and developers from our Innovation Hub (IHUB) work together closely to devise a minimum viable product (MVP). An MVP is the first minimum viable product in the development process. It already runs on a platform and is tested by customers in this development phase. An MVP is assessed according to the following criteria:

- **Delightful:** We can “wow” our users.
- **Valuable:** People like using it or buying it.
- **Usable:** People can figure out how to use it.
- **Feasible:** We can build and deliver it.

If these criteria are not fulfilled, the Fail Fast. Fail Cheap. principle applies, i.e., we would prefer to take a decision about possibly abandoning innovation projects early on and thereby save resources, rather than putting it off for too long.

Phase 3: Deliver – scale profitable products
Following a decision in the Develop phase that an MVP will be transferred to production for several markets, the International Technology & Service Delivery unit takes over and pushes forward with platform operation and the further development and scaling of the products. The handover from the Develop to the Deliver phase takes place gradually in cross-unit teams and ensures a smooth transition with regard to expertise, customer relationships, and processes.

INNOVATION MANAGEMENT

Innovation cycles are getting shorter and shorter. As a result, we must be agile and flexible in how we manage and budget our innovation projects. We orient ourselves to best-practice approaches used by innovative start-ups and successful companies, and to the latest findings from research and academia.

PORTFOLIO AND INNOVATION BOARD

Established 2013, the Portfolio & Innovation Board (PIB) plays a central role in managing our innovations. It ensures that we prioritize correctly by identifying and selecting key areas of innovation for our Group and deciding on the method of implementation. Our efforts are guided primarily by our innovation priorities and we create full transparency across the Group regarding our investments in innovation.

CORPORATE INNOVATION FUND

Our Corporate Innovation Fund (CIF) is managed centrally by the PIB. Similar to a venture capital approach, the CIF offers all business and product ideas generated within the Group a flexible and results-oriented form of funding for a specific project phase. The provision of additional innovation budget allows us, for example, to fund new innovation projects at short notice and with little red tape. Such financing is granted independently of annual planning periods, and therefore intensifies our focus on market and customer requirements. Innovation can take place anywhere across Deutsche Telekom, as long as the proposed business and product ideas fit within our Group’s central innovation focuses.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

RELATIONSHIPS

INVESTMENT COMMITTEE

We established the Investment Committee to speed up investment decisions on our innovation priorities. Its objective is to act like an (internal) venture capitalist. The Investment Committee allocates funding according to success, orienting itself to the approach used in the start-up industry and among venture capital investors whereby raising new funding from capital investors is dependent on the venture’s performance. This gives us the flexibility we need when developing innovation topics and focuses efforts on success. Funding is only made available for the next project phase when specific outcomes that are relevant to our customers are achieved.

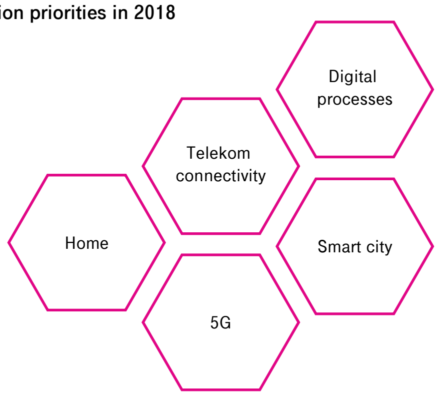
COLLABORATION AND CULTURE

Close collaboration between all VTI units and with the segments across the Group is the key to successful innovation. We involve the segments with market responsibility in the development process right from the get-go. This joint effort ensures that we do not miss the mark during this phase. Having the customer in mind and anticipating their needs and wishes, we are striving to speed up the process of innovation and ensure prompt and more reliable implementation. We embody a new, results-oriented corporate culture, a “maker culture,” that is built around customer centricity, agility, and speed, embracing digitalization and simplicity in the way we work.

INNOVATION PRIORITIES

Where does innovation come from? Everywhere. That is why it is important to ensure our innovation activities take place at an intra-Group level and are aligned strategically. Our four interrelated innovation areas – products for consumers and business customers, network/infrastructure, and processes/service – provide a consistent framework that can be applied across the Group. In addition, for our innovations to be successful we must focus on just a handful of areas – but we have to choose the right ones. In the reporting year we have further developed our innovation priorities in close coordination with the operating segments.

Innovation priorities in 2018



12 RESPONSIBLE CONSUMPTION AND PRODUCTION

ENVIRONMENT

- **Home:** In the connected home our customers experience the convergence of the next generation. To further improve the customer experience, we are enhancing the voicification of our services – integrating local partners for smart speakers and much more. The aim is to make the lives of customers easier at home and on the go by enabling a seamless, consistent, and convenient interplay of all Deutsche Telekom services, partner services, and devices.

- **Telekom connectivity:** By seamlessly managing the different access technologies from Wi-Fi through 5G and combining them with modern data analytics and machine learning processes, we create a unique connectivity experience. Our customers should be able to use their digital services and content anytime, anywhere – simply, securely, and in top quality.

- **Digital processes:** By integrating artificial intelligence we will ensure that our products and services remain competitive in the future. Artificial intelligence turns, for instance, voice control, which simply compares entered words against a list of keywords, into a smart assistant. By integrating artificial intelligence into customer service, we free up capacity to focus on further improving customer care.

- **Smart city:** Deutsche Telekom aims to be a trustworthy, reliable, and long-term partner for municipalities on the road to digitalization. The aim is to deliver future-proof connections and IT solutions for the benefit of residents and visitors, thus helping meet the environmental and economic challenges.

- **5G:** With 5G, we are creating the basis for the real-time communication of the future. Wireless broadband technology, for example, is key to innovative applications in the virtual and immersive internet of the future with self-driving cars, robotics, Industry 4.0, and ever-more realistic virtual reality.

In the reporting year, we already presented several promising product and service innovations as part of our innovation priorities:

When it comes to **connectivity**, we presented new home networking products for an even better customer experience at IFA 2018. The **Speedport Pro** was made available, which bundles the required bandwidth with up to 1,000 Mbit/s in the fixed network and LTE for mobile communications, turning it into our new flagship router in the German market. The inner workings of the router are manufactured from recycled plastic and we use environmentally friendly recyclable PaperFoam packaging. SDG 12 **Speed Home WiFi** is our new mesh Wi-Fi solution. With up to five other devices it enables a comprehensive Wi-Fi network to be set up with the very latest mesh technology. The devices improve Wi-Fi reception by communicating with each other. The wireless connection in the mesh network transmits even Ultra HD movies perfectly. The **Speedport Smart 3** is now also available with the mesh update. As a new service, we are offering the revamped **DSL Help app** that enables our customers to analyze and improve their home network themselves. This is just one of the ways in which we ensure customers benefit from the best connectivity and the best customer experience.

In the reporting year, initial pilot projects were launched in our national companies for the simultaneous use of **LTE and Wi-Fi network technologies** (bonding). Behind this solution lies a combination of LTE and Wi-Fi, paving the way for high bandwidths and speeds beyond LTE (up to 100 Mbit/s) in real-world usage scenarios. We are also working on a pilot in Germany to develop **"zero-touch" connectivity**, i.e., connectivity management is activated as soon as the device is started up, which improves connectivity for our customers outside of the Connect smartphone app – take the wide range of screenless consumer IoT hardware available, for example.

To make our customer service even more customer-friendly and efficient, voice control functions along with chatbots including artificial intelligence are being tested within our **"Digital processes"** innovation topic. The use of **chatbots** makes the customer service more effective and more efficient: They are available around the clock, complete routine work without any waiting time for the customer, and provide our service agents with more time to deal with complex issues. They cannot and should not replace human agents when it comes to our customers' complex issues. Our chatbot **Tinka** at T-Mobile Austria came out on top in a study on chatbots in DAX 30 and MDAX enterprises. The study looked at aspects including the conversational behavior and usability of twelve chatbots. With a resolution rate of just under 70 percent, Tinka was chosen as the winner. We are also using chatbots in Germany. Our **Digital Service Assistant** is now built into our website and integrated into the **My Magenta** app where it already covers a host of use cases – with others set to follow.

With the **"Smart city"** innovation topic, Deutsche Telekom is driving forward the intelligent design of urban areas, enabling municipalities to save energy and money with intelligent lighting concepts, efficient waste management, smart parking solutions, and air quality monitoring, while also improving the quality of life of local residents. In the reporting year we set up a new initiative jointly with the German Association of Towns and Municipalities (Deutscher Städte- und Gemeindebund): the **Digital Cities & Regions** executive program. The partners develop smart, tailor-made solutions with the aim of promoting digitalization in cities and communities. SDG 11

As part of our **5G** innovation topic, we are laying the groundwork for the digital world of tomorrow. In the reporting year, we presented, for example, the T-Systems' solution for **augmented-reality maintenance**. Maintenance employees wearing special glasses receive information about the machinery they are working on, including guidelines about how to ideally complete the repair. For example, a warehouse worker can see where a specific spare part is stored on a shelf, or a mechanic can see helpful information on their smart glasses that can help them repair a particular component. The first pilot projects got underway in 2018 – testimony to the high level of interest expressed by our business customers. We also pressed ahead with the **5G prototyping initiative** in the reporting year, launched by our tech incubator, hub:raum. Collaboration with selected start-ups has already begun. The 5G prototyping initiative gives start-ups from all across Europe the opportunity to come into contact with the brand-new 5G technology and infrastructure of Deutsche Telekom to foster the development of ideas and new applications. SDG 9

THREE-PRONGED INNOVATION STRATEGY

To tap into even greater innovation capacity, we not only rely on our own developments but also successfully integrate new ideas from outside Deutsche Telekom. We take a three-pronged approach to innovation to set ourselves apart from the competition and generate growth:

- In-house developments
- Partnerships, and
- Start-up funding.

FEEL THE FUTURE – OUR PRODUCT AND SERVICE INNOVATIONS

Below are a few examples of developments in the reporting year:

- We enabled the feature **voice redundancy for hybrid lines** (hybrid voice redundancy) for our consumers in Germany. This will allow them to still set up a VoIP connection over the LTE network should the DSL connection fail.

- We rolled out **supervectoring** in Germany. This technology supports transmission speeds of up to 250 Mbit/s (downstream) and 40 Mbit/s (upstream), providing bandwidths required for services such as Ultra HD. Supervectoring prepares our customers for future applications, such as virtual reality or higher-contrast video formats.

- In November 2018, we added content from another 18 partners to our streaming service **StreamOn**. StreamOn Gaming is a new addition to our already successful music and video streaming service. As young customers in particular have a high affinity for mobile gaming, StreamOn Gaming is included in all Young rate plans.

- At IFA 2018, we opened **MagentaTV** up to new target audiences. The TV service can now also be subscribed to as an over-the-top (OTT) offering, independently of a Deutsche Telekom internet access line. The MagentaTV OTT offering can be used with apps for iOS and Android. The content available is identical with that offered by the familiar MagentaTV service. The exclusive MagentaTV series are also available.

- We also extended the availability of the digital parking service **Park and Joy**. More than 30 cities altogether benefit from parking via a smartphone, which displays vacant parking spaces and navigates the driver directly to each space. SDG 13

11 SUSTAINABLE CITIES AND COMMUNITIES
RELATIONSHIPS

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
RELATIONSHIPS

13 CLIMATE ACTION
FINANCE

- For business customers, we presented **TechBoost**, a Deutsche Telekom start-up program that provides selected technology start-ups with EUR 100,000 of credit for the Open Telekom Cloud. These technology start-ups are thus supported with powerful technology and can reap the benefits of a partnership with Deutsche Telekom, which provides them with access to Germany's business customers – and to sustainable success. SDG 8

8 DECENT WORK AND ECONOMIC GROWTH

RELATIONSHIPS

- We also presented **Industrial Machine Monitoring** for our business customers. With this service, businesses can automatically monitor their machinery and receive reliable status information in real time. This complete package provides small and mid-sized enterprises with a simple entry route to the Internet of Things.

- The **Open Telekom Cloud** now offers greater convenience and functionality for our business customers. In March, we rolled out a new release for our Infrastructure-as-a-Service offering. Users benefit from two new functions in the area of platform services as well as numerous enhancements of existing features for greater ease of use and functionality.

- We are making the **Internet of Things** available throughout Germany, Europe, and North America. The rollout of Narrowband IoT (NB-IoT) was pushed forward in ten countries, including countrywide in the Netherlands, Austria, the United States, and Slovakia. Alongside Vodafone, Deutsche Telekom is worldwide a leading provider of NB-IoT, well ahead of all the other network operators.

- The market launch of the new **IoT wireless standard LTE-M** was also prepared. To this end, we teamed up with our incubator hub:raum to launch a prototyping program in which 18 solution partners from 11 countries and 13 sectors were chosen from 150 applicants and qualified for further collaboration. The first LTE-M test networks went live in Austria, Germany, Poland, and the Netherlands in late 2018.

- Deutsche Telekom and Inmarsat in cooperation with their technology partner Nokia reached a decisive stage in the development of the **European Aviation Network (EAN)**. EAN is the world's first network designed for European airspace and combines S-band satellite communication with an LTE-based terrestrial network. With around 300 base stations in all 28 European Union member states plus Switzerland and Norway, the supplementary ground component of the EAN is the first pan-European integrated LTE network.

With our central research unit, **Telekom Innovation Laboratories (T-Labs)**, we operate our own research and development facilities at locations in Berlin, Budapest, Vienna, and Beer Sheva in Israel. Based on strategic Group targets, over 300 international experts and scientists from disparate disciplines – with close ties to our Technology and Innovation Board department and our operating segments – develop minimum viable products for partners at Deutsche Telekom. At the interface between science and entrepreneurship, the T-Labs together with industrial partners, international universities, research institutions, and start-ups conduct research and development work to solve specific customer issues, to decisively strengthen the innovation capacity at Deutsche Telekom, and to tap into new future topics. Based in Berlin, T-Labs has been an affiliated institute (An-Institut) of Technische Universität Berlin since 2004 and forged close ties to the university. In the reporting year, T-Labs focused on the following topics:

- **Blockchain:** In close collaboration with customers, technology partners, and other telecommunications providers, T-Labs is developing a new blockchain-based decentralized ecosystem in which various distributed ledger technologies are made available via an operating stack and technology-independent interfaces. Enterprises can themselves develop decentralized apps (dApps) with this solution without the need for any detailed knowledge of the underlying complex basic technologies. The core functionalities of this ecosystem include identity management, payment, storage, and smart contracts. An initial validation of the approach took place in hackathons in Munich, Berlin, Seattle, and Frankfurt, providing valuable input for further development along with initial positive market and user feedback.

- **Intelligence:** We develop solutions which, with help from machine learning methods, facilitate and optimize Deutsche Telekom-specific use cases. These included in 2018 improvements in the areas of network planning/optimization (IP traffic) for DT Technik, traffic management and parking space usage for the 5G program within VTI and T-Systems (Park and Joy), as well as in the context of campus networks and intelligent industry robots navigating within these networks. The Intelligence team together with partner universities in Germany, Austria, Hungary, and Israel is making its own mark, contributing significantly to the research community in the area of artificially intelligent machines and data science.

- Experiences: As part of the Group program Smart Cities/ Internet of Things (IoT), the Smart City Lab is devising an urban platform based on open standards for smart, cross-segment data usage. The platform was showcased successfully at the Mobile World and Smart City World Congress. Based on the Cloud TV user interface technology (operator app) for smart TVs, two MVPs were implemented simultaneously on the roadmap of the national companies in Hungary, Slovakia, Macedonia, and Montenegro. For the Magenta VR portal, the VR/360-degree tile-based streaming technology was tested successfully in two live basketball broadcasts. This technology only transmits the currently visible image section from the 360-degree sphere, and effectively uses the bandwidth for transmission, thus achieving much more noticeable quality improvements in VR headsets. The Experience Group at T-Labs plans to intensify its research into AR/VR technologies and smart user interfaces.

INNOVATIONS FROM PARTNERSHIPS

We draw on the expertise and abilities of our partners in order to implement the digital transformation successfully. For example, we rely on the tremendous innovative energy coming out of Silicon Valley, Israel, Germany, and other innovation hotspots across the globe. Some examples of successful partnerships are described below:

- Pan-European cooperation with PayPal: A Europe-wide partnership with Braintree (a PayPal service) allows our German and international subsidiaries to offer their customers the best customer experience in the digital payment process. The payment function constitutes a key component of the One app (a smartphone service app) launched throughout Europe, and was already rolled out in five countries in 2018. The partnership successfully helps achieve the Group goals of cost efficiency, digitalization, and best customer experience. PayPal's top-class platform also supports seamless integration of future services in the areas of e-commerce and new payment methods such as Google Pay or Apple Pay.

- At the start of 2018, Deutsche Telekom invested in Axonize, an Israeli start-up specializing in Microsoft Azure-based IoT services. This strategic investment is the result of a strict selection process and collaboration with units from across the Group, from Partnering through to Product and Platform Management in the IoT unit at T-Systems. Ultimately, it was the bundled features for service providers, including service orchestration and management across various applications, as well as the extremely short development time frames for new use cases, that were the catalyst for the investment decision and partnership. Deutsche Telekom uses the features provided by Axonize as a module for its own IoT platform, Connected Things Hub, which forms the basis for solutions such as Building Monitoring & Analytics/Smart Building. The Connected Things Hub is already a strong platform for a growing ecosystem of established sensor and solutions partners, as well as innovative start-ups.

- With partners OpenAsApp, smapOne, and blue-zone, this year we laid the foundations for expanding Telekom Deutschland GmbH's Mobile Solutions portfolio. These mobile-centric solutions help our business customers to digitalize their business processes. Many work steps can now be completed simply using a smartphone. This means the focus is on enterprises with field staff, i.e., sales/marketing or support employees. OpenAsApp allows, for instance, existing business data contained in an Excel file to be mobilized in a single app. These business apps can be created swiftly and then distributed without the need for any programming skills. SmapOne offers an innovative solution for simple, mobile data entry. Polumana, the solution from blue-zone AG, is an application for managing field staff, including access to corporate data in real time, and route planning.

START-UP FUNDING SDG 9

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

RELATIONSHIPS

As Deutsche Telekom's leading start-up program, the tech incubator hub:raum brings together external start-ups with relevant business units in our Group to offer jointly innovative products to our consumers and business customers. To this end, hub:raum offers the start-ups seed financing from its own investment fund and targeted innovation programs aimed at Deutsche Telekom's strategic growth areas and technologies.

Since founding hub:raum in 2012, we set up a strategic investment portfolio of over 25 companies and work together closely with around another 300 start-ups from Europe and Israel in areas such as the real-time gigabit society (e.g., 5G and edge cloud), smart data economy (e.g., AI and process automation), and the Internet of Things (e.g., NB-IoT and Industry 4.0).

The hub:raum Campus at the Berlin location was upgraded, among other things, with one of the first 5G networks in Europe and edge cloud infrastructure. Besides coworking office space and mentoring, start-ups now also have exclusive access to our Group's networks, product platforms, and test data to help their business develop faster. Initial results include implementation of 30 projects on the new infrastructure in the hub:raum edge and 5G prototyping programs in 2018, which will also be continued in 2019. As part of the IoT innovation programs, over 36 implementation projects with solutions for NB-IoT and LTE-M networks as well as our Group's Industrial IoT portfolio also got off the ground. Some of these start-ups are described in more detail here:

- Texel VR is one of the most recent investments made by hub:raum. The start-up with headquarters in Israel and the United States enables events such as sporting events and concerts to be experienced live via virtual reality – using a video and VR solution, viewers can watch events in real time together with friends. And all without having to leave your couch. Viewers in different locations can take part in an event together virtually – even though they may be on different networks – and share special moments with one another.

- The NB-IoT innovation program produced the product partnership with BS2 Sicherheitssysteme. The company has developed a digital early warning system for bridges, tunnels, buildings, and other infrastructure objects on the basis of Deutsche Telekom's machine network (NB-IoT). Various sensors detect warning signals in objects long before any problems become visible, by monitoring critical factors such as temperature, air humidity, and corrosion. This IoT solution makes structures smarter, safer, and more sustainable. Damage can also be reduced and repair work and costs minimized. SDG 11

- At present, RPA (Robotic Process Automation) software like that from CloudStorm underpins any kind of corporate automation strategy. It delivers efficiency and allows humans and machines to work alongside and with each other so that each can focus on what they do best. As such, the software helps make businesses more profitable. This innovative approach was decisive in hub:raum's decision to add CloudStorm as another investment to its portfolio.

DEUTSCHE TELEKOM CAPITAL PARTNERS

Our investment management group, Deutsche Telekom Capital Partners (DTCP), set up in early 2015, continues to do well. DTCP manages around USD 1.6 billion and advises over 60 portfolio companies on behalf of Deutsche Telekom and other institutional investors. DTCP invests in venture, growth equity, and special situations in the United States, Europe, and Israel, and provides consultancy services in the technology, media, and telecommunications industries. DTCP's investments have a strong financial motivation. The group aims to acquire shares in companies, to see them grow, and to sell the shareholdings again at a profit. By focusing on financial return, DTCP can also invest in very successful companies which help the Group progress strategically.

In 2018, DTCP already opened its second venture and growth equity fund and secured, alongside Deutsche Telekom, international financial investors. The incorporation of external capital constitutes an important step in DTCP's further development – the fund's investments made in 2018 in Fastly, Dynamic Signal, and Pipedrive are just a few examples of the quality of the transactions made.

The strategic investment fund Telekom Innovation Pool (TIP) was further developed for investments that are primarily strategically motivated. Advised by DTCP, Deutsche Telekom makes investments here and promotes business start-ups that have a strategic focus and clearly collaborate with the Group's business managers. Particularly in the fields of blockchain and artificial intelligence, long-term innovations for the Deutsche Telekom Group are actively pursued here. From the Deutsche Telekom Venture Funds (DTVF) portfolio, which DTCP also manages, the bulk of the active (non-strategic) equity investments were sold to generate liquidity for the Group.

PATENT PORTFOLIO

Patents are gaining more and more significance in the telecommunications industry. Our patent strategy has to keep pace with the constant evolution of market players and fields of activity. On the one hand, our Group's scope for action must be maintained. On the other hand and alongside our own research and development activities, we want to pave the way to open innovation through collaboration projects and partnerships. SDG 9 National and international patent rights are vital for these types of activity. We are strongly dedicated to generating and maintaining our own patents. In the reporting year, Deutsche Telekom held around 7,800 patent rights in total. We continue our intense efforts to develop and streamline our patent portfolio. This secures the value of the rights we hold and ensures they are in line with our Group's strategic objectives. We have put in place a professional patent law management process to keep our IPR assets safe.

EXPENDITURE AND INVESTMENT IN RESEARCH AND DEVELOPMENT

Research and development (R&D) expenditure includes pre-production research and development, such as the search for alternative products, processes, systems, and services. By contrast, we do not class as research and development expenditure the costs of developing system and user software which is designed to improve productivity and make our business processes more effective. R&D expenditure in the Deutsche Telekom Group amounted to EUR 57.7 million in 2018. As the parent company, Deutsche Telekom AG bears part of the Group's research and development expenditure, the amount in this case being EUR 33 million (2017: EUR 27 million). However, this figure cannot be viewed in isolation from our three-pronged innovation strategy comprising in-house developments, partnerships, and start-up funding.

Our Group's investments in internally generated intangible assets to be capitalized were also up year-on-year at EUR 284.2 million compared with EUR 235.7 million for the previous year. These investments predominantly relate to internally developed software, mainly in our Group Headquarters & Group Services segment and our Systems Solutions operating segment. About 3,100 employees worked in the Group's R&D units in 2018 (2017: approx. 3,000).

Expenditure and investment in research and development
millions of €

	2018	2017	2016	2015	2014
Research and development expenditure	57.7	57.7	84.1	108.1	95.6
Investments in internally generated intangible assets to be capitalized	284.2	235.7	129.5	101.3	93.2

EMPLOYEES SDG 8

8 DECENT WORK AND ECONOMIC GROWTH
EMPLOYEES

OPPORTUNITIES AND CHALLENGES OF DIGITALIZATION

Digitalization will completely revolutionize our lives and the way we work. Even now, we are already beginning to see new forms of collaboration, unprecedented business models, and greater automation of activities. That's why it is vital that we equip our managers and employees with digital skills, because people are the keys to our success, both today and tomorrow. It's also why we need to be an attractive employer to talented individuals. We must create working environments and use technologies that enable us to network among ourselves. Leadership will change, too, to become more participative and virtual. Decision-making will become ever faster. Digitalization opens the door to a host of amazing opportunities and we intend to make the best possible use of them.

The topics mentioned here guide our strategic priorities in HR. In 2018, we continued to work on the following key areas:

OUR HR PRIORITIES

1. Talent strategy and planning
2. Performance management and leadership
3. Working in the digital age
4. Skills management and innovative training opportunities

Below we describe details of example projects and initiatives designed with these priorities in mind.

OUR HR WORK BASED ON THE HR PRIORITIES

1. TALENT STRATEGY AND PLANNING

When it comes to transforming the Group, our workforce plays a crucial role. It is hugely important to us to have the right people in the right jobs and to further develop their individual skills.

Recruitment. We want to be the magnet for global digital talent. In Germany alone, we recruited over 2,000 new employees in 2018, particularly in the ICT environment. A quick digital recruiting process with a positive candidate journey is the key to success here. We offer a global careers website as a platform to search for jobs. A further example of digitalization in the recruitment process are game-based assessments. They are a new generation of psychometric tests in the form of online games that are currently being tested as part of a pilot in the context of our hiring process for the Start up! trainee program. We also use digital tools that rank final university grades based on algorithms and therefore make a fair comparison. Our recruiting strategy also aims to encourage more women talents to join our company by addressing specific target groups. This allows us to support the Deutsche Telekom diversity culture. Since 2017, women students of STEM subjects from across all of Europe have been able to apply for our Women's STEM Award. We are also involved in Femtec, a career program for female STEM students, and the Global Digital Women network. SDG 5

5 GENDER EQUALITY
EMPLOYEES

Employer brand. Through our global employer promise, we also want to continue strengthening our employer brand in growing job markets and make Deutsche Telekom the employer of choice for IT talents. We also consistently use digital contact points as well as personalized methods to network in particular with IT talents and thus get closer to our target group and address them personally. Our largest, Europe-wide LinkedIn recruiting campaign to date successfully supported one of our largest recruiting projects in the IoT business. Our Global Online Challenge Platform allows us to reach IT students and graduates all over the world who enjoy virtual simulation games in order to win this talent target group over. Our CMD+O project in 2018 in Munich and Cologne created an open workspace for students and young professionals and provided a straightforward way for us to make contact with our target group.

Succession and talent management. We know that good employees are not only recruited from outside the Company. Many people with key skills and huge potential already work within our Group. In order to proceed in a structured manner, we will take a global approach to succession planning. A digital process allows us to plan and develop candidates on an ongoing basis, and we always have an overview of potential successors to management positions. Additionally, the Global Talent Pool is a platform and database that generates complete transparency over our global talents and their respective profiles. Talents can use the Global Talent Pool group on YAM, our social network, to plan the next steps of their career, identify strategic project assignments, and find interesting job vacancies. To prepare our global talents for new positions we also exclusively offer a portfolio of digital development opportunities, including CV consulting, career meetings, e-training modules, and mentoring. This system makes it easier to fill vacancies, improves the visibility of talented employees, and promotes rotation. Once again, we supported international networking with our Talent Summit conference where around 350 talents convened to share experiences and network with executives.

2. PERFORMANCE MANAGEMENT AND LEADERSHIP

Lead to win. The working world is becoming increasingly dynamic, agile, and innovative. In order to keep pace with these changes, we updated our "Lead to win" performance management model. Essentially, it is now decoupled from remuneration, fosters intense and ongoing exchange on performance and development, and includes more feedback elements. The employee is also given more personal responsibility when using optional elements and supporting instruments for self-reflection.

levelUP! In the age of digitalization, managers must possess skills and methods that differ greatly from those needed in the analog world. That's why we support our executives with levelUP! – an innovative digital further training service for successful leadership in the digital age. levelUP! comprises modules that can be flexibly combined and uses mainly interactive learning formats. In 2017 and 2018, more than 1,400 executives at Deutsche Telekom participated in this successful program.

Practicing diversity. For over a decade, we have sustainably and comprehensively practiced and promoted diversity throughout the Group. In 2015, we launched a campaign on unconscious bias, which is now running at international level. The goal is to raise employee awareness of this issue and bring fresh stimulus for greater diversity within the Company. We took part in the German Diversity Day with several campaigns. Gender equality remains a particular concern of ours. Back in 2010, Deutsche Telekom set itself the target of filling 30 percent of management positions across the Group with women. We aim to meet this target by 2020. Across the globe, the proportion of women in middle and upper management stood at 25.4 percent at the end of 2018. Following the introduction of the Act on Equal Participation of Women and Men in Executive Positions in the Private and the Public Sector (Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen in der Privatwirtschaft und im öffentlichen Dienst), we extended the target to include the Board, the two levels directly beneath the Board, and our internal supervisory boards in Germany. Since 2015, via our Supervisory Board Readiness Program, we have trained almost 60 women to take on national and international supervisory board mandates. The annual Keep the Readiness program gives the women participants the opportunity to also take part in follow-up training on new corporate governance topics and challenges. The supervisory boards in our entities in Germany comprised 40 percent women as of December 2018. In our fully consolidated European subsidiaries, this figure stood at 26 percent. We are constantly working on the topic of equal opportunities through our involvement in the Chefsache initiative and memberships in schemes such as the Diversity Charter and the Technology-Diversity-Equal Chances Competence Center.
SDG 5

For further information on occupational health and safety, please refer to the section "Corporate responsibility and non-financial statement," page 76 et seq.

3 GOOD HEALTH AND WELL-BEING
EMPLOYEES

5 GENDER EQUALITY
EMPLOYEES

Achieving a good work-life balance. Alongside offering traditional support in the form of childcare facilities and family care options, we are also moving increasingly to an HR policy oriented to different life phases that offers flexible working conditions for greater self-determination, and, in doing so, exploits the opportunities provided by digitalization. After concluding the general collective agreement with ver.di in 2017, we rolled out mobile working across the Group as a new way of working. This allows our employees to work from home or on the move, provided the nature of the task lends itself to this. In addition, flexible working hours, the opportunity to go part-time with a guaranteed option to return to full-time work, and the lifetime work accounts all give employees greater freedom to structure their day flexibly and achieve a better work-life balance.

Employee satisfaction. According to data collected by the Group-wide employee survey of 2017 (excluding T-Mobile US), our commitment index score – our measure of employee satisfaction – was good at 4.1 (on a scale of 1.0 to 5.0). We also conduct regular pulse surveys to obtain feedback from our employees. 72 percent of employees took part in the pulse survey in November 2018, of which 70 percent stated they were satisfied with our Company. We have several initiatives in place to further improve the corporate culture and employee satisfaction. We expect the results from the next employee survey in 2019 to once again indicate a high level of satisfaction among our employees.

Employee satisfaction (commitment index) [a]

	2017	2015
GROUP (excluding T-Mobile US) [b]	4.1	4.1
Of which: Germany	4.1	4.1
Of which: international	4.1	4.0

[a] Commitment index according to the most recent employee surveys in 2017 and 2015.
[b] T-Mobile US conducts its own employee survey.

Employee health. Our health management strategy is designed to maintain our employees' health and performance. We view occupational health and safety legislation as minimum requirements. In addition, we practice a corporate culture that encourages employees to take personal responsibility for their health. Managers make an important contribution in this respect. Our commitment to this topic has won us numerous accolades.
SDG 3

3. WORKING IN THE DIGITAL AGE

What does the transformation of the working world mean for our employees? The innumerable opportunities inspire our HR work, culminating in a range of measures on “people,” “places,” and “technologies.”

People. The transformation of corporate organization and culture is accelerating, driven by the pace of digitalization. Transformation is not an end in itself, but an expression of the relentless demand for adapted, more flexible work forms and operating structures. The automation of transactional and repetitive activities creates new options for “human” value creation, while social media and digital platforms unlock new ways of working across hierarchical divides. We gave agility a framework in this reporting year. The All About Agile project pools all Group activities concerning agile working, supports units in becoming more agile, and provides opportunities to share information. Six dimensions of agility were defined in this project and, based on these recommendations for action, how-to guides were developed that comprehensively support the employees and managers in the digital transformation. The success story continues: 4,746 Group employees were able to extensively demonstrate their design thinking abilities in projects as part of the third Magenta MOOC (Massive Open Online Course) under the slogan Tap into Design Thinking. SDG 4

Places. The workplace of the future will also undergo transformation. Our Future Work program offers modern, open office environments and shared work zones to promote flexible working, a trust-based leadership culture, and mobile working. The range of events on the new ways of working (Neues Arbeiten) was continued in 2018 in order to improve employee networking and to strengthen collaboration at our locations.

Technologies. Digitalization can make many things easier in our daily work routine. The Digital@Work program with its extensive training portfolio was launched following the rollout of modern, cloud-based solutions that was concluded in 2018. Through this program, we met our aim of training more than 7,500 employees using digital collaboration tools as early as the end of 2018. Our Mitarbeiter staff app was also developed further in 2018 and is constantly being equipped with additional features that will significantly reduce the amount of paper-based processes and laborious forms to be filled out. Mobile solutions not only make everyday work easier, they also promote modern and flexible working. We are aware that we must promote virtual collaboration if we are to maximize performance. In addition, most employees worldwide now have access to the following options for collaboration between units and across national borders: video and web conferencing services, live broadcasts and chat services, as well as knowledge-sharing via secure data rooms.

4. SKILLS MANAGEMENT AND INNOVATIVE TRAINING OPPORTUNITIES SDG 4

Skills-up! Our employees and their skills are a key factor to our business success. Following a successful pilot project in four business units, we have reached an agreement with our employees’ representatives to implement a strategic skills management program in the Group in order to ensure competitiveness and employment. In addition to qualitative HR planning based on revised task descriptions and skills profiles as well as identifying retraining measures, the aim is to recognize skills gaps at an early stage and derive tailored training programs.

The 80/20 model. The 80/20 model is yet another innovative program to improve employee motivation and collaboration across departments. It gives employees the freedom – on a voluntary basis and in agreement with the superior – to dedicate 20 percent of their working hours to Group-wide projects. The model allows skills gaps to be closed, while giving employees the opportunity to apply their skills in other areas, irrespective of their department. Introducing this level of flexibility not only promotes the general success of the Company but also creates a new and innovative way of working in which employees’ skills are valued and managers receive targeted support.

Major HR awards in 2018

- **Top Employers Poland:** Employees at T-Mobile Polska rate their company a top employer.
- **HR Awards 2018:** OTE receives gold awards for its Customer Experience Ambassador program and innovative digital HR work.
- **HR Excellence Award 2018:** Prize for our “Internship plus direct entry” program to integrate refugees into the labor market.
- **Good Company Ranking 2018:** Deutsche Telekom takes the top spot.
- **German Stevie Awards:** Deutsche Telekom wins gold awards for “Best apps – tools & services” and “Best approach for internal recognition and motivation.”
- **Brandon Hall HCM Excellence Awards:** Silver for Deutsche Telekom in the category “Best approach to innovation in human capital management.”
- **Trendence Awards 2018:** First place for Deutsche Telekom in the category “Employer branding, students.”
- **Potentialpark Ranking 2018:** Top spot for best career website and social media in the market research institute’s ranking.
- **BDVT Award:** Our manager training program Digital Learning Literacy takes second place.
- **Dow Jones Sustainability Index:** Deutsche Telekom’s commitment to CR, employee, and social issues honored with inclusion in the DJSI.
- **Health & Safety Awards:** Gold for OTE for its work to promote a culture of health and safety.
- **Great Place to Work:** Silver award for T-Mobile Austria in the 2017/2018 ranking of Austria’s best corporate training providers.
- **Gender Mainstreaming Awards:** T-Systems singled out for efforts to support the careers of young women and as a positive role model.
- **Silicon Valley US Globee Awards:** Gold award for our IT-based self-service system for work references as the human resources achievement of the year.
- **Employer Branding Awards 2018:** T-Systems Malaysia wins several awards of the Employer Branding Institute, including first place in the categories “Managing health at work” and “Organisation with innovative HR practices.”
- **Deutscher Personalwirtschaftspreis 2018:** Our HR organization is rated third-best in Germany by the German HR management awards.
- **Female Recruiting Award:** Women visiting the women&work trade fair single out Deutsche Telekom’s booth for its appeal as an attractive employer.

HEADCOUNT DEVELOPMENT

The Group’s headcount fell by 0.8 percent compared with the end of the prior year. Development across the segments was varied. The number of employees in our Germany operating segment declined by 3.4 percent as a result of efficiency enhancement measures, fewer new hires in the operational units, and the take-up of socially responsible instruments in connection with the staff restructuring. The total number of employees in our United States operating segment increased by 2.1 percent year-on-year at December 31, 2018, compared to December 31, 2017, due primarily to increases in customer support, back office, and network employees, partially offset by a decrease in customer acquisition employees. In our Europe operating segment, staff levels grew by 1.5 percent compared with the end of the prior year. This growth was mainly attributable to our national companies in Austria, where we took over employees of UPC Austria, and in Croatia, due in part to the expansion of our service activities there. The number of employees in our Systems Solutions operating segment decreased by 1.2 percent compared with the end of 2017, due mainly to restructuring measures. In our Group Development operating segment, the number of employees grew slightly compared with the end of 2017. The headcount in the Group Headquarters & Group Services segment was down 3.9 percent compared with the end of 2017. The decline in staff levels caused by ongoing restructuring measures at Vivento was partially offset by the addition of employees at the Technology and Innovation unit.

WORKFORCE STATISTICS

Headcount development

		Dec. 31, 2018	Dec. 31, 2017	Change %	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014
FTEs IN THE GROUP		**215,675**	**217,349**	**(0.8)**	**218,341**	**225,243**	**227,811**
Of which: Deutsche Telekom AG		19,259	21,428	(10.1)	22,571	26,205	28,569
Of which: civil servants (in Germany, with an active service relationship)		13,507	15,482	(12.8)	15,999	18,483	19,881
Germany operating segment[a]		62,621	64,798	(3.4)	66,410	67,927	68,754
United States operating segment		46,871	45,888	2.1	44,820	44,229	39,683
Europe operating segment[a]		48,133	47,421	1.5	46,808	48,920	53,499
Systems Solutions operating segment[a]		37,467	37,924	(1.2)	37,472	37,850	46,244
Group Development operating segment[a]		1,976	1,967	0.5	2,572	2,768	0
Group Headquarters & Group Services[a]		18,606	19,351	(3.9)	20,258	23,548	19,631
BREAKDOWN BY GEOGRAPHIC AREA							
Germany		98,092	101,901	(3.7)	104,662	110,354	114,749
International		117,582	115,448	1.8	113,679	114,888	113,061
Of which: other EU member states		61,249	59,952	2.2	59,456	60,710	63,032
Of which: rest of Europe		2,471	2,620	(5.7)	2,581	2,945	3,127
Of which: North America		47,245	46,332	2.0	45,364	44,803	40,346
Of which: rest of world		6,618	6,543	1.1	6,278	6,431	6,556
NATURAL ATTRITION	%	**5.1**	**4.7**		**4.0**	**4.4**	**4.2**
Of which: Germany	%	1.9	1.7		1.4	1.3	1.4
Of which: international	%	9.8	9.2		8.1	9.3	8.6
PRODUCTIVITY TREND[b]							
Net revenue per employee	thousands of €	350	346	1.0	331	306	275

[a] Since January 1, 2017, we have reported on the Group Development operating segment and within the Group Headquarters & Group Services segment on the Board of Management department Technology and Innovation. Comparative figures have been adjusted retrospectively. For further information, please refer to the section "Group organization," page 31 et seq. and the disclosures in Note 35 "Segment reporting" in the notes to consolidated financial statements, page 226 et seq.

[b] Based on the average number of employees.

Personnel costs

billions of €

		2018	2017	Change %	2016	2015	2014
Personnel costs in the Group		16.4	15.5	6.0	16.4	15.8	14.7
Of which: Germany		9.2	8.5	8.2	9.8	9.4	9.1
Of which: international		7.3	7.0	4.3	6.6	6.4	5.6
Special factors[a]		1.2	0.6	n. a.	1.6	1.2	0.9
Personnel costs in the Group (adjusted for special factors)		15.2	14.9	2.0	14.8	14.6	13.8
Net revenue		75.7	74.9	0.9	73.1	69.2	62.7
ADJUSTED PERSONNEL COST RATIO	%	**20.1**	**19.9**		**20.3**	**21.2**	**22.0**
PERSONNEL COSTS AT DEUTSCHE TELEKOM AG UNDER GERMAN GAAP		**2.5**	**2.7**	**(7.1)**	**3.5**	**2.9**	**2.8**

[a] Expenses for staff-related measures.

FORECAST[1]

STATEMENT BY THE BOARD OF MANAGEMENT ON THE EXPECTED DEVELOPMENT OF THE GROUP

We successfully continued our growth course again in 2018. We already set ourselves apart by having the best and most modern networks and we want to continue building on this technology leadership. Over the coming years, we will also focus more on convergent offers, in line with the expectations of our customers. This goes hand in hand with our Leading European Telco strategy – with the aim of becoming Europe's leading telecommunications provider. This is closely related to our financial targets for the period up to 2021: As communicated at our Capital Markets Day in May 2018, we are aiming for the following compound annual growth rates (CAGR) for the period from 2017 to 2021:

For further information on the new performance indicators, please refer to the section "Management of the Group," **page 38 et seq.**; for more details on the financial reporting standards, please refer to the section "Summary of accounting policies" in the notes to the consolidated financial statements,

- **Revenue:** 1 to 2 percent
- **Adjusted EBITDA:** 2 to 4 percent
- **Free cash flow:** approx. 10 percent

For 2019, we expect to post the following year-on-year growth trends, assuming a comparable consolidated group and constant exchange rates:

- **Revenue** is likely to increase again slightly in 2019.

- For 2019, we expect **adjusted EBITDA AL** (after leases) of around EUR 23.9 billion. Adjusted EBITDA in the reporting year came in at EUR 23.3 billion; on a like-for-like basis, i.e., adjusted for comparability with the EBITDA AL forecast for 2019, adjusted EBITDA stood at EUR 23.2 billion.

- **Free cash flow AL** (after leases) is expected to grow to around EUR 6.7 billion in 2019. Free cash flow in 2018 was EUR 6.2 billion; on a like-for-like basis, i.e., adjusted for comparability with the free cash flow AL forecast for 2019, free cash flow stood at EUR 6.0 billion.

Application of the IFRS 16 "Leases" accounting standard became mandatory for the first time as of January 1, 2019. This will impact in particular on EBITDA and free cash flow in the future. The planning for the coming years, and thus the forecast statements made in this section, already take this new financial reporting standard into account. However, the figures for the 2018 financial year have still been prepared in accordance with accounting standard IAS 17. To enable approximate comparability between the figures for the 2018 financial year and the forecasts for 2019 and beyond, the pro-forma figures and forecasts for EBITDA and free cash flow are based on the new "after leases" indicators.

ECONOMIC OUTLOOK

In its economic forecast from January 2019, the International Monetary Fund (IMF) expects global economic growth of 3.5 percent in 2019 and of 3.6 percent in 2020. We expect growth in our core markets to slow down, even though the stable economic trend is expected to continue. The economies in Germany, the United States, and the countries of our Europe operating segment are recording positive growth rates, driven by positive trends in both private consumer and investment spending. The labor markets are also benefiting.

Forecast on the development of GDP and the unemployment rates in our core markets for 2019 and 2020
%

	GDP for 2019 compared with 2018	GDP for 2020 compared with 2019	Unemployment rate in 2019	Unemployment rate in 2020
Germany	1.0	1.3	4.9	4.7
United States	2.5	1.8	3.5	3.5
Greece	2.0	1.9	18.2	16.9
Romania	3.2	2.9	4.2	4.1
Hungary	3.4	2.7	3.3	3.2
Poland	3.7	3.2	2.9	2.8
Czech Republic	2.8	2.6	2.5	2.6
Croatia	2.7	2.5	7.6	6.6
Netherlands	1.9	1.7	3.6	3.6
Slovakia	4.0	3.3	6.3	6.0
Austria	2.0	1.8	4.6	4.4

Source: Consensus Economics, European Commission, Federal Ministry for Economic Affairs and Energy, HSBC; January 2019.

[1] The forecasts contain forward-looking statements that reflect management's current views with respect to future events. Words such as "assume," "anticipate," "believe," "estimate," "expect," "intend," "may," "could," "plan," "project," "should," "want," and similar expressions identify forward-looking statements. These forward-looking statements include statements on the expected development of revenue, EBIT, EBITDA after leases, adjusted EBITDA after leases, ROCE, cash capex, and free cash flow after leases. Such statements are subject to risks and uncertainties, such as an economic downturn in Europe or North America, changes in exchange and interest rates, the outcome of disputes in which Deutsche Telekom is involved, and competitive and regulatory developments. Some uncertainties or other imponderabilities that might influence Deutsche Telekom's ability to achieve its objectives are described in the section "Risk and opportunity management," page 113 et seq. of the combined management report, and the "Disclaimer," page 280, at the end of the Annual Report. Should these or other uncertainties and imponderabilities materialize or the assumptions underlying any of these statements prove incorrect, the actual results may be materially different from those expressed or implied by such statements. We do not guarantee that our forward-looking statements will prove correct. The forward-looking statements presented here are based on the future structure of the Group, without regard to significant acquisitions, disposals, business combinations, or joint ventures that may arise at a later date. These statements are made with respect to conditions as of the date of this document's publication. Without prejudice to existing obligations under capital market law, we do not intend or assume any obligation to update forward-looking statements.

MARKET EXPECTATIONS

GERMANY

The German market for telecommunications services saw slight growth in 2018 of 0.3 percent. A further small increase of 0.4 percent is expected for 2019 (source: EITO, European Information Technology Observatory). The negative trends resulting from regulatory effects and the decline in traditional fixed-network telephony will be offset by growing demand for mobile data volumes and faster connectivity in the consumer and business customer area. The trend of slight revenue growth in the German mobile market recorded in 2018 is therefore expected to continue in 2019 (source: EITO).

For the wider ICT market, which covers IT services as well as telecommunications, EITO forecasts growth of 1.7 percent for 2019. This increase is primarily attributable to growth in the IT market, which stood at 2.5 percent in 2018 and was mainly driven by strong demand in two areas: services for business customers (e.g., outsourcing, project business, consulting) and software-based services (virtualization and cloud business, e.g., in the form of Software as a Service, Platform as a Service, or Infrastructure as a Service).

Innovative integrated products and attractive supplementary services – such as TV and music options – are becoming increasingly important for our competitive position with consumers, while cloud services, security applications, and solutions for Industry 4.0 are gaining in significance with business customers. We are also setting ourselves apart from other providers with our download and upload bandwidths, the mobile data volumes we include in our rate plans, and innovations in our rate plans.

The mobile communications market in Germany is dominated by three providers, each with its own network infrastructure, who deploy 4G/LTE technology – and in future also 5G – to ensure that the majority of the population has access to high-speed mobile internet. By contrast, the fixed-network broadband market hosts a large number of players with differing infrastructures – from national through to regional providers. We are assuming that competition from cable network operators will remain intense and that the number of providers who have their own DSL and fiber-optic networks will increase.

UNITED STATES

The U.S. economy's positive momentum in 2018 impacted the country's ICT market, for which overall spending grew by 5.0 percent in 2018 (source: EITO). Much of the growth was due to greater expenditures on software, IT and business services, as well as telecommunications equipment. Spending on smartphone and mobility infrastructure significantly impacted the latter. Slightly lower levels are forecasted for 2019 (+3.7 percent), due to lower growth of IT equipment revenues. Growth in the telecommunications segment remains solid, with market revenues increasing by 2.6 percent in 2018 and a forecasted 2.5 percent in 2019.

The U.S. mobile market, in particular, continues to be characterized by intense competition among the major mobile carriers. This has resulted in relatively strong price competition and corresponding pressures on ARPU. According to Analysys Mason, industry ARPU (excluding IoT) declined by 0.5 percent in 2018 and is projected to decline by 1.1 percent in 2019. Recent changes by service providers, such as the removal of overage charges, the move toward unlimited data plans, and Equipment Installment Plans (EIPs) have contributed to the reported decline in ARPU (source: Federal Communications Commission). Nevertheless, Analysys Mason expects total mobile revenues to grow thanks to an increasing number of mobile connections, rising data usage, and an expected boom in the number of IoT connections. With respect to data usage, monthly data usage per mobile connection rose to an average of 5.9 GB per subscriber per month in 2018, an increase of approximately 58 percent from 2017. In 2019, monthly data usage is expected to average 8.8 GB per subscriber per month, an increase of 48 percent.

Leading industry associations such as GSMA expect the United States to lead global migration to 5G. GSMA expects almost half of all mobile connections to be running on 5G networks by 2025. T-Mobile US aims to achieve nationwide 5G coverage by 2020, utilizing the 600 MHz spectrum holdings it acquired in April 2017.

EUROPE

We expect the traditional communications markets in the Europe operating segment to remain stable overall over the next two years, for both mobile communications and the fixed network (including traditional TV services). Continuing declines in voice services can be offset by data services in both submarkets, as well as by traditional TV services (excluding OTT) in the fixed network. For 2019 and 2020, Analysys Mason expects annual growth in fixed-network business of 2 percent in both the broadband and TV markets, while the significance of voice services will likely continue to diminish, shrinking by around 7 percent and 6 percent, respectively, per year. In the mobile markets, data services are expected to grow by 7 percent in 2019 and 5 percent in 2020, driven mainly by the use of mobile video services. Analysys Mason expects the overall data volume in the countries of the Europe operating segment to grow by 46 percent in 2019 and by another 36 percent the year after. We are already seeing preparatory investments in 5G networks in almost all markets of our Europe operating segment, which will further improve the coverage of large parts of the population with high-speed mobile internet. By contrast, the relevance of traditional voice services also continues to wane in mobile communications: Analysts forecast a revenue decline of around 6 percent per annum in this area. Demand for convergent offers comprising fixed-network and mobile services (FMC) also continues unabated in the markets of our Europe operating segment. We expect the number of convergent households to grow by more than 20 percent over the next two years. This means that by 2019, more than 30 percent, and by 2020, almost 40 percent of all broadband lines in the consumer market would be part of a convergent offer.

According to Oxford Economics, real GDP will continue to rise in all our footprint countries in 2019 by between 2 and 4 percent per annum. This positive economic situation will have a particular impact on the IT markets in our Europe operating segment. EITO forecasts growth of more than 2 percent for the countries of Central and Eastern Europe for 2019.

SYSTEMS SOLUTIONS

Growth in the ICT market is expected to continue apace over the next two years, while cost pressure and intense competition are expected to persist. At the same time, we expect the digital transformation to stoke demand for solutions for cloud services, big data, smart network services such as Industry 4.0, the Internet of Things, and M2M, as well as for the mobilization of business processes and ICT security (cybersecurity).

We estimate that the ICT markets will develop along divergent paths in the two main market segments:

- Telecommunications: The highly competitive fixed-network market for large business customers remains challenging. Innovative change, intense competition, constant price erosion, and the interventions of national regulators are all likely to slow down market growth, even though business with both mobile data services and the Internet of Things will continue to grow in the coming years.

- IT services: The clear growth in the market for IT services in the reporting year is likely to continue in 2019 and 2020. At the same time, this market is undergoing a radical transformation, e.g., due to ongoing standardization and automation, demand for smart services, and the changes being wrought by cloud services in outsourcing business. Further challenges have arisen in the shape of digitalization, the growing importance of cybersecurity, big data, and increasing mobility. Traditional IT business is likely to decline due to price competition, while cloud services, mobility, and cybersecurity may reach double-digit growth. In view of this, we continue to plan to step up investments in growth markets – especially in digitalization, cloud services, cybersecurity, and smart network solutions for the healthcare sector, the public sector (smart city), and the automotive industry.

GROUP DEVELOPMENT

Our companies T-Mobile Netherlands and Deutsche Funkturm (DFMG) dominate the development of our Group Development operating segment.

- The high price and competitive pressure in the Dutch mobile market will continue over the coming years. One of the main trends contributing toward this is the growing bundling of fixed-network and mobile products into convergence offers (FMC). What is more, both the strong discount segment, comprising mobile providers' secondary brands, and MVNOs will continue to make for lively competition.

- With some 29,000 locations, DFMG is the biggest provider of passive wireless infrastructure for mobile communications and broadcasting in Germany. We expect demand for cell sites to rise steadily over the next few years, due to the fact that network operators plan on the one hand to close gaps in coverage, and on the other to increase the density of mobile networks to meet the growing demand for mobile data services.

EXPECTATIONS FOR THE GROUP

Expectations up to 2020. For the next two years, we expect profitable growth to continue. Revenue and adjusted EBITDA after leases (EBITDA AL) are expected to rise at Group level in 2019: a good basis to achieve our financial ambitions by 2021 as communicated at our Capital Markets Day in May 2018.

We expect our financial performance indicators to develop as follows in 2019 and 2020:

- Revenue should increase slightly year-on-year in 2019 and continue to rise in 2020. This forecast is based on a slight increase in revenue in the Germany operating segment and the rigorous implementation of the Un-carrier strategy in our United States operating segment, which is expected to bring with it sustained customer growth over the next two years. For 2020, we expect all operating segments to make a positive contribution to the revenue growth of our Group.

- Adjusted EBITDA AL is expected to come in at around EUR 23.9 billion in 2019 and to rise further in 2020 due to the expected upward revenue trend and planned cost savings over the same two-year period. All operating segments will contribute to the Group's growth in both forecast years.

- EBITDA AL is expected to increase in 2019 compared with the prior year, and to rise further in 2020. EBIT is also expected to increase in 2019 and 2020 on account of the aforementioned expected upward revenue trend and planned cost savings.

- Return on capital employed (ROCE) is expected to increase in 2019 and 2020. This confirms that we are well on track for ROCE to be higher than the expected weighted average cost of capital (WACC) and hence to fulfill our promise made at the 2018 Capital Markets Day.

- Our investments – in terms of cash capex (before spectrum investments) – are expected to amount to around EUR 12.7 billion in 2019. Over the next two years, too, we want to continue investing heavily in building out our network infrastructure in Germany, the United States, and Europe in order to safeguard our technology leadership in the long term. A year-on-year increase in 2019 is expected to be driven by the United States operating segment. Excluding the United States operating segment, investments for the Group reached a record high in 2018, and we therefore expect them to decline slightly. Capital expenditure for the Group in 2020 is likely to remain on a par with the prior year.

- Free cash flow after leases (free cash flow AL) (before dividend payments and spectrum investment) is expected to reach around EUR 6.7 billion in 2019 and grow strongly in operational terms in 2020. Free cash flow is to make a contribution toward keeping our relative debt – measured as the ratio of net debt to adjusted EBITDA – within the target corridor of 2.25 to 2.75x in 2019 and 2020. The target corridor has shifted from 2.00 to 2.50x to 2.25 to 2.75x on account of the application of the IFRS 16 accounting standard.

- At the end of 2018, the rating agency Standard & Poor’s (S&P) gave us a rating of BBB+, CreditWatch negative, Fitch of BBB+ with a stable outlook, and Moody’s of Baa1 with a negative outlook. We are therefore still a solid investment-grade company. S&P also announced that it would likely lower Deutsche Telekom AG’s rating to BBB in the event of a successful business combination between T-Mobile US and Sprint. Maintaining an investment grade rating within the A– to BBB range will enable us to retain unrestricted access to the international financial markets and is thus a key component of our finance strategy.

Our debt issuance program puts us in a position to place issues on the international capital markets at short notice, while our commercial paper program enables us to issue short-term papers on the money market. Our finance strategy continues to include a liquidity reserve that, at any given time, covers at least our capital market maturities over the next 24 months.

Repayment of bonds and loans in the amount of EUR 4.8 billion and EUR 4.6 billion will fall due in 2019 and 2020, respectively. In order to refinance our maturities and maintain the liquidity reserve, we plan to issue new bonds in various currencies. A successful business combination between T-Mobile US and Sprint would result in the early repayment of intragroup loans of USD 8 billion by T-Mobile US to Deutsche Telekom AG, which would significantly influence the refinancing requirements. The precise nature of implementation of these financing transactions is thus dependent firstly on the approval of the business combination of T-Mobile US and Sprint, and secondly on trends in the international financial markets. We will also cover part of our liquidity requirements by issuing commercial paper.

We intend to continue leveraging economies of scale and synergies through suitable partnerships or appropriate acquisitions in our footprint markets. There are no plans, however, for expansion into emerging markets. We will continue to subject our existing partnerships and equity investments to regular strategic reassessments with a view to maximizing the value of our Company.

Our expectations for the period until 2020 for the Group and the operating segments as regards our financial and non-financial performance indicators are shown in the following tables. They assume a comparable consolidated group and constant exchange rates. The forecast statements made already take into account the accounting standard IFRS 16, which has been applied since January 1, 2019, and, for EBITDA, adjusted EBITDA and free cash flow, we forecast the new “after leases” indicators. The pro-forma figures for 2018 provide an approximate reconciliation to the “after leases” indicators for EBITDA, adjusted EBITDA, and free cash flow, so as to enable approximate comparability with the forecasts. If the economic situation should deteriorate or any unforeseen state or regulatory interventions arise, the expectations expressed here may change accordingly. All trends denote year-on-year changes. To indicate the intensity and trends of our forecasts, we apply the following assessment matrix: strong decrease, decrease, slight decrease, stable trend, slight increase, increase, strong increase.

Financial performance indicators

		Results in 2018	Pro forma for 2018[a]	Expectations for 2019[b, c]	Expectations for 2020[b, c, f]
NET REVENUE					
Group	billions of €	75.7	76.4	slight increase	increase
Germany	billions of €	21.7	21.7	slight increase	slight increase
United States (in local currency)	billions of USD	43.1	43.1	increase	increase
Europe	billions of €	11.9	12.1	slight increase	slight increase
Systems Solutions	billions of €	6.9	6.9	stable trend	slight increase
Group Development	billions of €	2.2	2.7	increase	increase
PROFIT (LOSS) FROM OPERATIONS (EBIT)	billions of €	8.0	8.0	increase	increase
EBITDA AL	billions of €	21.8	21.7	increase	increase
EBITDA AL (ADJUSTED FOR SPECIAL FACTORS)					
Group	billions of €	23.3	23.2	23.9	increase
Germany	billions of €	8.6	8.5	8.7	increase
United States (in local currency)	billions of USD	11.9	11.9	12.4	increase
Europe	billions of €	3.9	3.9	4.0	slight increase
Systems Solutions	billions of €	0.4	0.4	0.5	increase
Group Development	billions of €	0.9	0.9	1.0	increase
ROCE	%	4.7		increase	increase
CASH CAPEX (BEFORE SPECTRUM INVESTMENT)					
Group	billions of €	12.2	12.4	12.7	stable trend
Germany	billions of €	4.2	4.2	stable trend	slight decrease
United States (in local currency)	billions of USD	5.2	5.2	increase	stable trend
Europe	billions of €	1.9	1.9	decrease	stable trend
Systems Solutions	billions of €	0.5	0.5	strong decrease	stable trend
Group Development	billions of €	0.3	0.4	strong increase	strong increase
FREE CASHFLOW AL (BEFORE DIVIDEND PAYMENTS AND SPECTRUM INVESTMENT)	billions of €	6.2	6.0	6.7	strong increase
RATING					
Standard & Poor's, Fitch		BBB+		from A− to BBB	from A− to BBB
Moody's		Baa1		from A3 to Baa2	from A3 to Baa2
OTHER					
Dividend per share[d, e]	€	0.70		Dividend follows EPS (adjusted for special factors) growth, minimum of € 0.50	Dividend follows EPS (adjusted for special factors) growth, minimum of € 0.50
EPS (adjusted for special factors)	€	0.96		increase	increase
Equity ratio	%	29.9		25 to 35	25 to 35
Relative debt[g]		2.4x		2.25 – 2.75x	2.25 – 2.75x

The "Pro forma for 2018" figures provide an approximate reconciliation to the "after leases" indicators used for management purposes from 2019 onwards to enable approximate comparability for EBITDA, adjusted EBITDA, and free cash flow. The "Expectations for 2019" and "Expectations for 2020" are based on the currently applicable International Financial Reporting Standards (IFRSs), i.e., taking into account IFRS 16 "Leases." For more information on the standards, please refer to the section "Summary of accounting policies" in the notes to the consolidated financial statements, page 153 et seq.

[a] Changes in the organizational structure and major changes in the composition of the consolidated group included up to the date of preparation of the consolidated financial statements and the combined management report (e.g., the acquisition of UPC Austria in Austria or the acquisition of Tele2 Netherlands in the Netherlands).
[b] On a comparable basis.
[c] Possible implications from the planned transaction with Sprint in the United States are not included in the expectations.
[d] The indicated expectation regarding the dividend per share refers to the respective financial year indicated.
[e] Subject to approval by the relevant bodies and the fulfillment of other legal requirements.
[f] Free cash flow AL for 2020 does not take into account the zero bond repayment.
[g] Relative debt for 2019 and 2020 already includes the implications of IFRS 16 (previous relative debt: 2.00 to 2.50x).

Non-financial performance indicators

		Results in 2018	Pro forma for 2018[a]	Expectations for 2019	Expectations for 2020
GROUP					
Customer satisfaction (TRI*M index)		67.7		slight increase	slight increase
Employee satisfaction (commitment index)[b]		4.1		stable trend	stable trend
FIXED-NETWORK AND MOBILE CUSTOMERS					
GERMANY					
Mobile customers	millions	44.2	44.2	increase	increase
Fixed-network lines	millions	18.6	18.6	decrease	slight decrease
Of which: retail IP-based	millions	15.4	15.4	strong increase	stable trend
Retail broadband lines	millions	13.6	13.6	slight increase	increase
Television (IPTV, satellite)	millions	3.4	3.4	strong increase	strong increase
UNITED STATES					
Branded postpaid	millions	42.5	42.5	increase	increase
Branded prepay	millions	21.1	21.1	slight increase	stable trend
EUROPE					
Mobile customers	millions	50.5	50.5	slight increase	increase
Fixed-network lines	millions	9.1	9.1	stable trend	stable trend
Of which: IP-based	millions	7.4	7.4	increase	stable trend
Broadband customers	millions	6.4	6.4	increase	increase
Television (IPTV, satellite, cable)	millions	4.8	4.8	increase	increase
SYSTEMS SOLUTIONS					
Order entry	billions of €	6.8	6.8	increase	stable trend
ESG KPIs					
Energy Intensity ESG KPI	MWh/terabyte	163		strong decrease	strong decrease
Carbon Intensity ESG KPI	t CO_2/terabyte	41		strong decrease	strong decrease
Sustainable Procurement ESG KPI	%	81		stable trend	stable trend

[a] Significant changes in the organizational structure and in the composition of the consolidated Group included up to the date of preparation of the consolidated financial statements and the combined management report.
[b] Commitment index as per the 2017 employee survey.

For further information on the development of the non-financial performance indicators of our operating segments, please refer to "Expectations for the operating segments" in this section.

For more detailed information on our ESG KPIs and our expectations, please refer to the section "Corporate responsibility and non-financial statement," **page 76 et seq.**

In both 2019 and 2020, we intend to achieve a moderate improvement in **customer loyalty/satisfaction** – which is measured using the **TRI*M index** performance indicator.

Having already achieved a high level of 4.1 – on a scale of 1.0 to 5.0 – on the **commitment index** in the 2017 employee survey, and in view of the results of the pulse surveys conducted in 2018, we expect the positive response of our employees regarding our Company to remain stable in the next employee survey, which is scheduled for 2019.

Our planning is based on the exchange rates in the following table.

Exchange rates

Croatian kuna	HRK	7.42
Polish zloty	PLN	4.26
Czech koruna	CZK	25.64
Hungarian forint	HUF	318.84
U.S. dollar	USD	1.18

The following table contains a summary of our model calculations and analyses of the key external factors that may have an effect:

Factors that may affect results

Premises	Current trend	Impact on results
ECONOMY		
Macroeconomic trends in Europe (incl. Germany)	steady	unchanged
Macroeconomic trends in the United States	steady	unchanged
Inflation in Europe (incl. Germany)	steady	unchanged
Inflation in the United States	steady	unchanged
Development of the U.S. Dollar exchange rate	steady	unchanged
Development of exchange rates of European currencies	steady	unchanged
REGULATORY/STATE INTERVENTION		
Regulation of mobile communications in Europe (incl. Germany)	steady	unchanged
Regulation of the fixed network in Europe (incl. Germany)	steady	unchanged
Taxes (in Europe/the United States)	steady	unchanged
MARKET DEVELOPMENT		
Intensity of competition in the telecommunications sector in Europe (incl. Germany)	steady	unchanged
Intensity of competition in the telecommunications sector in the United States	steady	unchanged
Price pressure in telecommunications markets	steady	unchanged
ICT market	increasing	unchanged
Data traffic	increasing	unchanged

positive unchanged negative

Expectations for Deutsche Telekom AG. The development of business at Deutsche Telekom AG as the parent company of the Group is reflected particularly in its service relationships with our subsidiaries, the results from our subsidiaries' domestic reporting units, and other income from subsidiaries, associated, and related companies. In other words, our subsidiaries' results from operations and the opportunities and challenges they face are key factors shaping the future development of Deutsche Telekom AG's figures. Accordingly, in addition to our expectations for the Group, the expectations described on the following pages concerning the operating segments' revenue and earnings – such as strong competition, regulatory intervention, market and economic expectations, etc. – have an impact on our expectations concerning the development of Deutsche Telekom AG's future income after taxes.

For the 2018 financial year, we will propose a dividend of EUR 0.70 per dividend-bearing share, which will also serve as a baseline for the dividend going forward. The dividend for the financial years starting 2019 is to reflect relative growth in adjusted earnings per share. Based on the aforementioned expectations for our operating segments and the resulting effects, and taking existing retained earnings into account, Deutsche Telekom AG expects to distribute a dividend of at least EUR 0.50 per dividend-bearing share for the financial years 2019 through 2021, subject to approval by the relevant bodies and the fulfillment of other legal requirements.

EXPECTATIONS FOR THE OPERATING SEGMENTS

GERMANY

In our Germany operating segment, we continue to work on our comprehensive transformation program and aim to secure our market position as the leading integrated telecommunications provider in Germany through innovative, competitive offers. We plan to largely complete the IP migration in Germany by the end of 2019 and to continue the infrastructure build-out of our high-performance networks. We will increasingly reduce the complexity of our products and processes through automation and digitalization initiatives and ensure greater end-to-end responsibility so as to offer the best service and best customer experience.

In the fixed network, we want to offer the best customer experience with fiber-optic-based products. We are paving the way for this with our integrated network strategy. We are building an IP-based network with high transmission bandwidths so that we can consistently offer our customers competitive high-speed lines, e.g., by working intensively to further roll out our FTTH network. In addition, we are investing heavily to offer greater coverage and even higher speeds in rural areas as well. For this purpose, we will continue in the future to rely on our hybrid router, which combines the bandwidths of fixed-network and mobile communications, thus enabling much higher transmission speeds. Furthermore, we are working towards further partnerships to provide even more customers with high bit-rate internet access – thereby setting the bar for sustainable broadband infrastructure.

In 2014, we were the first provider in Germany to market a comprehensive and convergent fixed-network/mobile (FMC) product: MagentaEINS. Our success story continues – we are consistently expanding our product family and enhancing its value, e.g., by launching the new mobile rate plan MagentaMobil XL in 2018, which offers customers an unlimited surfing flat rate in Germany. When designing our products, we pay particular attention to consistently high quality, a simple rate plan structure, and the innovative development of our existing service portfolio. In addition, our multiple-brand strategy in mobile communications allows us to address the entire customer spectrum – from discount shoppers through to premium customers, while the Magenta Business program successfully addresses business customers.

We want to secure an ever larger share of the growing TV market with a focus on entertainment and our exclusive streaming offers (e.g., exclusive series such as "The Handmaid's Tale" and "Cardinal" on MagentaTV and more than 100 seasons from the FOX+ series catalog). With the launch of MagentaTV in 2018, we offer our customers a unique television experience. To this end, we are investing in our IPTV platform and winning new customers with attractive content and services.

We want to remain the market leader in Germany in terms of revenue over the coming years and extend our lead through rising service revenues. We are responding to our customers' constantly growing demand for bandwidth and continuing to invest extensively in broadband networks, innovative products, and outstanding customer service. Revenues in our broadband business are constantly growing, while at the same time customer satisfaction levels are rising – we want to continue this growth trend again in 2019. We will improve customer satisfaction by driving forward the further development of mobile services (e.g., "Magenta apps") and ensuring seamless service across all channels (e.g., web, hotline, shop).

We expect revenue to grow slightly in our Germany operating segment in 2019, despite considerable adverse regulatory effects in our core business and tough competition. The value drivers are the growing broadband and TV revenues, the rising number of IP offerings, and revenue growth in our business customer area, e.g., thanks to the positive trend in IT and cloud business. We want to continue expanding our fiber-optic services, both by means of business models with wholesale products (such as the contingent model) and through further partnerships.

We also expect our growth initiatives in Germany to offset the volume-driven decline in revenue from traditional fixed-network business and to continue consolidating our position as market leader in mobile and fixed-network communications. Thanks to the outstanding quality of our network and the progress being made in fiber-optic rollout, we anticipate greater demand for mobile and broadband products as well as growth in the number of broadband, TV, IP, high-speed, and hybrid lines. Our Mittelstandsinitiative 2.0 (SME initiative 2.0) will drive forward the ICT solutions business for our business customers, bolstered by the digital transformation, and increasingly generate revenues from the IT and cloud environment as well as from M2M/IoT business. Wholesale sales volumes should continue to develop very positively thanks to strong demand for our contingent model.

We expect earnings to increase year-on-year for the next two years in our Germany operating segment. In 2019, we expect adjusted EBITDA AL of around EUR 8.7 billion, driven mainly by profitable revenue growth while at the same time cutting indirect costs, mainly through digitalization and automation. We forecast a slight improvement in the adjusted EBITDA AL margin which will be at around 40 percent in both 2019 and 2020.

Our course is set for innovation and growth: While we will continue to consistently promote investments in new technologies with great intensity in the future, we are reducing investments in legacy systems. The focus of our capital expenditures in the coming years will thus fall on our network infrastructure and our mobile network (e.g., FTTH, super vectoring, MIMO, 5G). At the same time, we want to further build out our fiber-optic network and close gaps in the network in rural areas. One focus here is business parks and we are driving forward the FTTH build-out accordingly. We want to continue this rollout efficiently and participate in development programs. We expect cash capex to remain stable in 2019 and to decline slightly in 2020.

UNITED STATES

In 2019, T-Mobile US will continue to execute on its Un-carrier promise to deliver the best value experience in the U.S. wireless industry. Key elements of the Un-carrier promise include delivering distinctive value for consumers in all customer segments by eliminating customer pain points and providing excellent 4G/ LTE services as well as continuing to build out its 5G network. Additionally, the Un-carrier initiatives focus on attracting and retaining a loyal customer base by offering devices when and how customers want them, and plans that are simple, affordable, and without unnecessary restrictions to deliver the best value in wireless.

Please note that the expectations below are on a stand-alone basis, and do not consider the impacts of completing the proposed business combination with Sprint.

T-Mobile US expects continued increases in branded postpaid customers in 2019 and 2020 while expecting slight increases in branded prepay customers in 2019 with a stable base continuing into 2020. However, competitive pressures and unforeseen changes in the wireless communications industry in the United States may significantly affect the expected ability to attract and retain branded postpaid and prepay customers.

T-Mobile US expects an increase in total revenues in U.S. dollars in 2019 and a further increase in 2020 as a result of continued branded postpaid customer growth momentum.

For 2019 and 2020, T-Mobile US expects a sustained increase – in U.S. dollars – in adjusted EBITDA AL. As a result of the significant growth in customers over the past year, revenue growth is expected to outpace increases in expense as T-Mobile US is able to take advantage of improved scale effects.

However, continued investment in the network will likely impact adjusted EBITDA AL. Competitive pressures may also significantly affect expected revenues and adjusted EBITDA AL in U.S. dollars. Exchange rate fluctuations may significantly affect revenues and adjusted EBITDA AL in euros in 2019 and 2020.

Excluding expenditures relating to spectrum, T-Mobile US expects an increase to cash capex in 2019 in U.S. dollars as it continues to build out its 5G network.

EUROPE

Our aim for the next few years remains to be Europe's leading telecommunications provider. One step on this road has been to position our Europe operating segment accordingly: Over the next two years, we want to become the leading provider of convergent product offers and services based on fixed-network and mobile communications (FMC). We also plan to play a decisive role in shaping the digital transformation by offering intelligent solutions for households, our business customers, and municipalities on the basis of an integrated IP network comprising a range of technologies.

The Europe operating segment is distinguished by its strong portfolio of companies. The majority of our national companies are already integrated and, as well as having a high brand recognition value, are substantially relevant in their respective home markets. We want to systematically transform those companies that are still largely mobile-centric into integrated enterprises. On July 31, 2018, for example, we completed the acquisition of UPC Austria, which will help us grow our national company in Austria into a strong integrated telecommunications provider. We also concluded an agreement with Orange in the reporting year that will enable us to offer comprehensive convergent services in Poland in the future, thanks to the shared use of Orange's fiber-optic network. In addition to this, T-Mobile Polska entered into another wholesale-FTTH agreement with the network operator Nexera. Our company in the Czech Republic began rolling out its own fiber-optic network in 2018, which we will now rapidly expand over the next few years – including with support from partners. On January 15, 2019, OTE concluded an agreement concerning the sale of its entire stake in Telekom Albania Sh.A. (Telekom Albania) to the Bulgarian company Albania Telecom Invest AD for a total value of EUR 50 million. The transaction is subject to the customary closing conditions, including approval from the responsible local authorities and financing, and is expected to be completed in the first half of 2019.

We want to create the best customer experience for our customers. Our convergent product portfolios MagentaOne and MagentaOne Business provide strong offerings with which we can successfully help shape developments in the European markets. As a leader in convergent products, we can offer additional services and thus help to lower the churn rate and create a stable customer base. This stability has a positive influence on the value we have on the markets of our operating segment. In particular, we want to win over households with seamless access to our innovative services, e.g., with SmartHome for intelligent future living. Customers receive a complete solution that lets them control a wide range of devices and equipment – such as heating, lights, smoke detectors, and movement sensors – at home or on the move via a single app. The solution integrates various functions and vendors and can be expanded with different modules. Three of our national companies are already offering SmartHome to customers. In Austria, for instance, our national company's SmartHome offering is based on the Qivicon SmartHome platform. A particular focus is set on the issue of security here, in that we offer a security package for SmartHome applications. We believe that, in this way, we can increase the overall percentage of households in Europe to more than 50 percent by 2021. As a result, we expect FMC revenues to increase by around 25 percent per annum until 2021.

One of the main factors for the success of FMC is TV business. A key focus is the seamless experience of TV and entertainment services, in particular high-quality and exclusive content. In the future, we will negotiate to acquire exclusive rights to broadcast sports events, such as the Champions League, or the rights to TV movies/series. In addition, we are focusing on offering high-quality content at a local level. We are also working in partnership with OTT players such as Netflix and gradually expanding our offering of OTT services across all screens. We will continue to participate in the production of our own content and channels, as in Greece, for example, with the OTE History channel, or in Slovakia with Tuki TV. Overall, we expect to further increase our revenues from TV business over the next two years.

We want to take a further step towards creating the best customer experience by providing perfect customer service. Digitalization plays a key role in this: In the reporting year, for example, we launched a service app for consumers (OneApp). This app enables us to largely digitalize our interaction with customers, which means we can meet customer needs in a more personalized and efficient way, and position products and innovative services on the market more quickly. It has already been successfully established on the market in five of our national companies and has already attracted 2.3 million users. Rollout to all countries of our segment is to be completed by the end of the first half of 2019. By 2021, we plan to achieve a penetration rate of more than 50 percent. We believe that our customers will reward the significantly improved service. By 2021, we want to achieve first or second place in terms of customer satisfaction, based on the empirically determined TRI*M index (customer survey).

The broadband build-out will remain a key focus of activities in the coming years. Our state-of-the-art network infrastructure supports the digital transformation and enables us to leverage our technology leadership: We therefore plan to take part in further spectrum auctions. Our investments in mobile communications are currently focused on two areas: expanding LTE reach and implementing additional LTE frequency layers in order to increase network capacity. LTE Advanced technology will help make higher transmission rates of 300 Mbit/s and well beyond possible. In 2018, we already covered 97 percent of the population on average in the countries of our Europe operating segment with LTE and are thus well on track: Ultimately, we aim to achieve network coverage of 99 percent in our European footprint by 2021. The next-generation mobile communications standard, 5G, is just around the corner: We plan to begin with the first pilot projects from 2019; 5G will gradually be launched commercially depending on the outcome of spectrum auctions. We have successfully launched Narrowband IoT as 5G technology in eight national companies. One aim of our integrated network strategy is to make further advances in the fiber-optic rollout.

In Hungary, Romania, Slovakia, Croatia, Macedonia, and Montenegro, we have been investing in the FTTH rollout for a number of years now, and plan to continue doing so in combination with vectoring. In 2018, we also launched the FTTH rollout in the Czech Republic and Greece; previously in Greece, we had a fiber-optic network up to the street cabinets using vectoring technology. The aim now is to supply around 0.75 million new households per year with optical fiber by 2021. Overall, by 2021, we want 30 percent of all households in the four major integrated national companies (Hungary, Greece, Croatia, and Slovakia) to have access to optical fiber.

For our business customers, we will continue to work noticeably on infrastructure over the next two years to enable us to maintain our promise of the best network, and thereby remain the preferred partner for small and medium-sized enterprises (SMEs) as well as for our corporate and industry customers. Thanks to having the right cloud/ICT solutions, we create an even better all-in-one experience, tailored to any business model. By 2021, we want to generate revenue of EUR 500 million with convergent solutions for SMEs (FMCC business, +10 percent per year) and EUR 1.3 billion for corporate customers (ICT business, +7 percent per year). Digitalization and the digital experience remain key to our success in European cities and municipalities, as well as in all customer contact – from providing information and buying online, through to self-service.

In our Europe operating segment, we expect to win more customers over the next two years, mainly thanks to the good performance of our convergence brand MagentaOne. Consequently, we expect the number of TV and broadband customers to increase in 2019 and 2020. The number of mobile customers is expected to increase slightly year-on-year in 2019 on a like-for-like basis, and to increase again in 2020. We expect fixed-network voice telephony to be replaced more and more by mobile communications, hence we forecast fixed-network lines to develop stably in 2019 and 2020.

Changes in legislation, for example regarding taxes and duties, national austerity programs, and the decisions of regulators may have a negative impact on our revenue and earnings in the next two years. Changes in exchange rates could also affect our earnings on a euro basis.

Based on these assumptions and parameters, we expect revenue in our Europe operating segment to increase slightly in 2019 on a comparable basis, i.e., based on the pro-forma figures for 2018 (for instance, the inclusion of the UPC Austria acquisition for a full twelve months); this is assuming constant exchange rates and based on specific assumptions about regulation, new market players, spectrum auctions, and unchanged organizational structure. 2020 will then see a continuation of this moderate revenue growth trend.

Vigorous competition in the markets of our operating segment could potentially put pressure on our margins. To be ready for such an eventuality, we want to increase our productivity and exploit the benefits of digitalization, for instance by automating processes, with the aim of realizing cost-cutting potential. We expect adjusted EBITDA AL to increase year-on-year in 2019 to around EUR 4.0 billion, and to continue to increase slightly in 2020.

In order to expand our technology leadership, we continue to invest in our integrated networks and plan to maintain our high level of investments over the next few years. However, cash capex will decrease against the prior year in 2019. It is expected to level out in 2020.

SYSTEMS SOLUTIONS

Part of our Group strategy is the ambition to be a leading partner for business customer productivity. Secure and reliable ICT solutions drive forward the integrated digitalization of our business customers in the Internet of Things. Our horizontal platforms and vertical solutions facilitate continuous operation of traditional systems as well as the transformation to digital business applications, which can be operated according to specific requirements. Partner products and services are an integral part of our portfolio, which offers our customers vendor-independent managed services.

Under the program to transform our Systems Solutions business launched at the start of 2018, we have realigned our organization and processes, developed a new strategy for our portfolio, and created three product clusters. Overall, ten portfolio units and an emerging business unit will now be responsible for both our traditional IT and telecommunications business and our growth areas:

- **“Telecommunications (TC)” cluster:** Fixed-network and mobile services form the basis and the core of our business customer segment. We are investing in new technologies and driving forward the technology revolution so as to guarantee our customers corresponding added value and global availability.

- **“Traditional information technology (IT)” cluster:** Dedicated SI solutions, managed infrastructure services, and private cloud offerings secure our customers’ existing infrastructure and form the starting point for the transformation into new business areas. Efficiency enhancement measures help us stabilize our margins in these business areas, while price pressure remains high.

- **“Growth business” cluster:** SAP, digital solutions, public cloud, security, Internet of Things, classified ICT, health, and road charging – our investments in these growth areas offer our customers the best solutions on future-proof platforms. Focusing on scalable business models and global partnerships with specialized vendors enables attractive margins and our continued investment in these areas.

Following a sharp increase in order entry in 2018, we are continuing to drive forward expansion of the growth business, while at the same time stabilizing the core telecommunications and traditional IT business, with the aim of achieving a significant shift in the revenue mix towards growth areas by 2022.

We are among the top providers in the European IT market. Our consistently very high levels of customer satisfaction are a core element in maintaining this position in the long term as well as in playing a leading role in digitalization.

Overall, we forecast growth in order entry for the Systems Solutions operating segment in 2019 and stable revenue. Adjusted EBITDA AL is expected to amount to around EUR 0.5 billion. Following high levels of investment in the growth areas in the reporting year, we expect a sharp decrease in cash capex. For 2020, we expect order entry to remain stable against the prior year, a moderate increase in revenue, an increase in adjusted EBITDA AL, and stable cash capex.

GROUP DEVELOPMENT

We expect revenue to increase for our Group Development operating segment in 2019, and again in 2020. Adjusted EBITDA AL is set to increase in 2019 to around EUR 1.0 billion; for 2020 we expect a further increase.

We will continue to deal with intense competition in the Netherlands through our strategy, which is expected to also take effect in 2019, following the stabilization of EBITDA in 2018. The main elements of this strategy are a repositioning of the core brand T-Mobile, expansion of the products and services on offer through T-Mobile Thuis (fixed network), and efficient management of costs. In addition, the acquisition of Tele2 Netherlands by T-Mobile Netherlands was consummated on January 2, 2019, after the European Commission approved the transaction on November 27, 2018 without conditions. This marks an important component of our long-term strategy. This business combination will create a sustainable provider of convergent fixed-mobile products and services on the Dutch market, which will be better positioned to challenge the FMC duopoly of KPN and Vodafone-Ziggo. The value contributions from the acquisition in the Netherlands are included in our outlook.

Network investments, which remain at a high level, will help safeguard the strategy of T-Mobile Netherlands over the coming years. We expect investments at DFMG to grow sharply in 2019 and 2020, mainly due to the further build-out of cell sites in Germany.

GROUP HEADQUARTERS & GROUP SERVICES

At Group Headquarters & Group Services, we will stay focused over the next two years on our ongoing efficiency enhancement measures, with which we are further optimizing our structures, especially within Group Services. We will also continue to focus on implementing our cost-cutting measures – primarily by optimizing the reallocation of human resources and enhancing the value of our real estate portfolio by means of innovative space and workplace concepts. By cutting costs, we can help improve our earnings, while also putting ourselves in a position to offer our services to the operating segments more cost effectively.

Our Technology and Innovation Board department will again step up investments in technology development in Germany and in expanding centralized production platforms as part of the Pan-IP program in 2019 and 2020. On the one hand, we expect this to reduce overheads and investments, driven by IT operating costs and by the ongoing standardization of the IT infrastructure and platforms. On the other, the establishment of the centralized production platforms will incur rising costs and investments for Pan-IP. Overall, we expect the cost level to improve over the next two years.

RISK AND OPPORTUNITY MANAGEMENT SDG 16

- We have an effective early warning system for risks in place
- We identify our opportunities and specify them during the planning process

BOARD OF MANAGEMENT'S ASSESSMENT OF THE AGGREGATE RISK AND OPPORTUNITY POSITION

The assessment of the aggregate risk position is the outcome of the consolidated analysis of all material risk categories or individual risks. The aggregate risk position did not change fundamentally in 2018 compared with the previous year. Our major challenges particularly include the regulatory factors, intense competition, and strong price erosion in the telecommunications business. As it stands today, Deutsche Telekom's Board of Management sees no risk to the Group's continued existence as a going concern. As of the reporting date and the time of preparing the statement of financial position, there were no risks that jeopardize Deutsche Telekom AG's and key Group companies' continued existence as a going concern.

We are convinced that we will also be able to master challenges and exploit opportunities in the future without having to take on any unacceptably high risks. We strive to achieve a good overall balance between opportunities and risks, with the aim of increasing added value for our Company and our shareholders by analyzing and seizing new market opportunities.

RISK AND OPPORTUNITY MANAGEMENT SYSTEM

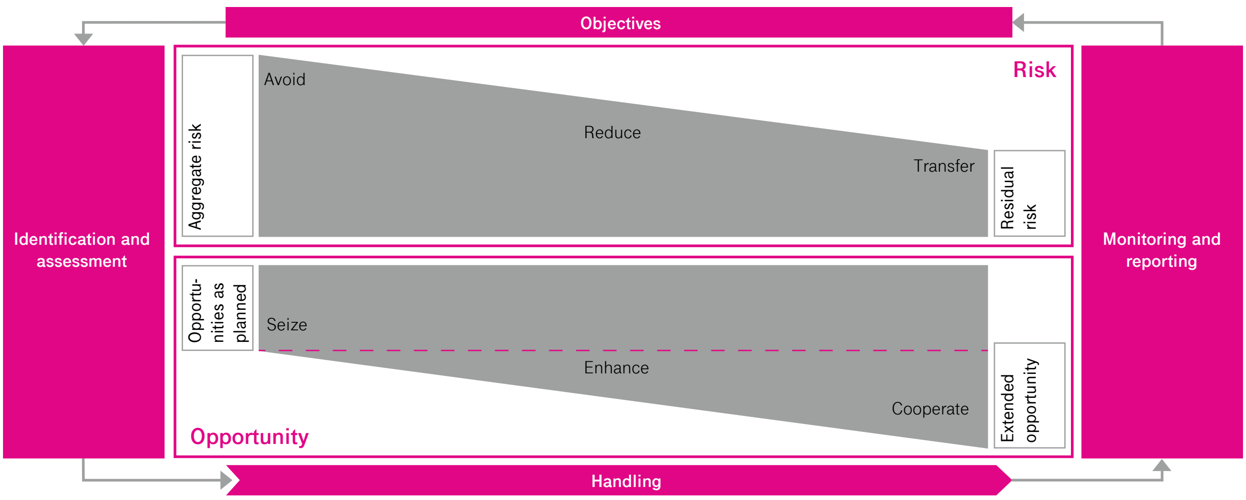
As one of the world's leading providers in the telecommunications and information technology industry, we are subject to all kinds of uncertainties and change. In order to operate successfully in this ongoing volatile environment, we need to anticipate any developments at an early stage and systematically identify, assess and manage the resulting risks. It is equally important that we recognize and exploit opportunities. We therefore consider a functioning risk and opportunity management system to be a central element of value-oriented corporate governance.

A risk and opportunity management system of this kind is not only necessary from a business point of view; it is also required by laws and regulations, in particular § 91 (2) of the German Stock Corporation Act (Aktiengesetz – AktG). The Audit Committee monitors the effectiveness of the internal control system and the risk management system as required by § 107 (3) sentence 2 AktG.

Our Group-wide risk and opportunity management system covers strategic, operational, financial, and reputational risks as well as the corresponding opportunities for our fully consolidated entities. The aim is to identify these risks and opportunities early on, monitor them, and manage them in accordance with the desired risk profile.

We base our system on an established standard process (see the following graphic). Once risks and opportunities have been identified, we move on to analyze and assess them in more detail; the effects of risks and opportunities are not offset against each other. We then decide on the specific course of action to be taken, for example, in order to reduce risks or seize opportunities. The respective risk owner implements, monitors, and evaluates the associated measures. All steps are repeatedly traversed and modified to reflect the latest developments and decisions.

Risk and opportunity management system



Our risk and opportunity management system is based on the globally applicable risk management standard of the International Standards Organization (ISO). ISO standard 31 000 “Risk management – Principles and guidelines” is regarded as a guideline for internationally recognized risk management systems.

Our Internal Audit unit reviews the functionality and effectiveness of our risk management system at regular intervals. The external auditor mandated by law to audit the Company’s annual financial statements and consolidated financial statements in accordance with § 317 (4) of the German Commercial Code (Handelsgesetzbuch – HGB) examines whether the risk early warning system is able to identify at an early stage risks and developments that could jeopardize the Company’s future. Our system complies with the statutory requirements for risk early warning systems and conforms to the German Corporate Governance Code.

In addition, our Group Controlling unit specifies a series of Group guidelines and processes for the planning, budgeting, financial management, and reporting of investments and projects. These guidelines and processes guarantee both the necessary transparency during the investment process and the consistency of investment planning and decisions in our Group and operating segments. They also provide the Board of Management and the Board of Management Asset Committee with support in reaching their decisions. This process also includes the systematic identification of strategic risks and opportunities.

ORGANIZATION OF THE RISK AND OPPORTUNITY MANAGEMENT SYSTEM

The Group Risk Governance unit (formerly Group Risk Management) defines the methods for the risk and opportunity management system that is applied Group-wide and for the associated reporting system, in particular the Group risk report. Our Germany, United States, Europe, Systems Solutions, and Group Development operating segments as well as the Group Headquarters & Group Services segment are connected to the central risk and opportunity management system of the Group via their own risk and opportunity management systems. The Group risk report, which primarily aggregates the contents provided by our segments, is approved by the Board of Management on a quarterly basis and presented to the Audit Committee of the Supervisory Board of Deutsche Telekom. The relevant risk owners in each of the operating segments and the Group Headquarters & Group Services segment are responsible for identifying, assessing, and continuously monitoring risks. Management takes potential opportunities into account in the annual planning process and continuously develops them further during business operations.

RISK IDENTIFICATION AND REPORTING

Each operating segment produces a quarterly risk report in accordance with the standards laid down by the central risk management and based on specific materiality thresholds. These reports assess risks, taking into account their extent in terms of impact on results of operations or financial position, as well as their probability of occurrence, and they identify action to be taken and suggest or initiate measures. The assessment additionally includes qualitative factors that could be important for our strategic positioning and reputation, and that also determine the aggregate risk. We base our assessment of risks on a period of two years. This is also the length of our forecast period.

The Group risk report, which presents the main risks, is prepared for the Board of Management on the basis of this information. The Board of Management informs the Supervisory Board. The Audit Committee of the Supervisory Board also examines this report at its meetings. If any unforeseen risks arise outside regular reporting of key risks, they are reported ad hoc.

IDENTIFICATION AND ASSESSMENT OF OPPORTUNITIES IN THE ANNUAL PLANNING PROCESS

The systematic management of risks is one side of the coin; securing the Company’s long-term success by means of integrated opportunities management is the other. That is why identifying opportunities and subjecting them to a strategic and financial assessment is an essential part of our annual planning process. It allows us to factor those opportunities into our forecasts for financial and non-financial performance indicators.

The short-term monitoring of results and the medium-term planning process help our operating segments and Group Headquarters identify and seize the opportunities in our business throughout the year. While short-term monitoring of results mainly targets opportunities for the current financial year, the medium-term planning process focuses on opportunities that are strategically important for our Group. In this context we distinguish between two types of opportunity:

- External opportunities, i.e., those with causes over which we have no influence, for example, the revocation of additional taxes in Europe.
- Internal opportunities, i.e., those that arise within the Company, for example by focusing our organizational structure on innovation and growth areas and products, or through business partnerships and collaborations from which we expect to reap synergies.

We are constantly enhancing the efficiency of our planning process so as to gain greater scope for action. This puts the organization in a position to identify and seize new opportunities and generate new business. The preliminary plans of our operating segments form the basis for a concentrated planning phase during which members of the Board of Management, business leaders, senior executives, and experts from all business areas intensively discuss the strategic and financial focus of our Group and our operating segments, and from all of which they ultimately produce an overall picture. The identification of opportunities from innovation and their strategic and financial assessment play a major role throughout this process. This "brainstorming" may result in opportunities being rejected, passed back to the respective working groups for revision, or adopted and transferred to the organization.

RISK ASSESSMENT AND RISK CONTAINMENT

ASSESSMENT METHOD

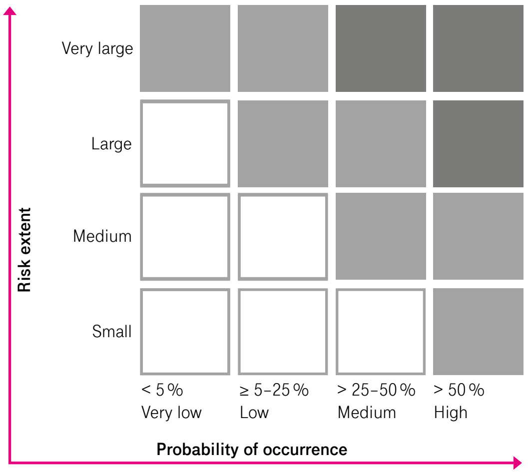
Risks are assessed on the basis of "probability of occurrence" and "risk extent." The following assessment yardsticks apply:

Probability of occurrence	Description
< 5 %	very low
≥ 5 to 25 %	low
> 25 to 50 %	medium
> 50 %	high

Risk extent	Description
Small	Limited negative effects on business activities, results of operations, financial position, and reputation; individual EBITDA risk < € 100 million
Medium	Certain negative effects on business activities, results of operations, financial position, and reputation; individual EBITDA risk ≥ € 100 million
Large	Significant effects on business activities, results of operations, financial position, and reputation; individual EBITDA risk ≥ € 250 million, and/or affects more than one Group entity
Very large	Damaging negative effects on business activities, results of operations, financial position, and reputation; individual EBITDA risk ≥ € 500 million, and/or affects more than one Group entity

By assessing risks according to the aspects of probability of occurrence and risk extent, we classify them as low, medium, and high risks, as shown in the following graphic. From the 2019 financial year, the risks and opportunities will no longer be assessed in terms of their risk extent using the performance indicator EBITDA, but rather using EBITDA AL (after leases).

Risk significance



■ High risk ■ Medium risk □ Low risk

We report all risks classified as "high" and "medium." Exceptions are possible, for example, risks from prior years that we can continue to list for the sake of reporting continuity although they are classified as "low" in the current reporting period.

It should be noted that risks with an extent currently assessed as being small may in the future have a stronger impact than risks currently assessed as having a larger extent. This may be due to uncertainties that cannot be assessed at present and over which we have no influence. Uncertainties of this kind also give rise to risks that are currently unknown to us or that we presently consider to be insignificant and that may affect our business activities in the future.

RISK CONTAINMENT MEASURES

Group insurance management. To the extent possible and economically viable, we take out adequate Group-wide insurance cover for insurable risks. DeTeAssekuranz – a subsidiary of Deutsche Telekom AG – acts as an insurance broker for Group Insurance Management (part of Group Headquarters & Group Services). It develops and implements solutions for the Group's operational risks using insurance and insurance-related tools and places them on the national and international insurance markets.

Taking out insurance cover is an essential option for our external risk transfer. The coverage of risks in our Group insurance programs requires the transfer of risk for the purpose of protecting the Group's financial position. That means that the possible extent of the risk must have reached a volume "relevant for the Group" or the risks have to be bundled and managed at Group level to protect the Group's interests (opportune reasons/cost optimization/risk reduction).

For further information on the new performance indicators, please refer to the section "Management of the Group," **page 38 et seq.**

Business Continuity Management (BCM). BCM is a process within operational security and risk management that helps protect business processes from the consequences of damaging incidents and disruptions. It ensures the continuation of business processes through ongoing analysis, assessment, and management of relevant risks for people, technology, infrastructure, supply and service relationships, and information. The aim is to identify potential threats at an early stage and to keep the impact and duration of a disruption of critical business processes to an acceptable minimum by ensuring appropriate resilience in the organization plus the ability to effectively cope with threats. SDG 9

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

STRUCTURE

To this end, BCM identifies critical business processes and business processes requiring protection, including any supporting processes, process steps, and assets (people, technology, infrastructure, information, and supply and service relationships). Appropriate precautionary measures are also defined. In particular, Security Management works in coordination with the relevant units and process owners to analyze the possible consequences of external and internal threats with relevance for security, such as natural disasters, vandalism, or sabotage. Once the extent of potential losses and probability of occurrence have been assessed, preventive measures can be put in place and contingency plans developed.

The risk owners initiate and execute further measures to mitigate the risks. A wide range of measures are available, depending on the risk type. A few examples of these measures are:

- We tackle market risks with comprehensive sales controlling and intensive customer management.
- We manage interest and currency risks by means of systematic risk management and hedge them using derivative and non-derivative financial instruments.
- We also take a whole array of measures to deal with operational risks: For example, we constantly implement operational and infrastructural measures in order to improve our networks; continually enhance our quality management system, the associated controls, and quality assurance; and offer our employees systematic training and development programs.
- We deal with risks from the political and regulatory environment through an intensive, constructive dialog with policymakers and the authorities.
- We minimize risks in connection with legal proceedings by ensuring suitable support for those proceedings and by designing contracts appropriately in the first place.
- The Group Tax unit identifies potential tax-related risks at an early stage and systematically records, assesses and monitors them. It takes any measures necessary to minimize tax-related risks and coordinates them with the Group companies affected. The unit also draws up and communicates policies for avoiding tax risks.

RISKS AND OPPORTUNITIES

In the following section, we present all risks and opportunities of significance to the Group that, as things currently stand, could affect the results of operations, financial position, and/or reputation of Deutsche Telekom and, via the subsidiaries' results, the results of operations, financial position and/or reputation of Deutsche Telekom AG. We describe the majority of the risks before the measures for risk containment are taken. If any remaining risks have been identified despite such measures for risk containment, they are labeled as such. If risks and opportunities can be clearly allocated to an operating segment, this is presented accordingly in the following.

In order to make it easier to understand and see their effects, we have allocated the individually assessed risks to the following categories:

Corporate risks

	Probability of occurrence	Risk extent	Risk significance	Change against prior year
INDUSTRY, COMPETITION, AND STRATEGY				
Economic risks, Germany	low	small	low	→
Economic risks, United States	low	medium	low	→
Economic risks, Europe	low	medium	low	→
Risks relating to the market and environment, Germany	high	small	medium	↘
Risks relating to the market and environment, United States	medium	large	medium	→
Risks relating to the market and environment, Europe	medium	medium	medium	→
Risks relating to innovations (substitution)	medium	medium	medium	→
Risks relating to strategic transformation and integration	medium	very large	high	↘
REGULATION	see page 119 et seq.			
OPERATIONAL RISKS				
Personnel, Germany and Systems Solutions	medium	small	low	→
Risks relating to IT/NT network operations, Germany	low	large	medium	→
Risks relating to IT/NT network operations, United States	very low	very large	medium	→
Risks relating to IT/NT network operations, Europe	very low	large	low	→
Risks relating to existing IT architecture, United States	medium	medium	medium	→
Future viability of the IT architecture, United States	medium	large	medium	→
Procurement	low	small	low	→
Data privacy and data security	high	medium	medium	→
BRAND, COMMUNICATION, AND REPUTATION				
Brand and reputation (reporting in the media)	low	small	low	→
Sustainability risks	very low	small	low	→
Health and environment	low	medium	low	→
LITIGATION AND ANTI-TRUST PROCEEDINGS	see page 125 et seq.			
FINANCIAL RISKS				
Liquidity, credit, currency, interest rate risks	low	medium	low	→
Tax risks	see page 128			
Other financial risks	see page 128			

↗ improved → unchanged ↘ deteriorated

RISKS AND OPPORTUNITIES FROM INDUSTRY, COMPETITION, AND STRATEGY

Risks and opportunities relating to the macroeconomic environment. As an international corporation, we operate in a large number of countries, using a range of currencies. A substantial economic downturn could reduce the purchasing power of our customers and adversely affect our access to the capital markets. Exchange rate fluctuations could impact on our earnings.

Despite the positive overall economic development in the past year, economic uncertainties have increased worldwide. Leading institutes and organizations have revised their growth forecasts downwards and expect global economic growth to slow down. The main risks for future economic development are:

- Uncertainties from international trade conflicts
- The vulnerability of emerging economies to higher interest rates in the United States and capital outflows
- A disorderly Brexit
- Political uncertainties, especially in Europe

These risks are offset by opportunities, especially from the unabated strong growth in the United States and in most countries of our Europe operating segment. There are no signs of a recession in the United States in 2019. We merely expect the rate of growth to slow as a result of falling fiscal impetus. The economic momentum will also fade in Europe. Falling demand for exports should be offset, at least in part, by ongoing stability in the domestic economy in Europe. Accordingly, we only expect a slowdown in growth here; the upturn should continue and unemployment should fall further. This is all the more true as the expansive monetary policy of the European Central Bank (ECB) stimulates domestic demand and investment activity in the eurozone.

See the section “Forecast,” page 102 et seq.

Risks relating to the market and environment. The main market risks we face include the steadily falling price level for voice and data services in the fixed network and in mobile communications. In addition to price reductions imposed by regulatory authorities, this is primarily attributable to ongoing intensive competition in the telecommunications industry.

Competitive pressure is expected to continue, especially in the fixed network in Germany and Europe. In the broadband market, the trend of disproportionate growth in the market shares of regional network operators, particularly in Germany, continues to establish itself. They build out their own infrastructure and thus increase their market coverage. Increasingly this is done with fiber-optic infrastructure, thereby increasing their customer numbers and expanding their own value added. There is still strong competition to gain new customers by cutting prices and offering introductory discounts.

The risk significance for the risk cluster relating to the market and environment in Germany was raised from “low” to “medium” following the announcement by Vodafone Deutschland in early May 2018 of its plans to acquire Unitymedia from Liberty Global. The planned takeover would give Vodafone an extremely large share of the cable TV market and establish its dominance in the housing market. This could have a negative impact on our revenues in the retail and wholesale area.

We expect ongoing price pressure for mobile voice telephony and mobile data services, which could adversely affect our mobile service revenue. Among the main reasons for this price pressure are data-centric, aggressively priced offers. Providers that do not have their own infrastructure (MVNOs) market such offers over the internet, for instance, while there is also the risk that smaller competitors will take unforeseen, aggressive pricing measures. Technological innovations such as the use of pure eSIMs in smartphones could put further pressure on prices by increasing the willingness of customers to switch providers.

Another competitive risk lies in the fact that, both in the fixed network and in mobile communications, we are increasingly faced with competitors who are not part of the telecommunications sector as such, but are increasingly moving into the traditional telecommunications markets. This mainly relates to major players in the internet and consumer electronics industries. As a result, we are exposed to the risk of a further loss of share of value added and falling margins due to increasingly losing direct customer contact to competitors.

T-Mobile US has multiple wireless competitors, some of which have greater resources and compete for customers based principally on service/device offerings; price; network coverage, speed, and quality; and customer service. Market saturation in the United States will continue to cause the wireless industry’s customer growth rate to be moderate in comparison with historical growth rates, or possibly negative, leading to ongoing competition for customers. T-Mobile US expects that its customers’ appetite for data services will place increasing demands on its network capacity. The scarcity and cost of additional wireless spectrum, and regulations relating to spectrum use, may adversely affect T-Mobile US’ business strategy and financial condition and operating results. T-Mobile US faces intense and increasing competition from other service providers as industry sectors converge, such as cable, telecommunications services and content, and satellite television. Joint ventures, mergers, acquisitions, and strategic alliances in the wireless sector have resulted in and are expected to result in larger competitors competing for a limited number of customers.

The business combination of T-Mobile US and Sprint is contingent upon approval by various U.S. Government authorities that may choose to impose additional conditions, delay, or even block the proposed business combination. Although we firmly believe that the business combination will generate synergies and further benefits, we cannot rule out the possibility that these cannot be realized to the extent anticipated or within the planned time frame. In the event the authorities do not approve the business combination, the resulting incremental risk exposure for Deutsche Telekom would relate primarily to the failure of the expected positive effects – i.e., the synergies and further benefits for our U.S. business – to materialize.

Our Systems Solutions operating segment also faces challenges. Continued strong competition and persistent price erosion are adversely affecting traditional ICT business. In addition, the technological shift toward cloud solutions and digitalization in the IT sector is prompting new, strongly capitalized, competitors to enter the market. The introduction of IP technology in telecommunications business is enabling price reductions, which poses a risk of revenue losses and declining margins at T-Systems.

Opportunities relating to the market and environment. The telecommunications and IT market is extremely dynamic and highly competitive. The economic conditions affect our actions and impact on our Company indicators. We generally expect the situation to develop as described in the section “Market expectations.” In the following section, we present the risks and opportunities that we believe will allow us to achieve market growth and that could be significant for us in terms of our future financial position and results.

Risks relating to innovations (substitution). Innovation cycles are getting shorter and shorter. This confronts the telecommunications sector with the challenge of bringing out new products and services at shorter and shorter intervals. New technologies are superseding existing technologies, products, or services in part, in some cases even completely. This could lead to lower prices and revenues in both voice and data traffic. These substitution risks could impact our revenue and earnings, in particular in the Europe and United States operating segments. We deal with the impact of substitution risks by offering package rates, for example: We offer new and existing customers integrated solutions from our product portfolio.

Opportunities relating to innovations. In addition to the risks described, ever-shorter innovation cycles enable us to drive the digital transformation of our society and to provide our consumers and business customers with highly innovative products and solutions. That is why our innovation and product development activities are decisive when it comes to identifying opportunities and making the most of them in an increasingly competitive environment. In order to guarantee this, and do justice to the growing convergence of networks and IT, we have combined all relevant functions under joint management in our Board of Management department Technology and Innovation, in order to enable closer integration of the areas of innovation, networks, and IT.

Risks relating to strategic transformation and integration. We are in a continuous process of strategic adjustments and cost-cutting initiatives. If we are unable to implement these projects as planned, we will be exposed to certain risks. In other words, the benefit of the measures could be less than originally estimated, take effect later than expected, or not at all. Each of these factors, individually or in combination, could have a negative impact on our business situation, financial position and results of operations.

The risk significance for this risk cluster has been raised from "medium" to "high" in connection with the rollout of the new mobile communications standard, 5G, the outcomes of the planned auctions for 5G spectrum bands and the associated award conditions, as well as regulatory requirements and the limited number of telecommunications hardware providers.

Opportunities relating to strategic transformation and integration. The IP transformation (all IP) offers many opportunities. A logical network is being created that speaks a single language and, in technical terms, functions largely independently of the services transmitted. This will enable efficiency gains, e.g., by reducing the complexity of maintenance and operation, switching off service-specific legacy platforms, and saving energy. SDG 13 In addition, all IP will generate growth potential in the short to medium term by improving the customer experience of existing services (e.g., better voice quality, more customer self-service, greater configuration flexibility) and, in the medium to long term, by providing an indispensable basis for convergence products and the Internet of Things (IoT), and by shortening the time to market for new products.

But the all-IP network can do more. It is the network infrastructure cloud underpinning not only the virtualization of functions and services, but also joint production across borders (Pan-Net). This will also create opportunities for enhancing efficiency and for growth. The idea of developing services only once and then marketing them in different countries simultaneously promises more than just synergies – it is a chance to get those services to market faster and more cost-effectively.

5G is the next-generation mobile telecommunications network. Not only are we involved in a large number of different organizations and forums, we are also working intensively in collaboration with research institutions and industry to develop this future standard, which will address an array of challenges facing telecommunication networks. These include purely technical requirements, such as achieving a substantial increase in capacity, bandwidth, and availability, and lower latency. SDG 9

In addition, there are fundamental issues, such as M2M communication on a large scale in the Internet of Things (IoT) and the growing need for reliability, security, and guaranteed resource allocation in industrial applications. 5G thus offers not only the immediate opportunity of cost-effectively managing rapidly increasing demands in existing business models going forward, but also opportunities for further business models by marketing network capabilities (e.g., network access, localization, security, identity, storage location, temporary storage, real-time processing) to relevant partners. We are already working on implementing the first use cases such as campus networks and mobile edge computing, in which data is processed in a decentralized manner (at the edges of the network). Together with other technologies like the Narrowband Internet of Things (NB-IoT) and artificial intelligence (AI), 5G and edge computing provide the underpinnings for the further digital transformation of society. SDG 9

In addition, we are driving forward the transformation of our IT using agile development. This approach allows us to exploit new opportunities for efficient IT production, through the modular provision of components as well as through accelerated development. Furthermore, agile development makes it possible to reduce big bang risks in the delivery of major software releases.

RISKS AND OPPORTUNITIES RELATING TO REGULATION

In the following section, we describe the main regulatory risks and opportunities that, as things currently stand, could affect our results of operations and financial position, and our reputation.

Regulatory risks arise from telecommunications-specific statutory regulations at the European and national level, and from the consequent powers of national authorities to regulate or intervene in the market and limit our freedom as regards product design and pricing. Deregulation can give rise to regulatory opportunities. Regulatory intervention, which we can only anticipate to a limited extent, may exacerbate existing price and competitive pressure. There are concerns that regulation in Germany and other European countries may also impact revenue and earnings trends in the medium to long term.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

RELATIONSHIPS

For further information on our innovation activities, please refer to the section "Innovation and product development," page 89 et seq.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

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Areas in which national regulators may intervene

European and national laws and regulations grant national regulators extensive powers of intervention. A case in point at the European level is the EU Regulation concerning the single market for electronic communications, which was enacted 2015. It comprises provisions on international roaming, net neutrality, and disclosure obligations, which restrict our product-design options, mainly as regards retail products. The Body of European Regulators for Electronic Communications (BEREC) has published guidelines for implementing this regulation. Risks arise from how the national regulators interpret both the regulation and these guidelines. In Germany, for example, the Federal Network Agency has wide-ranging powers under law to require products to be adjusted in order to enforce the regulation and to impose fines in cases of non-compliance.

Our Group companies in Germany and abroad continue to be subject to comprehensive regulation of wholesale products, obligating us to make our network and services available to our competitors. The national regulators regularly check and determine the corresponding terms, conditions and prices of these wholesale offerings. The key wholesale products subject to regulation are unbundled local loop lines, bitstream products, leased lines, termination rates, and the associated services. In addition, European and national consumer protection regulations apply. In Germany, for instance, the Transparency Regulation came into force on June 1, 2017, the main objective of which is to enhance transparency and cost control with telecommunications services for consumers. In this context, the Federal Network Agency introduced a system that enables consumers to measure the bandwidths available on their fixed-network and mobile lines.

In addition to the requirements of telecommunications law, our media products are also subject to special European and national regulations under media law. The latter include, in the broader sense, copyright law, regulations concerning the responsibility for published content, requirements in relation to ensuring the protection of minors in the media, and requirements in relation to the content and user interfaces of media distribution platforms. Barring any changes to its shareholder structure (the Federal Republic and KfW being its major shareholders), to the legal situation, or to the prevailing opinions of media regulators, it is unlikely that Telekom Deutschland will be granted a license to broadcast radio and television programs.

Changes in regulatory policy and legislation

Deregulation of retail products in Germany. Previously, the Federal Network Agency had notified the European Commission of its draft analysis of retail markets and its plans to abolish additional regulation of product bundles for retail customers. Telephone lines with no broadband component in the product bundle were to remain regulated for retail customers. On July 13, 2018, the Federal Network Agency withdrew the draft market analysis. Currently, it is not possible to make any specific statements as to the content of the final market analysis. The regulation of wholesale products will remain unaffected.

Amendment to the German Telecommunications Act following a Federal Constitutional Court ruling. As the result of an amendment to the Act, which entered into force on December 7, 2018, Deutsche Telekom will in future be able to claim the payment of higher rates in some cases also retroactively – at least from major competitors – in the event of a successful complaint against a Federal Network Agency rate ruling. Previously, this was only possible under very restrictive circumstances. The change to the law became necessary following a Federal Constitutional Court ruling which judged the previous regulation to be unconstitutional.

EU legal framework for telecommunications. In early June 2018, a political agreement was reached between the European Parliament and the Council in the form of the European Electronic Communications Code. The aim is to reform central EU regulation of the telecommunications sector, primarily price and access regulation, spectrum policy, sector-specific rules on consumer protection, and the universal service regime. The new rules took effect as of December 20, 2018. The Member States will then have 24 months to transpose the requirements into national law. Individual rules will enter into force at an earlier date – in particular those governing the regulation of retail customer rate plans for voice calls and text messages within the EU – and take effect as of May 15, 2019 as part of a directly applicable EU Regulation. The agreement provides for less regulation of “very high capacity networks” and more stable regulatory conditions over the long term in cases where competitors invest jointly, as is the case with open co-investment models. In addition to establishing co-ownership and co-financing, co-investment models also include long-term agreements on access-based network usage that comply with specific requirements designed to safeguard competition. Fiber-to-the-building/home (FTTB/FTTH) networks, in particular, could benefit from the new rules. At the same time, the new legal framework gives the regulatory authorities new powers to impose access obligations on all networks independent of whether a company has significant market power (symmetrical regulation). In terms of spectrum policy, the new EU regulatory framework aims to increase the level of harmonization in certain areas and thus improve legal certainty when awarding mobile spectrum, for example, by including a minimum license term of 15 years with an option to extend for a further five years. With respect to consumer protection, apart from a few exceptions, fully harmonized obligations are in place at European level – thus negating the need for additional national regulations – whereas obligations in individual areas are becoming more stringent. Transparency obligations are being extended greatly, while the regulations on contract terms and changes of provider are being tightened up further. Universal service is being completely overhauled, with the removal of many services that are hardly used anymore. In future, to enable the use of services including video telephony, telecommunications connections will have to be broadband in order to meet universal service requirements. In addition, as described above, since May 15, 2019, the charges for international voice calls and sending text messages within the EU have been limited (to EUR 0.19/minute and EUR 0.09/SMS (net) for five years).

The revision of the EU legal framework for telecommunications forms part of a bouquet of new EU legislation on the single market for electronic communications that provides for amendments to the regulations governing media services – mainly due to the growing importance of internet offerings – which are competing with the TV services previously focused on (for example, under copyright law, laws for the protection of minors from harmful media, and the liability of internet service providers (in particular hosting) for third-party content). At the national level, too, specific amendments (e.g., to the German Interstate Treaty on Broadcasting) are being discussed in response to the phenomena of digitalization and convergence.

Awarding of spectrum

Risks could arise from the fact that inappropriate auction rules and frequency usage requirements, excessive reserve prices, or disproportionately high annual spectrum fees could jeopardize our planned acquisition of spectrum. By contrast, we see an opportunity in particular in the fact that such spectrum award procedures enable mobile network operators to obtain the optimum amount of spectrum for their future business. We would thus be equipped for further growth and innovation. The upcoming award procedures mainly relate to the auctioning of additional spectrum in the 0.7 GHz, 1.5 GHz, 3.4 GHz/3.8 GHz, and 24 GHz and over ranges. In addition, spectrum licenses, especially in the 2.1 GHz range, will expire between 2019 and 2021 in some countries and need to be renewed. Award procedures are currently at the preparation stage in Germany, Croatia, Macedonia, Austria, and the United States.

For information on spectrum auctions that were completed in 2018 or are still ongoing, please refer to the section "The economic environment," page 43 et seq.

OPERATIONAL RISKS AND OPPORTUNITIES

Personnel – Germany and Systems Solutions. In 2018, we once again used socially responsible measures to restructure the workforce in the Group, mainly by means of severance payments, partial and dedicated retirement, internal retraining measures, and employment opportunities in public service for civil servants offered by Telekom Placement Services. We will continue this restructuring in the coming year. If it is not possible to implement the corresponding measures as planned or at all (for example, due to limited interest in severance payments), this may have negative effects on our financial targets. To avoid the risk of high potentials leaving the Group as a result of the staff reduction instruments, we make sure that the arrangement is voluntary on both sides in each individual case.

The right of civil servants to return to Deutsche Telekom also carries risks: When Group entities that employ civil servants are disposed of, it is generally possible to continue to employ them at the Group entity to be sold, provided the civil servant agrees or submits an application to be employed at the respective unit in future. However, there is a risk that they may return to us from a sold entity, for instance after the end of their temporary leave from civil servant status, without the Company being able to offer them jobs. Currently 1,497 civil servants are entitled to return from outside the Group to Deutsche Telekom in this way (as of December 31, 2018).

Risks relating to IT/NT network operations. SDG 9 We have an increasingly complex information/network technology (IT/NT) infrastructure, which we constantly expand and upgrade to ensure the best customer experience and consolidate our technology leadership. Outages in the current and also future technical infrastructure cannot be completely ruled out and could in individual cases result in revenue losses or increased costs. After all, our IT/NT resources and structures are the key organizational and technical platform for our operations. The ongoing convergence of IT and NT harbors risks. In order to counter these holistically, our network, innovation, and IT activities are combined under the Board department Technology and Innovation.

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Risks could arise in this area relating to all IT/NT systems and products that require internet access. For instance, faults between newly developed and existing IT/NT systems could cause interruptions to business processes, products, and services, such as smartphones and MagentaTV. In order to avoid the risk of failures, e.g., due to natural disasters or fires, we use technical early warning systems and duplicate IT/NT systems. The Computer Emergency Response Team (CERT) at T-Systems is in charge of protecting our corporate customers' servers. In cloud computing, all data and applications are stored at a data center. Our data centers have security certification and meet strict data protection provisions and the EU regulations. All data relating to companies and private persons is protected from external access. Constant maintenance and automatic updates keep the security precautions up to date at all times. On the basis of a standardized Group-wide Business Continuity Management process, we also take organizational and technical measures to prevent damage from occurring or, if we cannot, to mitigate the subsequent effects. We also have insurance cover for insurable risks.

Opportunities relating to IT/NT network operations. The utilization of large data volumes (big data) from our networks can improve and speed up decision-making processes by enhancing transparency. It does so by shifting the basis for decisions from hypotheses to facts and, for example, enabling correlations to be recognized.

Our Systems Solutions operating segment covers innovative business areas in the digital transformation of business processes, such as the Internet of Things and cybersecurity. These business areas could develop faster than expected. As a pioneer of the digital transformation, we have an opportunity not only to participate in, but also actively shape, the market trend through a variety projects in the fields of healthcare and mobility solutions. In the ramp-up phase of these new business models based on M2M communication and big data, our partner-oriented approach is a highly promising way of contributing our core competencies – in data communication, big data, cloud computing, and cybersecurity – to various projects. What is more, we already have initial references in areas of the Internet of Things market, e.g., predictive maintenance. SDG 12

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

FINANCE

As the previous technology and development partner for toll collection business in Europe, we already have a strong competitive position. We have earned valuable references in European toll collection projects in Belgium and Austria and through the planned launch of a Europe-wide toll collection system (Toll4Europe). This will help to give us an edge over our competitors.

Risks relating to the existing IT architecture in the United States. T-Mobile US relies upon its systems and networks and the systems and networks of other providers and suppliers, to provide and support services. T-Mobile US' business, like that of most retailers and wireless companies, involves the receipt, storage, and transmission of customers' confidential information, including sensitive personal information, payment card information, and confidential information about their employees and suppliers, as well as other sensitive information about T-Mobile US, such as business plans, transactions, and intellectual property. Cyberattacks, such as denial of service and other malicious attacks, could disrupt T-Mobile US' internal systems, networks, and applications, impair its ability to provide services to customers, and have other adverse effects on its business. SDG 16

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

STRUCTURE

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

STRUCTURE

Future viability of the IT architecture in the United States. In order to grow and remain competitive with new and evolving technologies in the industry, T-Mobile US will need to adapt to future changes in technology, continually invest in its network, enhance existing offerings, and introduce new offerings to address its current and potential customers' changing demands. If T-Mobile US is unable to take advantage of technological developments on a timely basis, then it may experience a decline in demand for its services or face challenges in implementing or evolving its business strategy. T Mobile US is currently implementing a customer billing system, which involves a third-party-supported platform. The implementation may cause major system or business disruptions, or T-Mobile US may fail to implement the billing system in a timely or effective manner.

Opportunities relating to the IT architecture in the United States. To be successful, T-Mobile US must provide its customers with reliable, trustworthy service and information security. T-Mobile US is making significant investments in its IT infrastructure and wireless network. If this results in a significant improvement in processes, then the savings made could be higher than previously assumed.

Procurement. Deutsche Telekom cooperates with a variety of suppliers of technical (information and communication technology) and non-technical products and services. Products and services that might involve a higher risk include software and hardware, network technology components, and all products and services provided directly to end customers.

Supply risks cannot be entirely ruled out. Delivery bottlenecks, price increases, changes in the prevailing economic or political conditions, or suppliers' product strategies may have a negative impact on our business processes and our results. Additional risks may also result from the dependence on individual suppliers or from individual suppliers defaulting. This is especially true for Chinese telecommunications suppliers. We employ organizational, contractual, and procurement strategy measures to counteract such risks.

Data privacy and data security. SDG 16 The General Data Protection Regulation – which introduced more stringent data privacy requirements across the EU – entered into force on May 25, 2018. For our Company, the new regulation did not entail any fundamental changes, given that new procedures such as the Privacy Impact Assessment – for evaluating and documenting the risks posed by data processing – were already well established in our organization. Still, we used the introduction of the General Data Protection Regulation as an opportunity to thoroughly re-assess data privacy in a three-phase project. In the first phase (2016), we specified the legal framework, setting it down in binding interpretations for our Group. The second phase was completed in 2017: We launched implementation projects in all our European Group companies and evaluated our IT systems and processes in relation to the General Data Protection Regulation. In 2018, readiness checks were performed in the third phase. In this phase, all affected entities of the Group were asked whether they had implemented all relevant requirements. In addition, spot checks for compliance with the General Data Protection Regulation were carried out at 28 entities. In this way, we will ensure that data privacy is implemented in a consistent manner across the Group using common requirements and processes. That will enhance efficiency, promote data privacy in Group-wide projects, and improve international collaboration.

The General Data Protection Regulation is a milestone on the way to a true single European market in which the same rules apply to all players. The newly adopted rules assure Europe a high level of data protection and, at the same time, will pave the way for new digital business models. The fundamental demand for a level playing field for all market players in the EU has thus been met. In addition, the new data protection legislation closes a major regulatory gap when it comes to service providers outside of the EU. The General Data Protection Regulation will also apply to non-European market players (e.g., Google, Facebook, and Apple) targeting customers in the EU, and will thus enhance the overall competitive situation. Regrettably, lawmakers also missed some opportunities: For instance, until such time as the ePrivacy Directive has been revised, data stored by telecommunications providers will remain subject to stricter, dedicated regulations. Telecommunications providers in Europe thus still have a competitive disadvantage in some areas – one that the new proposed regulations that have thus far been made public will only partially alleviate. As telecommunications providers' data processing options are substantially restricted compared with what is possible under the General Data Protection Regulation, it is unlikely that big-data applications in the field of telecommunications will be able to realize their full potential. According to the current draft of the planned ePrivacy Regulation, which is to replace the ePrivacy Directive, it will be possible to process metadata only with the customer's approval. The draft ePrivacy Regulation does not provide for the possibility of processing for compatible purposes using pseudonyms. Big data applications in particular, however, depend on large volumes of data for reliable results. Solutions based purely on consent will have limitations. That will rule out various service models that may be useful to consumers, but cannot be implemented with anonymized data, such as services for finding parking spaces and avoiding accidents, tailored TV programming, or telemonitoring services in the healthcare field. However, proposals put before the Council of Ministers in the second half of 2018 under the Austrian Presidency to bring the ePrivacy Regulation more closely in line with the General Data Protection Regulation are moving in the right direction. In particular, the proposal to incorporate processing for compatible purposes using pseudonyms into the ePrivacy Regulation would be an important step towards innovation-friendly regulation while at the same time maintaining a high level of data privacy. It is important, therefore, that the proposed legislation continues to pursue this balanced approach in 2019.

IT security continues to pose major challenges. In addition to preventive measures such as integrated security in business processes and measures to raise security awareness among employees, we counter these challenges with increased focus on the analysis of threats and cyber risks. This is where our early warning system comes in: It detects new sources and types of cyberattack, analyzes the behavior of the attackers while maintaining strict data privacy, and identifies new trends in the field of security. Along with the honeypot systems, which simulate vulnerabilities in IT systems, our early warning system includes alerts and analytical tools for spam mails, viruses, and Trojans. We exchange the information we obtain from all these systems with public and private bodies to detect new attack patterns and develop new protection systems.

Cybercrime and industrial espionage are on the rise. We are addressing these risks with comprehensive security concepts. In order to create greater transparency and thus be in a stronger position to tackle these threats, we are relying more and more on partnerships, e.g., with public and private organizations. By means of the Security by Design principle we have made security an integral part of our development process for new products and information systems. In addition, we carry out intensive and obligatory digital security tests. SDG 17

17 PARTNERSHIPS FOR THE GOALS

RELATIONSHIPS

We are continually striving to accelerate our growth through IT security solutions. To this end, we have combined our security units within T-Systems. We want to leverage this end-to-end security portfolio to secure market shares and score points with security concepts on the back of megatrends like the Internet of Things and Industry 4.0. We are also continuing to gradually expand our partner ecosystem in the area of cybersecurity.

For further information on the organization of this strategic area of operation, please refer to the section "Group strategy," **page 35 et seq.**

For an overview of the Magenta Security portfolio along with the latest information on products and upcoming events – such as Deutsche Telekom's annual Magenta Security Convention – please refer to **https://security.telekom.com** (German only).

We provide regular updates on the latest developments in data protection and data security on our website at **www.telekom.com/en/corporate-responsibility/data-protection-data-security.**

RISKS AND OPPORTUNITIES ARISING FROM BRAND, COMMUNICATION, AND REPUTATION

Negative media reports. An unforeseeable negative media report on our products and services or our corporate activities and responsibilities can have a huge impact on the reputation of our Company and our brand image. Social networks have made it possible that such information and opinions can spread much faster and more widely. Ultimately, negative reports can impact on our revenue and our brand value. In order to avoid this, we engage in a constant, intensive and constructive dialog, in particular with our customers, the media, and the financial world. For us, the top priority is to take as balanced a view as possible of the interests of all stakeholders and thereby uphold our reputation as a reliable partner.

Sustainability risks and opportunities. For us, comprehensive risk and opportunity management also means considering the opportunity and risks arising from ecological or social aspects or from the management of our Company. To this end, we actively and systematically involve all relevant stakeholders in the process of identifying current and potential risks and opportunities. We also participate in a number of working groups and committees. In parallel with our ongoing monitoring of ecological, social, and governance issues, we systematically determine our stakeholders' positions on these issues. The key tools we use here are: our year-round open online materiality survey for all stakeholders; our bi-monthly NGO report, which systematically analyzes press publications of the NGOs relevant for us; our involvement in working groups and committees, countless national and international business associations and social organizations, e.g., GeSI, BDI, Bitkom, Econsense, and BAGSO; stakeholder dialog formats organized by us; and our various publications, such as the press review and newsletter. We also integrate the biggest sustainability risks in our internal compliance assessment, thereby recording the associated positioning and development of measures in the various business areas. SDG 17

For further information on sustainability, please refer to the section "Corporate responsibility and non-financial statement," page 76 et seq.

We have identified the following as our main sustainability management issues:

- Reputation. SDG 16 How we deal with sustainability issues also entails both opportunities and risks for our reputation. A high level of service quality is one of the most important factors for improving customer perception. Customer satisfaction has been embedded in our Group management as a non-financial performance indicator to underline the importance of this issue. Transparency and reporting help to promote the trust of other external stakeholders in our Group. Our annual and CR reports also serve this purpose. However, issues such as business practices, data privacy, and work standards in the supply chain and conduct in relation to human rights also entail reputational risks: If our brands, products, or services are connected with such issues in negative media reports, this can cause substantial damage to our reputation. As part of our sustainability management activities, we continuously review such potential risks and take measures to minimize them. This includes systematically incorporating them in the Group's internal compliance management system, so as to determine the relevance of the risks in relation to sustainability issues and their effect on reputation across units. We also ascertain how our products and services make a positive contribution to sustainability in order to enhance our reputation.

- Climate protection. SDG 13 We pursue an integrated climate strategy, which means focusing not only on the risks that climate change poses for us and our stakeholders, but also on the opportunities it presents. By 2030, ICT products and services will have the potential to save up to ten times as much in CO_2 emissions in other industries as the ICT sector itself generates (according to the GeSI SMARTer2030 study). This creates an opportunity to save 20 percent of global CO_2 emissions in 2030 and to keep worldwide emissions at 2015 levels with simultaneous economic growth. The additional revenue potential here amounts to USD 6.5 trillion, USD 2.0 trillion of which is for the ICT industry alone. Further, ICT solutions can save a total of USD 4.9 trillion in costs. To give a specific example: The broadband rollout in Germany has the potential to save an aggregate amount of 19 million metric tons of CO_2 between 2012 and 2020. What is more, the economic momentum triggered by rolling out broadband can create an aggregate number of 162,000 new jobs and increase GDP by EUR 47 billion between 2015 and 2020. We are supporting this trend by evaluating our product portfolio to identify sustainability benefits. In addition, we want to continuously improve the ratio of the emissions that our products and services save to those generated by our own value chain. In 2018, for example, we saved 85 percent more emissions in Germany than we produced.

  Climate change risks are already visible in the form of increasingly extreme weather conditions. This is having a direct effect on our stakeholders, e.g., our customers, suppliers, and employees. The risk is assessed in relation to the continuation of operations as part of risk management and is managed at an operational level in the business units. We can take further preventive action in this area by also reducing our own CO_2 emissions, which is one of the reasons we set ourselves the goal of achieving a 20 percent reduction in our Group-wide emissions – leaving aside our United States operating segment – by 2020 (baseline: 2008). Climate protection also carries financial risks, whether from the introduction of a levy on CO_2 emissions or an increase in energy costs. The measures we are taking to counter these risks include measuring our own energy efficiency and finding ways to improve it. In addition, we are developing a new Group climate goal based on Science-Based Targets for the period after 2020, which is set to be adopted in 2019. Further, in 2018, four of our subsidiaries (Magyar Telekom in Hungary, OTE in Greece, T-Mobile Netherlands, and Telekom Albania) covered 100 percent of their electricity requirements with renewable energy, while a further four (T-Mobile Austria, T-Systems Austria, Hrvatski Telekom, and T-Systems Netherlands) almost met this target, thus reducing climate risks. As a member of the Renewable Energy 100, T-Mobile US has already undertaken to cover 100 percent of its electricity requirements with renewable energy from 2021.

- Suppliers. SDG 8 We see more sustainability in our supply chain as an opportunity – for our reputation and our business success. Apart from the general risks associated with our global procurement activities, we can be exposed to country- and supplier-specific risks. These include, for example, the use of child labor, the conscious acceptance of environmental damage, or inadequate local working and safety conditions. We reduce these risks by systematically reviewing our suppliers. We conduct these audits within the scope of the Joint Audit Corporation (JAC). The aim of the JAC is to reduce sustainability risks in our supply chain and to improve ecological and social aspects, including the issue of human rights. As such, the audit is compliant with internationally recognized guidelines and standards, such as the ILO Core Labor Standards, the UN Guiding Principles on Business and Human Rights, and the OECD Guidelines for Multinational Enterprises. Our partnerships with suppliers that comply with international sustainability standards ensure a high level of product quality and reliable procurement. We have a special development program in place to help strategic suppliers introduce business practices that are both socially and ecologically acceptable while remaining economically efficient. This program showed measurable successes again in the reporting period and has three major advantages: It has a positive impact on our suppliers' working conditions, enhances their profitability, and makes the economic relevance of sustainability clear for both sides, i.e., for our suppliers and for the Group alike. For instance, better working conditions at our suppliers reduces the number of work-related accidents as well as the personnel turnover rate. That, in turn, ensures high product quality and increases productivity, while at the same time lowering costs for recruitment and training. Thus, not only are we strengthening our suppliers' profitability and CR performance, we are also significantly reducing identified risks.

- **Health and environment.** SDG 3 Mobile communications, or the electromagnetic fields used in mobile communications, regularly give rise to concerns among the general population about potential health risks. This issue continues to be the subject of public, political, and scientific debate. Acceptance problems among the general public concern both mobile communications networks and the use of mobile terminals such as smartphones, tablets, and laptops. The discussion also has repercussions for the build-out of mobile communications infrastructure and the use of mobile devices. In the fixed network, it affects the use of traditional IP and DECT (digital cordless) phones and devices that use Wi-Fi technology. There is a risk of regulatory interventions, such as reduced thresholds for electromagnetic fields or the implementation of precautionary measures in mobile communications, e.g., amendments to building law, or also the risk of a labeling requirement for handsets.

  Over the past few years, recognized expert organizations such as the World Health Organization (WHO) and the International Commission on Non-Ionizing Radiation Protection (ICNIRP) have repeatedly reviewed the current thresholds for mobile communications and confirmed that – if these values are complied with – the use of mobile technology is safe based on current scientific knowledge. The expert organizations, currently the ICNIRP, regularly review the recommended thresholds on the basis of the latest scientific findings.

  We are convinced that mobile communications technology is safe if specific threshold values are complied with. We are supported in this conviction by the assessment of the recognized bodies. Our responsible approach to this issue finds expression in our Group-wide EMF Policy, with which we commit ourselves to more transparency, information, participation, and financial support of independent mobile communications research, far beyond that which is stipulated by legal requirements. We aim to overcome uncertainty among the general public by pursuing an objective, scientifically well-founded, and transparent information policy. We thus continue to see it as our duty to intensify our trust-based dialog with local authorities and to ensure its successful progress. This particularly applies since our longstanding collaboration with municipalities to expand the mobile network was enshrined in law in 2013; previously, this collaboration was based on voluntary self-commitments by the network operators.

LITIGATION

Major ongoing legal proceedings

Deutsche Telekom is party to proceedings both in and out of court with government agencies, competitors, and other parties. The proceedings listed below are of particular importance from our perspective. If, in extremely rare cases, required disclosures on the significance of individual litigation and anti-trust proceedings are not made, we concluded that these disclosures may seriously undermine the outcome of the relevant proceedings.

3 GOOD HEALTH AND WELL-BEING

RELATIONSHIPS

Prospectus liability proceedings (third public offering, or DT3). This originally relates to around 2,600 ongoing lawsuits from some 16,000 alleged buyers of T-Shares sold on the basis of the prospectus published on May 26, 2000. The plaintiffs assert that individual figures given in this prospectus were inaccurate or incomplete. The amount in dispute totals approximately EUR 80 million plus interest. Some of the actions are also directed at KfW and/or the Federal Republic of Germany as well as the banks that handled the issuances. The Frankfurt/Main Regional Court had issued certified questions to the Frankfurt/Main Higher Regional Court in accordance with the German Capital Investor Model Proceedings Act (Kapitalanleger-Musterverfahrensgesetz – KapMuG) and has temporarily suspended the initial proceedings. On May 16, 2012, the Frankfurt/Main Higher Regional Court had ruled that there were no material errors in Deutsche Telekom AG's prospectus. In its decision on October 21, 2014, the Federal Court of Justice revoked this ruling, determined that there was a mistake in the prospectus, and referred the case back to the Frankfurt/Main Higher Regional Court. On November 30, 2016, the Frankfurt/Main Higher Regional Court ruled that the mistake in the prospectus identified by the Federal Court of Justice could result in liability on the part of Deutsche Telekom AG, although the details of that liability would have to be established in the initial proceedings. Both Deutsche Telekom AG and some of the individual plaintiffs in the model proceedings have brought an appeal before the Federal Court of Justice against this decision. We continue to hold the opinion that there are compelling reasons why Deutsche Telekom AG should not be liable for damages. An adequate contingent liability has been recognized and is shown in the notes to the consolidated financial statements. Adequate provisions for this risk were recognized in the annual financial statements of Deutsche Telekom AG, which are prepared in accordance with German GAAP.

Claims by partnering publishers of telephone directories. Several publishers that had set up joint ventures with the then DeTeMedien GmbH – formerly a wholly owned subsidiary of Deutsche Telekom AG and now named Deutsche Tele Medien GmbH – to edit and publish subscriber directories filed claims against DeTeMedien GmbH and/or Deutsche Telekom AG at the end of 2013. The plaintiffs are claiming damages or a refund from Deutsche Tele Medien GmbH and, to a certain extent, from Deutsche Telekom AG as joint and several debtor alongside Deutsche Tele Medien GmbH. The plaintiffs base their claims on allegedly excessive charges for the provision of subscriber data in the joint ventures. The amounts claimed by the 81 original plaintiffs totaled around EUR 470 million plus interest at the end of 2014. After an agreement was reached with the majority of the publishers in October 2015 to settle the disputes and a number of claims were since dismissed conclusively, twelve actions are still pending for a remaining amount in dispute of around EUR 89 million plus interest. In ten proceedings, the plaintiffs lodged appeals with the Federal Court of Justice after their claims were dismissed by the court of appeal. In one of these proceedings, the Federal Court of Justice dismissed the appeal in its ruling dated January 29, 2019. Three of the claims have been suspended in the first instance. Five publishers whose civil actions are still pending have been pursuing their claims in parallel since June 2016 through administrative court actions against the Federal Network Agency. Three of these claims were dismissed with legally binding effect.

Claims relating to charges for the shared use of cable ducts. In 2012, Kabel Deutschland Vertrieb und Service GmbH (today Vodafone Kabel Deutschland GmbH (VKDG)) filed a claim against Telekom Deutschland GmbH to reduce the annual charge for the rights to use cable duct capacities in the future and gain a partial refund of the payments made in this connection since 2004. According to its latest estimates, VKDG's claims amounted to around EUR 624 million along with around EUR 9 million for the alleged benefit from additional interest, plus interest in each case. Claims prior to 2009 are now no longer being asserted by VKDG. After the Frankfurt/Main Regional Court had dismissed the complaint in 2013, the Frankfurt/Main Higher Regional Court also rejected the appeal in December 2014. In the ruling dated January 24, 2017, the Federal Court of Justice reversed the appeal ruling and referred the case back to the Frankfurt/Main Higher Regional Court for further consideration. In its ruling dated December 20, 2018, the Frankfurt/Main Higher Regional Court again rejected the appeal and disallowed a further appeal. In similar proceedings, Unitymedia Hessen GmbH & Co. KG, Unitymedia NRW GmbH, and Kabel BW GmbH filed claims against Telekom Deutschland GmbH in January 2013, demanding that it cease charging the plaintiffs more than a specific and precisely stated amount for the shared use of cable ducts. In addition, the plaintiffs are currently demanding a refund of around EUR 570 million plus interest. The claim was dismissed in the first instance by the Cologne Regional Court on October 11, 2016. In its ruling dated March 14, 2018, the Düsseldorf Higher Regional Court rejected the appeal against this decision. In both proceedings, the plaintiffs have lodged a complaint against the non-allowance of appeal with the Federal Court of Justice. At present the financial impact of both these proceedings cannot be assessed with sufficient certainty.

Claim for damages in Malaysia despite an earlier, contrary, legally binding arbitration ruling. Celcom Malaysia Berhad (Celcom) and Technology Resources Industries Berhad are pursuing actions with the state courts in Kuala Lumpur, Malaysia, against eleven defendants in total, including DeTeAsia Holding GmbH, a subsidiary of Deutsche Telekom AG. The plaintiffs are demanding damages and compensation of USD 232 million plus interest. DeTeAsia Holding GmbH had enforced this amount against Celcom in 2005 on the basis of a final ruling in its favor. The main proceedings in the court of first instance began in January 2018. It is currently not possible to estimate the financial impact with sufficient certainty.

Patents and licenses. Like many other large telecommunications and internet providers, Deutsche Telekom is exposed to a growing number of intellectual property rights disputes. There is a risk that we may have to pay license fees and/or compensation; we are also exposed to a risk of cease-and-desist orders, for example relating to the sale of a product or the use of a technology.

Further, Deutsche Telekom intends to defend itself and/or pursue its claims resolutely in each of these proceedings.

Proceedings concluded

Toll Collect arbitration proceedings. On May 16, 2018, Daimler Financial Services AG, Deutsche Telekom AG, and the Federal Republic of Germany reached an agreement to cease the Toll Collect arbitration proceedings. The settlement was notarized in early July 2018 and confirmed by the arbitral tribunal, bringing the arbitration proceedings to an end. The agreed settlement amount of around EUR 3.2 billion includes services previously provided to the Federal Republic of Germany. Daimler Financial Services AG and Deutsche Telekom AG have both agreed to make final payments of EUR 550 million each. The payments will be made in three tranches by 2020; the first tranche has already been paid.

ANTI-TRUST PROCEEDINGS

Like all companies, our Group is subject to the regulations of anti-trust law. Given this, we have in recent years expanded our compliance activities in this area too. Nevertheless, Deutsche Telekom and its subsidiaries, joint ventures, and associates are from time to time subject to proceedings under competition law or civil follow-on actions. In the following, we describe major anti-trust proceedings and resulting claims for damages.

Claims for damages against Slovak Telekom following a European Commission decision to impose fines. The European Commission decided on October 15, 2014 that Slovak Telekom had abused its market power on the Slovak broadband market and as a result imposed fines on Slovak Telekom and Deutsche Telekom. Following the decision of the European Commission, competitors filed damage actions against Slovak Telekom with the civil court in Bratislava. These claims seek compensation for alleged damages due to Slovak Telekom's abuse of a dominant market position, as determined by the European Commission. Three claims totaling EUR 215 million plus interest are currently pending. It is currently not possible to estimate the financial impact with sufficient certainty. The fines imposed by the European Commission were paid in January 2015. Slovak Telekom and Deutsche Telekom challenged the European Commission's decision on December 29, 2014 before the Court of the European Union. On December 13, 2018, the court partially overturned the European Commission's decision and reduced the fines by a total of EUR 13 million. The rulings are not yet legally binding and can be challenged by the European Commission or by Slovak Telekom and Deutsche Telekom before the European Court of Justice.

FINANCIAL RISKS

Liquidity, credit, currency, interest rate risks

With regard to its assets, liabilities, and planned transactions, our Group is particularly exposed to liquidity risks, credit risks, and the risk of changes in exchange rates and interest rates. To contain these risks, we use selected derivative and non-derivative hedging instruments (hedges), depending on the risk assessment. As only risks with an impact on cash flows are hedged, derivative financial instruments are used solely for hedging and never for speculative purposes. The following risk areas – liquidity, credit, currency, and interest rate risks – are evaluated after implementation of risk containment measures.

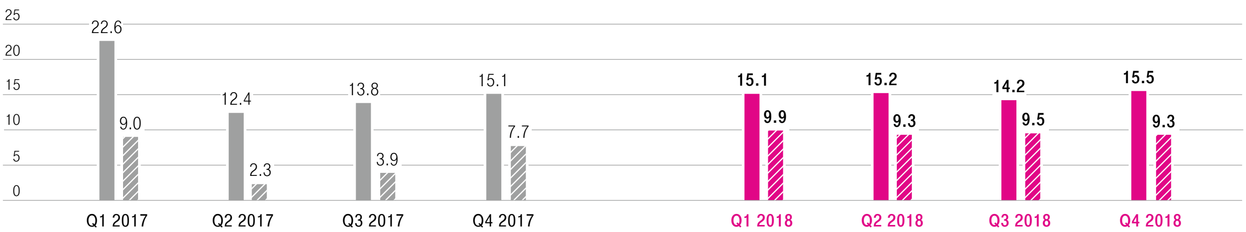
For the evaluation, please refer to the table on **page 117.**

Liquidity risk. To ensure the Group's and Deutsche Telekom AG's solvency and financial flexibility at all times, our system of liquidity management includes a liquidity reserve, in the form of credit lines and cash, that is sufficient to cover bonds falling due and long-term loans for at least the next 24 months. For medium- to long-term financing, we primarily use bonds issued in a variety of currencies and jurisdictions. These instruments are generally issued via Deutsche Telekom International Finance B.V. and are forwarded within the Group as internal loans.

The following graphic shows the development of the liquidity reserve in relation to maturity dates. As of the end of 2018 and in the preceding quarters, we clearly met our targets for the liquidity reserve to cover at least the maturities due in the next 24 months.

In addition to the reported liabilities to banks, Deutsche Telekom had standardized bilateral credit agreements with 22 banks for a total of EUR 12.9 billion as of December 31, 2018. As of December 31, 2018, EUR 0.6 billion of these credit lines had been utilized. According to the credit agreements, the terms and conditions depend on our rating. The bilateral credit agreements have an original maturity of 36 months and can, after each period of twelve months, be extended by a further twelve months to renew the maturity of 36 months. From today's perspective, our access to the international debt capital markets is not jeopardized.

Liquidity reserve and maturities in 2018 compared with 2017
billions of €



Liquidity reserve (absolute figures)
Maturities in the next 24 months
(Callable bonds of T-Mobile US are included with their original maturity up to the date of the call.)

Credit risks. In our operating business and certain financing activities, we are exposed to a credit risk, i.e., the risk that a counterparty will not fulfill its contractual obligations. To keep this credit risk to a minimum, we conclude transactions with regard to financing activities only with counterparties that have at least a credit rating of BBB+/Baa1; this is linked to an operational credit management system. In addition, we have concluded collateral agreements for our derivative transactions. These ensure that, on a daily basis, we receive compensation payments in the amount of the receivables due from contract banks and that we make compensatory payments in the case of liabilities due. In cases of insolvency, the collateral agreements stipulate that all contracts in force are offset against each other, leaving a net receivable or liability. We continuously monitor accounts receivable in operations in a decentralized manner, i.e., at the individual units. Our business with corporate customers, especially with international carriers, is subject to special solvency monitoring.

Currency risks. The currency risks result from investments, financing measures, and operations. Risks from foreign-currency fluctuations are hedged if they affect the Group's cash flows. However, foreign-currency risks that do not influence the Group's cash flows (e.g., risks resulting from the translation of assets and liabilities of foreign operations into the Group's reporting currency) are not hedged.

Interest rate risks. Our interest rate risks mainly result from interest-bearing liabilities, primarily in the eurozone and the United States. Interest risks are managed as part of our interest rate management activities, with a cap set on the maximum share of gross debt with a variable interest rate. The composition of the liabilities portfolio (ratio of fixed to variable and average fixed-interest period) is managed by issuing primary (non-derivative) financial instruments and, where necessary, also deploying derivative financial instruments. The Board of Management and the Supervisory Board are regularly informed about the situation.

8 DECENT WORK AND ECONOMIC GROWTH

FINANCE

For further information, please refer to Note 40 "Financial instruments and risk management" in the notes to the consolidated financial statements, **page 236 et seq.**

Tax risks

We are subject to the applicable tax laws in many different countries. Risks can arise from changes in local taxation laws or case law and different interpretations of existing provisions. These risks can impact both our tax expense and benefit as well as tax receivables and liabilities.

Other financial risks

This section contains information on other financial risks that we consider to be immaterial at present or cannot evaluate based on current knowledge.

Rating risk. As of December 31, 2018, Deutsche Telekom AG's credit rating with Moody's was Baa1 with a negative outlook, while Standard & Poor's rated us BBB+ with an outlook of CreditWatch negative, and Fitch confirmed its current rating of BBB+ with a stable outlook. A lower rating would result in interest rate rises for some of the bonds issued by us. The adjustment of the outlook from stable to negative at Moody's and to "CreditWatch negative" at Standard & Poor's followed the announcement of the agreed business combination of T-Mobile US and Sprint.

Sales of shares by the Federal Republic or KfW Bankengruppe. As of December 31, 2018, the Federal Republic and KfW Bankengruppe jointly held approximately 31.9 percent in Deutsche Telekom AG. It is possible that the Federal Republic will continue its policy of privatization and sell further equity interests in a manner designed not to disrupt the capital markets and with the involvement of KfW Bankengruppe. There is a risk that the sale of a significant volume of shares by the Federal Republic or KfW Bankengruppe, or any speculation to this effect, could have a negative impact on the price of the T-Share.

Our CR strategy enhances the value of our Company in the long term, which also has a positive effect of reducing business risks. Investors with a long-term horizon acknowledge this approach. In the capital markets, this is evident, for example, in the proportion of T-shares held by investors that base their investment decisions, at least in part, on sustainability criteria. As of September 30, 2018, around 18 percent of all T-Shares were held by SRI (socially responsible investment) investors, and 3 percent were held by investors who manage their funds primarily in accordance with SRI aspects. SDG 8

Impairment of Deutsche Telekom AG's assets. The value of the assets of Deutsche Telekom AG and its subsidiaries is reviewed periodically. In addition to the regular annual measurements, specific impairment tests may be carried out, for example, where changes in the economic, regulatory, business, or political environment suggest that the value of goodwill, intangible assets, property, plant and equipment, investments accounted for using the equity method, or other financial assets might have decreased. These tests may lead to the recognition of impairment losses that do not, however, result in cash outflows. This could impact to a considerable extent on our results, which in turn may negatively affect the T-Share price.

For further information, please refer to the section "Summary of accounting policies – Judgements and estimates," **page 172 et seq.**

OTHER DISCLOSURES

SIGNIFICANT EVENTS AFTER THE REPORTING PERIOD

For information on events after the reporting period, please refer to Note 45 "Events after the reporting period" in the notes to the consolidated financial statements, page 263, and to the notes to the annual financial statements of Deutsche Telekom AG as of December 31, 2018.

ACCOUNTING-RELATED INTERNAL CONTROL SYSTEM

Deutsche Telekom AG's internal control system (ICS) is based on the internationally recognized COSO (Committee of Sponsoring Organizations of the Treadway Commission) Internal Control – Integrated Framework, COSO I, as amended on May 14, 2013.

The Audit Committee of the Supervisory Board of Deutsche Telekom AG monitors the effectiveness of the ICS as required by § 107 (3) sentence 2 AktG. The Board of Management is responsible for defining the scope and structure of the ICS at its discretion. Internal Audit is responsible for independently reviewing the functionality and effectiveness of the ICS in the Group and at Deutsche Telekom AG, and, to comply with this task, has comprehensive information, audit, and inspection rights.

The accounting-related ICS comprises the principles, methods, and measures used to ensure appropriate accounting. It is continuously being refined and aims to ensure the consolidated financial statements of Deutsche Telekom are prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union, as well as with the regulations under commercial law as set forth in § 315e (1) HGB. Another objective of the accounting-related ICS is the preparation of the annual financial statements of Deutsche Telekom AG and the combined management report in accordance with German GAAP.

It is generally true of any ICS that regardless of how it is specifically structured there can be no absolute guarantee that it will achieve its objectives. Therefore, as regards the accounting-related ICS, there can only ever be relative, but no absolute, certainty that material accounting misstatements can be prevented or detected.

Group Accounting manages the processes of Group accounting and management reporting. Laws, accounting standards, and other pronouncements are continuously analyzed as to whether and to what extent they are relevant and how they impact on financial reporting. The relevant requirements are defined in the Group Accounting Manual, for example, communicated to the relevant units and, together with the financial reporting calendar that is binding throughout the Group, form the basis of the financial reporting process. In addition, supplementary process directives such as the Intercompany Policy, standardized reporting formats, IT systems, as well as IT-based reporting and consolidation processes support the process of uniform and compliant Group accounting. Where necessary, we also draw on the services of external service providers, for example, to measure pension obligations. Group Accounting ensures that these requirements are complied with consistently throughout the Group. The staff involved in the accounting process receive regular training. Deutsche Telekom AG and the Group companies are responsible for ensuring that Group-wide policies and procedures are complied with. The Group companies ensure the compliance and timeliness of their accounting-related processes and systems and, in doing so, are supported and monitored by Group Accounting.

Operational accounting processes at the national and international level are increasingly managed by our shared service centers. Harmonizing the processes enhances their efficiency and quality and, in turn, improves the reliability of the internal ICS. The ICS thus safeguards both the quality of internal processes at the shared service centers and the interfaces to the Group companies by means of adequate controls and an internal certification process.

Internal controls are embedded in the accounting process depending on risk levels. The accounting-related ICS comprises both preventive and detective controls, which include:

- IT-based and manual matching
- The segregation of functions
- The dual-checking principle
- Monitoring controls
- General IT checks such as access management in IT systems, and change management

We have implemented a standardized process throughout the Group for monitoring the effectiveness of the accounting-related ICS. This process systematically focuses on risks of possible misstatements in the consolidated financial statements. At the beginning of the year, specific accounts and accounting-related process steps are selected based on risk factors. They are then reviewed for effectiveness in the course of the year. If control weaknesses are found, they are analyzed and assessed, particularly in terms of their impact on the consolidated financial statements and the combined management report. Material control weaknesses, the action plans for eradicating them, and ongoing progress are reported to the Board of Management and additionally to the Audit Committee of the Supervisory Board of Deutsche Telekom AG. In order to ensure a high-quality accounting-related ICS, Internal Audit is closely involved in all stages of the process.

The statement can be found on the Deutsche Telekom website at **www.telekom.com** under Investor Relations in the Management & Corporate Governance section.

For information on the composition of capital stock in accordance with § 289a (1) HGB and § 315a HGB of direct and indirect equity investments, please refer to Note 18 "Shareholders' equity" in the notes to the consolidated financial statements, page 211 et seq., and to the notes to the annual financial statements of Deutsche Telekom AG as of December 31, 2018.

CORPORATE GOVERNANCE STATEMENT IN ACCORDANCE WITH § 289f AND § 315d HGB

The Corporate Governance Statement in accordance with § 289f and § 315d HGB forms part of the combined management report.

LEGAL STRUCTURE OF THE GROUP

Deutsche Telekom AG, Bonn, is the parent of the Deutsche Telekom Group. Its shares are traded on the Frankfurt/Main Stock Exchange as well as on other stock exchanges.

SHAREHOLDERS' EQUITY

Each share entitles the holder to one vote. These voting rights are restricted, however, in relation to treasury shares (at December 31, 2018: around 19 million in total).

Treasury shares. The shareholders' meeting resolved on May 25, 2016 to authorize the Board of Management to purchase shares in the Company by May 24, 2021, with the amount of share capital accounted for by these shares totaling up to EUR 1,179,302,878.72, provided the shares to be purchased on the basis of this authorization in conjunction with the other shares of the Company that the Company has already purchased and still possesses or are to be assigned to it under § 71d and § 71e AktG do not at any time account for more than 10 percent of the Company's share capital. Moreover, the requirements under § 71 (2) sentences 2 and 3 AktG must be complied with. Shares shall not be purchased for the purpose of trading in treasury shares. This authorization may be exercised in full or in part. The purchase can be carried out in partial tranches spread over various purchase dates within the authorization period until the maximum purchase volume is reached. Dependent Group companies of Deutsche Telekom AG within the meaning of § 17 AktG or third parties acting for the account of Deutsche Telekom AG or for the account of dependent Group companies of Deutsche Telekom AG within the meaning of § 17 AktG are also entitled to purchase the shares. The shares are purchased through the stock exchange in adherence to the principle of equal treatment (§ 53a AktG). Shares can instead also be purchased by means of a public purchase or share exchange offer addressed to all shareholders, which, subject to a subsequently approved exclusion of the right to offer shares, must also comply with the principle of equal treatment.

The shares may be used for one or several of the purposes permitted by the authorization granted by the shareholders' meeting on May 25, 2016 under item 6 on the agenda. The shares may also be used for purposes involving an exclusion of subscription rights. They may also be sold on the stock market or by way of an offer to all shareholders, or withdrawn. The shares may also be used to fulfill the rights of Board of Management members to receive shares in Deutsche Telekom AG, which the Supervisory Board has granted to these members as part of the arrangements governing the compensation of the Board of Management, on the basis of a decision by the Supervisory Board to this effect.

Under the resolution of the shareholders' meeting on May 25, 2016, the Board of Management is also authorized to acquire the shares through the use of equity derivatives.

For information on the treasury shares in accordance with § 160 (1) No. 2 AktG, please refer to Note 9 in the annual financial statements of Deutsche Telekom AG as of December 31, 2018 and to Note 18 "Shareholders' equity" in the notes to the consolidated financial statements.

On the basis of the authorization by the shareholders' meeting on May 25, 2016 described above and corresponding authorizations by the shareholders' meeting on May 12, 2011 and May 24, 2012, 110 thousand shares were acquired in June 2011, 206 thousand shares in September 2011, and 268 thousand shares in January 2013. The total volumes amounted to EUR 2,762 thousand in the 2011 financial year, and EUR 2,394 thousand in the 2013 financial year (excluding transaction costs). This increased the number of treasury shares by 316 thousand and 268 thousand, respectively. Further, 90 thousand shares and 860 thousand shares were acquired in September and October 2015, respectively, for an aggregate amount of EUR 14,787 thousand (excluding transaction costs); these acquisitions increased the number of treasury shares by 950 thousand.

No treasury shares were acquired in the reporting period.

As part of the Share Matching Plan, a total of 2 thousand treasury shares were transferred free of charge to the custody accounts of eligible participants in 2012 and 2013, respectively. A further 90 thousand treasury shares were transferred free of charge in the 2014 financial year. An additional 140 thousand treasury shares were transferred in 2015. In the 2016 financial year, 232 thousand treasury shares were transferred, in the 2017 financial year, 300 thousand. Transfers of treasury shares to the custody accounts of employees of Deutsche Telekom AG are free of charge. In cases where treasury shares are transferred to the custody accounts of employees of other Group companies, the costs have been transferred at fair value to the respective Group company since the 2016 financial year.

A total of 312 thousand shares were reallocated in all months of the reporting year and transferred to the custody accounts of eligible participants of the Share Matching Plan. As of December 31, 2018, disposals of treasury shares resulting from the transfers in the reporting period accounted for less than 0.01 percent, or EUR 798 thousand, of share capital. Gains on disposal arising from transfers of treasury shares amounted to EUR 3,036 thousand. In the reporting year, 81 thousand treasury shares with a fair value of EUR 1,157 thousand were billed to other Group companies. Transfers of treasury shares increased retained earnings by EUR 2,162 thousand and capital reserves by EUR 20 thousand.

As part of the acquisition of VoiceStream Wireless Corp., Bellevue, and Powertel, Inc., Bellevue, in 2001, Deutsche Telekom AG issued new shares from authorized capital to a trustee, for the benefit of holders of warrants, options, and conversion rights, among others. These options or conversion rights expired in full in the 2013 financial year. As a result, the trustee no longer had any obligation to fulfill any claims in accordance with the purpose of the deposit. The trust relationship was terminated at the start of 2016 and the deposited shares were transferred free of charge to a custody account of Deutsche Telekom AG. The 18,517 thousand previously deposited shares are accounted for in the same way as treasury shares in accordance with § 272 (1a) HGB. This equates to 0.4 percent, or EUR 48 million, of Deutsche Telekom's capital stock. On the basis of authorization by the shareholders' meeting on May 25, 2016, the treasury shares acquired free of charge may be used for the same purposes as the treasury shares acquired for a consideration.

Authorized capital and contingent capital. The shareholders' meeting on May 31, 2017 authorized the Board of Management to increase the share capital with the approval of the Supervisory Board by up to EUR 3,600,000,000 by issuing up to 1,406,250,000 no par value registered shares against cash and/or non-cash contributions in the period ending May 30, 2022. This authorization may be exercised in full or on one or more occasions in partial amounts. The Board of Management is authorized, subject to the approval of the Supervisory Board, to exclude residual amounts from shareholders' subscription rights. Furthermore, the Board of Management is authorized, subject to the approval of the Supervisory Board, to disapply shareholders' subscription rights in the event of capital increases against non-cash contributions when issuing new shares for business combinations or acquisitions of companies, parts thereof, or interests in companies, including increasing existing investment holdings, or other assets eligible for contribution for such acquisitions, including receivables from the Company. However, the value of the new shares for which shareholders' subscription rights have been disapplied on the basis of this authorization – together with the value of the shares or conversion and/or option rights or obligations under bonds issued or sold since May 31, 2017 subject to the disapplication of subscription rights – must not exceed 20 percent of the total share capital; the latter is defined as the amount existing as of May 31, 2017, upon entry of the authorization, or upon the issue of the new shares, whichever amount is lowest. If the issue or sale is carried out in analogous or mutatis mutandis application of § 186 (3) sentence 4 AktG, this shall also constitute the disapplication of subscription rights. Further, the Board of Management is authorized, subject to the approval of the Supervisory Board, to determine the further content of share rights and the conditions under which shares are issued (**2017 authorized capital**). The 2017 authorized capital was entered into the commercial register on July 11, 2017.

As of December 31, 2018, the share capital was contingently increased by up to EUR 1,200,000,000, comprising up to 468,750,000 no par value shares (**2018 contingent capital**).

The contingent capital increase will be implemented only to the extent that

1. the holders or creditors of bonds with warrants, convertible bonds, profit participation rights, and/or participating bonds (or combinations of these instruments) with options or conversion rights, which are issued or guaranteed by Deutsche Telekom AG or its direct or indirect majority holdings by May 16, 2023, on the basis of the authorization resolution granted by the shareholders' meeting on May 17, 2018, make use of their option and/or conversion rights or

2. those obligated as a result of bonds with warrants, convertible bonds, profit participation rights, and/or participating bonds (or combinations of these instruments), which are issued or guaranteed by Deutsche Telekom AG or its direct or indirect majority holdings by May 16, 2023, on the basis of the authorization resolution granted by the shareholders' meeting on May 17, 2018, fulfill their option or conversion obligations (including in the event that, in exercising a repayment option when the final due date of the bond is reached, Deutsche Telekom AG grants shares in Deutsche Telekom AG completely or partially in lieu of payment of the amount due)

and other forms of fulfillment are not used. The new shares shall participate in profits starting at the beginning of the financial year in which they are issued as the result of the exercise of any option or conversion rights or the fulfillment of any option or conversion obligations. The Supervisory Board is authorized to amend § 5 (3) of the Articles of Incorporation in accordance with the particular usage of the contingent capital and after the expiry of all the option or conversion periods.

MAIN AGREEMENTS INCLUDING A CHANGE OF CONTROL CLAUSE

The main agreements entered into by Deutsche Telekom AG that include a clause in the event of a change of control principally relate to bilateral credit lines and several loan agreements. In the event of a change of control, the individual lenders have the right to terminate the credit line and, if necessary, serve notice or demand repayment of the loans. A change of control is assumed when a third party, which can also be a group acting jointly, acquires control over Deutsche Telekom AG.

On November 2, 2016, Deutsche Telekom AG signed a change agreement to the shareholder agreement with the Greek government from May 14, 2008 on Hellenic Telecommunications Organization S.A., Athens, Greece (OTE). Under this agreement, the Greek government is, under certain circumstances, entitled to acquire all shares in OTE from Deutsche Telekom AG as soon as one (or more) person(s), with the exception of the Federal Republic of Germany, either directly or indirectly acquire(s) 35 percent of the voting rights of Deutsche Telekom AG.

In the master agreement establishing the procurement joint venture BuyIn in Belgium, Deutsche Telekom AG and Orange S.A. (formerly France Télécom S.A.)/Atlas Services Belgium S.A. (a subsidiary of Orange S.A.) agreed that if Deutsche Telekom or Orange comes under the controlling influence of a third party or if a third party that is not wholly owned by the Orange group of companies acquires shares in Atlas Services Belgium S.A., the respective other party (Orange and Atlas Services Belgium S.A. only jointly) may terminate the master agreement with immediate effect.

CHANGES IN THE CONSOLIDATED GROUP

61 German and 213 foreign subsidiaries are fully consolidated in Deutsche Telekom's consolidated financial statements (December 31, 2017: 60 and 186). 9 associates (December 31, 2017: 9) and 6 joint ventures (December 31, 2017: 7) are also included using the equity method.

The principal subsidiaries of Deutsche Telekom AG are listed in the notes to the consolidated financial statements in the section "Summary of accounting policies" under "Principal subsidiaries," pages 179 and 180.

BUSINESS COMBINATIONS

In December 2017, T-Mobile Austria agreed to acquire Austria's leading cable operator, UPC Austria. The European Commission approved the transaction on July 9, 2018 and the transaction was consummated on July 31, 2018. The UPC Austria group has been fully included in our consolidated financial statements since the acquisition date.

For further information, please refer to the section "Highlights in the 2018 financial year," page 26 et seq., and to the section "Changes in the composition of the Group and other transactions" in the notes to the consolidated financial statements, page 176 et seq.

COMPENSATION REPORT

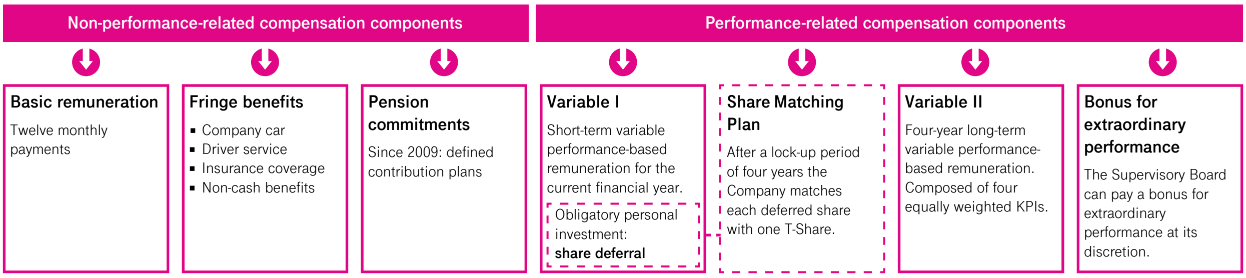
The "Compensation report" details the compensation system underlying Board of Management compensation as well as the specific remuneration received by the individual members of the Board of Management. It takes into consideration the requirements of the German Commercial Code taking account of the provisions of German Accounting Standard No. 17 (GAS 17), the recommendations of the German Corporate Governance Code (GCGC), and the International Financial Reporting Standards (IFRS).

Changes in the composition of the Board of Management and contract extensions. On January 1, 2018, Dr. Dirk Wössner took over as the Board member responsible for Germany. This position was held by Niek Jan van Damme until December 31, 2017. Also on January 1, 2018, Adel Al-Saleh was appointed as the new Board member responsible for T-Systems. This position was held by Reinhard Clemens until December 31, 2017. On January 1, 2019, former CHRO Dr. Christian P. Illek took over as CFO from Thomas Dannenfeldt, whose term of office ended on December 31, 2018. At its meeting on February 21, 2018, the Supervisory Board extended the term of office of CEO Timotheus Höttges for a further five years effective January 1, 2019. On July 13, 2018, the Supervisory Board resolved to appoint Birgit Bohle to the Board of Management as Labor Director and CHRO for a period of three years effective January 1, 2019. Also effective January 1, 2019, Thorsten Langheim took up his role as head of the new USA and Group Development department. He was appointed to the Board of Management for a period of four years by the Supervisory Board at its meeting on September 4, 2018.

COMPENSATION OF THE BOARD OF MANAGEMENT

Basis of Board of Management compensation. On February 24, 2010, the Supervisory Board resolved on a new system for the compensation of the Board of Management members, taking into account the provisions specified in the German Act on the Appropriateness of Management Board Remuneration (Gesetz zur Angemessenheit der Vorstandsvergütung – VorstAG) that has been in effect since August 5, 2009. The shareholders' meeting of Deutsche Telekom AG on May 3, 2010 approved this system. The compensation of Board of Management members comprises various components. Under the terms of their service contracts, members of the Board of Management are entitled to an annual fixed remuneration and annual variable performance-based remuneration (Variable I), a long-term variable remuneration component (Variable II), as well as fringe benefits and deferred benefits based on a company pension entitlement. The Supervisory Board defines the structure of the compensation system for the Board of Management and reviews this structure and the appropriateness of compensation at regular intervals. It is ensured that Board of Management compensation is oriented toward the sustained development of the Company and that there is a multi-year measurement base for the variable components. Sideline employment generally requires prior approval. Generally, no additional compensation is paid for being a member of the management or supervisory board of other Group entities.

Compensation of the Board of Management



Non-performance-related compensation components

Basic remuneration

The fixed annual remuneration is determined for all Board of Management members based on market conditions in accordance with the requirements of stock corporation law and is paid on a monthly basis. In the event of temporary incapacity for work caused by illness, accident, or any other reason for which the respective Board of Management member is not responsible, the fixed basic remuneration continues to be paid. The continued payment of remuneration ends at the latest after an uninterrupted period of absence of six months, or for a maximum of three months following the end of the month in which the Board of Management member's permanent incapacity for work is established.

Fringe benefits

In accordance with market-oriented and corporate standards, the Company grants all members of the Board of Management additional benefits under the terms of their service contracts, some of which are viewed as non-cash benefits and taxed accordingly. This mainly includes being furnished with a company car and accident and liability insurance, and reimbursements in connection with maintaining a second household.

Pension commitments

New pension commitment. Since 2009, all Board members have been granted a company pension in the form of a contribution-based promise. Under this arrangement, the Board member receives a one-time lump sum payout upon entering retirement. A contribution is paid into the Board member's pension account for each year of service at an interest rate corresponding to market levels. Annual additions to the pension account have no effect on cash or cash equivalents. The cash outflow is only effective upon the Board member's retirement. As a rule, the date of retirement is the beneficiary's 62nd birthday. For pension agreements signed before December 31, 2011, Board of Management members can also opt to draw early retirement benefits from their 60th birthday, subject to corresponding actuarial deductions. The amount to be provided annually is individualized and decoupled from other remuneration components. The exact definition of the contribution is based on a comparison with peer companies that are suitable for benchmarking and also offer plans with contribution-based promises. The contributions for Thomas Dannenfeldt, Srini Gopalan, Dr. Christian P. Illek, Dr. Thomas Kremer, Claudia Nemat, and Dr. Dirk Wössner amount to EUR 250,000 each for each year of service rendered.

Legacy pension commitment. As the longest-serving Board member, CEO Timotheus Höttges is the only current Board member to still benefit from a legacy pension commitment under the company pension plan. Benefits from the company pension plan are in direct relation to the beneficiary's annual salary. The Board of Management members receive company pension benefits based on a fixed percentage of their last fixed annual salary for each year of service rendered prior to their date of retirement. The pension payments may be in the form of a life-long retirement pension upon reaching the age of 62 or in the form of an early retirement pension upon reaching the age of 60. Opting for the early retirement pension scheme is connected with actuarial deductions. The company pension is calculated by multiplying a basic percentage rate of 5 percent by the number of years of service as a member of the Board of Management. After ten years of service, the maximum pension level of 50 percent of the last fixed annual remuneration is attained. Following Timotheus Höttges' reappointment to the Board of Management and the adjustment to his basic remuneration, the Supervisory Board decided to dynamically increase his pension entitlements accrued up to December 31, 2018 by 2.4 percent per year using the basic remuneration valid up to December 31 as the measurement base. Future increases in his compensation will thus not lead to higher pension payments.

The pension payments to be made upon retirement increase dynamically, at a rate of 1 percent per year. In addition, the pension agreements include arrangements for pensions for surviving dependents in the form of entitlements for widows/widowers and orphans. In specifically provided exceptional cases, entitlement to a widow's/widower's pension is excluded. The standard criteria for eligibility in the pension arrangements are in line with market conditions. In the event of a permanent incapacity for work (invalidity), the beneficiary is also entitled to the pension fund.

Pension substitute. A “pension substitute” was agreed with Adel Al-Saleh in lieu of a pension commitment due to his U.S. citizenship. The arrangement provides for an annual payment of EUR 250,000 for each full year of service rendered and is reported in the tables under fringe benefits. In determining the amount, the Supervisory Board oriented itself to the level of the contributions for those Board members who have received a contribution-based benefit promise (new pension commitment).

Service cost and defined benefit obligations for each member of the Board of Management with a pension commitment are shown in the following table:

€

	Service cost 2018	Defined benefit obligation (DBO) Dec. 31, 2018	Service cost 2017	Defined benefit obligation (DBO) Dec. 31, 2017
Thomas Dannenfeldt	277,461	1,493,340	281,578	1,200,998
Srini Gopalan	300,362	610,829	305,625	306,749
Timotheus Höttges	1,117,049	16,269,567	1,129,225	12,183,195
Dr. Christian P. Illek	267,948	1,056,852	272,566	778,582
Dr. Thomas Kremer	241,729	1,795,913	247,956	1,525,513
Claudia Nemat	285,459	2,401,880	291,092	2,077,262
Dr. Dirk Wössner (since January 1, 2018)	296,498	296,528	0	0

Performance-based compensation components

The variable remuneration of the members of the Board of Management is mainly divided into Variables I and II. Variable I contains both short-term and long-term components consisting of the realization of budget figures for specific performance indicators, the implementation of the strategy, and adherence to the Group’s Guiding Principles. The payment amount of Variable I is tied to an obligation to invest in shares of Deutsche Telekom AG, which results in a further inflow of shares after four years under the current Share Matching Plan. Variable II is oriented solely toward the long term. This ensures that the variable remuneration is oriented toward the sustained development of the Company and that there is a predominantly long-term incentive effect. The variable compensation elements include clear upper limits, while the amount of compensation is capped overall. The final component of performance-based compensation comprises an option for the Supervisory Board to award a bonus for extraordinary performance. In the event of temporary incapacity for work caused by illness, accident, or any other reason for which the respective Board of Management member is not responsible, claims to variable remuneration are reduced pro rata in line with the uninterrupted period of absence; the uninterrupted period of absence must be more than one month in duration.

Variable I

Performance-related compensation components

Variable I (STI)
Short-term variable performance-based remuneration

Group targets
50 %
- Revenue (40 %)
- EBITDA (40 %)
- Free cash flow (20 %)

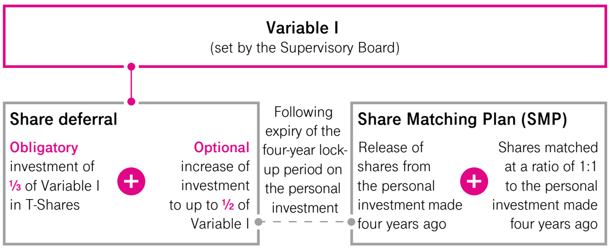
Personal targets
30 %
Strategy implementation within the Board member’s department

Personal targets
20 %
Value adherence

The annual variable remuneration of Board of Management members is based on the achievement of targets set by the Supervisory Board of Deutsche Telekom AG for each member of the Board of Management at the beginning of the financial year. The set of targets is composed of corporate targets (50 percent) related to the unadjusted values – adapted for target-relevant factors – for revenue, EBITDA, and free cash flow, as well as personal targets for the individual members of the Board of Management. The personal targets consist of targets oriented toward the sustained success of the Company concerning the implementation of the strategy in the member’s respective department (30 percent) and value adherence (adherence to Guiding Principles), which is an indicator of compliance with value orientation and accounts for 20 percent. The agreement on targets and the level of target achievement for the respective financial year are determined by the plenary session of the Supervisory Board. Levels of target achievement exceeding 100 percent are capped at 150 percent of the award amount. Any higher levels of target achievement will not be taken into consideration. To ensure the long-term incentive effect and orientation toward the sustained development of the Company, a third of the variable remuneration set by the plenary session of the Supervisory Board must be invested in shares of Deutsche Telekom AG; these shares must be held by the respective Board member for a period of at least four years.

Share Matching Plan

Share deferral and the Share Matching Plan



In the 2018 financial year, the Board of Management members, as described above, were contractually obliged to invest a third of Variable I in shares of Deutsche Telekom AG. The Supervisory Board made an offer to the Board members to extend the obligatory personal investment in 2018 to up to 50 percent of the Variable I payout. Deutsche Telekom AG will grant one additional share for every share acquired as part of the Board of Management member's aforementioned personal investment (Share Matching Plan) on expiration of the four-year lock-up period, provided they are still a member of the Board of Management.

GAS 17 and IFRS 2 require disclosure not only of the total expense related to share-based payment from matching shares in the 2018 financial year and the fair value of the matched shares at their grant date, but also of the number of entitlements to matching shares and their development in the current financial year.

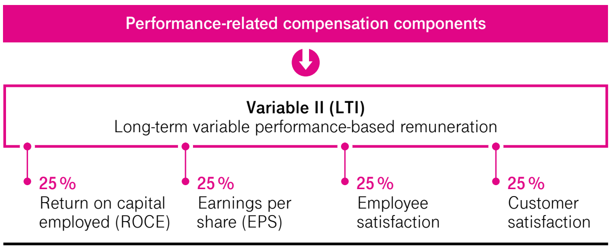
The fair value of the matching shares at grant date shown in the following table does not represent a component of remuneration for the Board of Management members in 2018. It is an imputed value of the entitlements to matching shares determined on the basis of relevant accounting policies. Here, the fair value equates to the share price at grant date less an expected dividend markdown. The following table is based on expected target achievement for the 2018 financial year and thus on the estimated amount of the personal investment to be made by the respective Board of Management member to establish his or her entitlements to matching shares. The final number of entitlements to matching shares identified for the 2018 financial year may be higher or lower than the amounts estimated here.

The total share-based payment expense for entitlements to matching shares from 2013 to 2018 to be recognized for the financial years 2017 and 2018 pursuant to IFRS 2 is included in the two last columns of the table.

	Number of entitlements granted to matching shares since 2010 at the beginning of the financial year	Number of new entitlements to matching shares granted in 2018	Number of shares transferred in 2018 as part of the Share Matching Plan	Fair value of the entitlements to matching shares at grant date €	Cumulative total share-based payment expense in 2018 for matching shares for the years 2014 through 2018 €	Cumulative total share-based payment expense in 2017 for matching shares for the years 2013 through 2017 €
Adel Al-Saleh (since January 1, 2018)	0	25,384	0	272,620	30,456	0
Thomas Dannenfeldt	73,156	25,196	5,000	270,600	72,360	153,021
Srini Gopalan	22,730	20,683	0	222,134	113,184	26,231
Timotheus Höttges	304,440	50,466	28,195	542,008	588,176	379,393
Dr. Christian P. Illek	50,681	24,208	0	259,998	200,952	99,980
Dr. Thomas Kremer	96,529	20,683	16,734	222,134	232,754	163,949
Claudia Nemat	135,021	25,384	19,559	272,620	280,766	193,826
Dr. Dirk Wössner (since January 1, 2018)	0	20,683	0	222,134	24,817	0

By December 31, 2018, Deutsche Telekom had acquired 565,596 shares for the purpose of awarding matching shares to Board of Management members as part of the Share Matching Plan. In 2018, matching shares were again transferred to individual members of the Board of Management. A total of 69,488 shares were transferred to Board of Management members in 2018 (2017: 118,495).

Variable II



Variable II. The exclusively long-term-oriented Variable II is measured based on the fulfillment of four equally weighted performance parameters (return on capital employed (ROCE), earnings per share (EPS), customer satisfaction, and employee satisfaction). All four parameters are collected on a Group-wide basis. Each parameter determines a quarter of the award amount. Levels of target achievement exceeding 100 percent are capped at 150 percent of the award amount. The assessment period is four years, with the assessment being based on average target achievement across the four years planned at the time the tranche was determined. The award amount is decoupled from other remuneration components and is set for each member of the Board of Management individually.

Compensation for extraordinary performance. At its discretion and after due consideration, the Supervisory Board may also reward extraordinary performance by individual or all Board of Management members in the form of a special bonus.

Arrangements in the event of termination of a position on the Board of Management. Service contracts for members of the Board of Management concluded since the 2009 financial year include a severance cap in case of premature termination without good cause allowing a compensation payment that, in line with the recommendations of the German Corporate Governance Code, is limited to a maximum of two years' remuneration (severance cap) and may not exceed the remuneration due for the remaining term of the service contract.

The service contracts for members of the Board of Management at Deutsche Telekom AG do not include any benefits in the event of the termination of a position on the Board of Management as a result of a change of control.

Board of Management member service contracts generally stipulate a post-contractual prohibition of competition. Pursuant to these provisions, members of the Board of Management are prohibited from rendering services to or on behalf of a competitor for the duration of one year following their departure. As compensation for this restricted period, they receive either a payment of 50 percent of the last fixed annual remuneration and 50 percent of the most recent Variable I on the basis of 100 percent target achievement, or 100 percent of the last fixed annual remuneration.

Board of Management compensation for the 2018 financial year. In reliance on legal requirements and other guidelines, a total of EUR 24.6 million (2017: EUR 21.3 million) is reported in the following table as total compensation for the 2018 financial year for the members of the Board of Management. The Board of Management compensation comprises the fixed annual remuneration as well as other fringe benefits, non-cash benefits and remuneration in kind, short-term variable remuneration (Variable I), fully earned tranches of long-term variable remuneration (Variable II), and the fair value of the matching shares. This was calculated on the basis of the estimated amount of Variable I at the grant date and the resulting number of entitlements to matching shares.

Total compensation. The compensation of the Board of Management is shown in detail in the following table:

€

		Non-performance-based compensation		Performance-based compensation			Total compensation
		Fixed annual remuneration	Other remuneration	Short-term variable remuneration	Long-term variable performance-based remuneration (Variable II)	Long-term variable performance-based remuneration (fair value of matching shares)	
Adel Al-Saleh (since January 1, 2018)	2018	900,000	1,072,507 [a]	817,425	0	272,620	**3,062,552**
	2017	0	0	0	0	0	**0**
Thomas Dannenfeldt	2018	860,000	24,708	866,980	649,000	270,600	**2,671,288**
	2017	860,000	24,631	835,490	572,000	190,686	**2,482,807**
Srini Gopalan	2018	700,000	20,000	695,750	0	222,134	**1,637,884**
	2017	700,000	1,139,610	654,500	0	156,533	**2,650,643**
Timotheus Höttges	2018	1,450,000	31,655	1,770,098	1,583,560	542,008	**5,377,321**
	2017	1,450,000	29,061	1,749,968	1,135,680	381,941	**4,746,650**
Dr. Christian P. Illek	2018	850,000	34,596	814,344	608,438	259,998	**2,567,376**
	2017	700,000	35,741	685,850	0	156,533	**1,578,124**
Dr. Thomas Kremer	2018	700,000	63,667	691,900	649,000	222,134	**2,326,701**
	2017	700,000	63,620	654,500	572,000	156,533	**2,146,653**
Claudia Nemat	2018	900,000	78,552	822,825	796,500	272,620	**2,870,497**
	2017	900,000	78,567	804,600	702,000	192,109	**2,677,276**
Dr. Dirk Wössner (since January 1, 2018)	2018	700,000	2,423,865 [b]	691,350	0	222,134	**4,037,349**
	2017	0	0	0	0	0	**0**
	2018	**7,060,000**	**3,749,550**	**7,170,672**	**4,286,498**	**2,284,248**	**24,550,968**
	2017 [c]	**5,310,000**	**1,371,230**	**5,384,908**	**2,981,680**	**1,234,335**	**16,282,153**

[a] Other fringe benefits for Adel Al-Saleh include a one-time sign-on-bonus of EUR 800,000 and a "pension substitute" in the amount of EUR 250,000 to be paid annually in lieu of a German pension commitment (please also refer to the disclosures relating to pension commitments).
[b] Includes a compensation payment of EUR 2,400,000 as recompense for forgone share-based remuneration claims with the previous employer. Dr. Dirk Wössner was obligated to invest the net payout amount in shares of Deutsche Telekom AG. Upon expiry of a lock-up period, he can freely dispose of these shares.
[c] Board of Management members who left the company before or at the end of 2017 are no longer included in the prior-year figures.

The amounts shown in the "Long-term variable performance-based remuneration (Variable II)" column had been pledged to the eligible Board of Management members in the 2015 financial year.

No member of the Board of Management received benefits or corresponding commitments from a third party for his or her activity as a Board of Management member during the past financial year.

Former members of the Board of Management. A total of EUR 8.1 million (2017: EUR 11.3 million) was included for payments to and entitlements for former members of the Board of Management as well as any surviving dependents.

Provisions (measured in accordance with IAS 19) totaling EUR 198.6 million (December 31, 2017: EUR 195.4 million) were recognized for current pensions and vested rights to pensions for this group of persons and their surviving dependents.

Other. The Company has not granted any advances or loans to current or former Board of Management members, nor were any other financial obligations to the benefit of this group of people entered into.

Table view in accordance with the requirements of the German Corporate Governance Code

The following tables are based on model tables 1 and 2 recommended by the German Corporate Governance Code, which present the total compensation granted for the reporting year and the remuneration components allocated.

Benefits granted for the reporting year

Compensation of the Board of Management

€

	Timotheus Höttges			
	Function: Chairman of the Board of Management (CEO) since Jan. 1, 2014			
	2017	2018	2018 (min.)	2018 (max.)
Fixed remuneration	1,450,000	1,450,000	1,450,000	1,450,000
Fringe benefits	29,061	31,655	31,655	31,655
Total fixed annual remuneration	**1,479,061**	**1,481,655**	**1,481,655**	**1,481,655**
One-year variable remuneration	1,342,000	1,342,000	0	2,013,000
Multi-year variable remuneration	**1,723,941**	**1,884,008**	**0**	**4,026,000**
Of which: 2017 Variable II (4-year term)	1,342,000			
Of which: 2018 Variable II (4-year term)		1,342,000	0	2,013,000
Of which: 2017 Share Matching Plan (4-year term)	381,941			
Of which: 2018 Share Matching Plan (4-year term)		542,008	0	2,013,000
Total	**4,545,002**	**4,707,663**	**1,481,655**	**7,520,655**
Service cost	1,129,225	1,117,049	1,117,049	1,117,049
TOTAL COMPENSATION	**5,674,227**	**5,824,712**	**2,598,704**	**8,637,704**

	Dr. Christian P. Illek			
	Function: Human Resources since Apr. 1, 2015			
	2017	2018	2018 (min.)	2018 (max.)
Fixed remuneration	700,000	850,000	850,000	850,000
Fringe benefits	35,741	34,596	34,596	34,596
Total fixed annual remuneration	**735,741**	**884,596**	**884,596**	**884,596**
One-year variable remuneration	550,000	643,750	0	965,625
Multi-year variable remuneration	**706,533**	**927,186**	**0**	**1,966,407**
Of which: 2017 Variable II (4-year term)	550,000			
Of which: 2018 Variable II (4-year term)		667,188	0	1,000,782
Of which: 2017 Share Matching Plan (4-year term)	156,533			
Of which: 2018 Share Matching Plan (4-year term)		259,998	0	965,625
Total	**1,992,274**	**2,455,532**	**884,596**	**3,816,628**
Service cost	272,566	267,948	267,948	267,948
TOTAL COMPENSATION	**2,264,840**	**2,723,480**	**1,152,544**	**4,084,576**

[a] Other fringe benefits for Adel Al-Saleh include a one-time sign-on-bonus of EUR 800,000 and a “pension substitute” in the amount of EUR 250,000 to be paid annually in lieu of a German pension commitment (please also refer to the disclosures relating to pension commitments).

b Includes a compensation payment of EUR 2,400,000 as recompense for forgone share-based remuneration claims with the previous employer. Dr. Dirk Wössner was obligated to invest the net payout amount in shares of Deutsche Telekom AG. Upon expiry of a lock-up period, he can freely dispose of these shares.

Adel Al-Saleh				Thomas Dannenfeldt				Srini Gopalan			
Function: T-Systems since Jan. 1, 2018				Function: Finance (CFO) until Dec. 31, 2018				Function: Europe since Jan. 1, 2017			
2017	2018	2018 (min.)	2018 (max.)	2017	2018	2018 (min.)	2018 (max.)	2017	2018	2018 (min.)	2018 (max.)
0	900,000	900,000	900,000	860,000	860,000	860,000	860,000	700,000	700,000	700,000	700,000
0	1,072,507 [a]	1,072,507 [a]	1,072,507 [a]	24,631	24,708	24,708	24,708	1,139,610	20,000	20,000	20,000
0	**1,972,507**	**1,972,507**	**1,972,507**	**884,631**	**884,708**	**884,708**	**884,708**	**1,839,610**	**720,000**	**720,000**	**720,000**
0	675,000	0	1,012,500	670,000	670,000	0	1,005,000	550,000	550,000	0	825,000
0	**947,620**	**0**	**2,025,000**	**860,686**	**940,600**	**0**	**2,010,000**	**706,533**	**772,134**	**0**	**1,650,000**
0				670,000				550,000			
	675,000	0	1,012,500		670,000	0	1,005,000		550,000	0	825,000
0				190,686				156,533			
	272,620	0	1,012,500		270,600	0	1,005,000		222,134	0	825,000
0	**3,595,127**	**1,972,507**	**5,010,007**	**2,415,317**	**2,495,308**	**884,708**	**3,899,708**	**3,096,143**	**2,042,134**	**720,000**	**3,195,000**
0	0	0	0	281,578	277,461	277,461	277,461	305,625	300,362	300,362	300,362
0	**3,595,127**	**1,972,507**	**5,010,007**	**2,696,895**	**2,772,769**	**1,162,169**	**4,177,169**	**3,401,768**	**2,342,496**	**1,020,362**	**3,495,362**

Dr. Thomas Kremer				Claudia Nemat				Dr. Dirk Wössner			
Function: Data Privacy, Legal Affairs and Compliance since June 1, 2012				Function: Technology and Innovation since Oct. 1, 2011				Function: Germany since Jan. 1, 2018			
2017	2018	2018 (min.)	2018 (max.)	2017	2018	2018 (min.)	2018 (max.)	2017	2018	2018 (min.)	2018 (max.)
700,000	700,000	700,000	700,000	900,000	900,000	900,000	900,000	0	700,000	700,000	700,000
63,620	63,667	63,667	63,667	78,567	78,552	78,552	78,552	0	2,423,865 [b]	2,423,865 [b]	2,423,865 [b]
763,620	**763,667**	**763,667**	**763,667**	**978,567**	**978,552**	**978,552**	**978,552**	**0**	**3,123,865**	**3,123,865**	**3,123,865**
550,000	550,000	0	825,000	675,000	675,000	0	1,012,500	0	550,000	0	825,000
706,533	**772,134**	**0**	**1,650,000**	**867,109**	**947,620**	**0**	**2,025,000**	**0**	**772,134**	**0**	**1,650,000**
550,000				675,000				0			
	550,000	0	825,000		675,000	0	1,012,500		550,000	0	825,000
156,533				192,109				0			
	222,134	0	825,000		272,620	0	1,012,500		222,134	0	825,000
2,020,153	**2,085,801**	**763,667**	**3,238,667**	**2,520,676**	**2,601,172**	**978,552**	**4,016,052**	**0**	**4,445,999**	**3,123,865**	**5,598,865**
247,956	241,729	241,729	241,729	291,092	285,459	285,459	285,459		296,498	296,498	296,498
2,268,109	**2,327,530**	**1,005,396**	**3,480,396**	**2,811,768**	**2,886,631**	**1,264,011**	**4,301,511**	**0**	**4,742,497**	**3,420,363**	**5,895,363**

Benefits allocated for the reporting year

Unlike the table of benefits granted shown on the previous pages, the table below contains not the target values for short- and long-term variable remuneration components, but rather the actual benefits allocated for 2018. There is another difference between the following table and the table of benefits granted with regard to the presentation of the Share Matching Plan. The figures for the Share Matching Plan disclosed in the following table show the value of the benefits allocated applicable under German tax law at the time of transfer of the matching shares, whereas the table of benefits granted on the previous pages shows the fair values of remuneration at the grant date.

Compensation of the Board of Management
€

	Timotheus Höttges		Adel Al-Saleh	
	Function: Chairman of the Board of Management (CEO)		Function: T-Systems	
	since Jan. 1, 2014		since Jan. 1, 2018	
	2017	2018	2017	2018
Fixed remuneration	1,450,000	1,450,000	0	900,000
Fringe benefits	29,061	31,655	0	1,072,507[a]
Total fixed annual remuneration	**1,479,061**	**1,481,655**	**0**	**1,972,507**
One-year variable remuneration	1,749,968	1,770,098	0	817,425
Multi-year variable remuneration	**1,585,809**	**1,971,241**	**0**	**0**
Of which: Variable II (4-year term)[c]	1,135,680	1,583,560	0	0
Of which: Share Matching Plan (4-year term)[d]	450,129	387,681	0	0
Other	0	0	0	0
Total	**4,814,838**	**5,222,994**	**0**	**2,789,932**
Service cost	1,129,225	1,117,049	0	0
TOTAL COMPENSATION	**5,944,063**	**6,340,043**	**0**	**2,789,932**

	Claudia Nemat		Dr. Dirk Wössner	
	Function: Technology and Innovation		Function: Germany	
	since Oct. 1, 2011		since Jan. 1, 2018	
	2017	2018	2017	2018
Fixed remuneration	900,000	900,000	0	700,000
Fringe benefits	78,567	78,552	0	2,423,865[b]
Total fixed annual remuneration	**978,567**	**978,552**	**0**	**3,123,865**
One-year variable remuneration	804,600	822,825	0	691,350
Multi-year variable remuneration	**1,178,312**	**1,055,461**	**0**	**0**
Of which: Variable II (4-year term)[c]	702,000	796,500	0	0
Of which: Share Matching Plan (4-year term)[d]	476,312	258,961	0	0
Other	0	0	0	0
Total	**2,961,479**	**2,856,838**	**0**	**3,815,215**
Service cost	291,092	285,459	0	296,498
TOTAL COMPENSATION	**3,252,571**	**3,142,297**	**0**	**4,111,713**

[a] Other fringe benefits for Adel Al-Saleh include a one-time sign-on-bonus of EUR 800,000 and a “pension substitute” in the amount of EUR 250,000 to be paid annually in lieu of a German pension commitment (please also refer to the disclosures relating to pension commitments).

[b] Includes a compensation payment of EUR 2,400,000 as recompense for forgone share-based remuneration claims with the previous employer. Dr. Dirk Wössner was obligated to invest the net payout amount in shares of Deutsche Telekom AG. Upon expiry of a lock-up period, he can freely dispose of these shares.

[c] Variable II as shown in the column for 2018 relates to the payment of the 2015 tranche; the figure in the column for 2017 relates to the payment of the 2014 tranche.

[d] The Share Matching Plan relates to the non-cash benefit arising from the inflow of the matching shares, with the corresponding personal investment having been made in 2013 or 2014.

Thomas Dannenfeldt		Srini Gopalan		Dr. Christian P. Illek		Dr. Thomas Kremer	
Function: Finance (CFO)		Function: Europe		Function: Human Resources		Function: Data Privacy, Legal Affairs and Compliance	
until Dec. 31, 2018		since Jan. 1, 2017		since Apr. 1, 2015		since June 1, 2012	
2017	2018	2017	2018	2017	2018	2017	2018
860,000	860,000	700,000	700,000	700,000	850,000	700,000	700,000
24,631	24,708	1,139,610	20,000	35,741	34,596	63,620	63,667
884,631	**884,708**	**1,839,610**	**720,000**	**735,741**	**884,596**	**763,620**	**763,667**
835,490	866,980	654,500	695,750	685,850	814,344	654,500	691,900
572,000	**716,225**	**0**	**0**	**0**	**608,438**	**795,928**	**873,068**
572,000	649,000	0	0	0	608,438	572,000	649,000
0	67,225	0	0	0	0	223,928	224,068
0	0	0	0	0	0	0	0
2,292,121	**2,467,913**	**2,494,110**	**1,415,750**	**1,421,591**	**2,307,378**	**2,214,048**	**2,328,635**
281,578	277,461	305,625	300,362	272,566	267,948	247,956	241,729
2,573,699	**2,745,374**	**2,799,735**	**1,716,112**	**1,694,157**	**2,575,326**	**2,462,004**	**2,570,364**

COMPENSATION OF THE SUPERVISORY BOARD

The compensation received by the members of the Supervisory Board is specified under § 13 of the Articles of Incorporation of Deutsche Telekom AG. Under the compensation system applicable for the 2018 financial year, members of the Supervisory Board receive fixed annual compensation of EUR 70,000.00.

The Chairman of the Supervisory Board receives a further EUR 70,000.00 and the Deputy Chairman EUR 35,000.00. Members of the Supervisory Board also receive compensation as follows for activities on Supervisory Board committees:

(a) The Chairman of the Audit Committee receives EUR 80,000.00, ordinary members of the Audit Committee EUR 40,000.00.

(b) The Chairman of the General Committee receives EUR 70,000.00, ordinary members of the General Committee EUR 30,000.00.

(c) The Chairman of the Nomination Committee receives EUR 25,000.00, ordinary members of the Nomination Committee EUR 12,500.00.

(d) The Chairman of any other committee receives EUR 40,000.00, ordinary members of any other committee EUR 25,000.00.

Chairmanship and membership of the Mediation Committee are not remunerated.

Members of the Supervisory Board receive an attendance fee amounting to EUR 1,000.00 for each meeting of the Supervisory Board or its committees that they have attended. The Company reimburses value-added tax payable on remuneration and expenses.

The total compensation of the members of the Supervisory Board in 2018 amounted to EUR 2,888,833.37 (plus VAT).

The Company has not granted any advances or loans to current or former Supervisory Board members, nor were any other financial obligations to the benefit of this group of people entered into.

The compensation of the individual members of the Supervisory Board for 2018 is as follows:

€

Member of the Supervisory Board	Fixed remuneration	Meeting attendance fee	Total
Baldauf, Sari (until May 17, 2018)	39,583.34	3,000.00	42,583.34
Bednarski, Josef	165,000.00	24,000.00	189,000.00
Dr. Bösinger, Rolf (since June 1, 2018)	88,958.33	12,000.00	100,958.33
Brandl, Monika (from January 1 to June 30, 2018)	60,000.00	5,000.00	65,000.00
Dr. Bräunig, Günther (since March 21, 2018)	100,000.00	10,000.00	110,000.00
Chatzidis, Odysseus D. (since January 3, 2018)	82,500.00	8,000.00	90,500.00
Geismann, Johannes (until May 17, 2018)	73,958.34	11,000.00	84,958.34
Greve, Constantin (since November 20, 2018)	15,833.34	1,000.00	16,833.34
Hanas, Klaus-Dieter (until November 20, 2018)	87,083.34	7,000.00	94,083.34
Hinrichs, Lars	95,000.00	8,000.00	103,000.00
Dr. Jung, Helga	84,583.33	6,000.00	90,583.33
Prof. Dr. Kaschke, Michael	110,000.00	10,000.00	120,000.00
Koch, Nicole [a]	82,500.00	9,000.00	91,500.00
Kollmann, Dagmar P.	187,500.00	18,000.00	205,500.00
Kreusel, Petra Steffi [b]	110,000.00	12,000.00	122,000.00
Krüger, Harald (since May 17, 2018)	46,666.67	4,000.00	50,666.67
Prof. Dr. Lehner, Ulrich (Chairman)	300,000.00	25,000.00	325,000.00
Sauerland, Frank [c] (since November 20, 2018)	15,833.34	2,000.00	17,833.34
Schröder, Lothar [d] (Deputy Chairman)	240,000.00	24,000.00	264,000.00
Dr. Schröder, Ulrich (until February 6, 2018)	22,500.00	0.00	22,500.00
Seelemann-Wandtke, Nicole [e] (since July 5, 2018)	39,166.67	5,000.00	44,166.67
Sommer, Michael (until November 20, 2018)	132,916.67	11,000.00	143,916.67
Spoo, Sibylle	135,000.00	12,000.00	147,000.00
Streibich, Karl-Heinz	132,500.00	12,000.00	144,500.00
Suckale, Margret	109,583.33	10,000.00	119,583.33
Topel, Karin	74,166.67	8,000.00	82,166.67
	2,630,833.37	**257,000.00**	**2,887,833.37**

[a] In addition to remuneration for her activities as a member of the Supervisory Board of Deutsche Telekom AG, Nicole Koch also received other remuneration amounting to EUR 4,500.00 (including meeting attendance fees) in the 2018 financial year (for her mandate as member of the supervisory board of Deutsche Telekom Privatkunden-Vertrieb GmbH).

[b] In addition to remuneration for her activities as a member of the Supervisory Board of Deutsche Telekom AG, Petra Steffi Kreusel also received other remuneration amounting to EUR 16,000.00 (including meeting attendance fees) in the 2018 financial year (for her mandate as member of the supervisory board of T-Systems International GmbH).

[c] In addition to remuneration for his activities as a member of the Supervisory Board of Deutsche Telekom AG, Frank Sauerland also received other remuneration amounting to EUR 25,625.00 (including meeting attendance fees) in the 2018 financial year (for his mandates as member of the supervisory boards of Telekom Deutschland GmbH and Deutsche Telekom Außendienst GmbH (until November 19, 2018)).

[d] In addition to remuneration for his activities as a member of the Supervisory Board of Deutsche Telekom AG, Lothar Schröder also received other remuneration amounting to EUR 31,000.00 (including meeting attendance fees) in the 2018 financial year (EUR 19,000.00 for his mandate as member of the supervisory board of Deutsche Telekom Services Europe AG and EUR 12,000.00 as Chairman of the Data Privacy Advisory Council).

[e] In addition to remuneration for her activities as a member of the Supervisory Board of Deutsche Telekom AG, Nicole Seelemann-Wandtke also received other remuneration amounting to EUR 9,833.33 (including meeting attendance fees) in the 2018 financial year (for her mandate as member of the supervisory board of Telekom Deutschland GmbH (until October 17, 2018)).

SHARE OWNERSHIP BY MEMBERS OF THE BOARD OF MANAGEMENT AND THE SUPERVISORY BOARD

Members of the Board of Management and Supervisory Board of Deutsche Telekom AG were reported to have purchased and transferred as part of the Share Matching Plan 364,036 shares (2017: 270,755) and sold 0 shares (2017: 9,531) in the course of 2018. Total direct or indirect holdings in the Company or associated financial instruments by members of the Board of Management and the Supervisory Board do not exceed 1 percent of the shares issued by the Company.

CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

millions of €

	Note	Dec. 31, 2018	Dec. 31, 2017
ASSETS			
CURRENT ASSETS		**21,870**	**20,392**
Cash and cash equivalents	1	3,679	3,312
Trade and other receivables	2	9,988	9,723
Contract assets	3	1,765	n. a.
Current recoverable income taxes	30	492	236
Other financial assets	10	2,847	3,329
Inventories	4	1,790	1,985
Other assets	11	1,164	1,646
Non-current assets and disposal groups held for sale	5	145	161
NON-CURRENT ASSETS		**123,505**	**120,943**
Intangible assets	6	64,950	62,865
Property, plant and equipment	7	50,631	46,878
Capitalized contract costs	8	1,744	n. a.
Investments accounted for using the equity method	9	576	651
Other financial assets	10	1,585	5,716
Deferred tax assets	30	2,949	4,013
Other assets	11	1,070	819
TOTAL ASSETS		**145,375**	**141,334**

millions of €

	Note	Dec. 31, 2018	Dec. 31, 2017
LIABILITIES AND SHAREHOLDERS' EQUITY			
CURRENT LIABILITIES		**29,144**	**27,366**
Financial liabilities	12	10,527	8,358
Trade and other payables	13	10,735	10,971
Income tax liabilities	30	328	224
Other provisions	15	3,144	3,372
Other liabilities	16	2,654	4,440
Contract liabilities	17	1,720	n. a.
Liabilities directly associated with non-current assets and disposal groups held for sale	5	36	0
NON-CURRENT LIABILITIES		**72,794**	**71,498**
Financial liabilities	12	51,748	49,171
Provisions for pensions and other employee benefits	14	5,502	8,375
Other provisions	15	3,291	3,155
Deferred tax liabilities	30	8,240	6,967
Other liabilities	16	3,427	3,831
Contract liabilities	17	585	n. a.
LIABILITIES		**101,938**	**98,864**
SHAREHOLDERS' EQUITY	18	**43,437**	**42,470**
Issued capital		12,189	12,189
Treasury shares		(49)	(49)
		12,141	**12,140**
Capital reserves		54,646	55,010
Retained earnings including carryforwards		(37,392)	(38,750)
Total other comprehensive income		(653)	(1,127)
Net profit (loss)		2,166	3,461
ISSUED CAPITAL AND RESERVES ATTRIBUTABLE TO OWNERS OF THE PARENT		**30,907**	**30,734**
Non-controlling interests		12,530	11,737
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		**145,375**	**141,334**

The new accounting standards IFRS 15 "Revenue from Contracts with Customers" and IFRS 9 "Financial Instruments" took effect as of January 1, 2018. Prior-year comparatives were not adjusted.
For further information, please refer to the section "Initial application of standards, interpretations, and amendments in the financial year" in the notes to the consolidated financial statements, page 154 et seq.

CONSOLIDATED INCOME STATEMENT

millions of €

	Note	2018	2017	2016
NET REVENUE	19	**75,656**	**74,947**	**73,095**
Of which: interest income calculated using the effective interest method		305	n. a.	n. a.
Other operating income	20	1,491	3,819	4,180
Changes in inventories		(14)	21	(12)
Own capitalized costs	22	2,433	2,292	2,112
Goods and services purchased	23	(38,160)	(38,161)	(37,084)
Personnel costs	24	(16,436)	(15,504)	(16,463)
Other operating expenses	25	(3,134)	(3,444)	(3,284)
Impairment losses on financial assets		(394)	n. a.	n. a.
Gains (losses) from the write-off of financial assets measured at amortized cost		(120)	n. a.	n. a.
Other		(2,620)	(3,444)	(3,284)
EBITDA		**21,836**	**23,969**	**22,544**
Depreciation, amortization and impairment losses	26	(13,836)	(14,586)	(13,380)
PROFIT FROM OPERATIONS (EBIT)		**8,001**	**9,383**	**9,164**
Finance costs	27	(1,817)	(2,197)	(2,492)
Interest income		277	320	223
Interest expense		(2,094)	(2,517)	(2,715)
Share of profit (loss) of associates and joint ventures accounted for using the equity method	28	(529)	76	(53)
Other financial income (expense)	29	(502)	(2,269)	(2,072)
PROFIT (LOSS) FROM FINANCIAL ACTIVITIES		**(2,848)**	**(4,390)**	**(4,617)**
PROFIT BEFORE INCOME TAXES		**5,153**	**4,994**	**4,547**
Income taxes	30	(1,824)	558	(1,443)
PROFIT (LOSS)		**3,329**	**5,551**	**3,104**
PROFIT (LOSS) ATTRIBUTABLE TO				
Owners of the parent (net profit (loss))		2,166	3,461	2,675
Non-controlling interests	31	1,163	2,090	429
EARNINGS PER SHARE	32			
Basic €		0.46	0.74	0.58
Diluted €		0.46	0.74	0.58

The new accounting standards IFRS 15 “Revenue from Contracts with Customers” and IFRS 9 “Financial Instruments” took effect as of January 1, 2018. Prior-year comparatives were not adjusted.
For further information, please refer to the section “Initial application of standards, interpretations, and amendments in the financial year” in the notes to the consolidated financial statements, page 154 et seq.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

millions of €

	2018	2017	2016
PROFIT (LOSS)	**3,329**	**5,551**	**3,104**
Items not subsequently reclassified to profit or loss (not recycled)			
Gains (losses) from the remeasurement of equity instruments [a]	(619)	n. a.	n. a.
Gains (losses) from the remeasurement of defined benefit plans	127	116	(660)
Revaluation due to business combinations	0	0	0
Share of profit (loss) of investments accounted for using the equity method	0	0	0
Income taxes relating to components of other comprehensive income	36	(19)	205
	(456)	**97**	**(455)**
Items subsequently reclassified to profit or loss (recycled), if certain reasons are given			
Exchange differences on translating foreign operations			
Recognition of other comprehensive income in income statement	(1)	0	(948)
Change in other comprehensive income (not recognized in income statement)	1,033	(2,196)	395
Gains (losses) from the remeasurement of available-for-sale financial assets [a, b]			
Recognition of other comprehensive income in income statement	n. a.	7	2,282
Change in other comprehensive income (not recognized in income statement)	n. a.	27	(2,323)
Gains (losses) from the remeasurement of debt instruments [a]			
Recognition of other comprehensive income in income statement	(75)	n. a.	n. a.
Change in other comprehensive income (not recognized in income statement)	84	n. a.	n. a.
Gains (losses) from hedging instruments [a, c]			
Recognition of other comprehensive income in income statement	n. a.	450	328
Change in other comprehensive income (not recognized in income statement)	n. a.	(270)	(457)
Gains (losses) from hedging instruments (designated risk components) [a]			
Recognition of other comprehensive income in income statement	(32)	n. a.	n. a.
Change in other comprehensive income (not recognized in income statement)	(382)	n. a.	n. a.
Gains (losses) from hedging instruments (hedging costs) [a, d]			
Recognition of other comprehensive income in income statement	3	n. a.	n. a.
Change in other comprehensive income (not recognized in income statement)	56	n. a.	n. a.
Share of profit (loss) of investments accounted for using the equity method			
Recognition of other comprehensive income in income statement	0	0	7
Change in other comprehensive income (not recognized in income statement)	7	0	1
Income taxes relating to components of other comprehensive income	86	(58)	39
	779	**(2,040)**	**(676)**
OTHER COMPREHENSIVE INCOME	**323**	**(1,943)**	**(1,131)**
TOTAL COMPREHENSIVE INCOME	**3,652**	**3,608**	**1,973**
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO			
Owners of the parent	2,181	2,340	1,306
Non-controlling interests	1,471	1,268	667

[a] For the new items in relation to IFRS 9 to be recognized in accordance with IAS 1, Deutsche Telekom utilizes the option of not showing comparative figures for the prior-year period.

[b] The measurement category “available-for-sale financial assets” as per IAS 39 was to be applied for the last time as of December 31, 2017.

[c] Gains and losses from hedging costs were recognized for the last time as of December 31, 2017 under IAS 39 as part of gains and losses from hedging instruments. Under IFRS 9, gains and losses from hedging costs are recognized separately in equity.

[d] In the 2018 financial year, hedging costs relate entirely to cross currency basis spreads. For further information, please also refer to Note 40 “Financial instruments and risk management,” page 236 et seq.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

millions of €

	Number of shares	Issued capital and reserves attributable to owners of the parent						
		Equity contributed			Consolidated shareholders' equity generated		Total other comprehensive income	
	thousands	Issued capital	Treasury shares	Capital reserves	Retained earnings including carryforwards	Net profit (loss)	Translation of foreign operations	Revaluation surplus
BALANCE AT JANUARY 1, 2016	**4,606,652**	**11,793**	**(51)**	**52,412**	**(38,969)**	**3,254**	**427**	**(62)**
Changes in the composition of the Group								
Transactions with owners				(87)			(6)	
Unappropriated profit (loss) carried forward					3,254	(3,254)		
Dividends					(2,523)			
Capital increase at Deutsche Telekom AG	70,250	180		839				
Capital increase from share-based payment				192				
Share buy-back/shares held in a trust deposit			1		3			
Profit (loss)						2,675		
Other comprehensive income					(454)		(792)	
TOTAL COMPREHENSIVE INCOME								
Transfer to retained earnings					(38)			2
BALANCE AT DECEMBER 31, 2016	**4,676,902**	**11,973**	**(50)**	**53,356**	**(38,727)**	**2,675**	**(371)**	**(60)**
BALANCE AT JANUARY 1, 2017	**4,676,902**	**11,973**	**(50)**	**53,356**	**(38,727)**	**2,675**	**(371)**	**(60)**
Changes in the composition of the Group								
Transactions with owners				355			9	
Unappropriated profit (loss) carried forward					2,675	(2,675)		
Dividends					(2,794)			
Capital increase at Deutsche Telekom AG	84,557	216		1,175				
Capital increase from share-based payment				124				
Share buy-back/shares held in a trust deposit			1		3			
Profit (loss)						3,461		
Other comprehensive income					93		(1,367)	
TOTAL COMPREHENSIVE INCOME								
Transfer to retained earnings								
BALANCE AT DECEMBER 31, 2017	**4,761,459**	**12,189**	**(49)**	**55,010**	**(38,750)**	**3,461**	**(1,729)**	**(60)**
BALANCE AT JANUARY 1, 2018	**4,761,459**	**12,189**	**(49)**	**55,010**	**(38,750)**	**3,461**	**(1,729)**	**(60)**
Transfer resulting from change in accounting standards					1,414			
Changes in the composition of the Group								
Transactions with owners				(614)	1		(13)	0
Unappropriated profit (loss) carried forward					3,461	(3,461)		
Dividends					(3,083)			
Capital increase at Deutsche Telekom AG								
Capital increase from share-based payment				250				
Share buy-back/shares held in a trust deposit			1	0	3			
Profit (loss)						2,166		
Other comprehensive income					163		621	
TOTAL COMPREHENSIVE INCOME								
Transfer to retained earnings					(602)			32
BALANCE AT DECEMBER 31, 2018	**4,761,459**	**12,189**	**(49)**	**54,646**	**(37,392)**	**2,166**	**(1,120)**	**(28)**

Issued capital and reserves attributable to owners of the parent								Total	Non-controlling interests	Total shareholders' equity
Total other comprehensive income										
Available-for-sale financial assets (IAS 39)	Equity instruments measured at fair value through other comprehensive income (IFRS 9)	Debt instruments measured at fair value through other comprehensive income (IFRS 9)	Hedging instruments (IAS 39)	Hedging instruments: designated risk components (IFRS 9)	Hedging instruments: hedging costs (IFRS 9)	Investments accounted for using the equity method	Taxes			
110	**n. a.**	**n. a.**	**738**	**n. a.**	**n. a.**	**(17)**	**(235)**	**29,400**	**8,750**	**38,150**
								(93)	117	24
								(2,523)	(97)	(2,620)
								1,019		1,019
								192	103	295
								4		4
								2,675	429	3,104
(41)			(129)			8	39	(1,369)	238	(1,131)
								1,306	**667**	**1,973**
						36				
69	**n. a.**	**n. a.**	**609**	**n. a.**	**n. a.**	**27**	**(196)**	**29,305**	**9,540**	**38,845**
69	**n. a.**	**n. a.**	**609**	**n. a.**	**n. a.**	**27**	**(196)**	**29,305**	**9,540**	**38,845**
									6	6
								364	977	1,341
								(2,794)	(122)	(2,916)
								1,391		1,391
								124	68	192
								4		4
								3,461	2,090	5,551
32			180			(1)	(58)	(1,121)	(823)	(1,944)
								2,340	**1,268**	**3,608**
101	**n. a.**	**n. a.**	**789**	**n. a.**	**n. a.**	**26**	**(254)**	**30,734**	**11,737**	**42,470**
101	**n. a.**	**n. a.**	**789**	**n. a.**	**n. a.**	**26**	**(254)**	**30,734**	**11,737**	**42,470**
(99)	93	0	(789)	789			38	1,446	103	1,549
								0	11	11
	0	2		1			(1)	(625)	(764)	(1,389)
								0	0	0
								(3,083)	(172)	(3,255)
								0	0	0
								250	144	394
								4	0	4
								2,166	1,163	3,329
	(620)	6		(271)	58	7	50	15	308	323
								2,181	**1,471**	**3,652**
	611	(6)				(36)	1	0	0	0
n. a.	**84**	**2**	**n. a.**	**519**	**58**	**(4)**	**(165)**	**30,907**	**12,530**	**43,437**

CONSOLIDATED STATEMENT OF CASH FLOWS

millions of €

	Note	2018	2017	2016
PROFIT BEFORE INCOME TAXES	34	**5,153**	**4,994**	**4,547**
Depreciation, amortization and impairment losses		13,836	14,586	13,380
(Profit) loss from financial activities		2,848	4,390	4,617
(Profit) loss on the disposal of fully consolidated subsidiaries		0	(537)	(7)
(Income) loss from the sale of stakes accounted for using the equity method		0	(226)	(2,591)
Other non-cash transactions		430	(1,447)	316
(Gains) losses from the disposal of intangible assets and property, plant and equipment		(126)	(103)	(495)
Change in assets carried as working capital		(1,335)	(1,874)	(1,000)
Change in provisions		(100)	265	(234)
Change in other liabilities carried as working capital		(526)	51	(510)
Income taxes received (paid)		(697)	(634)	(527)
Dividends received		181	241	331
Net payments from entering into, canceling or changing the terms and conditions of interest rate derivatives		0	0	289
CASH GENERATED FROM OPERATIONS		**19,663**	**19,706**	**18,116**
Interest paid		(3,307)	(3,783)	(3,488)
Interest received		1,592	1,274	905
NET CASH FROM OPERATING ACTIVITIES		**17,948**	**17,196**	**15,533**
Cash outflows for investments in				
Intangible assets		(3,353)	(10,345)	(5,603)
Property, plant and equipment		(9,139)	(9,149)	(8,037)
Non-current financial assets		(639)	(361)	(483)
Payments to acquire control of subsidiaries and associates		(2,080)	(15)	(2)
Proceeds from disposal of				
Intangible assets		2	21	1
Property, plant and equipment		523	379	363
Non-current financial assets		596	612	335
Proceeds from the loss of control of subsidiaries and associates		(67)	528	4
Net change in short-term investments and marketable securities and receivables		(144)	1,514	(186)
Other		5	2	
NET CASH USED IN INVESTING ACTIVITIES		**(14,297)**	**(16,814)**	**(13,608)**
Proceeds from issue of current financial liabilities		51,597	13,516	26,187
Repayment of current financial liabilities		(57,253)	(26,537)	(34,951)
Proceeds from issue of non-current financial liabilities		8,375	11,215	9,520
Repayment of non-current financial liabilities		(23)	(10)	(20)
Dividends (including to non-controlling interests)		(3,254)	(1,559)	(1,596)
Repayment of lease liabilities		(1,174)	(715)	(374)
Cash inflows from transactions with non-controlling entities		29	18	26
Cash outflows from transactions with non-controlling entities		(1,557)	(522)	(114)
Other		0	0	0
NET CASH USED IN FINANCING ACTIVITIES		**(3,259)**	**(4,594)**	**(1,322)**
Effect of exchange rate changes on cash and cash equivalents		(17)	(226)	250
Changes in cash and cash equivalents associated with non-current assets and disposal groups held for sale		(8)	3	(3)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS		**367**	**(4,435)**	**850**
CASH AND CASH EQUIVALENTS, AT THE BEGINNING OF THE YEAR		**3,312**	**7,747**	**6,897**
CASH AND CASH EQUIVALENTS, AT THE END OF THE YEAR		**3,679**	**3,312**	**7,747**

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

SUMMARY OF ACCOUNTING POLICIES

GENERAL INFORMATION

The Deutsche Telekom Group (hereinafter referred to as “Deutsche Telekom” or the “Group”) is one of the world’s leading service providers in the telecommunications and information technology sector. Deutsche Telekom offers its customers all kinds of products and services for connected life and work. The Group reports on the operating segments Germany, United States, Europe, Systems Solutions, and Group Development, as well as on the Group Headquarters & Group Services segment.

The Company was entered into the commercial register of the Bonn District Court (Amtsgericht – HRB 6794) under the name Deutsche Telekom AG on January 2, 1995.

The Company has its registered office in Bonn, Germany. Its address is Deutsche Telekom AG, Friedrich-Ebert-Allee 140, 53113 Bonn.

The declaration of conformity with the German Corporate Governance Code required pursuant to § 161 of the German Stock Corporation Act (Aktiengesetz – AktG) has been released and made available to shareholders. The Declaration of Conformity can be found on the Deutsche Telekom website (www.telekom.com) via the following path: Investor Relations/Management & Corporate Governance/Reports and declarations/Declaration of Conformity according to § 161 AktG.

The shares of Deutsche Telekom AG are traded on the Frankfurt/Main Stock Exchange as well as on other stock exchanges.

The annual financial statements of Deutsche Telekom as well as the consolidated financial statements of Deutsche Telekom AG, which have an unqualified audit opinion from PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Frankfurt/Main, are published in the Federal Gazette (Bundesanzeiger). The Annual Report is available upon request from Deutsche Telekom AG, Bonn, Investor Relations, and on Deutsche Telekom’s website (www.telekom.com) under the following path: Investor Relations/Publications/Financial results.

The consolidated financial statements of Deutsche Telekom AG for the 2018 financial year were released for publication by the Board of Management on February 12, 2019.

BASIS OF PREPARATION

The consolidated financial statements of Deutsche Telekom have been prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union (EU), as well as with the regulations under commercial law as set forth in § 315e (1) of the German Commercial Code (Handelsgesetzbuch – HGB). The term IFRS is consistently used in the following.

The financial year corresponds to the calendar year. The consolidated statement of financial position includes comparative amounts for one reporting date. The consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity, and the consolidated statement of cash flows include two comparative years.

Presentation in the statement of financial position differentiates between current and non-current assets and liabilities, which – where required – are broken down further by their respective maturities in the notes to the consolidated financial statements. The consolidated income statement is presented using the total cost method. Here, the costs incurred in the financial year are broken down by cost type and the costs capitalized under inventories as well as under intangible assets and property, plant and equipment are presented separately as changes in inventories or own capitalized costs. The consolidated financial statements are prepared in euros.

The financial statements of Deutsche Telekom AG and its subsidiaries included in the consolidated financial statements were prepared using uniform group accounting policies.

INITIAL APPLICATION OF STANDARDS, INTERPRETATIONS, AND AMENDMENTS IN THE FINANCIAL YEAR

In the 2018 financial year, Deutsche Telekom applied the following IASB pronouncements and/or amendments to such pronouncements for the first time:

Pronouncement	Title	To be applied by Deutsche Telekom from	Changes	Impact on the presentation of Deutsche Telekom's results of operations and financial position
IFRS 9	Financial Instruments	January 1, 2018	IFRS 9 introduces new classification and measurement requirements for financial instruments and replaces, in particular, IAS 39. The new regulations cover the classification of financial assets on the basis of the underlying business models and the cash flow characteristics of the instruments. Under the new provisions on the accounting of impairment losses, expected losses have to be recognized on initial recognition. In addition, the requirements apply not only to debt instruments, but also to contract assets pursuant to IFRS 15. Among other things, the new rules for reporting hedge relationships provide the option of recognizing hedging costs separately in other comprehensive income.	The effects of IFRS 9 are detailed in the explanations following this table.
IFRS 15	Revenue from Contracts with Customers	January 1, 2018	This standard provides a single, principles-based five-step model for the determination and recognition of revenue to be applied to all contracts with customers. It replaces in particular IAS 18 and IAS 11. When applying IFRS 15 for the first time, an entity shall apply the standard in full for the current period. In respect of prior periods, the transition guidance grants entities an option to either apply IFRS 15 in full to prior periods (with certain limited practical expedients being available) or to retain prior-period figures as reported under the previous standards, recognizing the cumulative effect of applying IFRS 15 to all contracts that had not yet been completed at the beginning of the reporting period as an adjustment to the opening balance of equity at the date of first-time adoption (beginning of current reporting period).	The standard has a material effect on the presentation of Deutsche Telekom's results of operations and financial position. The effects of IFRS 15 are detailed in the explanations following this table.
Amendments to IFRS 15	Effective Date of IFRS 15	January 1, 2018	Mandatory adoption of IFRS 15 for reporting periods beginning on or after January 1, 2018.	The effects of IFRS 15 are detailed in the explanations following this table.
Amendments to IFRS 15	Clarifications to IFRS 15	January 1, 2018	The clarifications address the following topics relating to IFRS 15: ▪ Identification of performance obligations (when a promised good or service is distinct from other promises in the contract). ▪ Differentiation of principal-agent relationships, application guidance on the concept of the transfer of control in the case of services provided by third parties. ▪ Clarification of the conditions for the timing of recognition of revenue arising from the licensing of intellectual property. Further exemption options for the transition to IFRS 15 were also added.	The effects of IFRS 15 are detailed in the explanations following this table.
Amendments to IAS 40	Transfers of Investment Property	January 1, 2018	Clarification of transfers into or out of investment property.	No material impact.
Amendments to IFRS 2	Classification and Measurement of Share-based Payment Transactions	January 1, 2018	Clarifications of classification and measurement of share-based payment transactions.	No material impact.
Amendments to IFRS 4	Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts	January 1, 2018	Entities falling within the scope of IFRS 4 and whose predominant activity is issuing insurance contracts may, by way of temporary exemption, defer application of IFRS 9 until such time as the new standard for insurance contracts has come into force. In the interim, such entities are thus subject to the provisions of IAS 39. In the case of designated financial assets, other entities falling within the scope of IFRS 4 may incur differences in values depending on whether these assets are to be accounted for in accordance with IFRS 9 or IAS 39; these differences must be presented in other comprehensive income instead of in profit or loss.	No material impact.
IFRIC 22	Foreign Currency Transactions and Advance Consideration	January 1, 2018	IFRIC 22 clarifies what exchange rate is to be applied on initial recognition of a foreign-currency transaction in an entity's functional currency in cases where the entity receives or pays advance consideration before the related asset, expense or income is recognized. The exchange rate for the underlying asset, expense or income is taken as that prevailing on the date of initial recognition of the non-monetary prepayment asset or deferred income liability.	No material impact.
Annual Improvements Project	Annual Improvements to IFRSs 2014–2016 Cycle	January 1, 2018 (IFRS 1 and IAS 28)	Clarification of many published standards.	No material impact.

In July 2014, the IASB issued **IFRS 9 "Financial Instruments."** Application of the standard is mandatory for reporting periods beginning on or after January 1, 2018. The standard introduces new classification and measurement requirements for financial instruments and replaces, in particular, IAS 39.

The new provisions and the related changes in the accounting principles applied by Deutsche Telekom mainly comprise the following items of relevance to Deutsche Telekom:

- Depending on the respective underlying business model, the new provisions on the classification of financial assets give rise to changes in measurement and presentation in some cases. The measurement of debt instruments – especially trade receivables held for potential sale – at fair value through other comprehensive income with recycling to profit or loss had minor effects at the transition date. Effects may arise in ongoing application, particularly from changes in the volumes of receivables held for potential sale in the future. Equity instruments held are irrevocably allocated to a measurement category instrument by instrument upon initial recognition. Deutsche Telekom in general measures equity instruments held at fair value through other comprehensive income without recycling to profit or loss (OCI option).

- The new provisions on the accounting of impairment losses will lead to expected losses having to be recognized earlier than under IAS 39 in some cases. There will be a minor increase in impairment losses due to application of the simplified approach for trade receivables with a significant financing component and for lease assets, and to impairment losses on contract assets recognized for the first time as of January 1, 2018 in accordance with IFRS 15. Effects may arise in ongoing application from a change in business development (for example, changes in volumes or prices) or from changes to business models where these are reflected in the amounts reported for long-term trade receivables and contract assets.

- The hedging relationships are accounted for in accordance with the requirements of IFRS 9. The transition of existing hedging relationships to the new regime has no material effects. Cash flow hedges for hedging interest rate and currency risks have been de-designated and re-designated on the transition to IFRS 9 so that future use can be made of the opportunity to recognize the cost of hedging in other comprehensive income. The other hedging relationships will continue unchanged.

Deutsche Telekom utilizes the option for simplified initial application. The cumulative effect arising from the transition is recognized as an adjustment to the opening balance of equity in the year of initial application. Prior-year comparatives are not adjusted; instead, Deutsche Telekom provides an explanation of the reasons for the changes in items in the statement of financial position and the income statement for the current period.

The transition to IFRS 9 as of January 1, 2018 will result mainly in the following cumulative changes to retained earnings before deferred taxes – including the corresponding shares attributable to non-controlling interests:

millions of €	
Increase in impairment losses on trade receivables	144
Impairment losses on contract assets recognized for the first time in accordance with IFRS 15	28
	172

For further information on the first-time application of IFRS 9, please refer to Note 40 "Financial instruments and risk management," page 236 et seq.

In May 2014, the IASB issued **IFRS 15 "Revenue from Contracts with Customers."** Application of the standard is mandatory for reporting periods beginning on or after January 1, 2018. This standard provides a single, principles-based five-step model for the determination and recognition of revenue to be applied to all contracts with customers. It replaces, in particular, IAS 18 and IAS 11 and has a material effect on the presentation of Deutsche Telekom's results of operations and financial position. Depending on the business model applied, the new provisions and the related changes in the accounting principles applied by Deutsche Telekom affect the following issues in particular:

- In the case of multiple-element arrangements (e.g., mobile contract plus handset), the total transaction price of the bundled contract is allocated among the individual, separate performance obligations based on their relative standalone selling prices, i.e., based on a ratio of the standalone selling price of each element to the aggregated standalone selling prices of the contractual performance obligations. In contrast to the previous accounting treatment, the relative standalone selling price of an individual element and thus the revenue recognized for this unit of accounting is no longer limited to that proportion of the total arrangement consideration to be provided by the customer, the payment of which does not depend on the delivery of additional elements (contingent revenue cap). As a result, the revenue to be recognized for products delivered in advance (e.g., mobile handsets) that are sold at a subsidized price in combination with a long-term service contract was limited by this subsidized price. Under IFRS 15, this limitation no longer applies, i.e., in the case of subsidized products delivered in advance, a larger portion of the total remuneration is attributable to the element delivered in advance (mobile handset), requiring earlier recognition of revenue under the new regulations. This leads to the recognition of what is known as a contract asset – a receivable arising from the customer contract that has not yet legally come into existence – in the statement of financial position. The contract asset is reduced over the remaining contract period, lowering revenue from the other performance obligations (in this case: mobile service revenues) compared with the amounts billed.

- At the same time, it results in higher revenue from the sale of goods and merchandise and in lower revenue from the provision of services.
- The extent of the changes resulting from the initial application of IFRS 15 that are described above therefore largely depends on the business models used by the subsidiary in question. Whereas the sale of subsidized handsets in connection with the conclusion of service contracts in the consumer business is still common in the Germany operating segment, handsets are not sold at a discount at all or only to a limited extent in the United States and to some extent in the Europe operating segments; payment-by-installment models or lease models are offered to customers instead.
- Customer activation fees and other advance one-time payments by the customer that do not constitute consideration for a separate performance obligation are classed as contract liabilities, and are deferred and recognized as revenue over the (remaining) contract period.
- Expenses for sales commissions (costs of obtaining a customer contract (contract costs)) must be capitalized and recognized over the estimated customer retention period. The expenses are disclosed in Deutsche Telekom's income statement, not under depreciation and amortization but – depending on the sales channel – as goods and services purchased or personnel costs.
- In the indirect sales channel, reimbursements explicitly or implicitly included in commissions paid to third-party retailers for handset subsidies granted by those retailers are recognized as a reduction of the service revenues over the contract term rather than as an expense. This ensures that the amount of the service revenues generated with retail customers for identical rate plans does not depend on the type of sales channel.
- On first-time application of the standard, both total assets and shareholders' equity increased due to the capitalization of contract assets and contract costs for contracts not yet fully completed.
- In cases where "material rights" are granted – such as offering additional discounts for future purchases of further products – a portion of the transaction price must be deferred as a contract liability and is not recognized as revenue until this additional performance obligation has been satisfied or has lapsed.
- Contract liabilities (which, as deferred revenue, were already recognized as liabilities in the past) must be netted against the contract assets for each customer contract.
- For the purposes of determining whether Deutsche Telekom sells products for its own account (principal = gross revenue) or for the account of others (agent = net revenue), there are no material changes for the existing agreements.

As regards IFRS 15, Deutsche Telekom utilizes the following accounting options:

- Deutsche Telekom applies the option for simplified initial application, limiting the retroactive application of IFRS 15 to contracts that have not yet been completely fulfilled at the date of initial application. The contracts that have not yet been completely fulfilled as of January 1, 2018 are accounted for as if they had been recognized in accordance with IFRS 15 from the very beginning. The cumulative effect arising from the transition is recognized as an adjustment to the opening balance of equity in the year of initial application. Prior-year comparatives are not adjusted; instead, Deutsche Telekom provides an explanation of the reasons for the changes in items in the statement of financial position and the income statement for the current period as a result of applying IFRS 15 for the first time.
- A significant financing component is not considered for the amount and timing of revenue recognition if the period between when a promised good or service is transferred to the customer and when the customer pays for that good or service will be one year or less.
- In general, contract costs whose amortization period would not be more than one year are immediately recognized as an expense.

The adjustments made to items in the statement of financial position as of January 1, 2018 and attributable to IFRS 15 are as follows[a]:

millions of €

	Carrying amount in accordance with IAS 18/IAS 11 Dec. 31, 2017	Remeasurements	Reclassifications	Carrying amount in accordance with IFRS 15 Jan. 1, 2018
ASSETS				
CURRENT ASSETS				
Trade and other receivables[b]	9,723	(163)	(150)	9,410
Contract assets[b]	n. a.	1,622	150	1,772
Current recoverable income taxes	236	(1)	0	235
Other assets	1,646	(43)	0	1,603
NON-CURRENT ASSETS				
Capitalized contract costs	n. a.	1,128	48	1,176
Deferred tax assets	4,013	27	0	4,040
Other assets	819	(78)	(48)	693
LIABILITIES AND SHAREHOLDERS' EQUITY				
CURRENT LIABILITIES				
Financial liabilities	8,358	9	(1)	8,366
Trade and other payables	10,971	0	(38)	10,933
Income tax liabilities	224	29	0	253
Other provisions	3,372	(19)	(48)	3,305
Other liabilities	4,440	(209)	(1,612)	2,619
Contract liabilities	n. a.	212	1,699	1,911
NON-CURRENT LIABILITIES				
Deferred tax liabilities	6,967	663	0	7,630
Other liabilities	3,831	(322)	(212)	3,297
Contract liabilities	n. a.	351	212	563
SHAREHOLDERS' EQUITY				
Retained earnings including carryforwards plus non-controlling interests[c]	(27,013)	1,778	0	(25,235)

[a] The overview above contains only those items of the statement of financial position that are affected by the first-time application of IFRS 15.

[b] Carrying amounts as of January 1, 2018 are shown before impairment losses on contract assets recognized in accordance with IFRS 9. Please refer to the explanations in regard to the initial application of IFRS 9 in this section.

[c] For reasons of simplification, the figure is combined to show the cumulative effect of the transition to IFRS 15 to be recognized directly in equity.

The remeasurement effects are mainly attributable to the first-time recognition of

- contract assets in the amount of EUR 1.6 billion that, under IFRS 15, would have resulted in the earlier recognition of revenue, in particular from the sale of goods and merchandise;
- capitalized contract costs of EUR 1.1 billion that, under IFRS 15, would have resulted in the later recognition of selling expenses; and
- contract liabilities totaling EUR 0.6 billion that, under IFRS 15, would have resulted in the later recognition of revenue.

After deferred tax liabilities totaling EUR 0.6 billion (net) and other minor effects were taken into account, the transition to the new standard as of January 1, 2018 resulted in a cumulative effect that increased retained earnings by EUR 1.8 billion and included the shares attributable to non-controlling interests.

The reclassifications mainly concern the following items:

- The receivables from long-term construction contracts (EUR 0.2 billion) that, under IAS 11, were recognized under trade and other receivables as of December 31, 2017 are classified as contract assets under IFRS 15.
- The deferred revenue of EUR 1.8 billion recognized under other liabilities as of December 31, 2017 is recognized as contract liabilities in accordance with IFRS 15.

Due to the remeasurements described above, the carrying amounts of the cash-generating units that must be tested for impairment in accordance with IAS 36 increased when IFRS 15 was applied for the first time on January 1, 2018. As a result, the carrying amounts of the Romania cash-generating unit in the Europe operating segment and of the Netherlands cash-generating unit in the Group Development operating segment exceeded in each case the recoverable amounts for these units. Consequently, in each case a goodwill impairment had to be recognized directly in equity as of January 1, 2018 for an aggregate amount of EUR 0.1 billion. For further information, please refer to Note 6 "Intangible assets," page 184 et seq., and Note 7 "Property, plant and equipment," pages 191 and 192.

Comparative figures for the items of the financial statements affected by the first-time application of IFRS 15
The following tables contain relevant items from the financial statements as of December 31, 2018 in accordance with IFRS 15 as well as the previous accounting treatment in accordance with IAS 18/IAS 11 and related interpretations:

millions of €

	IFRS 15 Dec. 31, 2018	IAS 18/IAS 11 Dec. 31, 2018	Change
ASSETS			
CURRENT ASSETS			
Trade and other receivables	9,988	10,352	(365)
Contract assets	1,765	0	1,765
Current recoverable income taxes	492	493	(1)
Other assets	1,164	1,243	(80)
NON-CURRENT ASSETS			
Capitalized contract costs	1,744	0	1,744
Other financial assets	1,585	1,582	4
Deferred tax assets	2,949	3,509	(560)
Other assets	1,070	1,198	(128)
LIABILITIES AND SHAREHOLDERS' EQUITY			
CURRENT LIABILITIES			
Financial liabilities	10,527	10,520	7
Trade and other payables	10,735	10,737	(2)
Income tax liabilities	328	320	9
Other provisions	3,144	3,212	(69)
Other liabilities	2,654	4,368	(1,714)
Contract liabilities	1,720	0	1,720
NON-CURRENT LIABILITIES			
Other provisions	3,291	3,292	(1)
Deferred tax liabilities	8,240	8,036	204
Other liabilities	3,427	4,020	(593)
Contract liabilities	585	0	585
SHAREHOLDERS' EQUITY			
Retained earnings including carryforwards and net profit plus non-controlling interests	(22,696)	(24,817)	2,121

Under IAS 18/IAS 11, trade and other receivables would have included receivables from long-term construction contracts, which are recognized as contract assets under IFRS 15.

Due to the transition to IFRS 15, contract assets are recognized for the first time and amortized, and capitalized contract costs are recognized as assets for the first time and amortized.

Under IAS 18/IAS 11, other liabilities would have included deferred revenue, which, under IFRS 15, is either recognized as contract liabilities or netted with contract assets.

The differences in the amounts recognized under deferred tax assets and deferred tax liabilities are due to remeasurement effects in connection with the first-time and continuing application of IFRS 15 in the 2018 financial year.

millions of €

	IFRS 15 2018	IAS 18/IAS 11 2018	Change
NET REVENUE	**75,656**	**75,553**	**103**
Other operating income	1,491	1,491	0
Changes in inventories	(14)	(14)	0
Own capitalized costs	2,433	2,433	0
Goods and services purchased	(38,160)	(38,450)	290
Personnel costs	(16,436)	(16,525)	89
Other operating expenses	(3,134)	(3,136)	3
Depreciation, amortization and impairment losses	(13,836)	(13,836)	0
PROFIT (LOSS) FROM OPERATIONS	**8,001**	**7,516**	**484**
Finance costs	(1,817)	(1,801)	(16)
Share of profit (loss) of associates and joint ventures accounted for using the equity method	(529)	(529)	0
Other financial income (expense)	(502)	(502)	0
PROFIT (LOSS) FROM FINANCIAL ACTIVITIES	**(2,848)**	**(2,832)**	**(16)**
PROFIT (LOSS) BEFORE INCOME TAXES	**5,153**	**4,684**	**469**
Income taxes	(1,824)	(1,698)	(126)
PROFIT (LOSS)	**3,329**	**2,986**	**343**

Without the effect of IFRS 15, revenue would have amounted to EUR 75.6 billion, EUR 0.1 billion lower than reported. Effects on revenue development are attributable mainly to amortization of the contract assets/liabilities recognized in the statement of financial position over the (remaining) contract period in the 2018 financial year. This amortization is recognized as a reduction or an increase in revenue. These items also include reimbursements for handset subsidies granted by third-party retailers in the indirect sales channel. These reimbursements are a component of the commissions paid to those retailers. The subsidies are now no longer recognized as an expense, but as a reduction of the service revenues over the contract term. Under other business models, revenue was increased due to the capitalization and subsequent amortization of expenses for sales commissions (contract costs) under goods and services purchased; these expenses were previously recognized as revenue-reducing effects.

Adjusted for the effects of IFRS 15, goods and services purchased and personnel costs would have come in at EUR 38.5 billion and EUR 16.5 billion, respectively, and would thus have been a total of EUR 0.4 billion higher. This effect is attributable to the capitalization of expenses for sales commissions, which, under IAS 18/IAS 11, would have been recognized immediately in profit or loss either under goods and services purchased (dealer commissions) or personnel costs (employee commissions). It was only partially offset by the amortization of capitalized expenses for sales commissions.

STANDARDS, INTERPRETATIONS, AND AMENDMENTS ISSUED, BUT NOT YET TO BE APPLIED

Pronouncement	Title	To be applied by Deutsche Telekom from	Changes	Expected impact on the presentation of Deutsche Telekom's results of operations and financial position
IFRSs ENDORSED BY THE EU				
IFRS 16	Leases	January 1, 2019	IFRS 16 principally requires lessees to recognize assets and liabilities for all leases and the rights and obligations associated with these leases in the statement of financial position. Going forward, lessees will therefore no longer be required to make the distinction between finance and operating leases that was required in the past in accordance with IAS 17. For all leases, the lessee will recognize a lease liability in its statement of financial position for the obligation to make future lease payments. At the same time, the lessee will capitalize a right of use to the underlying asset which is equivalent to the present value of the future lease payments plus initial direct costs, directly attributable expenditure, advance payments and restoration costs, as well as less incentive payments received. Similar to the guidance on finance leases in IAS 17, the lease liability will be adjusted over the lease term for any remeasurement, while the right-of-use asset will be depreciated, which in contrast to the current lease expense normally leads to higher expenses at the inception date of a lease. For the lessor, on the other hand, the provisions of the new standard are similar to the existing guidance in IAS 17. IFRS 16 also includes new provisions on the definition of a lease and its presentation, on disclosures in the notes, and on sale and leaseback transactions.	The standard has a material effect on the presentation of Deutsche Telekom's results of operations and financial position. The effects are detailed in the explanations following this table.
Amendments to IAS 28	Long-term Interests in Associates and Joint Ventures	January 1, 2019	The amendments clarify that an entity applies IFRS 9 including its impairment requirements to long-term interests in an associate or joint venture that form part of the net investment in the associate or joint venture but are not accounted for using the equity method.	No material impact.
Amendments to IFRS 9	Prepayment Features with Negative Compensation	January 1, 2019	The amendment sets out that, if certain conditions are met, financial assets can be measured at amortized cost or fair value through other comprehensive income if, in the case of an early termination, compensation is required to be paid to the party that triggers the early termination of the contract.	No material impact.
IFRIC 23	Uncertainty over Income Tax Treatments	January 1, 2019	IFRIC 23 brings clarity to IAS 12 "Income Taxes" in relation to the recognition and measurement of current income taxes, deferred tax assets, and deferred tax liabilities if there is uncertainty regarding the treatment of income taxes.	No material impact.
IFRSs NOT YET ENDORSED BY THE EU [a]				
Amendments to IAS 19	Plan Amendment, Curtailment or Settlement	January 1, 2019	The amendments change the guidance on the amendment, curtailment or settlement of a defined benefit pension plan. Clarification that an entity is required to determine current service cost and the net interest for the remainder of the reporting period after a plan amendment, curtailment or settlement using updated actuarial assumptions and the net liability (or net asset) at the time of the intervention; any changes in a surplus as part of past service cost or as a gain or loss on settlement must be recognized in profit or loss, even if this surplus had not been previously disclosed due to the effect of the asset ceiling. The effects of changes in the asset ceiling are recognized in other comprehensive income.	No material impact.
Annual Improvements Project	Annual Improvements to IFRSs 2015–2017 Cycle	January 1, 2019	Clarification of many published standards.	No material impact.
Amendments to References to the Conceptual Framework	References to the Conceptual Framework	January 1, 2020	Updating of the cross references to the revised conceptual framework in the corresponding standards and interpretations.	No material impact.
Amendments to IFRS 3	Business Combinations	January 1, 2020	Changes in the definition of a business for clarifying how a company determines whether it has acquired a business or a group of assets.	No material impact.
Amendments to IAS 1 and IAS 8	Definition of Material	January 1, 2020	Clarification of the definition of materiality.	No material impact.
IFRS 17	Insurance Contracts	January 1, 2021	IFRS 17 governs the accounting for insurance contracts and replaces IFRS 4.	No material impact.

[a] For standards not yet endorsed by the EU, the date of first-time adoption scheduled by the IASB is assumed for the time being as the likely date of first-time adoption.

In January 2016, the IASB issued **IFRS 16 "Leases."** The standard will be effective for the first time for financial years beginning on or after January 1, 2019. IFRS 16 has a material effect on Deutsche Telekom's consolidated financial statements, particularly on total assets, the results of operations, cash generated from operations, and the presentation of the financial position.

The new regulations affect Deutsche Telekom as a lessee especially in relation to leases of cell sites (land, space in cell towers or rooftop surface areas), network infrastructure, and buildings used for administrative or technical purposes.

Deutsche Telekom will not apply the new lease standard retrospectively in full, but will make use of the exemption provisions for lessees, also known as the modified retrospective method. On the transition to IFRS 16, payment obligations from existing operating leases will be discounted using the relevant incremental borrowing rate and recognized as a lease liability. The right-of-use assets will be carried as of January 1, 2019 in the amount of the lease liability, adjusted by the amount of the prepaid or accrued lease payments. Due to the significant amount of liabilities from straight-line leases in accordance with IAS 17, which in accordance with IFRS 16 must be deducted from the right-of-use assets, the right-of-use assets as of January 1, 2019 under IFRS 16 will be carried at a significantly lower amount than the corresponding lease liability (see Note 16 "Other liabilities," page 211). This liability primarily relates to leases for T-Mobile US' cell sites. As of the transition date of January 1, 2019, first of all, the lease terms underlying the liabilities will be adjusted to the terms determined in accordance with IFRS 16, increasing shareholders' equity. The remaining prepaid expense will be offset against the right-of-use asset as described above.

In the statement of cash flows, the repayment portion of the lease payments from existing operating leases will reduce net cash from/used in financing activities and no longer affect net cash from operating activities. Only the interest payments will remain in net cash from operating activities, the total of which will rise.

The full effects of IFRS 16 were determined as part of a Group-wide project for implementing the new standard. On the basis of management's current estimate, Deutsche Telekom expects the transition to the new standard to have the following material effects as of January 1, 2019. It should be noted that the expectations stated regarding the items of the statement of financial position may be subject to deviations of +/-5 percentage points:

- The increase in total assets/total liabilities and shareholders' equity as of January 1, 2019 as a consequence of the recognition of right-of-use assets in the amount of EUR 13,8 billion, the recognition of lease liabilities in the amount of EUR 15.4 billion, and a reduction in retained earnings, due in particular to the reversal of accrued lease payments (liabilities from straight-line leases) of EUR 0.5 billion (before deferred taxes). The increase in lease liabilities will lead to a corresponding increase in net debt.

- Depreciation charges that are around EUR 2.8 billion higher and interest expense that is around EUR 0.7 billion higher will be reported in the income statement in place of lease expense; this is expected to give rise to a significant improvement in EBITDA of around EUR 3.4 billion. The expected effects will be exclusively attributable to the balance as of January 1, 2019.

Significant options and expedients will be exercised as follows:

- Right-of-use assets and lease liabilities will be reported separately in the statement of financial position.

- The recognition, measurement, and disclosure requirements of IFRS 16 also apply to short-term leases and leases of low-value assets.

- A distinction will not be made in leases that contain both lease components and non-lease components. Each lease component will be accounted for together with other related performance components as a single lease component.

- Leases for intangible assets fall under IAS 38 rather than under IFRS 16.

In addition, on the date of first-time adoption of IFRS 16, use will be made of the main options and expedients as follows:

- Provisions for onerous contracts recognized in connection with leases will be derecognized on January 1, 2019 against the right-of-use asset.
- In determining the lease term, hindsight may be used where this provides a better estimate for the exercise of options to extend or terminate the lease.
- Use will not be made of grandfathering. On January 1, 2019, the lease standard will therefore be applied to all existing leases falling within its scope. It will apply to leases in which Deutsche Telekom is a lessee and to leases in which the Group is a lessor

Overall, the new definition of a lease will not have a material impact for Deutsche Telekom as a lessor. However, the number of identified leases will change. The new definition does not affect the contracts for servers or similar hardware provided to customers as part of data and network solutions or contracts for terminal equipment and SmartHome network solutions provided to customers. These will continue to be defined as leases. However, the number of leases for contracts involving modems/ routers for the latest generation of devices provided to consumers as part of fixed-network mass-market contracts is expected to decrease. In relation to services provided in data centers, the leasing of space, for example separate rooms for setting up the customer's own hardware, will be identified as a component of a lease. Furthermore, the leasing of local loop lines and space to wholesale fixed-network customers (e.g., co-location space) will also be classified as a lease.

Readers are also referred to the Disclaimer at the end of this report as regards the forward-looking statements contained in this section; the latter reflect the current views of the management of Deutsche Telekom with regard to future events.

CHANGES IN ACCOUNTING POLICIES AND CHANGES IN THE REPORTING STRUCTURE

With the exception of the standards, interpretations, and amendments that are effective for the first time in the financial year, Deutsche Telekom did not make any major changes in its accounting policies.

Vivento Customer Services GmbH, a provider of call center services, has been assigned to the Germany operating segment since January 1, 2018; previously it was part of the Group Headquarters & Group Services segment. Comparative figures have been adjusted retrospectively in segment reporting.

ACCOUNTING POLICIES

Key assets and liabilities shown in the consolidated statement of financial position are measured as follows:

Items in the statement of financial position	Measurement principle
ASSETS	
CURRENT ASSETS	
Cash and cash equivalents	Amortized cost
Trade and other receivables	Depending on the underlying business model in each individual case: at amortized cost, at fair value through other comprehensive income with recycling to profit or loss, or at fair value through profit or loss
Contract assets	Amortized cost
Current recoverable income taxes	Amount expected to be recovered from the taxation authorities, using the tax rates that have been enacted or substantively enacted by the end of the reporting period
Other financial assets	
Originated loans and other receivables	Depending on the underlying business model in each individual case: at amortized cost, at fair value through other comprehensive income with recycling to profit or loss, or at fair value through profit or loss
Equity instruments	Fair value through other comprehensive income without recycling to profit or loss
Derivative financial assets	At fair value through profit or loss or, in the case of certain hedging relationships, at fair value through other comprehensive income with recycling to profit or loss
Inventories	Lower of net realizable value and cost
Non-current assets and disposal groups held for sale	Lower of carrying amount or fair value less costs of disposal (including allocable liabilities)
NON-CURRENT ASSETS	
Intangible assets	
Of which: with finite useful lives	Amortized cost or lower recoverable amount
Of which: with indefinite useful lives (including goodwill)	Cost or lower recoverable amount (impairment-only approach)
Property, plant and equipment	Amortized cost or lower recoverable amount
Capitalized contract costs	Amortized cost or lower recoverable amount
Investments accounted for using the equity method	Pro-rata value of the investment's equity carried forward or lower recoverable amount
Other financial assets	
Originated loans and other receivables	Depending on the underlying business model in each individual case: at amortized cost, at fair value through other comprehensive income with recycling to profit or loss, or at fair value through profit or loss
Equity instruments	Fair value through other comprehensive income without recycling to profit or loss
Derivative financial assets	At fair value through profit or loss or, in the case of specific hedge accounting, at fair value through other comprehensive income with recycling to profit or loss
Deferred tax assets	Non-discounted amount measured at the tax rates that are expected to apply to the period when the asset is realized or the liability settled

Items in the statement of financial position	Measurement principle
LIABILITIES	
CURRENT LIABILITIES	
Financial liabilities	
Non-derivative interest-bearing and non-interest-bearing liabilities	Amortized cost
Derivative financial liabilities	At fair value through profit or loss or, in the case of certain hedging relationships, at fair value through other comprehensive income with recycling to profit or loss
Trade payables	Amortized cost
Income tax liabilities	Amount expected to be paid to the taxation authorities, using the tax rates that have been enacted or substantively enacted by the end of the reporting period
Other provisions	Present value of the settlement amount
Contract liabilities	Amortized cost
NON-CURRENT LIABILITIES	
Financial liabilities	
Non-derivative interest-bearing and non-interest-bearing liabilities	Amortized cost
Derivative financial liabilities	At fair value through profit or loss or, in the case of certain hedging relationships, at fair value through other comprehensive income with recycling to profit or loss
Provisions for pensions and other employee benefits	Actuarial projected unit credit method
Other provisions	Present value of the settlement amount
Contract liabilities	Amortized cost
Deferred tax liabilities	Non-discounted amount measured at the tax rates that are expected to apply to the period when the asset is realized or the liability settled

The material principles on recognition and measurement outlined below were applied uniformly to all accounting periods presented in these consolidated financial statements.

INTANGIBLE ASSETS (EXCLUDING GOODWILL)

Intangible assets with finite useful lives, including UMTS and LTE licenses, are measured at cost and generally amortized on a straight-line basis over their useful lives. Such assets are impaired if their recoverable amount, which is measured at the higher of fair value less costs of disposal and value in use, is lower than the carrying amount. Indefinite-lived intangible assets (mobile communications licenses granted by the Federal Communications Commission in the United States (FCC licenses)) are carried at cost. While FCC licenses are issued for a fixed time, renewals of FCC licenses have occurred routinely and at negligible costs. Moreover, Deutsche Telekom has determined that there are currently no legal, regulatory, contractual, competitive, economic, or other factors that limit the useful lives of the FCC licenses, and therefore treats the FCC licenses as an indefinite-lived intangible asset. They are not amortized, but tested for impairment annually or whenever there are indications of impairment and, if necessary, written down to the recoverable amount. If the reasons for recognizing the original impairment loss no longer apply, impairment losses are reversed taking amortization into account, i. e., not exceeding the value that would have been applied if no impairment losses had been recognized in prior periods.

Intangible assets may also be acquired in connection with a frequency or spectrum exchange. The costs of intangible assets acquired in such an exchange are measured at fair value if the swap has commercial substance and the fair value of the asset received and the asset given up is reliably measurable. If the exchange transaction lacks commercial substance or the fair value of neither the asset received nor the asset given up is reliably measurable, the carrying amount of the asset given up is used as the fair value of the asset received.

The useful lives and the amortization methods of the assets are reviewed at least at each financial year-end and, if expectations differ from previous estimates, the changes are accounted for as changes in accounting estimates in accordance with IAS 8.

Amortization of mobile communications licenses begins as soon as the related network is ready for use. The useful lives of mobile communications licenses are determined based on several factors, including the term of the licenses granted by the respective regulatory body in each country, the availability and expected cost of renewing the licenses, as well as the development of future technologies.

The useful lives of Deutsche Telekom’s most important mobile communications licenses are as follows:

Mobile communications licenses	Years
FCC licenses	Indefinite
LTE licenses	6 to 25
UMTS licenses	17 to 19
GSM licenses	7 to 27

Expenditures for internally generated intangible assets incurred during the development phase are capitalized if they meet the criteria for recognition as assets, and are amortized over their useful lives. **Research expenditures** are expensed as incurred. Development is the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems, or services prior to the commencement of commercial production or use. Examples of activities typically included in development are the design, construction, and testing of pre-production or pre-use prototypes and models involving new technology. The development phase is deemed complete when the IT department has formally documented that the capitalized asset is ready for its intended use. Expenditure on research and development recognized as an expense by Deutsche Telekom amounted to EUR 57.7 million (2017: EUR 57.7 million).

GOODWILL
Goodwill is not amortized, but is tested for impairment based on the recoverable amount of the cash-generating unit to which the goodwill is allocated (impairment-only approach). The impairment test is carried out on a regular basis at the end of each financial year, as well as whenever there are indications that the carrying amount of the cash-generating unit is impaired.

PROPERTY, PLANT AND EQUIPMENT
Property, plant and equipment is carried at cost less straight-line depreciation, and impairment losses, if applicable. The depreciation period is based on the expected useful life of the assets. Items of property, plant and equipment are depreciated pro rata temporis in the year of acquisition. The residual values, useful lives, and the depreciation methods of the assets are reviewed at least at each financial year-end and, if expectations differ from previous estimates, the changes are accounted for as changes in accounting estimates in accordance with IAS 8. In addition to directly attributable costs, the costs of internally developed assets include proportionate indirect material and labor costs, as well as administrative expenses relating to production or the provision of services. In addition to the purchase price and costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management, costs also include the estimated costs for dismantling and removing the asset, and restoring the site on which it is located. If an item of property, plant and equipment consists of several components with different estimated useful lives, those components that are significant are depreciated over their individual useful lives. Maintenance and repair costs are expensed as incurred. Public investment grants reduce the cost of the assets for which the grants were made.

On disposal of an item of property, plant and equipment or when no future economic benefits are expected from its use or disposal, the carrying amount of the item is derecognized. The gain or loss arising from the disposal of an item of property, plant and equipment is the difference between the net disposal proceeds, if any, and the carrying amount of the item and is recognized as other operating income or other operating expenses when the item is derecognized. The useful lives of material asset categories are presented in the following table:

	Years
Buildings	25 to 50
Telephone facilities and other telecommunications equipment	3 to 15
Switching, transmission, IP, and radio transmission equipment	2 to 12
Outside plant networks	8 to 35
Other equipment, operating and office equipment	2 to 23

Leasehold improvements are depreciated over the shorter of their useful lives or applicable lease terms.

BORROWING COSTS
Borrowing costs that are directly attributable to the acquisition, construction, or production of a qualifying asset are capitalized as part of the cost of that asset. Deutsche Telekom defines qualifying assets as construction projects or other assets for which a period of at least twelve months is necessary in order to get them ready for their intended use or sale. Borrowing costs relating to assets measured at fair value and to inventories that are manufactured or produced in large quantities on a repetitive basis are not capitalized.

IMPAIRMENTS OF INTANGIBLE ASSETS (INCLUDING GOODWILL) AND ITEMS OF PROPERTY, PLANT AND EQUIPMENT
Impairments are identified by comparing the carrying amount with the recoverable amount. If individual assets do not generate future cash flows independently of other assets, recoverability is assessed on the basis of the cash-generating unit to which the assets can be allocated. At each reporting date, Deutsche Telekom assesses whether there is any indication that an asset may be impaired. If any such indication exists, the recoverable amount of the asset or cash-generating unit must be determined. In addition, annual impairment tests are carried out for intangible assets with indefinite useful lives (goodwill and FCC licenses) at regular intervals. For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the cash-generating units that are expected to benefit from the synergies of the combination. If the carrying amount of the cash-generating unit to which goodwill is allocated exceeds its recoverable amount, goodwill allocated to this cash-generating unit must be reduced in the amount of the difference. Impairment losses for goodwill must not be reversed. If the impairment loss recognized for the cash-generating unit exceeds the carrying amount of the allocated goodwill, the additional amount of the impairment loss is to be distributed on a pro-rata basis to the assets allocated to the cash-generating unit. The fair values or values in use (if measurable) of the individual assets shall be considered to be the minimum values. If the reasons for previously recognized impairments no longer exist, the impairment losses on the assets concerned (with the exception of goodwill) must be reversed.

The recoverable amount of a cash-generating unit is measured at the higher of fair value less costs of disposal and the value in use. The recoverable amount is generally determined by means of a discounted cash flow (DCF) calculation, unless it can be determined on the basis of a market price. These DCF calculations use projections that are based on financial budgets approved by management covering a ten-year period and are also used for internal purposes. The planning horizon reflects the assumptions for short- to mid-term market developments. Cash flows beyond the ten-year period are extrapolated using appropriate growth rates. For the key assumptions on which management has based its calculation of the recoverable amount, please refer to the explanations provided under "Judgments and estimates," further on in this section.

INVENTORIES

Inventories are carried at cost on initial recognition and are subsequently measured at the lower of cost and net realizable value. Cost comprises all costs of purchase, costs of conversion, and other costs incurred in bringing the inventories to their present location and condition. Cost is measured using the weighted average cost method. Net realizable value is the estimated standalone selling price in the ordinary course of business less the estimated costs of completion and the necessary estimated selling expenses.

NON-CURRENT ASSETS AND DISPOSAL GROUPS HELD FOR SALE

Non-current assets and disposal groups held for sale are classified as such if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. These assets are measured at the lower of the carrying amount and fair value less costs of disposal and classified as non-current assets and disposal groups held for sale. Such assets are no longer depreciated. Impairment of such assets is recognized if fair value less costs of disposal is lower than the carrying amount. If fair value less costs of disposal subsequently increases, the impairment loss previously recognized must be reversed. The reversal of impairment losses is limited to the impairment losses previously recognized for the assets concerned. If the requirements for the classification of assets as held for sale are no longer met, the assets may no longer be shown as held for sale. The assets are to be measured at the lower of the carrying amount that would have applied if the asset had not been classified as held for sale, and the recoverable amount at the date at which the requirements for the classification as held for sale are no longer met.

EMPLOYEE BENEFITS

Deutsche Telekom maintains **defined benefit pension** plans in various countries on the basis of the pensionable compensation of its employees and their length of service. Some of these pension plans are financed through external pension funds and some through incorporation in a contractual trust agreement (CTA). Provisions for pensions are actuarially measured using the projected unit credit method for defined benefit pension plans, taking into account not only the pension obligations and vested pension rights known at the reporting date, but also expected future salary and benefit increases. The interest rate used to determine the present value of the obligations is generally set on the basis of the yields on high-quality corporate bonds in the respective currency area. The return on plan assets and interest expenses resulting from the unwinding of the discount are reported in (net) finance costs. Service cost is classified as operating expenses. Past service cost resulting from a change in the pension plan shall immediately be recognized in the period in which the change took effect. Gains and losses arising from adjustments and changes in actuarial assumptions are recognized immediately and in full in the period in which they occur outside profit or loss within equity. Some Group entities grant defined contribution plans to their employees in accordance with statutory or contractual requirements, with the payments being made to state or private pension insurance funds. Under defined contribution plans, the employer does not assume any other obligations above and beyond the payment of contributions to an external fund. The amount of the future pension payments will exclusively depend on the contribution made by the employer (and their employees, if applicable) to the external fund, including income from the investment of such contributions. The amounts payable are expensed when the obligation to pay the amounts is established, and classified as expenses.

Up until December 31, 2012, Deutsche Telekom maintained a joint pension fund, **Bundes-Pensions-Service für Post und Telekommunikation e.V., Bonn (Federal Pension Service for Post and Telecommunications – BPS-PT),** together with Deutsche Post AG and Deutsche Postbank AG for civil-servant pension plans. BPS-PT made pension and allowance payments to retired employees and their surviving dependents who are entitled to pension payments as a result of civil-servant status. The German Act on the Reorganization of the Civil Service Pension Fund (Gesetz zur Neuordnung der Postbeamtenversorgungskasse – PVKNeuG) transferred the functions of BPS-PT relating to civil-servant pensions (organized within the Civil Service Pension Fund) to the German Federal Posts and Telecommunications Agency effective January 1, 2013. The level of Deutsche Telekom AG's payment obligations to the Civil Service Pension Fund is defined under § 16 of the German Act on the Legal Provisions for the Former Deutsche Bundespost Staff (Postpersonalrechtsgesetz). Deutsche Telekom AG has been legally obliged since 2000 to make an annual contribution to the special pension fund amounting to 33 percent of the pensionable gross emoluments of active civil servants and the notional pensionable gross emoluments of civil servants on leave of absence. Deutsche Telekom is not required to fulfill any other obligations in respect of pensions for civil servants. The payment obligations can therefore be considered defined contribution plans.

In the past, Deutsche Telekom AG and its domestic subsidiaries agreed on **phased retirement arrangements** with varying terms and conditions, predominantly based on what is known as the block model. Two types of obligations, both measured at their present value in accordance with actuarial principles, arise and are accounted for separately. The first type of obligation relates to the cumulative outstanding settlement amount, which is recorded on a pro-rata basis during the active or working phase. The cumulative outstanding settlement amount is based on the difference between the employee's remuneration before entering phased retirement (including the employer's social security contributions) and the remuneration for the part-time service (including the employer's social security contributions, but excluding top-up payments). The second type of obligation relates to the employer's obligation to make top-up payments plus an additional contribution to the statutory pension scheme. Top-up payments are often hybrid in nature, i.e., although the agreement is often considered a form of compensation for terminating the employment relationship at an earlier date, payments to be made at a later date are subject to the performance of work in the future. Despite having the characteristics of severance payments, the top-up payments must be recognized ratably over the vesting period due to their dependency on the performance of work in the future. If the block model is used, the vesting period for top-up payments starts when the employee is granted the entitlement to participate in the phased retirement program and ends upon entry into the passive phase (leave from work).

Obligations arising from the granting of termination benefits are recognized when Deutsche Telekom does not have a realistic possibility of withdrawal from the granting of the corresponding benefits. Severance payments for employees and obligations arising in connection with early retirement arrangements in Germany are mainly granted in the form of offers to the employees to leave the Company voluntarily. As a rule, such obligations are not recognized before the employees have accepted an offer from the Company, unless the Company is prevented by legal or other restrictions from withdrawing its offer at an earlier date. Obligations arising from the sole decision by the Company to shed jobs are recognized when the Company has announced a detailed formal plan to terminate employment relationships. If termination benefits are granted in connection with restructuring measures within the meaning of IAS 37, a liability under IAS 19 is recognized at the same time as a restructuring provision. Where termination benefits fall due more than twelve months after the reporting date, the expected amount to be paid is discounted to the reporting date. If the timing or the amount of the payment is still uncertain at the reporting date, the obligations are reported under other provisions.

OTHER PROVISIONS

Other provisions are recognized for current legal or constructive obligations to third parties that are uncertain with regard to their timing or their amount. Provisions are recognized for these obligations provided they relate to past transactions or events, will probably require an outflow of resources to settle, and this outflow can be reliably measured. Provisions are carried at their expected settlement amount, taking into account all identifiable risks and uncertainties. The settlement amount is calculated on the basis of a best estimate; suitable estimation methods and sources of information are used depending on the characteristics of the obligation. In case of a number of similar obligations, the group of obligations is treated as one single obligation. The expected value method is used as the estimation method. If there is a range of potential events with the same probability of occurrence, the average value is taken. Individual obligations (e.g., legal and litigation risks) are regularly evaluated based on the most probable outcome, provided an exceptional probability distribution does not mean that other estimates would lead to a more appropriate evaluation. The measurement of provisions is based on past experience, current costing and price information, as well as estimates and reports from experts. If experience or current costing or price information is used to determine the settlement amount, these values are extrapolated to the expected settlement date. Suitable price trend indicators (e.g., construction price indexes or inflation rates) are used for this purpose. Provisions are discounted when the effect of the time value of money is material. Provisions are discounted using pre-tax market interest rates that reflect the term of the obligation and the risk associated with it (insofar as not already taken into consideration in the calculation of the settlement amount). Reimbursement claims are not netted against provisions; they are recognized separately as soon as their realization is virtually certain.

Provisions for decommissioning, restoration, and similar obligations arising from the acquisition of property, plant and equipment are offset by a corresponding increase in the capitalized cost of the relevant asset. Changes at a later date in estimates of the amount or timing of payments or changes to the interest rate applied in measuring such obligations also result in retrospective increases or decreases in the carrying amount of the relevant item of property, plant and equipment. These in turn change the depreciation of the asset to be recognized in the future, which leads to the changes in estimates being recognized in profit or loss over the remaining useful life. Where the decrease in the amount of a provision exceeds the carrying amount of the related asset, the excess is recognized immediately in profit or loss.

FINANCIAL INSTRUMENTS

Financial instruments are recognized as soon as Deutsche Telekom becomes a party to the contractual regulations of the financial instrument. However, in the case of regular way purchase or sale, the settlement date is relevant for the initial recognition and derecognition. This is the day on which the asset is delivered to or by Deutsche Telekom. In general, financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the entity currently has a right to offset the recognized amounts and intends to settle on a net basis. Transferred financial assets are derecognized in full if substantially all the risks and rewards of ownership are transferred or if some of the risks and rewards of ownership are transferred (risk sharing) and the acquirer has both the legal and the practical ability to sell the assets to a third party. If, in cases where risk is shared, the acquirer is unable to sell the assets to a third party, the assets will continue to be recognized to the extent of the maximum risk retained. Financial liabilities are derecognized when the obligation specified in the contract expires or if there is a substantial modification of the terms of the contract.

Financial assets include cash and cash equivalents, trade receivables, originated loans and other receivables, investments in equity instruments, and derivative financial assets. They are measured at fair value upon initial recognition. For all financial assets not subsequently measured at fair value through profit or loss, the transaction costs directly attributable to the acquisition are taken into account plus, in the case of debt instruments, a loss account for expected credit losses. The fair values recognized in the statement of financial position are generally based on market prices of the financial assets. If these are not available, the fair value is determined using standard valuation models on the basis of current market parameters. For the classification and measurement of debt instruments held, the respective business model for managing the debt instruments and whether the instruments have the characteristics of a standard loan, i.e., whether the cash flows are solely payments of principal and interest, is relevant. Assuming the assets have these characteristics and if the business model is to hold to collect the asset's contractual cash flows, they are measured at amortized cost. If the objective of the business model is to hold to collect and sell the contractual cash flows, they are measured at fair value through other comprehensive income with recycling to profit or loss. In all other cases, financial assets are measured at fair value through profit or loss. There may be different business models for separate portfolios of the same types of debt instruments, for example if factoring transactions exist for certain trade receivables.

Cash and cash equivalents include cash accounts and short-term cash deposits at banks; they have maturities of up to three months at initial recognition.

Trade receivables and originated loans and other receivables are measured at their transaction price at initial recognition if they do not contain a significant financing component. Instruments with a significant financing component are initially measured at fair value.

Investments in equity instruments represent strategic investments. Deutsche Telekom has exercised the option of generally measuring these through other comprehensive income without recycling to profit or loss. This is due to the fact that Deutsche Telekom's primary goal for strategic investments is not a short-term maximization of profit (trading). The acquisition and disposal of strategic investments is based on business policy considerations.

Dividends are recognized immediately in profit or loss unless they constitute a repayment of capital.

Derivative financial assets that are not part of an effective hedging relationship are measured at fair value through profit or loss.

In the consolidated statement of cash flows, Deutsche Telekom reports cash flows from interest and dividends received as cash inflows or outflows in net cash from operating activities.

Financial liabilities are measured at fair value on initial recognition. For all financial liabilities not subsequently measured at fair value through profit or loss, the transaction costs directly attributable to the acquisition are also a component of the carrying amount.

If the contractual payment term for liabilities to suppliers is longer than the normal credit period in the relevant procurement market at this point in time, this liability is reported under other interest-bearing liabilities in financial liabilities instead of under trade payables. A financing agreement of this nature is shown as a non-cash transaction in the statement of cash flows and the relevant repayment of the financial liability reported under net cash from/used in financing activities. This applies regardless of whether the supplier sells its receivable or not. For further information on the effects on the consolidated statement of cash flows, please refer to Note 34 "Notes to the consolidated statement of cash flows," page 223 et seq.

Derivative financial liabilities that are not part of an effective hedging relationship are measured at fair value through profit or loss.

Deutsche Telekom has not yet made use of the option to designate financial instruments upon initial recognition as at fair value through profit or loss.

At initial recognition, debt instruments that are not measured at fair value through profit or loss are measured including a loss allowance account for expected credit losses. For trade receivables with and without a significant financing component, contract assets and lease assets, the loss allowance is calculated at an amount equal to the lifetime expected credit losses. For all other instruments, the loss allowance is determined at an amount equal to the lifetime expected credit losses if the credit risk on that financial instrument has increased significantly since initial recognition. Otherwise, the loss allowance is calculated at an amount equal to twelve-month expected credit losses. In this case, losses incurred later than twelve months after the reporting date would therefore not be considered.

When a loss allowance for expected credit losses is being determined, the historical probability of default supplemented by the relevant future parameters for the credit risk is used as the basis for the calculation. For debt instruments traded in an active market, publicly available market data is used to determine the loss allowance for expected credit losses.

The loss allowance takes adequate account of the future expected credit risk; write-offs lead to the derecognition of the respective receivables. For allowances, financial assets are grouped together on the basis of similar credit risk characteristics, tested collectively for impairment, and written off, if necessary. The cash flows are discounted on the basis of the weighted average of the original effective interest rates of the financial assets in the relevant portfolio. Impairments of trade receivables are recognized in some cases using allowance accounts. The decision to account for credit risks using an allowance account or by directly reducing the receivable will depend on the reliability of the risk assessment. As there are a variety of operating segments and regional circumstances, this decision is the responsibility of the respective portfolio managers.

Deutsche Telekom uses derivatives to hedge the interest rate and currency risks resulting from its operating, financing, and investing activities. The Company does not hold or issue derivatives for speculative trading purposes. Derivatives are carried at their fair value upon initial recognition and also for subsequent measurement. The fair value of traded derivatives is equal to their market price, which can be positive or negative. If there is no market price available, the fair value is determined using standard financial valuation models.

The fair value of derivatives is the price that Deutsche Telekom would receive or have to pay if the financial instrument were transferred at the reporting date. This is calculated on the basis of the counterparties' relevant exchange rates and interest rates at the reporting date. Calculations are made using average rates. In the case of interest-bearing derivatives, a distinction is made between the clean price and the dirty price (full fair value). In contrast to the clean price, the dirty price also includes the interest accrued. The fair values carried correspond to the dirty price.

Embedded derivatives must be separated from financial liabilities and other non-financial contracts that are not measured at fair value through profit or loss if the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract. These derivatives must then be recognized separately and measured at fair value through profit or loss. Derivatives embedded in financial assets do not need to be separated, however. In such cases, the entire instrument must be measured at fair value through profit or loss.

Recording the changes in the fair values – either in profit or loss or directly in equity – depends on whether or not the derivative is part of an effective hedging relationship as set out in IFRS 9. If hedge accounting is not applied, the changes in the fair values of the derivatives must be recognized immediately in profit or loss. If, on the other hand, effective hedge accounting exists, the hedge will be recognized as such.

Deutsche Telekom applies hedge accounting to hedged items in the statement of financial position and future cash flows, thus reducing income statement volatility. A distinction is made between fair value hedges, cash flow hedges, and hedges of a net investment in a foreign operation depending on the nature of the hedged item. Hedging relationships are exclusively accounted for in accordance with the requirements of IFRS 9. Deutsche Telekom has exercised the option of designating cross-currency basis spreads as hedging costs rather than as part of the hedging relationship and presenting them separately in equity. To hedge the currency risk of an unrecognized firm commitment, Deutsche Telekom makes use of the option to recognize it as a cash flow hedge rather than a fair value hedge. In the case of fair value hedges, the cumulative adjustments to the carrying amount of the hedged item are amortized when the hedging relationship has been de-designated.

IFRS 9 sets out strict requirements on the use of hedge accounting. Deutsche Telekom complies with these requirements by documenting, at the inception of a hedge, both the relationship between the financial instrument used as the hedging instrument and the hedged item, as well as the risk management objective and the risk strategy of the hedge. This involves concretely assigning the hedging instruments to the corresponding assets or liabilities or (firmly committed/highly probable) future transactions and also assessing the effectiveness of the hedging instruments designated. The effectiveness of existing hedging relationships is monitored on an ongoing basis. If the criteria for applying hedge accounting are no longer met, the hedging relationship will be de-designated immediately.

Deutsche Telekom does not use hedge accounting in accordance with IFRS 9 to hedge the foreign-currency exposure of recognized monetary assets and liabilities, because the gains and losses on the hedged item from currency translation that are recognized in profit or loss in accordance with IAS 21 are shown in the income statement together with the gains and losses on the derivatives used as hedging instruments.

CONTINGENCIES (CONTINGENT LIABILITIES AND ASSETS)
Contingencies (contingent liabilities and assets) are potential liabilities or assets arising from past events whose existence will be confirmed by the occurrence or non-occurrence of one or more uncertain future events not entirely within the control of Deutsche Telekom. Contingent liabilities are also present obligations that arise from past events for which an outflow of resources embodying economic benefits is not probable or for which the amount of the obligation cannot be measured with sufficient reliability. Contingent liabilities are only recognized at their fair value if they were assumed in the course of a business combination. Contingent liabilities not assumed in the course of a business combination are not recognized. Contingent assets are not recognized. However, when the realization of income is virtually certain, then the related asset is no longer a contingent asset, but it is recognized as an asset. Information on contingent liabilities is disclosed in the notes to the consolidated financial statements, unless the possibility of an outflow of resources embodying economic benefits is remote. The same applies to contingent assets where an inflow of economic benefits is probable.

LEASES
Beneficial ownership of leased assets is attributed to the contracting party in the lease to which the substantial risks and rewards incidental to ownership of the asset are transferred.

If substantially all risks and rewards are attributable to the lessor (operating lease), the leased asset is recognized in the statement of financial position by the lessor. Measurement of the leased asset is then based on the accounting policies applicable to that asset. The lease payments are recognized in profit or loss by the lessor. The lessee in an operating lease recognizes the lease payments made during the term of the lease in profit or loss. Contractually defined future changes in the lease payments during the term of the lease are recognized on a straight-line basis over the entire lease term, which is defined only once at the inception date of the contract. Where extension options exist, the exercise of those extension options that are reasonably certain is initially taken into account at the time the lease is concluded. If the original assessment of the exercise of extension options changes in the course of the lease, the estimated future obligations arising from operating leases will be changed accordingly.

If substantially all risks and rewards incidental to ownership of the leased asset are attributable to the lessee (finance lease), the lessee must recognize the leased asset in the statement of financial position. At the commencement of the lease term, the leased asset is measured at the lower of fair value or present value of the future minimum lease payments and is depreciated over the shorter of the estimated useful life or the lease term. Depreciation is recognized as expense. The lessee recognizes a lease liability equal to the carrying amount of the leased asset at the commencement of the lease term. In subsequent periods, the lease liability is reduced using the effective interest method and the carrying amount is adjusted accordingly. The lessor in a finance lease recognizes a receivable in the amount of the net investment in the lease. Lease income is broken down into repayments of the lease receivable and finance income. The lease receivable is reduced using the effective interest method and the carrying amount is adjusted accordingly.

If a sale and leaseback transaction results in a finance lease, any excess of sales proceeds over the carrying amount is deferred and amortized over the lease term.

SHARE-BASED PAYMENT PROGRAMS

Equity-settled share-based payment transactions are measured at fair value on the grant date. The fair value of the obligation is recognized as personnel costs over the vesting period and offset against capital reserves. For equity-settled share-based payment transactions, the fair value is determined using internationally accepted valuation techniques, such as the Black-Scholes model or the Monte Carlo model. For cash-settled share-based payment transactions, the goods and services acquired and the liability incurred have to be recognized at the fair value of the liability. The fair value of the liability has to be newly determined at each reporting date and at the settlement date, and the changes in the fair value have to be recognized in profit and loss, until the liability is settled.

NET REVENUE, CONTRACT ASSETS AND LIABILITIES/CONTRACT COSTS

Revenues include all revenues from the ordinary business activities of Deutsche Telekom. Ordinary activities do not only refer to the core business but also to other recurring sales of goods or rendering of services. However, gains from sales of items of property, plant and equipment or intangible assets are not classified as revenue but as other operating income. All ancillary income in connection with the delivery of goods and rendering of services in the course of an entity's ordinary activities is also presented as revenue. Examples include dunning fees, contractual penalties, and default interest. Income from interest added back from long-term customer receivables and contract assets is also considered ancillary income in the course of an entity's ordinary activities where the underlying receivables or contract assets have resulted in the recognition of revenue. Revenues are recorded net of value-added tax and other taxes collected from customers that are remitted to governmental authorities. They are recognized in accordance with the provision of goods or services, provided that collectability of the consideration is probable. For service contracts with a continuous service provision, the contractually agreed total consideration is recognized as revenue on a straight-line basis over the minimum contract term, regardless of the payment pattern.

A contract asset must be recognized if Deutsche Telekom recorded revenue for fulfillment of a contractual performance obligation before the customer paid consideration or before – irrespective of when payment is due – the requirements for billing and thus the recognition of a receivable exist.

A contract liability must be recognized when the customer paid consideration or a receivable from the customer is due before Deutsche Telekom fulfilled a contractual performance obligation and thus recognized revenue. In a customer contract, contract liabilities must be set off against contract assets.

Multiple-element arrangements involving the delivery or provision of multiple products or services must be separated into distinct performance obligations, each with its own separate revenue contribution that is recognized as revenue on fulfillment of the obligation to the customer. At Deutsche Telekom, this especially concerns the sale or lease of a mobile handset or other telecommunications equipment combined with the conclusion of a mobile or fixed-network telecommunications contract. The total transaction price of the bundled contract is allocated among the individual performance obligations based on their relative – possibly estimated – standalone selling prices, i.e., based on a ratio of the standalone selling price of each separate element to the aggregated standalone selling prices of the contractual performance obligations. As a result, the revenue to be recognized for products (often delivered in advance) such as mobile handsets that are sold at a subsidized price in combination with a long-term service contract is higher than the amount billed or collected. This leads to the recognition of what is known as a contract asset – a receivable arising from the customer contract that has not yet legally come into existence – in the statement of financial position. The contract asset is reversed and reduced over the remaining minimum contract period, lowering revenue from the other performance obligations (in this case: mobile service revenues) compared with the amounts billed. In contrast to the amounts billed, this results in higher revenue from the sale of goods and merchandise and lower revenue from the provision of services.

Customer activation fees and other advance one-time payments by the customer that do not constitute consideration for a separate performance obligation are classed as contract liabilities and are deferred and recognized as revenue over the minimum contract term or, in exceptional cases (e.g., in the case of contracts that can be terminated at any time) over the expected contract period. The same applies to fees for installation and set-up activities that do not have an independent value for the customer.

As distinct from promotional offers, options to purchase additional goods or services free of charge or at a discount are separate performance obligations (material rights) for which part of the revenue is deferred as a contract liability until the option is exercised or expires, providing the discount on future purchases is an implicit component of the consideration for the current contract and is also significant. The measure of significance is whether the decision by the (average) customer to enter into the current contract is likely to have been significantly influenced by their right to the future discount. Offers for volume discounts for the purchase of additional core products of an entity (e.g., a discount offered on an additional fixed-network contract for mobile customers) are classed by Deutsche Telekom as promotional offers to be excluded from consideration.

Long-term customer receivables (e.g., arising from sales of handsets in installments), contract assets (e.g., arising from the subsidized sale of a handset in connection with the conclusion of a long-term customer contract) or contract liabilities (e.g., arising from a prepayment by the customer) are recognized at present value if the financing component is significant in relation to the total contract value (i.e., including those performance obligations that do not contain a financing component). The discount rate also reflects the customer credit risk. Deutsche Telekom makes use of the option not to recognize a significant financing component if the period between when a good or service is transferred to the customer and when the customer pays for that good or service will be one year or less.

Payments to customers including credits or subsequent discounts are recognized as a reduction in revenue unless the payment constitutes consideration for a distinct good or service from the customer, for which the fair value can be reasonably estimated.

Gross vs. net presentation: In cases where a company is in an intermediary position between another supplier/vendor (e.g., manufacturer, wholesaler) and a retail customer, it must be assessed whether the company itself supplies the relevant product or provides the service requested by the customer as the principal or whether the company merely acts as the agent for the supplier. The outcome determines whether the entity can recognize revenue on a gross basis (as the principal) or on a net basis after deducting the costs to the supplier (as the agent). For Deutsche Telekom, the question arises particularly in the case of digital services (e.g., streaming services, cloud-based software as a service) purchased from third parties and sold to retail customers as part of Deutsche Telekom's product portfolio. In summary, in case of rights to another party's goods or services, Deutsche Telekom considers itself to be the principal vis-à-vis the retail customer if all of the following conditions are met and thus reports gross revenues:

- Deutsche Telekom either has a contractual enforceable right to receive the predefined services "on demand" at predefined (fixed or variable) prices, and accordingly the other party has entered into an enforceable ongoing commitment to provide them, or Deutsche Telekom has entered into a material minimum purchase commitment.
- Deutsche Telekom sells access to the other party's services in its own name and for its own account under a contract between Deutsche Telekom and the retail customer.
- Deutsche Telekom has discretion in setting the price for the other party's services sold for its own account.

Contract costs comprise the incremental costs of obtaining a contract (mainly sales commission paid to employees and third-party retailers in the direct and indirect sales channel) and the costs to fulfill a contract. These must be capitalized if it can be assumed that the costs will be compensated by future revenue from the contract. Incremental costs of obtaining a contract are additional costs that would have not been incurred had the contract not been concluded. Costs to fulfill a contract are costs relating directly to a contract that are incurred after contract inception and serve the purpose of fulfilling the contract but are incurred prior to fulfillment and cannot be capitalized under any other standard. Deutsche Telekom makes use of the option to immediately recognize contract costs whose amortization period would not be more than one year as an expense.

The capitalized contract costs are generally recognized on a straight-line basis over the estimated customer retention period. The expenses are disclosed in Deutsche Telekom's income statement, not under depreciation and amortization but – depending on the sales channel – as goods and services purchased or personnel costs.

In the indirect sales channel, third-party retailers often arrange service contracts on behalf of and for the account of Deutsche Telekom (as the agent) in connection with the sale of subsidized handsets in their own name and for their own account (as the principal). In such cases, the retailers receive commission in an amount that explicitly or implicitly compensates them for the handset subsidy granted. As in the case of multiple-element arrangements in the direct sales channel, the customer ultimately covers the handset subsidy by paying a price above the stand-alone selling price for the service contract. Deutsche Telekom considers this an implicit promise to the customer that on conclusion of this service contract they will be able to purchase a handset at a discounted price. The only difference between this promise and the purchase of a service in the direct sales channel is that it is not Deutsche Telekom that is granting the discount as part of a multiple-element arrangement but a third-party retailer that is compensated for it by Deutsche Telekom through the commission it receives for arranging the service contract. As, from an economic substance perspective, these payments constitute indirect payments by Deutsche Telekom to customers, the portion of the commission payments attributable to the (implicit) cost reimbursements to the retailer is not capitalized as contract costs but as a contract asset and is therefore recognized as a reduction of the service revenues over the contract term rather than as an expense. This ensures that the amount of the service revenues generated with retail customers for identical rate plans does not depend on the type of sales channel.

Depending on the business model, revenue recognition at Deutsche Telekom is as follows:

The mobile and fixed-network business of the Germany, United States, Europe, and Group Development operating segments includes mobile services, narrow- and broadband access to the fixed network and the internet, television via internet, connection and roaming fees billed to other mobile operators (wholesale business), and sales or lease of mobile handsets, other telecommunications equipment, and accessories. Revenue generated from the use of voice and data communications as well as television via internet is recognized upon rendering of the agreed service. The services rendered relate to use by customers (e.g., call minutes), availability over time (e.g., monthly flat rates), or other agreed rate plans. Revenue and expenses associated with the sale of telecommunications equipment and accessories are recognized when the products are delivered, provided there are no unfulfilled company obligations that affect the customer's final acceptance of the arrangement. Revenue from the lease of mobile handsets and telecommunications equipment that is not considered a sale in economic terms is recognized monthly as the entitlement to the fees accrued. Advertising revenues are recognized in the period in which the advertisements are exhibited.

Trade-in rights for used handsets which are granted to customers upon contract conclusion under the condition of a new purchase transaction (including renewal of an existing service contract) do not constitute repurchase arrangements; however, if the repurchase prices exceed the fair value of the handsets these rights must be recognized as separate performance obligations for which part of the contractual revenue is deferred until they are exercised or expire.

Particularly in the mobile communications business, the timing of payments for mobile handsets purchased in connection with the conclusion of a service contract differs from the timing of the delivery and hence from revenue recognition. Where a significant financing component exists, revenue is measured at the present value. Whereas the sale of subsidized handsets in connection with the conclusion of service contracts in the consumer business is still common in the Germany operating segment and also to some extent in the Europe operating segment, handsets are not sold at a discount at all, or only to a limited extent, in the United States and to some extent in the Europe operating segments; payment-by-installment models or lease models are offered to customers instead. In both the subsidy model and the payment-by-installment model, an asset must thus be carried at the date of revenue recognition which is generally settled over a 24-month service contract term through payments made by the customer. The only difference is that with the subsidy model it is a contract asset that is repaid through the portion of the monthly bill that exceeds the allocated monthly service revenues.

By contrast, the payment-by-installment model involves an existing legal customer receivable that is settled based on an installment plan – separately from the monthly billing for telecommunications services.

The Systems Solutions operating segment provides, among other things, IT services and network services for corporate customers including IT outsourcing services and the sale of hardware including desktop services. Revenue from service contracts is recognized as the service is performed, i.e., normally on a pro-rata basis over the contract term. Revenue from service contracts billed on the basis of time and material used is recognized at the contractual hourly rates as labor hours are delivered and direct expenses are incurred.

Revenue from hardware sales or sales-type leases is recognized when the product is shipped to the customer, provided there are no unfulfilled company obligations that affect the customer's final acceptance of the arrangement. Any costs of these obligations are recognized when the corresponding revenue is recognized.

Revenue from construction contracts and construction-type service contracts (or elements of service contracts), for which a defined output is promised (e.g., IT developments), is recognized using the percentage of completion method. The measure of progress or stage of completion of a contract is generally determined as the percentage of cost incurred up until the reporting date relative to the total estimated cost at the reporting date (cost-to-cost method). In particular for complex outsourcing contracts with corporate customers, a reliable estimate of the total cost and therefore of the stage of completion is not possible in many cases, so revenue is only recognized in the amount of the contract costs expensed. This means that a proportionate profit is not realized until the contract has been completed (zero-profit method).

Revenue from non-sales-type rentals and leases is recognized on a straight-line basis over the lease term.

INCOME TAXES

Income taxes include current income taxes as well as deferred taxes. Current and deferred tax assets and liabilities must be recognized where they are probable. They are measured in accordance with the tax laws applicable or already announced as of the reporting date, provided said announcement has the effect of actual enactment. Where current and deferred tax is recognized, it must be reported as income or expense except to the extent that the tax arises from a transaction which is recognized outside profit and loss, either in other comprehensive income or directly in equity, or in connection with a business combination. Current tax assets and current tax liabilities and deferred tax assets and deferred tax liabilities are offset in the statement of financial position if Deutsche Telekom has a legally enforceable right to set off current tax assets against current tax liabilities, has an intention to settle net, and the deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority.

Current tax assets and current tax liabilities must be recognized in the amount that Deutsche Telekom expects to settle with or recover from the tax authorities. They include liabilities/receivables for the current period as well as for prior periods.

Deferred taxes are recognized for temporary differences between the carrying amounts in the consolidated statement of financial position and the tax base, as well as for tax loss carryforwards and tax credits. By way of derogation from this principle, a deferred tax liability is not recognized for temporary differences if the deferred tax liability arises from the initial recognition of an asset or a liability in a transaction which is not a business combination and, at the time of the transaction, affects neither accounting profit nor taxable profit/tax loss. Nor is a deferred tax liability recognized for temporary differences arising from the initial recognition of goodwill. A deferred tax liability is generally recognized for temporary differences associated with investments in subsidiaries, joint arrangements, and associates, unless Deutsche Telekom is able to control the timing of the reversal of the temporary difference and it is probable that the temporary differences will not reverse in the foreseeable future.

JUDGMENTS AND ESTIMATES

The presentation of the results of operations or financial position in the consolidated financial statements is dependent upon and sensitive to the accounting policies, assumptions, and estimates. The actual amounts may differ from those estimates. The following critical accounting estimates and related assumptions and uncertainties inherent in accounting policies applied are essential to understand the underlying financial reporting risks and the effects that these accounting estimates, assumptions and uncertainties may have on the consolidated financial statements.

Measurement of property, plant and equipment, and intangible assets involves the use of estimates for determining the fair value at the acquisition date, provided they were acquired in a business combination. Furthermore, the expected useful lives of these assets must be estimated. The determination of the fair values of assets and liabilities, as well as of the useful lives of the assets is based on management's judgment. The measurement of intangible assets acquired in exchange transactions is based on management's judgment as to whether an exchange transaction has commercial substance. For this, an analysis is performed to determine to what extent the future cash flows (risk, timing, and amount) are expected to change as a consequence of the transaction. Information from external experts is obtained for this analysis and for the determination of the fair values of assets.

The determination of impairments of property, plant and equipment, and intangible assets involves the use of estimates that include, but are not limited to, the cause, timing, and amount of the impairment. Impairment is based on a large number of factors, such as changes in current competitive conditions, expectations of growth in the telecommunications industry, increased cost of capital, changes in the future availability of financing, technological obsolescence, discontinuance of services, current replacement costs, prices paid in comparable transactions, and other changes in circumstances that indicate an impairment exists. The identification of impairment indicators, as well as the estimation of future cash flows and the determination of fair values for assets (or groups of assets) require management to make significant judgments concerning the identification and validation of impairment indicators, expected cash flows, applicable discount rates, useful lives, and residual values. Specifically, the estimation of cash flows underlying the fair values from the mobile business considers the continued investment in network infrastructure required to generate future revenue growth through the offering of new data products and services, for which only limited historical information on customer demand is available. If the demand for these products and services does not materialize as expected, this would result in less revenue, less cash flow, and potential impairment. When determining the fair values, additional planning uncertainties are factored in that reflect the risks of macroeconomic development, which could adversely affect future results of operations.

The determination of the recoverable amount of a cash-generating unit involves the use of estimates by management. Methods used to calculate the recoverable amount include discounted cash flow-based methods and methods that use market prices as a basis. The measurements on the basis of discounted cash flows are founded on projections that are based on financial plans that have been approved by management and are also used for internal purposes. The planning horizon selected reflects the assumptions for short- to medium-term market development and is selected to achieve a steady state in the business outlook that is necessary for calculating the perpetual annuity. This steady state is only reached based on the planning horizon selected, in particular due to the sometimes long investment cycles in the telecommunications industry and the investments planned and expected in the long run to acquire and extend the rights of spectrum use. Cash flows beyond the internal mid-term planning are extrapolated using appropriate growth rates. The key assumptions on which management has based its calculation of the recoverable amount include the following assumptions that were primarily derived from internal sources and are based on past experience and extended to include internal expectations, and that are underscored by external market data and estimates: development of revenue, customer acquisition and retention costs, churn rates, capital expenditure, market share, and growth rates. Discount rates are determined on the basis of external figures derived from the market, taking account of the risks associated with the cash-generating unit. Any future changes in the aforementioned assumptions could have a significant impact on the fair values of the cash-generating units.

Management maintains an allowance for doubtful accounts to account for estimated losses resulting from the inability of customers to make required payments. When evaluating the adequacy of an allowance for doubtful accounts, management bases its estimates on the aging of accounts receivable balances and historical write-off experience, customer creditworthiness, and changes in customer payment terms. If the financial condition of customers were to deteriorate, actual write-offs might be higher than expected.

In each tax jurisdiction in which Deutsche Telekom operates, management must make judgments for the calculation of current and deferred taxes. This is relevant, for example, when it comes to a decision on the recognition of deferred tax assets because it must be probable that a taxable profit will be available against which the deductible temporary differences, loss carryforwards, and tax credits can be utilized. In addition to the estimate of future earnings, various factors are used to assess the probability of the future utilization of deferred tax assets, including past results of operations, the reliability of planning, and tax planning strategies. The period used for the assessment of the recoverability depends on the circumstances at the respective Group company and typically is in a range of five to ten years.

Pension obligations for benefits to non-civil servants are generally satisfied by defined benefit plans. Pension benefit costs for non-civil servants are determined in accordance with actuarial valuations, which rely on assumptions regarding the discount rate, the expected salary increase rate, the expected pension trend, and life expectancy. In the event that changes in the assumptions regarding these parameters are required, the future amounts of the pension benefit costs may be affected materially.

Deutsche Telekom is obligated, under the German Federal Posts and Telecommunications Agency Reorganization Act (Gesetz zur Reorganisation der Bundesanstalt für Post und Telekommunikation Deutsche Bundespost), to pay for its share of any operating cost shortfalls between the income of the Civil Service Health Insurance Fund (Postbeamtenkrankenkasse) and benefits paid. The Civil Service Health Insurance Fund provides services mainly in cases of illness, birth, or death for its members, who are civil servants employed by or retired from Deutsche Telekom AG, Deutsche Post AG, and Deutsche Postbank AG, and their relatives. When Postreform II came into effect, participation in the Civil Service Health Insurance Fund was closed to new members. The insurance premiums collected by the Civil Service Health Insurance Fund must not exceed the insurance premiums imposed by alternative private health insurance enterprises for comparable insurance benefits, and, therefore, do not reflect the changing age distribution of the participants in the fund. Deutsche Telekom recognizes provisions in the amount of the actuarially determined present value of Deutsche Telekom's share in the fund's future deficit, using a discount rate and making assumptions about life expectancies and projections for contributions and future increases in general health care costs in Germany. Since the calculation of these provisions involves long-term projections over periods of more than 50 years, the present value of the liability may be highly sensitive even to small variations in the underlying assumptions.

Deutsche Telekom exercises considerable judgment in measuring and recognizing provisions and contingent liabilities related to pending litigation or other outstanding claims subject to negotiated settlement, mediation, arbitration, or government regulation. Judgment is necessary in assessing the likelihood that a pending claim will succeed, or a liability will arise, and to quantify the possible range of the final settlement. Provisions are recognized for losses from executory contracts, provided a loss is considered probable and can be reasonably estimated. Because of the inherent uncertainties in this evaluation process, actual losses may be different from the originally estimated provision. In addition, significant estimates are involved in the determination of provisions related to taxes and litigation risks. These estimates are subject to change as new information becomes available, primarily with the support of internal specialists, if available, or with the support of outside consultants, such as actuaries or legal counsel. Revisions to the estimates of these losses from executory contracts may significantly affect future results of operations.

SIGNIFICANT JUDGMENTS: REVENUE RECOGNITION, CONTRACT ASSETS AND LIABILITIES/CONTRACT COSTS

The standalone selling prices of individual products or services that are part of multiple-element arrangements are complex to determine, because some of the elements are price-sensitive and, thus, volatile in a competitive marketplace. In many cases, standalone selling prices can also not be observed for the company's own products. Due to the fact that comparability is generally not completely assured, the use of market prices for similar products is subject to an element of uncertainty, as is an estimate using a cost-plus-margin approach. Changes in estimates of standalone selling prices can significantly influence the allocation of the transaction price for the entire multiple-element arrangement among the individual performance obligations and therefore affect both the financial position, i.e., the carrying amount of contract assets and contract liabilities, and the current and future results of operations.

One-time payments by the customer for contracts that can be terminated at any time are recognized over an expected contract period, the length of which depends on the period over which the customer is likely from a commercial perspective to renew or not terminate the contract on a monthly basis.

Contract costs are deferred and generally recognized as revenue over the expected duration of the customer relationship. The estimate of the expected average duration of customer retention is based on historical customer turnover. However, this is subject to fluctuations and has only limited informative value with regard to future customer behavior, particularly if new products are rolled out. If management's estimates are revised, material differences may result in the amount and timing of expenses for subsequent periods.

The significance of material rights is an estimate that is based on both quantitative and qualitative factors. This is ultimately a matter of judgment, even though it is supported by quantitative facts. Depending on the decision as to whether or not the customer has a material right to be deferred, there may be material differences in the amount and timing of revenues for the current and subsequent periods.

Gross vs. net presentation: The assessment of whether Deutsche Telekom presents revenue gross as the principal or net after deduction of costs as the agent, i.e., only in the amount of the remaining margin, requires an analysis of both the legal form and the substance of contracts. After all of the relevant facts and circumstances of the individual case have been weighed up, in many cases the decision also involves a degree of discretion, even if a uniform Group method of assessment is applied. Depending on the conclusion reached, there may be material differences in the amounts of revenues and expenses for the current and subsequent periods. This has no bearing on profit/loss from operations, however.

CONSOLIDATION METHODS

SUBSIDIARIES

Subsidiaries are companies that are directly or indirectly controlled by Deutsche Telekom. Control only exists if an investor has the power over the investee, is exposed to variable returns, and is able to use power to affect its amount of variable returns. The existence and effect of substantive potential voting rights that are currently exercisable or convertible, including potential voting rights held by other Group companies, are considered when assessing whether an entity is controlled.

All subsidiaries are included in the consolidated financial statements, unless the costs of preparing the reporting required for inclusion by means of full consolidation would outweigh the benefits of such reporting, which is primarily the case for subsidiaries which an operating segment or the Group considers to be insignificant based on the following criterion: The sum of all unconsolidated subsidiaries must not account for more than 1 percent of the Group's total assets, revenue, profit/loss for the year, contingent assets/liabilities, and other financial obligations. If the 1-percent limit is exceeded, Deutsche Telekom determines which companies are to be included in the consolidated financial statements, taking the long-term development of the investment and consolidation effects into account. Aside from the quantitative criteria, qualitative criteria will also be used to assess the materiality of an entity for the consolidated group. Excluding a subsidiary must not significantly change the segment result or the Group's profit/loss for the year, nor may other significant trends be ignored. Subsidiaries that are not included in the consolidated financial statements due to their subordinate significance, and which were previously recognized under IAS 39 at amortized cost as available-for-sale financial assets, are recognized under other assets as of the 2018 financial year and were reclassified as of January 1, 2018 with a carrying amount of EUR 177 million.

Income and expenses of a subsidiary are included in the consolidated financial statements from the acquisition date and remain included in the consolidated financial statements until the date on which the parent company ceases to control the subsidiary. If necessary, the subsidiaries' accounting principles are aligned with the uniform accounting principles applied by the Deutsche Telekom Group. Intercompany income and expenses, receivables and liabilities, and profits or losses are eliminated.

Upon loss of control, a gain or loss from the disposal of the subsidiary is recognized in the consolidated income statement in the amount of the difference between (i) the proceeds from the disposal of the subsidiary, the fair value of the remaining shares, the carrying amount of the non-controlling interests, and the cumulative amounts of other comprehensive income attributable to the subsidiary, and (ii) the carrying amount of the subsidiary's net assets to be disposed of.

JOINT OPERATIONS, JOINT VENTURES, AND ASSOCIATES

Joint arrangements, in which two or more parties have joint control over an activity, must be classified as either joint operations or joint ventures.

A **joint operation** is characterized by the fact that the parties that have joint control of the arrangement (joint operators) have rights to the assets, and obligations for the liabilities, relating to the arrangement. A joint operator shall account for the assets, liabilities, revenues and expenses relating to its interest in the joint operation as well as its share of the joint assets, liabilities, revenues and expenses.

In a **joint venture,** on the other hand, the parties that have joint control of the arrangement (partners) have rights to the net assets of the entity. **Associates** are companies on which Deutsche Telekom has a significant influence, and that are neither subsidiaries nor joint ventures. As with joint ventures, associates are accounted for using the **equity method.**

Investments in joint ventures and associates that are included in the consolidated financial statements using the equity method are recognized at cost at the time of acquisition. The carrying amount of the investment may include goodwill as the positive difference between the cost of the investment and Deutsche Telekom's proportionate share in the fair values of the entity's identifiable net assets. If necessary, the accounting principles of joint ventures and associates are aligned with the uniform accounting principles applied by the Deutsche Telekom Group. The carrying amount of the investment accounted for using the equity method is tested for impairment provided there are indications of impairment. If the carrying amount of the investment exceeds its recoverable amount, an impairment loss must be recognized in the amount of the difference. The recoverable amount is measured at the higher of fair value less costs of disposal and value in use.

Upon loss of significant influence, a gain or loss from the disposal of the joint venture/associate is recognized in the amount of the difference between (i) the proceeds from the disposal of the shares, the fair value of the remaining shares, and the cumulative amounts of other comprehensive income attributable to the joint venture or associate, and (ii) the carrying amount of the investment to be disposed of.

The materiality assessment for jointly controlled entities and associates is generally performed using the same methods as for subsidiaries, but is limited to the criteria of profit/loss for the year, contingent assets and liabilities, and other financial obligations.

BUSINESS COMBINATIONS

A business combination exists when Deutsche Telekom obtains control of another entity. All business combinations must be accounted for using the acquisition method. The cost of an acquired subsidiary is measured at the fair value of the consideration transferred, i.e., the sum of the assets transferred, liabilities assumed, and equity instruments issued. Transaction costs are generally recognized as expense. The acquisition cost is allocated to the acquired assets, liabilities, and contingent liabilities. The identifiable assets acquired and the liabilities and contingent liabilities assumed are recognized in full at their fair values at the acquisition date, regardless of the level of the investment held by Deutsche Telekom.

Goodwill arising in a business combination is measured as the excess of the aggregate of the cost of acquisition, the amount of any non-controlling interest in the acquiree, and, in a business combination achieved in stages, the fair value of the equity interest held by Deutsche Telekom in the acquiree prior to the acquisition date over the fair value of the net assets acquired. Any difference arising on the revaluation of equity interests previously held by Deutsche Telekom is recognized in profit or loss.

For all business combinations there is an option in relation to the measurement of the non-controlling interests. These can be recognized either directly at their fair value (i.e., the non-controlling interest in the enterprise value of the acquiree) or at the non-controlling interest in the fair value of the net assets acquired. As a result, in the first case, the non-controlling interests also have a share in the goodwill arising from the business combination, while in the second case the non-controlling interest is limited to the revalued assets and liabilities and the goodwill is therefore recognized only as the amount attributable to Deutsche Telekom.

Transactions relating to the further acquisition or sale of equity interests with other shareholders that do not affect Deutsche Telekom's controlling interest do not lead to any change in goodwill. The difference between the fair value of the consideration transferred or received (i.e., the purchase price of the interests) and the carrying amount of the equity attributable to the non-controlling interests must be offset directly against consolidated shareholders' equity in capital reserves or increases the capital reserves.

CHANGES IN THE COMPOSITION OF THE GROUP AND OTHER TRANSACTIONS

In the 2018 financial year, Deutsche Telekom conducted the following transactions, which had or will have an impact on the composition of the Group. Other changes to the composition of the Group not shown here were of no material significance for Deutsche Telekom's consolidated financial statements.

Acquisition of Layer3 TV, Inc.

The agreement signed by T-Mobile US on November 9, 2017 to acquire 100 percent of the shares in online TV provider Layer3 TV, Inc. was consummated on January 22, 2018. T-Mobile US expects the acquisition to further strengthen its TV and video portfolio. Layer3 TV has been included in the consolidated financial statements as a fully consolidated subsidiary since the acquisition date. The consideration paid at the acquisition date amounts to EUR 0.3 billion in cash.

The fair values of the acquired assets and liabilities recognized at the acquisition date mainly relate to an identifiable intangible asset of EUR 0.1 billion in connection with technology developed by Layer3 TV. This asset will be amortized over an expected useful life of five years. Goodwill of EUR 0.2 billion was recognized for the difference between the consideration paid and the balance of the identifiable assets acquired and the liabilities assumed at the acquisition date, measured at fair value. This item is mainly based on the industry expertise of the acquired management team as well as the other non-separable intangible assets identified. Under local tax law, this goodwill is not recognized and is thus not tax-deductible.

Acquisition of UPC Austria GmbH

On December 22, 2017, T-Mobile Austria agreed to acquire a 100 percent stake in UPC Austria GmbH and its subsidiaries, taking into account non-controlling interests. The European Commission approved the deal on July 9, 2018 and the transaction was consummated on July 31, 2018.

With more than 1,000 employees, UPC Austria is a leading provider of communication and entertainment services in Austria's telecommunications sector. Through its high-performance coaxial and fiber-optic cable infrastructure, the company provides more than half a million consumers and business customers with fast, easy access to the digital world. By acquiring UPC Austria, T-Mobile Austria is set to become a leading broadband provider in the Austrian market.

Since the acquisition date of July 31, 2018, UPC Austria has been included in the consolidated financial statements as a fully consolidated subsidiary. The purchase price allocation and the measurement of the UPC Austria group's assets and liabilities as of July 31, 2018 were finalized by December 31, 2018.

The cash consideration transferred at the date of acquisition was EUR 1.8 billion and took into account a negative amount of EUR 0.1 billion in adjustments to net working capital and net debt in accordance with corresponding provisions in the purchase agreement.

The fair values of the UPC Austria group's acquired assets and liabilities recognized at the acquisition date are presented in the following table.

Fair values at the acquisition date
millions of €

ASSETS	
CURRENT ASSETS	**31**
Cash and cash equivalents	1
Trade and other receivables	6
Contract assets	4
Current recoverable income taxes	17
Other assets	2
Inventories	1
NON-CURRENT ASSETS	**2,298**
Goodwill	553
Other intangible assets	532
Of which: customer base	474
Of which: other	58
Property, plant and equipment	1,207
Capitalized contract costs	6
ASSETS	**2,329**
LIABILITIES	
CURRENT LIABILITIES	**(76)**
Financial liabilities	(30)
Trade and other payables	(28)
Other provisions	(5)
Income tax liabilities	(1)
Other liabilities	(10)
Contract liabilities	(2)
NON-CURRENT LIABILITIES	**(461)**
Financial liabilities	(96)
Provisions	(12)
Deferred tax liabilities	(352)
Other liabilities	(1)
LIABILITIES	**(537)**

The acquired goodwill of EUR 553 million to be recognized in Deutsche Telekom's consolidated statement of financial position is calculated as follows:

Fair values at the acquisition date
millions of €

Consideration transferred	1,792
– fair value of the acquired assets	(1,776)
+ fair value of acquired liabilities	537
= GOODWILL	**553**

The purchase option for the non-controlling interests in UPC Telekabel Wien represents in substance present access to the benefits of the shares. As such, following the business combination, the non-controlling interests are presented as if they had already been purchased. Accordingly, the acquired liabilities also include the liabilities to the minority shareholder measured at fair value.

Goodwill is influenced by synergy effects that arise from the future business potential attributable to the company's position as an integrated provider of telecommunications services in Austria after the acquisition. Under local tax law, it is not recognized and is thus not tax-deductible. The purchase price allocation did not result in any deferred taxes on goodwill, nor will it in the future.

The customer base was measured using the multi-period excess earnings method. Under this method, the fair value of the customer base is determined by calculating the present value of profit/loss after taxes that can be assigned to the existing customers. The customer base is amortized over the useful life of 5 to 12 years.

The carrying amounts of the acquired receivables are based on the fair values. The gross amounts of the trade receivables amount to EUR 14 million. No material contingent liabilities have been identified.

T-Mobile Austria and the seller also concluded a transitional service contract covering the continuation and provision of certain services by the seller as well as management of the processes of separation from the seller and integration in T-Mobile Austria's organization. Fixed and/or usage-based charges are payable under this contract. The contract came into force on the date of transfer (July 31, 2018) and ends on the day the last service period expires. Some service periods last up to four years. The purchased services are expensed immediately under goods and services purchased and other operating expenses.

No material transaction-based costs were incurred by December 31, 2018.

Deutsche Telekom's net revenue increased by EUR 149 million in the reporting period due to the acquisition of UPC Austria. If the business combination had already taken place on January 1, 2018, net revenue of the Group would have been EUR 360 million higher. Deutsche Telekom's net profit in the reporting year includes profit/loss before taxes of EUR 37 million from the UPC Austria group. If the business combination had already taken place on January 1, 2018, the Group's profit before taxes would have been EUR 72 million higher. The above information reflects the situation prior to any effects of the purchase price allocation.

Toll Collect

On May 16, 2018, Daimler Financial Services AG, Deutsche Telekom AG, and the Federal Republic of Germany reached an agreement to cease the Toll Collect arbitration proceedings. The settlement was notarized in early July 2018 and confirmed by the arbitral tribunal, bringing the arbitration proceedings to an end. The agreed settlement amount of around EUR 3.2 billion includes services previously provided to the Federal Republic of Germany. Daimler Financial Services AG and Deutsche Telekom AG have both agreed to make final payments of EUR 550 million each. These payments to the Federal Republic of Germany will be made on behalf of Toll Collect GbR in three tranches over the period until 2020; the first tranche was paid in the reporting year.

As it had announced in advance, the Federal Republic of Germany exercised its option as of September 1, 2018 to purchase 100 percent of the shares in the operating company, Toll Collect GmbH, when the operating agreement expired on August 31, 2018. Even after the acquisition of Toll Collect GmbH by the Federal Republic of Germany, the consortium Toll Collect GbR – comprising Deutsche Telekom AG, Daimler Financial Services AG, and Compagnie Financière et Industrielle des Autoroutes S.A. (Cofiroute) – continues to exist with an unchanged ownership structure.

The bank guarantees for third parties for a maximum amount of EUR 100 million that were issued during the term of the operating agreement expired as scheduled on October 15, 2018. The equity maintenance undertaking entered into by the aforementioned consortium members under the operating agreement remained in place until the Federal Republic of Germany assumed full control of Toll Collect GmbH, and was replaced as of August 31, 2018 by a guaranteed equity base of at least EUR 50 million for Toll Collect GmbH, depending on the date of transfer.

CHANGES IN THE COMPOSITION OF THE GROUP

The composition of the Deutsche Telekom Group changed as follows in the 2018 financial year:

	Domestic	International	Total
CONSOLIDATED SUBSIDIARIES			
January 1, 2018	60	186	246
Additions	3	38	41
Disposals (including mergers)	2	11	13
DECEMBER 31, 2018	**61**	**213**	**274**
ASSOCIATES ACCOUNTED FOR USING THE EQUITY METHOD			
January 1, 2018	2	7	9
Additions	0	1	1
Disposals	0	1	1
DECEMBER 31, 2018	**2**	**7**	**9**
JOINT VENTURES ACCOUNTED FOR USING THE EQUITY METHOD			
January 1, 2018	3	4	7
Additions	0	1	1
Disposals	1	1	2
DECEMBER 31, 2018	**2**	**4**	**6**
TOTAL			
January 1, 2018	65	197	262
Additions	3	40	43
Disposals (including mergers)	3	13	16
DECEMBER 31, 2018	**65**	**224**	**289**

The following transactions will change the composition of the Deutsche Telekom Group in future.

Acquisition of Tele2 Holding N.V.

On December 15, 2017, Deutsche Telekom signed an agreement with the Tele2 Group on the acquisition of 100 percent of the shares in the telecommunications provider Tele2 Netherlands N.V. by T-Mobile Netherlands Holding B.V.. This transaction will establish a stronger, more sustainable provider of convergent fixed-network and mobile services on the Dutch market. Tele2 Group receives a purchase price in the form of a 25.0 percent stake in T-Mobile Netherlands and a cash component of EUR 190 million taking any retrospective adjustments to the purchase price into account. After the European Commission issued its approval without conditions on November 27, 2018, the transaction was consummated on January 2, 2019. Tele2 Netherlands has been included in Deutsche Telekom's consolidated financial statements as a fully consolidated subsidiary since this date. Since the transaction was consummated so close to the date of preparing the consolidated financial statements, it is not yet possible to disclose information on the assets acquired and liabilities assumed from Tele2 Netherlands Holding N.V. or the goodwill resulting from the transaction.

Agreed business combination of T-Mobile US and Sprint

Together with their respective majority shareholders Deutsche Telekom AG and Softbank K.K., T-Mobile US and Sprint Corp. concluded a binding agreement on April 29, 2018 to combine their companies. Under the agreement, T-Mobile US will acquire all of the shares in Sprint. In return for every 9.75 Sprint shares, the company's shareholders will receive one new T-Mobile US share without any additional cash contribution. On completion of the transaction, Deutsche Telekom will hold around 42 percent of T-Mobile US' shares and Softbank around 27 percent, while the free float will account for about 31 percent. Due to the voting-rights agreement with Softbank, and to the fact that Deutsche Telekom has the right to appoint the majority of the members of the Board of Directors, T-Mobile US will continue to be included as a fully consolidated subsidiary in the consolidated financial statements. The larger T-Mobile US is expected to achieve cost and capital expenditure synergies with a net present value of around USD 43 billion (after integration costs). Around USD 15 billion has been budgeted for integration costs. The agreement is subject to approval by the authorities as well as other closing conditions.

OTHER TRANSACTIONS THAT HAD NO EFFECT ON THE COMPOSITION OF THE GROUP

T-Mobile US share buy-back program

Under the share buy-back program launched in December 2017, T-Mobile US acquired further common stock for an amount of USD 1.1 billion (EUR 0.9 billion) in the first half of 2018. Including the common stock acquired prior to that date, the total volume of shares repurchased under the share buy-back program amounts to USD 1.5 billion (EUR 1.3 billion). In addition, in the first quarter of 2018, Deutsche Telekom purchased shares in T-Mobile US on the capital market for a total amount of USD 0.2 billion (EUR 0.2 billion). As a result, Deutsche Telekom holds around 63 percent of the shares in the company.

On April 27, 2018, T-Mobile US' Board of Directors authorized an increase in the total share buy-back program to up to USD 9.0 billion, consisting of the USD 1.5 billion in repurchases already executed and for up to an additional USD 7.5 billion of T-Mobile US common stock until the end of 2020. The additional buy-back authorization is contingent upon the termination of the business combination agreement with Sprint.

Acquisition of OTE shares

In March 2018, Deutsche Telekom exercised its right of first refusal as invited by the Greek privatization authority Hellenic Republic Asset Development Fund (HRADF) and acquired a 5 percent stake in its Greek subsidiary OTE. The transaction was consummated in May 2018 through the acquisition of additional shares in the amount of EUR 0.3 billion. As a result, Deutsche Telekom AG holds around 45 percent of the company's shares.

PRINCIPAL SUBSIDIARIES

The Group's principal subsidiaries are presented in the following table:

Name and registered office		Deutsche Telekom share %	Net revenue[c] millions of €	Profit (loss) from operations[c] millions of €	Shareholders' equity[c] millions of €	Average number of employees	Segment allocation
Telekom Deutschland GmbH, Bonn, Germany	**Dec. 31, 2018/2018**	100.00	21,342	4,692	6,423	4,121	Germany
	Dec. 31, 2017/2017	100.00	21,577	4,787	4,714	7,396	
T-Mobile US, Inc., Bellevue, Washington, United States[a, b]	**Dec. 31, 2018/2018**	63.34	36,522	4,634	25,897	45,729	United States
	Dec. 31, 2017/2017	62.29	35,736	5,930	22,927	43,935	
T-Systems International GmbH, Frankfurt/Main, Germany	**Dec. 31, 2018/2018**	100.00	5,086	(454)	1,109	12,481	Systems Solutions
	Dec. 31, 2017/2017	100.00	5,010	(1,536)	1,225	12,608	
Hellenic Telecommunications Organization S.A. (OTE), Athens, Greece[a]	**Dec. 31, 2018/2018**	45.00	3,861	429	3,239	19,507	Europe
	Dec. 31, 2017/2017	40.00	3,857	353	3,238	20,259	
Magyar Telekom Telecommunications Public Limited Company, Budapest, Hungary[a, b]	**Dec. 31, 2018/2018**	59.72	2,060	241	2,326	9,166	Europe
	Dec. 31, 2017/2017	59.44	1,975	248	2,295	9,094	
T-Mobile Netherlands Holding B.V., The Hague, Netherlands[a, b]	**Dec. 31, 2018/2018**	100.00	1,322	192	1,467	1,211	Group Development
	Dec. 31, 2017/2017	100.00	1,355	201	2,520	1,262	
T-Mobile Polska S.A., Warsaw, Poland[a, b]	**Dec. 31, 2018/2018**	100.00	1,525	(552)	1,462	4,816	Europe
	Dec. 31, 2017/2017	100.00	1,509	(684)	2,119	4,379	
T-Mobile Czech Republic a.s., Prague, Czech Republic[a, b]	**Dec. 31, 2018/2018**	100.00	1,047	274	1,924	3,516	Europe
	Dec. 31, 2017/2017	100.00	1,011	211	1,846	3,437	
Hrvatski Telekom d.d., Zagreb, Croatia[a, b]	**Dec. 31, 2018/2018**	51.14	1,049	185	2,303	5,424	Europe
	Dec. 31, 2017/2017	51.00	1,039	144	2,208	5,032	
T-Mobile Austria Holding GmbH, Vienna, Austria[a, b]	**Dec. 31, 2018/2018**	100.00	1,055	41	3,474	1,548	Europe
	Dec. 31, 2017/2017	100.00	900	109	1,546	1,204	
Slovak Telekom a.s., Bratislava, Slovakia[a, b]	**Dec. 31, 2018/2018**	100.00	761	149	1,532	3,568	Europe
	Dec. 31, 2017/2017	100.00	748	108	1,434	3,499	

[a] Consolidated subgroup.
[b] Indirect shareholding of Deutsche Telekom AG.
[c] IFRS figures of the respective subgroup.

In accordance with § 313 HGB, the full statement of investment holdings, which forms part of the notes to the consolidated financial statements, is published in the Federal Gazette (Bundesanzeiger) together with the consolidated financial statements. It is available upon request from Deutsche Telekom AG, Bonn, Investor Relations, and on Deutsche Telekom's website (www.telekom.com) under Investor Relations. Furthermore, the statement of investment holdings includes a full list of all subsidiaries that exercise simplification options in accordance with § 264 (3) HGB or disclosure simplification options in accordance with § 264 b HGB.

The following table shows the non-controlling interests for principal subsidiaries:

Name and registered office		Percentage of shareholding for non-controlling interests %	Percentage of voting rights for non-controlling interests %	Cumulative non-controlling interests [c] millions of €	Dividends paid out to non-controlling interests millions of €
T-Mobile US, Inc., Bellevue, Washington, United States [a, b]	**Dec. 31, 2018/2018**	36.66	36.66	9,255	0
	Dec. 31, 2017/2017	37.71	37.71	8,424	0
Hellenic Telecommunications Organization S.A. (OTE), Athens, Greece [a]	**Dec. 31, 2018/2018**	55.00	50.00	1,607	93
	Dec. 31, 2017/2017	60.00	50.00	1,743	47
Magyar Telekom Telecommunications Public Limited Company, Budapest, Hungary [a, b]	**Dec. 31, 2018/2018**	40.28	40.28	696	44
	Dec. 31, 2017/2017	40.56	40.56	670	34
Hrvatski Telekom d.d., Zagreb, Croatia [a, b]	**Dec. 31, 2018/2018**	48.86	48.86	917	33
	Dec. 31, 2017/2017	49.00	49.00	875	32

[a] Consolidated subgroup.
[b] Indirect shareholding of Deutsche Telekom AG.
[c] IFRS figures at the level of the consolidated financial statements of Deutsche Telekom.

Deutsche Telekom held 45 percent plus one vote of the shares in the OTE group as of the reporting date (please also refer to the information provided in the section "Summary of accounting policies" under "Other transactions that had no effect on the composition of the Group," page 179). In accordance with shareholder agreements between Deutsche Telekom and the Hellenic Republic, Deutsche Telekom controls 50 percent plus two voting shares and therefore the OTE group's financial and operating policy. Consequently, the OTE group companies are fully consolidated subsidiaries.

Summarized financial information for subsidiaries with significant non-controlling interests:

millions of €

Name and registered office		Current assets [c]	Non-current assets [c]	Current liabilities [c]	Non-current liabilities [c]	Profit (loss) [c]	Total comprehensive income [c]
T-Mobile US, Inc., Bellevue, Washington, United States [a, b]	**Dec. 31, 2018/2018**	9,171	60,052	16,688	26,638	2,481	3,377
	Dec. 31, 2017/2017	9,045	55,886	10,168	31,835	5,271	2,825
Hellenic Telecommunications Organization S.A. (OTE), Athens, Greece [a]	**Dec. 31, 2018/2018**	2,161	5,353	2,386	1,888	194	233
	Dec. 31, 2017/2017	2,393	5,514	2,723	1,946	54	62
Magyar Telekom Telecommunications Public Limited Company, Budapest, Hungary [a, b]	**Dec. 31, 2018/2018**	800	3,230	1,069	636	145	79
	Dec. 31, 2017/2017	663	3,349	730	987	123	121
Hrvatski Telekom d.d., Zagreb, Croatia [a, b]	**Dec. 31, 2018/2018**	757	1,941	325	70	141	149
	Dec. 31, 2017/2017	747	1,898	336	101	103	133

[a] Consolidated subgroup.
[b] Indirect shareholding of Deutsche Telekom AG.
[c] IFRS figures of the respective subgroup.

millions of €

Name and registered office		Net cash from operating activities [c]	Net cash (used in) from investing activities [c]	Net cash (used in) from financing activities [c]
T-Mobile US, Inc., Bellevue, Washington, United States [a, b]	**2018**	7,567	(4,936)	(2,606)
	2017	6,847	(9,948)	(966)
Hellenic Telecommunications Organization S.A. (OTE), Athens, Greece [a]	**2018**	949	(558)	(597)
	2017	782	(732)	(334)
Magyar Telekom Telecommunications Public Limited Company, Budapest, Hungary [a, b]	**2018**	500	(266)	(167)
	2017	507	(181)	(243)
Hrvatski Telekom d.d., Zagreb, Croatia [a, b]	**2018**	321	(190)	(134)
	2017	362	(185)	(125)

[a] Consolidated subgroup.
[b] Indirect shareholding of Deutsche Telekom AG.
[c] IFRS figures of the respective subgroup.

STRUCTURED ENTITIES

Deutsche Telekom processes factoring transactions by means of structured entities (see Note 40 "Financial instruments and risk management," page 236 et seq.).

Since 2014, Deutsche Telekom has consolidated four structured leasing SPEs, and since 2018 two more such SPEs, for real estate as well as operating and office equipment at two sites for the operation of data centers in Germany. The data centers were built under the management of an external leasing company and are operated by T-Systems International GmbH. Apart from the contractual obligations to make lease payments to the leasing SPEs, Deutsche Telekom has no obligation to give them further financial support.

T-Mobile USA Tower LLC and T-Mobile West Tower LLC, which are included in the consolidated financial statements as investments accounted for using the equity method, are also structured entities (see Note 9 "Investments accounted for using the equity method," page 193 et seq.).

JOINT OPERATIONS

On the basis of a contractual arrangement concluded by T-Mobile Polska S.A., Poland, Deutsche Telekom combined the activities for the planning, building, and operation of the Polish mobile communications network with a partner in 2011 to generate savings. Deutsche Telekom recognizes its share (50 percent) of the corresponding assets in line with the economic substance in the consolidated statement of financial position.

CURRENCY TRANSLATION

Foreign-currency transactions are translated into the functional currency at the exchange rate at the date of transaction. At the reporting date, monetary items are translated at the closing rate, and non-monetary items are translated at the exchange rate at the date of transaction. Exchange rate differences are recognized in profit or loss.

The assets and liabilities of Group entities whose functional currency is not the euro are translated into euros from the local currency using the middle rates at the reporting date. The income statements and corresponding profit or loss of foreign-currency denominated Group entities are translated at monthly average exchange rates for the period. The differences that arise from the use of both rates are recognized directly in equity.

The exchange rates of certain significant currencies changed as follows:

€

	Annual average rate			Rate at the reporting date	
	2018	2017	2016	Dec. 31, 2018	Dec. 31, 2017
100 Czech korunas (CZK)	3.87824	3.79799	3.69912	3.88538	3.90961
1 pound sterling (GBP)	1.13049	1.14063	1.22003	1.11769	1.12664
100 Croatian kuna (HRK)	13.48050	13.39790	13.27380	13.48890	13.43590
1,000 Hungarian forints (HUF)	3.13607	3.23421	3.21138	3.11347	3.22290
100 Macedonian denars (MKD)	1.62440	1.62388	1.62360	1.62445	1.62592
100 Polish zlotys (PLN)	23.46130	23.48500	22.91960	23.24910	23.93060
1 U.S. dollar (USD)	0.82946	0.88549	0.90365	0.87321	0.83340

NOTES TO THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

1 CASH AND CASH EQUIVALENTS

Cash and cash equivalents have an original maturity of less than three months and mainly comprise fixed-term bank deposits. They also include small amounts of cash-in-hand and checks. Deutsche Telekom obtained cash collateral of EUR 404 million (December 31, 2017: EUR 569 million) on the basis of collateral contracts as surety for potential credit risks arising from derivative transactions.

Cash and cash equivalents increased by EUR 0.4 billion to EUR 3.7 billion. For further information, please refer to Note 34 "Notes to the consolidated statement of cash flows," page 223 et seq.

As of December 31, 2018, Deutsche Telekom reported cash and cash equivalents of EUR 12.3 million held by subsidiaries in Macedonia (December 31, 2017: EUR 16 million). These subsidiaries are subject to foreign exchange controls or other legal restrictions. As a result, the cash balances are not fully available for use by the parent or other Group companies.

2 TRADE AND OTHER RECEIVABLES

millions of €

	Dec. 31, 2018	Dec. 31, 2017
Trade receivables	9,988	9,553
Other receivables	0	169
	9,988	**9,723**

Of the total of trade and other receivables, EUR 8,300 million (December 31, 2017: EUR 8,125 million) is due within one year.

The increase in trade receivables is primarily due to the increase in receivables in both the United States and Germany operating segments. In the United States operating segment, this increase was the result of the higher volume of receivables for handsets sold under installment plans and the larger customer base. Exchange rate effects from the translation of U.S. dollars into euros also contributed to the increase. Offsetting effects resulted in particular from reclassification and remeasurement effects from the mandatory first-time application of the accounting standards IFRS 9 and IFRS 15. For example, receivables from long-term construction contracts in the amount of EUR 0.2 billion which until 2017 were accounted for in accordance with IAS 11 were reclassified as contract assets as of January 1, 2018.

For more information on allowances, credit ratings, and write-offs of receivables as well as on factoring agreements newly concluded or extended, please refer to Note 40 "Financial instruments and risk management," page 236 et seq.

3 CONTRACT ASSETS

Following the transition to IFRS 15, a remeasurement effect of EUR 1.6 billion was recognized directly in equity as of January 1, 2018 in relation to the initial recognition of contract assets. Under IFRS 15, these would have led to the earlier recognition of revenue, in particular from the sale of goods and merchandise. Further, as a result of the transition, receivables from long-term construction contracts in the amount of EUR 0.2 billion, which were previously recognized as trade and other receivables, were reclassified as contract assets. For further information on the new accounting standards, please refer to the section "Initial application of standards, interpretations, and amendments in the financial year," page 154 et seq.

Of the total contract assets as of December 31, 2018 of EUR 1.8 billion, EUR 0.2 billion related to contract assets in connection with long-term construction contracts.

The contract assets increased by EUR 44 million in the reporting year, due to a change in the business model in Poland in September 2018. Whereas the previous business model did not provide for handsets to be sold at a discount, the terminal equipment business is now subsidized.

For information on allowances on contract assets, please refer to Note 40 "Financial instruments and risk management," page 236 et seq.

4 INVENTORIES

millions of €

	Dec. 31, 2018	Dec. 31, 2017
Raw materials and supplies	56	54
Work in process	20	13
Finished goods and merchandise	1,714	1,918
	1,790	**1,985**

The carrying amount of inventories decreased by EUR 0.2 billion to EUR 1.8 billion compared with December 31, 2017, mainly due to the reduction in the stock levels of terminal equipment (in particular higher-priced smartphone models) in the United States operating segment; exchange rate effects, mainly from the translation of U.S. dollars into euros, had an offsetting effect.

Write-downs of EUR 42 million (2017: EUR 27 million, 2016: EUR 46 million) on the net realizable value were recognized in 2018 and are shown in profit or loss.

The carrying amount of inventories expensed during the reporting period was EUR 14,373 million (2017: EUR 13,358 million; 2016: EUR 13,295 million).

The finished goods and merchandise primarily comprise retail products (e.g., terminal equipment and accessories) not manufactured by Deutsche Telekom and services rendered but not yet invoiced, primarily to business customers.

5 NON-CURRENT ASSETS AND DISPOSAL GROUPS HELD FOR SALE AND LIABILITIES DIRECTLY ASSOCIATED WITH NON-CURRENT ASSETS AND DISPOSAL GROUPS HELD FOR SALE

As of December 31, 2018, current assets recognized in the consolidated statement of financial position included EUR 0.1 billion (December 31, 2017: EUR 0.2 billion) in non-current assets and disposal groups held for sale. Current liabilities in the consolidated statement of financial position did not include any material liabilities directly associated with non-current assets and disposal groups held for sale (December 31, 2017: EUR 0.0 billion).

millions of €

	Dec. 31, 2018				Dec. 31, 2017		
	Deutsche Telekom AG	Telekom Albania	Other	Total	Deutsche Telekom AG	Other	Total
NON-CURRENT ASSETS AND DISPOSAL GROUPS HELD FOR SALE							
Cash and cash equivalents	0	7	0	**7**	0	0	**0**
Trade and other receivables	0	12	0	**12**	0	0	**0**
Inventories	0	2	0	**2**	0	0	**0**
Other current assets	0	7	34	**41**	0	0	**0**
Intangible assets	0	13	0	**13**	0	0	**0**
Property, plant and equipment	42	21	0	**63**	160	1	**161**
Deferred tax assets	0	6	0	**6**	0	0	**0**
TOTAL	**42**	**68**	**34**	**145**	**160**	**1**	**161**
LIABILITIES DIRECTLY ASSOCIATED WITH NON-CURRENT ASSETS AND DISPOSAL GROUPS HELD FOR SALE							
Trade and other payables	0	34	0	**34**	0	0	**0**
Other non-current provisions	0	2	0	**2**	0	0	**0**
TOTAL	**0**	**36**	**0**	**36**	**0**	**0**	**0**

Real estate in the Group Headquarters & Group Services segment was sold in the reporting period. In addition, on January 15, 2019, OTE concluded an agreement concerning the sale of its stake in Telekom Albania to the Bulgarian company Albania Telecom Invest AD for a purchase price of EUR 50 million. The relevant bodies of Deutsche Telekom granted the required approval for this agreement in November 2018. The assets and liabilities of Telekom Albania, which is recorded in the Europe operating segment, are reported as of December 31, 2018 under non-current assets and disposal groups held for sale and liabilities directly associated with non-current assets and disposal groups held for sale. This made it necessary to remeasure these assets at the lower of carrying amount and fair value – which was based on the Level 3 measurement pursuant to the purchase agreement – less costs of disposal, which resulted in an impairment loss of EUR 35 million as of the date of the reclassification on some of the intangible assets and property, plant and equipment assigned to the Albania cash-generating unit. This impairment was recognized under depreciation, amortization and impairment losses.

In addition, Deutsche Telekom AG's real estate held for sale of EUR 21 million as of December 31, 2018 (December 31, 2017: EUR 48 million) was no longer recognized at its carrying amounts in accordance with IFRS 5, but at its fair value less costs of disposal. This real estate relates to sites that are no longer considered necessary for operations or that will, in the foreseeable future, no longer be considered necessary for operations on account of technological advances. The fair values are determined by external experts. The fair value is measured on a regular basis using the earnings value method, taking into account local market estimates and specific characteristics of the property, including input parameters that cannot be observed in the market (Level 3). The expected costs of disposal (currently usually around 10 percent of the fair value) are subtracted. The real estate was written down by EUR 10.7 million (2017: EUR 27.7 million) to the fair value less costs of disposal. The expense was recognized under depreciation, amortization and impairment losses.

No reversals of impairments of the carrying amounts of the non-current assets and disposal groups held for sale were recognized in the reporting year; the reversals recognized in the prior year were not material.

6 INTANGIBLE ASSETS

millions of €

	Internally generated intangible assets	Acquired intangible assets		
		Total	Acquired concessions, industrial and similar rights and assets	LTE licenses
COST				
AT DECEMBER 31, 2016	**5,934**	**71,344**	**1,071**	**6,103**
Currency translation	(450)	(5,441)	(36)	60
Changes in the composition of the Group	0	(32)	3	0
Additions	236	8,841	245	0
Disposals	560	1,242	3	5
Change from non-current assets and disposal groups held for sale	0	(393)	0	0
Reclassifications	1,554	1,304	2	9
AT DECEMBER 31, 2017	**6,714**	**74,381**	**1,282**	**6,167**
Currency translation	206	2,001	12	(50)
Changes in the composition of the Group	0	724	36	0
Additions	284	1,236	235	49
Disposals	674	1,182	144	9
Change from non-current assets and disposal groups held for sale	0	(264)	0	(14)
Reclassifications	840	1,378	5	89
AT DECEMBER 31, 2018	**7,371**	**78,275**	**1,427**	**6,232**
ACCUMULATED AMORTIZATION AND IMPAIRMENT LOSSES				
AT DECEMBER 31, 2016	**4,215**	**29,302**	**639**	**1,112**
Currency translation	(345)	(1,172)	(21)	5
Changes in the composition of the Group	0	(46)	0	0
Additions (amortization)	938	3,178	150	384
Additions (impairment)	0	6	2	0
Disposals	554	1,235	2	5
Change from non-current assets and disposal groups held for sale	0	(82)	0	0
Reclassifications	9	3	(1)	0
Reversal of impairment losses	0	(1,651)	0	0
AT DECEMBER 31, 2017	**4,263**	**28,303**	**767**	**1,496**
Adjustment resulting from the change in accounting standards	0	0	0	0
Currency translation	143	337	9	(11)
Changes in the composition of the Group	0	0	0	0
Additions (amortization)	1,017	3,320	221	398
Additions (impairment)	5	40	0	6
Disposals	(659)	(1,173)	(141)	(9)
Change from non-current assets and disposal groups held for sale	0	(250)	0	(9)
Reclassifications	(6)	8	1	(1)
Reversal of impairment losses	0	0	0	0
AT DECEMBER 31, 2018	**4,762**	**30,585**	**857**	**1,870**
NET CARRYING AMOUNTS				
At December 31, 2017	2,451	46,078	515	4,671
AT DECEMBER 31, 2018	**2,609**	**47,690**	**569**	**4,363**

Acquired intangible assets				Goodwill	Advance payments and intangible assets under development	
UMTS licenses	GSM licenses	FCC licenses (T-Mobile US)	Other acquired intangible assets			Total
9,950	**1,544**	**35,772**	**16,904**	**30,687**	**2,528**	**110,493**
19	13	(4,931)	(566)	(1,466)	(111)	(7,468)
0	0	0	(35)	21	0	(11)
0	0	7,819	777	0	2,543	11,620
0	163	0	1,071	0	57	1,859
0	0	(392)	(1)	0	(5)	(398)
0	0	0	1,293	0	(2,812)	46
9,969	**1,394**	**38,268**	**17,301**	**29,242**	**2,086**	**112,423**
(6)	(5)	1,841	209	469	18	2,695
0	0	71	618	736	1	1,462
0	3	264	685	0	2,469	3,989
6	0	0	1,023	0	14	1,869
(23)	(15)	(1)	(212)	(37)	0	(302)
0	0	0	1,284	0	(2,177)	41
9,935	**1,377**	**40,443**	**18,862**	**30,410**	**2,383**	**118,439**
7,506	**734**	**6,443**	**12,868**	**16,377**	**0**	**49,894**
12	9	(755)	(422)	(1,456)	0	(2,973)
0	0	0	(46)	0	0	(46)
584	70	0	1,990	0	0	4,116
0	0	4	0	2,071	0	2,077
0	163	0	1,065	0	0	1,789
0	0	(81)	(1)	0	0	(82)
1	0	0	3	0	0	12
0	0	(1,651)	0	0	0	(1,651)
8,103	**650**	**3,960**	**13,327**	**16,992**	**0**	**49,558**
0	0	0	0	78	0	78
(4)	(4)	189	159	471	0	950
0	0	0	0	0	0	0
583	68	0	2,049	0	0	4,337
6	7	0	22	639	0	685
(6)	0	0	(1,018)	0	0	(1,832)
(19)	(10)	0	(211)	(37)	0	(288)
0	0	0	9	0	0	2
0	0	0	0	0	0	0
8,663	**711**	**4,149**	**14,335**	**18,143**	**0**	**53,489**
1,866	744	34,308	3,974	12,250	2,086	62,865
1,272	**666**	**36,293**	**4,526**	**12,267**	**2,383**	**64,950**

Intangible assets increased by EUR 2.1 billion in the 2018 financial year to EUR 65.0 billion. Additions totaling EUR 4.0 billion increased the carrying amount. They mainly comprised capital expenditures in the United States, Europe, and Germany operating segments, and in the Group Headquarters & Group Services segment. Changes in the composition of the Group increased the carrying amount by a further EUR 1.5 billion. As of the date of acquisition of UPC Austria, an identifiable intangible asset of EUR 0.5 billion was recognized in connection with the latter's customer base, along with goodwill of EUR 0.6 billion. Further, as of the acquisition date of Layer3 TV, an identifiable intangible asset of EUR 0.1 billion was recognized in connection with technology developed by the latter as well as goodwill of EUR 0.2 billion. For further information on transactions, please refer to the section "Changes in the composition of the Group and other transactions," page 176 et seq. Positive exchange rate effects of EUR 1.7 billion, particularly from the translation of U.S. dollars into euros, increased the carrying amount. Depreciation and amortization of EUR 4.3 billion and impairment losses of EUR 0.7 billion reduced the carrying amount.

In the 2017 financial year, the partial reversal of impairment losses on FCC licenses previously acquired by T-Mobile US increased the carrying amount by EUR 1.7 billion before deferred taxes. These FCC licenses were impaired as of September 30, 2012 following ad hoc impairment testing of the United States cash-generating unit. Because all of the FCC license impairment was allocated to the portfolio of PCS licenses, based on a determination that AWS licenses were carried at less than fair value, the PCS license portfolio is the only FCC license asset subject to an impairment reversal. Regular tests had to be performed in subsequent periods to determine whether the reasons for impairment still existed – in full or in part. The value of the United States cash-generating unit, which has been listed on the stock exchange since May 2013, increased substantially in recent years on the back of the increase in the share price of T-Mobile US, Inc. and exceeded its carrying amount. However, the maximum possible reversal is limited to the lower of the recoverable amount of the impaired spectrum licenses determined from the fair value less costs of disposal on the one hand and the cost of these licenses on the other. As the recoverable amount of the impaired FCC licenses in the past financial years was lower than their carrying amount, the requirements for a reversal were not met.

In the third quarter of 2017, the results of the 600 MHz spectrum auction by the Federal Communications Commission (FCC), which was completed in 2017, indicated an increase in value of the previously impaired licenses. A remeasurement was then performed using a discounted cash flow method (greenfield method). The value was calculated in accordance with Level 3 of the fair value hierarchy pursuant to IFRS 13. The greenfield method uses a hypothetical cash flow scenario of developing an operating business for an entity that owns a single asset, in this case FCC licenses, at inception. The greenfield method requires an understanding of how much time and investment it would take to grow the business considering the current market conditions. Cash flows are forecasted to reflect required resources and eventual returns from the build-out of the operations and the acquisition of customers. The underlying theory of that approach is that by incurring theoretical start-up costs and capital expenditures that reflect the creation of all other assets, the value of the FCC licenses becomes isolated. The expenses and capital expenditures required to recreate the business would be higher than the expense and capital expenditure level of an established business. In addition, the time to recreate (ramp-up period) also determines the required level of investments (e.g., to shorten the ramp-up period more investment would be required). In summary, the key inputs of the greenfield method are:

- The time and required expenses of the ramp-up period. The build-out was staged over a period of time to reflect a plan to migrate from a start-up to a fully capable national wireless network. The estimated timeline to build the existing network that most closely meets the current business plan's long-term projected level of subscribers is approximately eight years.

- Long-term projected revenue and operating cash flows are based on a market participant or normalized level of operation of the business. Given the long-term nature of the investment, the initial planning period of ten years was extended by an additional ten years to allow for profit margins, capital expenditures and related depreciation to reach normalized levels.

- A long-term growth rate was applied for the ten additional years to the forecasted revenues that matches the selected long-term growth rate of 2 percent for the derivation of the terminal value. The long-term growth rate was determined by considering industry and economic research.

- The rate of return required by a market participant for investing in such a business (discount rate). A discount rate of 7.5 percent was used.

The total value of the license portfolio calculated in this way of USD 53 billion was then allocated to the spectrum types (PCS, AWS, 700 MHz and 600 MHz) according to a relative market price model based on auction data. In 2017, a recoverable amount of EUR 13.6 billion was calculated for the FCC licenses previously impaired. Taking the carrying amount at that time of EUR 11.9 billion into account, a partial reversal of EUR 1.7 billion arose for the United States operating segment in the third quarter of 2017 that was recorded under other operating income. There were no indications for a further reversal of impairment losses on the licenses in the 2018 financial year.

In the 2018 financial year, there were a number of factors affecting changes in the **carrying amounts of goodwill at cash-generating units**:

First-time application of IFRS 15 "Revenue from Contracts with Customers." The first-time application of IFRS 15 as of January 1, 2018 reduced the carrying amount of goodwill recognized under intangible assets by EUR 0.1 billion. Under the new accounting standard, contract assets must be capitalized for the first time. For further information on the requirements and effects of the first-time application, please refer to the section "Initial application of standards, interpretations, and amendments in the financial year," page 154 et seq. An initial consequence was that the carrying amounts of the cash-generating units that must be tested for impairment in accordance with IAS 36 increased when IFRS 15 was applied for the first time. As a result, the carrying amounts of the Romania cash-generating unit in the Europe operating segment and of the Netherlands cash-generating unit in the Group Development operating segment exceeded in each case the recoverable amounts for these units. Consequently, the goodwill recognized for these units then had to be impaired as of January 1, 2018. The recoverable amounts for the Romania cash-generating unit stood at EUR 701 million and for the Netherlands cash-generating unit at EUR 2,482 million. Hence the recoverable amounts for the Romania cash-generating unit were EUR 10 million, and for the Netherlands, EUR 68 million below the carrying amount. The corresponding goodwill impairments for these units were recognized directly in equity by reducing retained earnings as of January 1, 2018.

Corporate transactions UPC Austria and Layer3 TV. Goodwill of EUR 0.6 billion was recognized from the acquisition of UPC Austria and of EUR 0.2 billion from the acquisition of Layer3 TV as of the respective acquisition date. For further information, please refer to the section "Summary of accounting policies" under "Changes in the composition of the Group and other transactions," page 176 et seq.

United States. The increase in goodwill of EUR 240 million compared with December 31, 2017 primarily relates to the goodwill recognized in connection with the acquisition of Layer3 TV and to exchange rate effects from the translation of U.S. dollars into euros.

Systems Solutions. In the Systems Solutions operating segment, since January 1, 2018, the two cash-generating units Market Unit and Telekom Security and their respective goodwill have been combined in a single cash-generating unit following a change in the control logic in the Systems Solutions cash-generating unit.

Europe. Under the agreement concluded on January 15, 2019 by OTE concerning the sale of its stake in Telekom Albania to the Bulgarian company Albania Telecom Invest AD for a purchase price of EUR 50 million, the carrying amounts of the assets and liabilities assigned to the Albania cash-generating unit were reclassified to non-current assets and disposal groups held for sale and liabilities directly associated with non-current assets and disposal groups held for sale, respectively. This process required a remeasurement of these assets at the lower of carrying amount and fair value less costs of disposal, which resulted in an impairment loss of EUR 35 million in the 2018 financial year as of the date of the reclassification on some of the intangible assets and property, plant and equipment assigned to the Albania cash-generating unit.

Disclosures on annual impairment tests. As of December 31, 2018, Deutsche Telekom carried out its annual impairment tests on the goodwill and intangible assets with an indefinite useful life (in particular, FCC licenses in the United States) assigned to the cash-generating units. A need for impairment of goodwill totaling EUR 639 million on a pro rata basis was identified in the Europe operating segment at the cash-generating units Poland and Romania as of December 31, 2018 on the basis of information available at the reporting date and expectations with respect to the future development of the market and competitive environment. The impairment of goodwill at these cash-generating units was attributable in particular to intensified competition and a difficult overall market situation. For Poland, this results in the expectation of reduced revenue and earnings, in particular from the sale of terminal equipment and in the fixed-network business, and a need for increased capital expenditure due to technological development and requirements. In Romania, the measures taken to restructure the company and adapt the business to changing customer needs have not yet had the desired effect, as reflected by lower-than-expected revenue and reduced earnings, especially in the fixed-network business. The impairment test as of December 31, 2017 resulted in a need for impairment totaling

EUR 829 million at the cash-generating units Poland, Romania, and Albania in the Europe operating segment. In addition, an impairment test was performed as of September 30, 2017 for the Market Unit cash-generating unit in the Systems Solutions operating segment; this was triggered by an unexpected decrease in order entry and resulted in the recognition of impairment losses of EUR 1,242 million.

The recoverable amounts to be identified for the impairment test were largely determined on the basis of the fair values less costs of disposal. With the exception of the United States cash-generating unit, these figures were calculated using a net present value approach. The main parameters are shown in the table on page 190.

The recoverable amounts (prior to the deduction of net debt) for the cash-generating units were EUR 2,294 million (December 31, 2017: EUR 2,932) for Poland, and EUR 744 million (December 31, 2017: EUR 701 million) for Romania as of December 31, 2018. The values were calculated in accordance with IFRS 13 using Level 3 input parameters (i.e., unobservable input parameters).

The recoverable amounts at the cash-generating units Netherlands, Croatia, Montenegro, and Macedonia were determined using the value in use. The market price of an active and liquid market (share price) of T-Mobile US was used to determine the fair value less costs of disposal in the case of the United States cash-generating unit. The measurements of all other cash-generating units are founded on projections for a ten-year projection period that are based on financial plans that have been approved by management and are also used for internal purposes. The planning horizon selected reflects the assumptions for short- to medium-term market developments and is selected to achieve a steady state in the business outlook that is necessary for calculating the perpetual annuity. This steady state can only be established based on this planning horizon, in particular due to the sometimes long investment cycles in the telecommunications industry and the investments planned and expected in the long run to acquire and extend the rights of spectrum use. Cash flows beyond the internal mid-term planning are extrapolated using appropriate growth rates defined separately for each cash-generating unit. These growth rates are based on real growth and inflation expected in the long term for the countries in which the respective unit operates. To achieve the sustainable growth rates set for the period of the perpetual annuity, additional sustainable investments derived specifically for each cash-generating unit are taken into account. The key assumptions on which management has based its determination of the recoverable amount include the following assumptions that were primarily derived from internal sources and are based on past experience and extended to include internal expectations, and that are underscored by external market data and estimates: development of revenue, customer acquisition and retention costs, churn rates, capital expenditure, market share, and growth rates. Discount rates are determined on the basis of external figures derived from the market, taking account of the market and country risks associated with the cash-generating unit. Any significant future changes in the aforementioned assumptions would have an impact on the fair values of the cash-generating units. Changes in the assumptions may have a negative impact, as a result of future macroeconomic trends, continued intense competition, further possible legislation changes (e.g., as part of national austerity programs), and regulatory intervention.

The following tables provide an overview of the main factors affecting the measurement, the classification of the input parameters (levels) used to determine the recoverable amounts in accordance with IFRS 13, as well as the sensitivity calculations for the need for impairment resulting from a change in the main parameters discount rate, net cash flow, and growth rate. They show the most significant cash-generating units to which goodwill has been allocated.

		Goodwill carrying amount millions of €	Impairment millions of €	Detailed planning period years	Discount rates[a] %	Sustainable growth rate p.a. Ø in %	Level allocation of input parameters[b]
GERMANY	**2018**	3,719	0	10	4.84	0.0	Level 3
	2017	3,719	0	10	4.93	0.0	Level 3
UNITED STATES	**2018**	1,281	0	n. a.	n. a.	n. a.	Level 1
	2017	1,041	0	n. a.	n. a.	n. a.	Level 1
EUROPE							
Poland	**2018**	202	608	10	7.94	2.0	Level 3
	2017	835	787	10	6.85	2.0	Level 3
Hungary	**2018**	1,036	0	10	8.33	2.0	Level 3
	2017	1,070	0	10	7.47	2.0	Level 3
Czech Republic	**2018**	778	0	10	6.11	2.0	Level 3
	2017	781	0	10	6.37	2.0	Level 3
Croatia	**2018**	521	0	10	7.08	2.0	Value in use
	2017	519	0	10	7.13	2.0	Value in use
Slovakia	**2018**	428	0	10	5.64	2.0	Level 3
	2017	428	0	10	5.79	2.0	Level 3
Greece	**2018**	422	0	10	7.94	2.0	Level 3
	2017	422	0	10	7.93	2.0	Level 3
Austria	**2018**	877	0	10	5.43	2.0	Level 3
	2017	324	0	10	5.47	2.0	Level 3
Romania[c]	**2018**	0	31	10	7.69	2.0	Level 3
	2017	41	34	10	7.67	2.0	Level 3
Deutsche Telekom Global Carrier (formerly International Carrier Sales & Solutions)	**2018**	102	0	10	4.88	2.0	Level 3
	2017	102	0	10	5.05	2.0	Level 3
Other[d]	**2018**	78	0	10	8.36–8.38	2.0	Value in use
	2017	79	8	10	8.39–10.29	2.0	Levels 3 and values in use
SYSTEMS SOLUTIONS[e]							
Systems Solutions	**2018**	1,143	0	10	6.43	1.5	Level 3
	2017						
Market Unit	**2018**						
	2017	1,063	1,242	10	6.60	1.5	Level 3
Telekom Security	**2018**						
	2017	80	0	10	6.50	1.5	Level 3
GROUP DEVELOPMENT							
Netherlands[c]	**2018**	830	0	10	5.14	0.5	Value in use
	2017	897	0	10	5.29	0.5	Level 3
Deutsche Funkturm	**2018**	259	0	10	4.61	1.0	Level 3
	2017	259	0	10	5.35	1.0	Level 3
GROUP HEADQUARTERS & GROUP SERVICES							
Deutsche Telekom IT	**2018**	590	0	10	7.13	1.5	Level 3
	2017	590	0	10	8.00	1.5	Level 3
DEUTSCHE TELEKOM IN TOTAL	**2018**	**12,267**	**639**				
	2017	**12,250**	**2,071**				

[a] Discount rate consistently after taxes. The discount rate before taxes for the calculation of the value in use amounts to 8.49 percent (2017: 8.59 percent) for Croatia, and 9.25 to 9.36 percent (2017: 9.27 to 9.34 percent) for "Other," and 5.96 percent for the Netherlands.

[b] Level of input parameters in the case of fair value less costs of disposal.

[c] Impairment losses recognized directly in equity on the goodwill of the Romania cash-generating unit of EUR 10 million and of the Netherlands cash-generating unit of EUR 68 million as of January 1, 2018 due to the first-time application of IFRS 15.

[d] The range of discount rates for "Other" shrank in 2018, due in particular to the reclassification of the Albania cash-generating unit to non-current assets and disposal groups held for sale. In 2017, the impairments under „Other" exclusively relate to the Albania cash-generating unit.

[e] In 2017, there were still two cash-generating units (Market Unit and Telekom Security).

Sensitivity analysis of the impairment losses
millions of € [a]

	Increase (decrease) in pro rata impairment losses in 2018					
	Decrease of discount rate by 50 basis points	Decrease of net cash flows by 5.0 %	Decrease of sustainable growth rate by 50 basis points	Increase of discount rate by 50 basis points	Increase of net cash flows by 5.0 %	Increase of sustainable growth rate by 50 basis points
EUROPE						
Poland	-180 (-608 / 7.94 % / 6.49 %)	115 (-608 / 100 % / 126.52 %)	14 (-608 / 2.0 % / 3.88 %)	157 (-608 / 7.94 % / 6.49 %)	-115 (-608 / 100 % / 126.52 %)	-15 (-608 / 2.0 % / 3.88 %)
Romania	-31 (-90 / 7.69 % / 7.19 %)	13 (-90/ 100 % / 112.12 %)	16 (-90 / 2.0 % / 2.76 %)	26 (-90 / 7.69 % / 7.19 %)	-13 (-90 / 100 % / 112.12 %)	-19 (-90 / 2.0 % / 2.76 %)
Montenegro		0 (8 / 100 % / 95.72 %)		1 (8 / 8.38 % / 8.72 %)		

[a] Where a change in the parameters results in an impairment loss, the following information is indicated in parentheses: the current amount by which the unit's recoverable amount exceeds its carrying amount, the current value of the parameter, and the value of the parameter that makes the recoverable amount of the cash-generating unit equal to the unit's carrying amount.

The sensitivity analysis of the impairment losses lists all those cash-generating units where the sensitivity analysis resulted in an impairment loss or a change in the impairment loss. The sensitivity analysis was performed separately for each parameter, i.e., a change in the impairment charge on a cash-generating unit is only determined by reducing or increasing the parameter under consideration.

Deutsche Telekom had commitments for the acquisition of intangible assets in the amount of EUR 0.5 billion (December 31, 2017: EUR 0.5 billion) as of the reporting date. The majority of this related to commitments entered into by T-Mobile US.

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7 PROPERTY, PLANT AND EQUIPMENT

millions of €

	Land and equivalent rights, and buildings including buildings on land owned by third parties	Technical equipment and machinery	Other equipment, operating and office equipment	Advance payments and construction in progress	Total
COST					
AT DECEMBER 31, 2016	**18,540**	**121,714**	**8,414**	**3,765**	**152,433**
Currency translation	(294)	(3,342)	(209)	(165)	(4,010)
Changes in the composition of the Group	23	7	2	9	41
Additions	104	4,954	469	5,994	11,521
Disposals	206	5,053	596	57	5,912
Change from non-current assets and disposal groups held for sale	(526)	(32)	0	(1)	(559)
Reclassifications	246	4,874	761	(5,927)	(46)
AT DECEMBER 31, 2017	**17,887**	**123,122**	**8,841**	**3,618**	**153,468**
Currency translation	104	1,165	76	44	1,389
Changes in the composition of the Group	65	1,198	137	8	1,408
Additions	88	4,947	431	5,800	11,266
Disposals	382	3,975	591	66	5,014
Change from non-current assets and disposal groups held for sale	(184)	(163)	(41)	(5)	(393)
Reclassifications	387	4,226	583	(5,238)	(41)
AT DECEMBER 31, 2018	**17,963**	**130,520**	**9,437**	**4,162**	**162,082**
ACCUMULATED DEPRECIATION AND IMPAIRMENT LOSSES					
AT DECEMBER 31, 2016	**11,529**	**88,336**	**5,809**	**1**	**105,675**
Currency translation	(200)	(1,809)	(115)	(1)	(2,125)
Changes in the composition of the Group	9	0	1	0	10
Additions (depreciation)	635	6,905	772	0	8,312
Additions (impairment)	35	42	3	0	80
Disposals	173	4,234	532	0	4,939
Change from non-current assets and disposal groups held for sale	(369)	(31)	0	0	(400)
Reclassifications	(84)	(11)	83	0	(12)
Reversal of impairment losses	(11)	0	0	0	(11)
AT DECEMBER 31, 2017	**11,371**	**89,198**	**6,021**	**0**	**106,590**
Currency translation	72	647	38	0	757
Changes in the composition of the Group	0	0	1	0	1
Additions (depreciation)	647	7,324	806	0	8,777
Additions (impairment)	13	20	3	3	38
Disposals	292	3,544	534	0	4,371
Change from non-current assets and disposal groups held for sale	(134)	(154)	(39)	(3)	(330)
Reclassifications	7	(49)	41	0	(2)
Reversal of impairment losses	(7)	(1)	0	0	(8)
AT DECEMBER 31, 2018	**11,675**	**93,440**	**6,337**	**0**	**111,452**
NET CARRYING AMOUNTS					
At December 31, 2017	6,516	33,924	2,820	3,618	46,878
AT DECEMBER 31, 2018	**6,288**	**37,080**	**3,100**	**4,161**	**50,631**

Property, plant and equipment increased by EUR 3.8 billion in the 2018 financial year to EUR 50.6 billion. Additions of EUR 11.3 billion, primarily in the United States and Germany operating segments, increased the carrying amount. They included, in particular, capital expenditure in connection with the modernization of the T-Mobile US network as well as for broadband and fiber-optic build-out, the IP transformation, and mobile infrastructure in the Germany operating segment. They also included EUR 0.9 billion for capitalized higher-priced mobile handsets in connection with the JUMP! On Demand business model at T-Mobile US, under which customers do not purchase the device but lease it. Changes in the composition of the Group – particularly the acquisition of UPC Austria in the Europe operating segment, the extension of the Biere data center (structured leasing SPEs consolidated in 2018) in the Systems Solutions operating segment, and of Layer3 TV in the United States operating segment – increased the carrying amount by EUR 1.4 billion. For further information on transactions, please refer to the section

“Changes in the composition of the Group and other transactions,” page 176 et seq. Positive exchange rate effects, primarily from the translation of U.S. dollars into euros, increased the carrying amount by EUR 0.6 billion. Depreciation, amortization and impairment losses in the amount of EUR 8.8 billion and disposals of EUR 0.6 billion – EUR 0.3 billion of which was accounted for by handsets returned by customers under the JUMP! On Demand program – reduced the carrying amount. For further information on depreciation, amortization and impairment losses, please refer to Note 26 “Depreciation, amortization and impairment losses,” page 216, and Note 6 “Intangible assets,” page 184 et seq.

Under the agreement concluded on January 15, 2019 by OTE concerning the sale of its stake in Telekom Albania to the Bulgarian company Albania Telecom Invest AD for a purchase price of EUR 50 million, the carrying amounts of the assets and liabilities assigned to the Albania cash-generating unit were reclassified to non-current assets and disposal groups held for sale and liabilities directly associated with non-current assets and disposal groups held for sale, respectively. This process required a remeasurement of these assets at the lower of carrying amount and fair value less costs of disposal, which resulted in an impairment loss of EUR 35 million in the 2018 financial year as of the date of the reclassification on some of the intangible assets and property, plant and equipment assigned to the Albania cash-generating unit. For further information, please refer to Note 5 “Non-current assets and disposal groups held for sale and liabilities directly associated with non-current assets and disposal groups held for sale,” page 183.

In the prior year, a potential need to impair the assets was reviewed in an ad hoc impairment test at the Romania – Fixed-network cash-generating unit in the Europe operating segment as of December 31, 2017. This test was necessitated by the aggregation of the Fixed-network and Mobile communications cash-generating units. No goodwill was allocated to the Romania – Fixed-network cash-generating unit as of December 31, 2017.

The measurement of the Romania – Fixed network cash-generating unit as of December 31, 2017 was founded on projections for a ten-year projection period that is based on the financial plan that has been approved by management and is also used for internal purposes. The planning horizon selected reflects the assumptions for short- to medium-term market developments and is selected to achieve a steady state in the entities’ business outlook that is necessary for calculating the perpetual annuity. This steady state can only be established based on this planning horizon, in particular due to the sometimes long investment cycles in the telecommunications industry and the investments planned and expected in the long run to acquire and extend the rights of spectrum use. Cash flows beyond the internal mid-term planning are extrapolated using appropriate growth rates defined separately for each cash-generating unit. A growth rate of 2.0 percent was set for the cash-generating unit Romania – Fixed network and was based on the real growth and inflation expected in the long term. The key assumptions on which management has based its determination of the recoverable amount include the following assumptions that were primarily derived from internal sources and are based on past experience and extended to include internal expectations, and that are underscored by external market data and estimates: development of revenue, customer acquisition and retention costs, churn rates, capital expenditure, market share, and growth rates. Discount rates are determined on the basis of external figures derived from the market, taking account of the market and country risks associated with the cash-generating unit. The discount rate for the cash-generating unit Romania – Fixed network was 7.76 percent.

The recoverable amount determined internally, which was calculated in accordance with IFRS 13 using Level 3 input parameters (i.e., unobservable inputs) amounted to EUR 334 million as of December 31, 2017 (before deduction of net debt) for the Romania – Fixed network cash-generating unit. The resulting need for impairment in 2017 was EUR 121 million for Romania – Fixed network, and, as a rule, had to be allocated to non-current assets. The recoverable amount was reviewed on the basis of an external expert opinion on account of the existing lower value limits (fair value less costs of disposal of the relevant assets). Based on the recoverable amounts for the non-current assets of the Romania – Fixed network cash-generating unit derived from this expert opinion, no impairment loss was recorded in the final analysis.

In the prior year, the annual impairment test for the goodwill assigned to the cash-generating units identified a need for impairment in the Albania cash-generating unit of EUR 45 million. This need for impairment was to be allocated to existing goodwill (EUR 8 million) (please also refer to Note 6 “Intangible assets,” page 184 et seq.) and, as a rule, to non-current assets. The recoverable amounts (fair value less costs of disposal) of the relevant assets were reviewed on the basis of an external expert opinion on account of the lower value limits to be observed. Based on the recoverable amounts of non-current assets derived from this expert opinion, items of property, plant and equipment were impaired by EUR 37 million. Of this figure, EUR 22 million was attributable to non-controlling interests. The impairment loss primarily related to technical infrastructure.

Deutsche Telekom had commitments for the acquisition of property, plant and equipment in the amount of EUR 3.8 billion (December 31, 2017: EUR 2.8 billion) as of the reporting date.

Restoration obligations of EUR 0.2 billion were recognized as of December 31, 2018 (December 31, 2017: EUR 0.3 billion), mainly attributable to restoration obligations of T-Mobile US.

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8 CAPITALIZED CONTRACT COSTS

Following the transition to IFRS 15, remeasurement and reclassification effects totaling EUR 1.2 billion were recognized directly in equity as of January 1, 2018 in relation to the initial recognition of capitalized contract costs. Under IFRS 15, these costs would have resulted in the later recognition of selling expenses in earlier reporting periods. The carrying amount had changed to EUR 1.7 billion as of December 31, 2018. For further information on the new accounting standards, please refer to the section “Initial application of standards, interpretations, and amendments in the financial year,” page 154 et seq.

millions of €

	Dec. 31, 2018	Dec. 31, 2017
Costs of obtaining a contract	1,726	n. a.
Costs to fulfill a contract	18	n. a.
	1,744	**n. a.**

The costs of obtaining a contract included in the carrying amount as of the end of 2018 primarily comprise sales commissions paid to third-party retailers in the direct and indirect sales channel and to employees.

In the 2018 financial year, capitalized contract costs of EUR 976 million were amortized. The increase of EUR 0.6 billion in capitalized contract costs compared with the initial recognition as of January 1, 2018 is attributable in particular to a higher level of capitalized costs of obtaining a contract in postpaid customer business in the United States operating segment as of the end of the financial year.

9 INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

Deutsche Telekom publishes the following information on significant investments included in the consolidated financial statements using the equity method:

	Deutsche Telekom share		Percentage of voting rights		Assigned to segment	Fair value of the investment, if a listed market price is available	
Name and registered office	Dec. 31, 2018 %	Dec. 31, 2017 %	Dec. 31, 2018 %	Dec. 31, 2017 %		Dec. 31, 2018 millions of €	Dec. 31, 2017 millions of €
Hrvatske telekomunikacije d.d. Mostar, Mostar, Bosnia and Herzegovina [a]	39.10	39.10	39.10	39.10	Europe	37	31
Ströer SE & Co. KGaA, Cologne, Germany	11.42	11.60	11.42	11.60	Group Development	270	395
T-Mobile USA Tower LLC, Wilmington, United States [b]	100.00	100.00	100.00	100.00	United States	n. a.	n. a.
T-Mobile West Tower LLC, Wilmington, United States [b]	100.00	100.00	100.00	100.00	United States	n. a.	n. a.
Toll Collect GmbH, Berlin, Germany [c]	0.00	45.00	0.00	45.00	Systems Solutions	n. a.	n. a.

[a] Indirect shareholding via Hrvatski Telekom d.d., Croatia (Deutsche Telekom AG’s share: 51.14 percent).
[b] Indirect shareholding via T-Mobile US, Inc., United States (Deutsche Telekom AG’s share: 63.34 percent).
[c] Transfer of 100 percent of the shares to the Federal Republic of Germany with effect from August 31, 2018 (please also refer to the information provided in the section “Summary of accounting policies” under “Changes in the composition of the Group and other transactions,” page 176 et seq.).

Description of the nature of the activities of the joint arrangement or associate

Hrvatske telekomunikacije d.d. (HT Mostar d.d.) provides mobile and fixed-network communications services in Bosnia and Herzegovina.

Ströer SE & Co. KGaA is a leading digital multi-channel media house that offers advertisers customized, fully integrated premium communications solutions. Deutsche Telekom holds 11.42 percent (2017: 11.60 percent) of the shares in Ströer SE & Co. KGaA. In addition, Deutsche Telekom is represented by two of the six members on the supervisory board of Ströer SE & Co. KGaA. This representation comprising a third of all seats on the supervisory board gives Deutsche Telekom a significant influence on the financial and operating policies of Ströer SE & Co. KGaA. Consequently, Deutsche Telekom includes the investment in its consolidated financial statements as an associate using the equity method.

T-Mobile USA Tower LLC and T-Mobile West Tower LLC are structured entities founded by T-Mobile US in each of which it holds a 100-percent stake for the purpose of contributing cell sites in accordance with a framework agreement signed in 2012 between T-Mobile US and Crown Castle International Corp., Houston, United States, concerning the leasing and use of the cell sites. The sole right to continue to use and lease out these sites was transferred to Crown Castle. T-Mobile US continues to operate its mobile equipment on these cell towers and, to this end, leases back the required capacity from Crown Castle. Previously unused infrastructure is thus available for Crown Castle to lease to third parties. In return, the owners of the land on which the cell towers are built will no longer receive lease payments from T-Mobile US for those cell towers which were contributed to the two associates and those that were disposed of. Both entities were deconsolidated as of the date of the closing of the transaction in 2012, because Crown Castle independently operates the cell towers, generates revenues from the lease out of the sites for an average of 27 years, and determines the finance and business activities of both entities that are relevant for consolidation purposes. It is expected that the leasing of tower space will allow Crown Castle to generate sufficient ongoing profits and cash flows to be able to meet its contractual obligations. Thus Deutsche Telekom has only a significant influence and includes these companies in the consolidated financial statements as associates. Under certain conditions, T Mobile US will continue to be held liable for any default in the lease payment by Crown Castle to the owners of the underlying land of the cell sites. The agreement includes a considerably low maximum guarantee amount for Deutsche Telekom, since in the unlikely event that this case occurs, T-Mobile US could take over the further use of the relevant cell sites or alternatively terminate the contracts with the owners of the cell site land at short notice. At closing T-Mobile US established an immaterial cash reserve in the entities sufficient to fund the payment of ongoing administrative expenses not payable by Crown Castle. Aside from the guarantee and the payment of administrative expenses there is no other funding obligation by T-Mobile US.

The following tables provide summarized financial information on the main companies included in the consolidated financial statements and accounted for using the equity method. The data is not based on the stakes attributable to Deutsche Telekom AG, but represents the shareholdings on an assumed 100-percent basis.

Summarized financial information on the main entities accounted for using the equity method

millions of €

	HT Mostar d.d.		Ströer SE & Co. KGaA[a]	
	Dec. 31, 2018/2018	Dec. 31, 2017/2017	Dec. 31, 2018/2018	Dec. 31, 2017/2017
Current assets	37	38	395	335
Of which: cash and cash equivalents	15	16	97	85
Non-current assets	158	158	2,633	1,542
Current liabilities	23	25	601	477
Non-current liabilities	3	3	1,809	786
Net revenue	43	42	1,113	910
Profit (loss)	0	0	35	52
Other comprehensive income	0	0	(13)	(8)
Total comprehensive income	0	0	22	44
Depreciation and amortization	(12)	(12)	(250)	(222)
Dividends paid to Deutsche Telekom	0	0	8	7

[a] As financial data of Ströer SE & Co. KGaA as of December 31, 2018 was not publicly available to Deutsche Telekom at the date of preparation, the quarterly statement of Ströer SE & Co. KGaA as of September 30, 2018 was used as a basis for the summarized financial information.

millions of €

	T-Mobile USA Tower LLC		T-Mobile West Tower LLC	
	Dec. 31, 2018/2018	Dec. 31, 2017/2017	Dec. 31, 2018/2018	Dec. 31, 2017/2017
Current assets	0	0	0	0
Non-current assets	62	60	95	91
Current liabilities	0	0	0	0
Non-current liabilities	0	0	0	0
Net revenue	0	0	0	0
Profit (loss)	0	0	0	0
Other comprehensive income	0	0	0	0
Total comprehensive income	0	0	0	0
Dividends paid to Deutsche Telekom	0	0	0	0

Reconciliation to the carrying amount included in the consolidated statement of financial position

millions of €

	HT Mostar d.d.		Ströer SE & Co. KGaA [a]	
	2018	2017	2018	2017
NET ASSETS AS OF JANUARY 1	**168**	**170**	**614**	**629**
Profit (loss)	0	0	74	71
Other comprehensive income	0	0	0	0
Share-based payment	0	0	10	0
Change in interest without loss of control	0	0	(27)	0
Dividends paid	0	0	(73)	(61)
Capital increase	0	0	0	3
Obligation to acquire own equity instruments	0	0	37	(9)
Exchange rate effects	1	(2)	(18)	(19)
NET ASSETS AS OF DECEMBER 31 [b]	**169**	**168**	**617**	**614**
SHARE OF NET ASSETS ATTRIBUTABLE TO DEUTSCHE TELEKOM AS OF DECEMBER 31 [b]	**66**	**66**	**70**	**71**
Adjustment of carrying amount	0	0	0	0
Reversal of impairment losses	0	0	0	50
Other reconciliation effects	(15)	(15)	238	194
CARRYING AMOUNT AS OF DECEMBER 31	**51**	**51**	**308**	**315**

[a] As financial data of Ströer SE & Co. KGaA as of December 31, 2018 was not publicly available to Deutsche Telekom at the date of preparation, the quarterly statement of Ströer SE & Co. KGaA as of September 30, 2018 was used as a basis for the summarized financial information and for the reconciliation statement to the carrying amount reported in Deutsche Telekom's consolidated statement of financial position. The resulting effects for the extrapolation of the carrying amount as of December 31, 2018 were estimated and are included under other reconciliation effects. In addition, profit/loss after income taxes also includes profit/loss after income taxes of the prior-year fourth quarter on a pro rata basis.

[b] The figures for net assets and the share of the net assets of Ströer SE & Co. KGaA relate to September 30, 2018 and September 30, 2017.

millions of €

	T-Mobile USA Tower LLC		T-Mobile West Tower LLC	
	2018	2017	2018	2017
NET ASSETS AS OF JANUARY 1	**60**	**68**	**91**	**104**
Profit (loss)	0	0	0	0
Other comprehensive income	0	0	0	0
Dividends paid	0	0	0	0
Exchange rate effects	2	(8)	4	(13)
NET ASSETS AS OF DECEMBER 31	**62**	**60**	**95**	**91**
SHARE OF NET ASSETS ATTRIBUTABLE TO DEUTSCHE TELEKOM AS OF DECEMBER 31	**62**	**60**	**95**	**91**
Adjustment of carrying amount	0	0	0	0
Other reconciliation effects	0	0	0	0
CARRYING AMOUNT AS OF DECEMBER 31	**62**	**60**	**95**	**91**

In the reporting year, as in the prior year, Deutsche Telekom did not recognize losses in connection with investments included in the consolidated financial statements using the equity method.

Summarized aggregate financial information on non-significant entities accounted for using the equity method

The figures relate to the interests attributable to Deutsche Telekom.

millions of €

	Joint ventures		Associates	
	Dec. 31, 2018/2018	Dec. 31, 2017/2017	Dec. 31, 2018/2018	Dec. 31, 2017/2017
Total carrying amounts	13	15	47	109
Total interests in profit (loss)	2	1	3	12
Other comprehensive income	0	0	0	0
TOTAL COMPREHENSIVE INCOME	**2**	**1**	**3**	**12**

10 OTHER FINANCIAL ASSETS

millions of €

	Dec. 31, 2018		Dec. 31, 2017	
	Total	Of which: current	Total	Of which: current
Originated loans and receivables	3,133	2,684	3,507	3,015
Derivative financial assets	870	151	1,317	306
Equity instruments – measured at fair value through profit or loss	0	0	n. a.	n. a.
Equity instruments – measured at fair value through other comprehensive income	324	0	n. a.	n. a.
Debt instruments – measured at fair value through profit or loss	95	6	n. a.	n. a.
Debt instruments – measured at fair value through other comprehensive income	0	0	n. a.	n. a.
Other	10	6	0	0
Available-for-sale financial assets	n. a.	n. a.	4,216	8
Held-to-maturity investments	n. a.	n. a.	5	0
	4,432	**2,847**	**9,045**	**3,329**

Current and non-current other financial assets decreased by EUR 4.6 billion, due in particular to the transfer as of March 23, 2018 of the 12-percent stake in BT, which was worth EUR 3.1 billion at the time, to the Group's own trust, Deutsche Telekom Trust e. V., as plan assets. Since then, the shares in BT have served to cover pension entitlements. The impairment loss on the exchange-traded stake in BT – which was recognized in other comprehensive income for the period from January 1, 2018 until the date of transfer – reduced the carrying amount by EUR 0.7 billion. Negative effects from the remeasurement of derivative financial instruments as of the reporting date, among other factors, also reduced the carrying amount of other financial assets.

For information on allowances and the credit ratings of originated loans and receivables, please refer to Note 40 "Financial instruments and risk management," page 236 et seq.

Receivables of EUR 498 million (December 31, 2017: EUR 504 million) were used in connection with collateral agreements as surety for potential credit risks arising from derivative transactions.

11 OTHER ASSETS

Other assets mainly include rental and lease advance payments and further deferred expenses of EUR 1.8 billion in total (December 31, 2017: EUR 2.0 billion).

12 FINANCIAL LIABILITIES

millions of €

	Dec. 31, 2018				Dec. 31, 2017			
	Total	Due within 1 year	Due > 1 year ≤ 5 years	Due > 5 years	Total	Due within 1 year	Due > 1 year ≤ 5 years	Due > 5 years
Bonds and other securitized liabilities	49,033	4,432	16,957	27,644	45,453	3,762	14,982	26,709
Liabilities to banks	5,710	2,103	2,588	1,019	4,974	1,365	2,739	870
Of which: promissory notes	744	0	287	457	539	150	287	102
Of which: loans from the European Investment Bank	3,141	582	2,159	400	3,149	159	2,315	675
Of which: other loans	1,825	1,521	142	162	1,286	1,056	137	93
	54,743	**6,535**	**19,545**	**28,663**	**50,427**	**5,127**	**17,721**	**27,579**
Finance lease liabilities	2,471	849	1,146	476	2,635	751	1,284	600
Liabilities to non-banks from promissory notes	497	156	53	288	480	49	209	222
Liabilities with the right of creditors to priority repayment in the event of default	0				0			
Other interest-bearing liabilities	1,878	1,078	602	198	1,598	1,025	428	146
Other non-interest-bearing liabilities	1,609	1,474	129	6	1,443	1,311	129	3
Derivative financial liabilities	1,077	436	144	497	946	95	81	770
	7,532	**3,993**	**2,074**	**1,465**	**7,102**	**3,231**	**2,131**	**1,741**
FINANCIAL LIABILITIES	**62,275**	**10,527**	**21,619**	**30,128**	**57,529**	**8,358**	**19,852**	**29,320**

Current and non-current financial liabilities increased by EUR 4.7 billion to EUR 62.3 billion compared with the prior year.

T-Mobile US placed fixed-interest U.S. dollar bonds with a volume of USD 2.5 billion (EUR 2.0 billion) with institutional investors: an 8-year bond with a volume of USD 1.0 billion and a 10-year bond with a volume of USD 1.5 billion. In addition, Deutsche Telekom International Finance B.V. issued euro bonds with a total volume of EUR 3.4 billion, U.S. dollar bonds with a total volume of USD 1.75 billion (EUR 1.5 billion), and pound sterling bonds with a total volume of GBP 0.3 billion (EUR 0.3 billion). Further, OTE PLC issued a 4-year fixed-interest euro bond with a volume of EUR 0.4 billion.

A contrary effect in the reporting year was generated by T-Mobile US' premature repayment of senior notes in the amount of USD 1.0 billion (EUR 0.8 billion) with an interest rate of 6.125 percent, in the amount of USD 1.75 billion (EUR 1.4 billion) with an interest rate of 6.625 percent, and in the amount of USD 0.6 billion (EUR 0.5 billion) with an interest rate of 6.836 percent.

Further, euro bonds totaling EUR 1.1 billion and U.S. dollar bonds totaling USD 0.85 billion (EUR 0.7 billion) were repaid at Group level in the reporting year. The net change of EUR 0.6 billion in commercial paper also decreased the carrying amount of the financial liabilities.

The increase of EUR 0.7 billion in liabilities to banks compared with the end of 2017 was mainly due to the positive net change of EUR 0.6 billion in the balance of short-term borrowings in the reporting year and to the loan issued by the European Investment Bank in January 2018, with a volume of EUR 0.2 billion and a term of 7 years.

The settlement agreed in the Toll Collect arbitration proceedings increased financial liabilities by EUR 0.6 billion. Payment of the first tranche of EUR 0.2 billion in the reporting year reduced financial liabilities.

For further information, please refer to the section "Changes in the composition of the Group and other transactions," page 176 et seq.

A year-on-year increase in the carrying amount of the financial liabilities of around EUR 0.6 billion relates to exchange rate effects in the United States operating segment.

The initial recognition and measurement of forward-payer swaps with a total volume of USD 9.6 million in the United States operating segment gave rise to a remeasurement loss recognized directly in equity of EUR 0.4 billion.

Deutsche Telekom has established ongoing liquidity management. To ensure the Group's and Deutsche Telekom AG's solvency and financial flexibility at all times, Deutsche Telekom maintains a liquidity reserve in the form of credit lines and cash. This liquidity reserve is to cover the capital market maturities of the next 24 months at any time.

In addition to the reported liabilities to banks, Deutsche Telekom had standardized bilateral credit agreements with 22 banks for a total of EUR 12.9 billion as of December 31, 2018. As of December 31, 2018, EUR 0.6 billion of these credit lines had been utilized. In the prior year, EUR 0.2 billion of these credit lines had been utilized. Pursuant to the credit agreements, the terms and conditions depend on Deutsche Telekom's rating. The bilateral credit agreements have an original maturity of 36 months and can, after each period of twelve months, be extended by a further twelve months to renew the maturity of 36 months. From today's perspective, access to the international debt capital markets is not jeopardized.

The following tables show Deutsche Telekom's contractually agreed (undiscounted) interest payments and repayments of the non-derivative financial liabilities and the derivatives with positive and negative fair values:

millions of €

	Carrying amounts Dec. 31, 2018	Cash flows in 2019			Cash flows in 2020		
		Fixed interest rate	Variable interest rate	Repayment	Fixed interest rate	Variable interest rate	Repayment
NON-DERIVATIVE FINANCIAL LIABILITIES							
Bonds, other securitized liabilities, liabilities to banks and liabilities to non-banks from promissory notes and similar liabilities	(55,240)	(1,151)	(21)	(4,223)	(1,668)	(5)	(6,028)
Finance lease liabilities	(2,471)	(104)		(850)	(77)		(580)
Liabilities with the right of creditors to priority repayment in the event of default	0						
Other interest-bearing liabilities	(1,878)	(32)	(5)	(1,078)	(16)	(1)	(372)
Other non-interest-bearing liabilities	(1,609)			(1,474)			(50)
DERIVATIVE FINANCIAL LIABILITIES AND ASSETS							
Derivative financial liabilities:							
Currency derivatives without a hedging relationship	(36)			(36)			
Currency derivatives in connection with cash flow hedges	(3)			(1)			
Currency derivatives in connection with net investment hedges	0						
Embedded derivatives without a hedging relationship	(52)			(6)			(7)
Other derivatives without a hedging relationship	(12)						
Interest rate derivatives without a hedging relationship	(143)	(112)	107	0	(130)	139	0
Interest rate derivatives in connection with fair value hedges	(350)	259	(324)	0	259	(324)	0
Interest rate derivatives in connection with cash flow hedges	(482)	41	0	(445)	41	0	0
Derivative financial assets:							
Currency derivatives without a hedging relationship	24			13			
Currency derivatives in connection with cash flow hedges	2			2			
Embedded derivatives without a hedging relationship	12			0			0
Other derivatives without a hedging relationship	2			2			0
Interest rate derivatives without a hedging relationship	460	(380)	376	112	(361)	355	0
Interest rate derivatives in connection with fair value hedges	267	241	(108)	0	202	(79)	0
Interest rate derivatives in connection with cash flow hedges	3	2	0	5	1	0	0

	Cash flows in 2021–2023			Cash flows in 2024–2028			Cash flows in 2029 and thereafter		
	Fixed interest rate	Variable interest rate	Repayment	Fixed interest rate	Variable interest rate	Repayment	Fixed interest rate	Variable interest rate	Repayment
	(4,473)	(1)	(14,969)	(4,475)	0	(20,595)	(1,746)	0	(8,424)
	(140)		(519)	(131)		(392)	(26)		(131)
	(45)		(230)	(34)		(102)	(20)		(101)
			(79)			(1)			(5)
			(18)			(19)			(9)
			(11)						
	(372)	391	(17)	(177)	204	(5)	0	143	52
	706	(844)	(4)	909	(1,084)	(17)	708	(765)	(32)
	124	0	12	206	0	1	0	0	252
			4			5			16
			1						
	(507)	394	109	(29)	76	19	30	161	55
	541	(258)	0	608	(366)	(6)	256	(215)	(2)
	2	0	0	3	0	0	3	0	5

millions of €

	Carrying amounts Dec. 31, 2017	Cash flows in 2018	2019	2020 – 2022	2023 – 2027	2028 and thereafter
NON-DERIVATIVE FINANCIAL LIABILITIES						
Bonds, other securitized liabilities, liabilities to banks and liabilities to non-banks from promissory notes and similar liabilities	(50,907)	(5,246)	(4,998)	(18,982)	(23,218)	(10,755)
Finance lease liabilities	(2,635)	(868)	(778)	(777)	(529)	(286)
Liabilities with the right of creditors to priority repayment in the event of default	0	0	0	0	0	0
Other interest-bearing liabilities	(1,598)	(1,045)	(216)	(297)	(112)	(99)
Other non-interest-bearing liabilities	(1,443)	(1,311)	(125)	(4)	(1)	(2)
DERIVATIVE FINANCIAL LIABILITIES AND ASSETS						
Derivative financial liabilities:						
Currency derivatives without a hedging relationship	(59)	(54)	0	0	0	0
Currency derivatives in connection with cash flow hedges	(3)	(3)	0	0	0	0
Currency derivatives in connection with net investment hedges	0	0	0	0	0	0
Embedded derivatives without a hedging relationship	(56)	(2)	(4)	(23)	(20)	(28)
Other derivatives without a hedging relationship	(3)	(3)	0	0	0	0
Interest rate derivatives without a hedging relationship	(219)	(292)	(26)	(54)	(19)	57
Interest rate derivatives in connection with fair value hedges	(442)	(14)	(14)	(35)	(137)	(221)
Interest rate derivatives in connection with cash flow hedges	(164)	(35)	35	123	170	191
Derivative financial assets:						
Currency derivatives without a hedging relationship	49	44	0	0	0	0
Currency derivatives in connection with cash flow hedges	37	22	0	0	0	0
Other derivatives without a hedging relationship	1	0	2	0	0	0
Interest rate derivatives without a hedging relationship	702	182	66	(37)	136	169
Interest rate derivatives in connection with fair value hedges	172	92	100	202	216	173
Interest rate derivatives in connection with cash flow hedges	5	2	9	0	0	0
FINANCIAL GUARANTEES AND LOAN COMMITMENTS [a]	**0**					

[a] For further information, please refer to Note 40 “Financial instruments and risk management,” page 236 et seq.

All instruments held at December 31, 2018 and for which payments were already contractually agreed were included. Planning data for future, new liabilities were not included. Amounts in foreign currency were each translated at the closing rate at the reporting date. The variable interest payments arising from the financial instruments were calculated using the last interest rates fixed before December 31, 2018. Financial liabilities that can be repaid at any time are always assigned to the earliest possible time period. In accordance with § 2 (4) of the German Act on the Transformation of the Deutsche Bundespost Enterprises into the Legal Structure of Stock Corporation (Stock Corporation Transformation Act – Postumwandlungsgesetz), the Federal Republic is guarantor of all Deutsche Telekom AG’s liabilities that were already outstanding as at January 1, 1995. At December 31, 2018, this figure was a nominal EUR 1.8 billion (December 31, 2017: EUR 1.7 billion).

13 TRADE AND OTHER PAYABLES

millions of €

	Dec. 31, 2018	Dec. 31, 2017
Trade payables	10,699	10,934
Other liabilities	36	38
	10,735	**10,971**

Of the total of trade and other payables, EUR 10,699 million (December 31, 2017: EUR 10,971 million) is due within one year. Trade payables decreased from EUR 11.0 billion in 2017 to EUR 10.7 billion. A decline in liabilities in the United States operating segment was partially offset by a slight increase in liabilities in the Germany operating segment. Exchange rate effects from the translation from U.S. dollars into euros had an increasing effect.

14 PROVISIONS FOR PENSIONS AND OTHER EMPLOYEE BENEFITS

DEFINED BENEFIT PLANS

The Group's pension obligations are based on direct and indirect pension commitments mainly in Germany, Greece, and Switzerland.

Deutsche Telekom's pension obligations are as follows:

millions of €

	Dec. 31, 2018	Dec. 31, 2017
DEFINED BENEFIT LIABILITY	**5,502**	**8,375**
Defined benefit asset	(11)	(15)
NET DEFINED LIABILITY (ASSET)	**5,491**	**8,360**
Of which: provisions for direct commitments	5,434	7,968
Of which: provisions for indirect commitments	57	392

Defined benefit liabilities are disclosed under non-current liabilities in the consolidated statement of financial position. The defined benefit asset is recognized under other non-current assets in the consolidated statement of financial position.

The year-on-year decrease in pension provisions is mainly attributable to the transfer of the 12-percent stake in BT to Deutsche Telekom Trust e.V. (CTA) as plan assets completed on March 23, 2018.

Calculation of net defined benefit liabilities/assets:

millions of €

	Dec. 31, 2018	Dec. 31, 2017
Present value of the obligations fully or partially funded by plan assets	8,577	8,026
Plan assets at fair value	(6,099)	(3,102)
DEFINED BENEFIT OBLIGATIONS IN EXCESS OF PLAN ASSETS	**2,478**	**4,924**
Present value of the unfunded obligations	3,013	3,436
DEFINED BENEFIT LIABILITY (ASSET) ACCORDING TO IAS 19.63	**5,491**	**8,360**
Effect of asset ceiling (according to IAS 19.64)	0	0
NET DEFINED LIABILITY (ASSET)	**5,491**	**8,360**

millions of €

	2018	2017
NET DEFINED BENEFIT LIABILITY (ASSET) AS OF JANUARY 1	**8,360**	**8,437**
Service cost	217	266
Net interest expense (income) on the net defined benefit liability (asset)	96	136
Remeasurement effects	(127)	(116)
Pension benefits paid directly by the employer	(212)	(347)
Employer contributions to plan assets	(2,852)	(10)
Changes attributable to business combinations/transfers of operation/acquisitions and disposals	9	(1)
Administration costs actually incurred (paid from plan assets)	0	0
Exchange rate fluctuations for plans in foreign currency	0	(5)
NET DEFINED BENEFIT LIABILITY (ASSET) AS OF DECEMBER 31	**5,491**	**8,360**

Key assumptions for the measurement of the defined benefit obligations are the discount rate, the salary increase rate, the pension increase rate, and longevity. The table on the next page shows the assumptions on which the measurement of defined benefit obligations as of December 31 of the respective year are based. The assumptions made as of December 31 of the respective prior year are used to measure the expected pension expense (defined benefit cost) of a given financial year.

The following figures for the plans in Switzerland relate to T-Systems Schweiz AG and T-Systems Data Migration Consulting AG.

Assumptions for the measurement of defined benefit obligations as of December 31:

%

		2018	2017	2016
Discount rate	Germany	1.60	1.61	1.62
	Switzerland	0.82	0.64	0.62
	Greece (OTE S.A.)	1.60 [a]/1.08 [b]	1.66 [a]/0.92 [b]	1.62 [a]/0.92 [b]
Salary increase rate	Germany	2.50	2.40	2.40
	Switzerland	1.00	1.00	1.00
	Greece (OTE S.A.)	1.00 [c]	1.00 [d]	1.00 [e]
Pension increase rate	Germany (general)	1.50	1.50	1.50
	Germany (according to articles of association)	1.00	1.00	1.00
	Switzerland	0.10	0.10	0.10
	Greece (OTE S.A.)	n. a.	n. a.	n. a.

[a] The discount rate relates to the plan for staff retirement indemnities (see the plan description, pages 205 and 206).
[b] The discount rate relates to the plan for youth accounts (see the plan description, pages 205 and 206).
[c] The following assumptions were made in 2018 concerning the development of salaries: 2019: 0.52 percent. An increase of 1.00 percent is assumed for the years from 2020 onward.
[d] The following assumptions were made in 2017 concerning the development of salaries: 2018: 1.00 percent, 2019: 0.00 percent. An increase of 1.00 percent is assumed for the years from 2020 onward.
[e] The following assumptions were made in 2016 concerning the development of salaries in subsequent years: 2017: 0.00 percent, 2018: 0.00 percent, 2019: 0.00 percent, 2020: 0.00 percent. An increase of 1.00 percent is assumed for the years from 2021 onward.

years

		Dec. 31, 2018	Dec. 31, 2017
Duration	Germany	12.7	13.6
	Switzerland	16.2	16.7
	Greece (OTE S.A.)	12.4 [a]/6.1 [b]	14.2/6.1

[a] The duration relates to the plan for staff retirement indemnities. The provisions of the collective agreement concluded on March 22, 2018 resulted in a reduction in the duration (see the plan description, pages 205 and 206).
[b] The duration relates to the plan for youth accounts (see the plan description, pages 205 and 206).

The following biometric assumptions were essential for the measurement of pension obligations:
Germany: Heubeck 2018G, Switzerland: BVG 2015 Generational, Greece (OTE S.A.): EVK2000. Based on the observation of rising life expectancy and the falling probability of invalidity in Germany, the life expectancy tables published by Heubeck were revised in 2018. This resulted in losses of EUR 66 million or 0.6 percent of the German obligations.

The aforementioned discount rates were used as of December 31, 2018 when calculating the present value of defined benefit obligations, taking into account future salary increases. These discount rates were set in line with the average weighted duration of the respective obligation.

In the eurozone, the discount rate is determined based on the yields of high-quality European corporate bonds with AA rating, mapped in a yield curve showing the corresponding spot rates. The underlying method is routinely reviewed and refined as required (e.g., further development of the bond markets, automation of the availability of corresponding data in terms of quantity and quality). The most recent refinement was made in October 2018 and only resulted in an insignificant change in the discount rate.

In order to adapt determination of the discount rate in Switzerland so that it approximates this system, the existing method was refined with effect from August 31, 2015. Instead of the swap yields previously used (for bonds with AAA rating), Swiss government bonds were taken as the basis for deriving a yield curve. Since the yield curve derived from the government bonds comprises a credit risk that is too low for accounting purposes, a further adjustment is made in the form of a risk premium (credit spread) based on high-quality Swiss corporate bonds. Since August 2015, this risk premium, which was previously applied as a constant for all durations, has been calculated separately for three duration intervals and used to determine the interest rate. As a result of further refinements made in May 2016, risk premiums are now calculated for all durations and discount rates on the basis of spot rates in the same way as for the eurozone.

Development of defined benefit obligations in the reporting year:

millions of €

	2018	2017
DEFINED BENEFIT OBLIGATIONS AS OF JANUARY 1	**11,462**	**11,427**
Current service cost	257	265
Interest cost	184	184
Remeasurement effects	51	(11)
Of which: experience-based adjustments	11	(12)
Of which: adjusted financial assumptions	(16)	18
Of which: adjusted demographic assumptions	57	(17)
Total benefits actually paid	(343)	(378)
Contributions by plan participants	4	4
Changes attributable to business combinations/transfers of operation/ acquisitions and disposals	9	(1)
Past service cost (due to plan amendments) [a]	(36)	2
Past service cost (due to curtailments)	(6)	(9)
Settlements	3	8
Taxes to be paid as part of pensions	0	0
Exchange rate fluctuations for plans in foreign currency	6	(29)
DEFINED BENEFIT OBLIGATIONS AS OF DECEMBER 31	**11,590**	**11,462**
Of which: active plan participants	5,349	5,350
Of which: plan participants with vested pension rights who left the Group	2,230	2,130
Of which: benefit recipients	4,011	3,982

[a] The past service cost due to plan amendments in 2018 relates primarily to the collective agreement concluded on March 22, 2018 at OTE S.A. (see plan description, pages 205 and 206).

Taking the plan assets into consideration, the pension obligations were accounted for in full.

Distribution of obligations relating to Deutsche Telekom's most significant plans as of December 31, 2018 and December 31, 2017:

millions of €

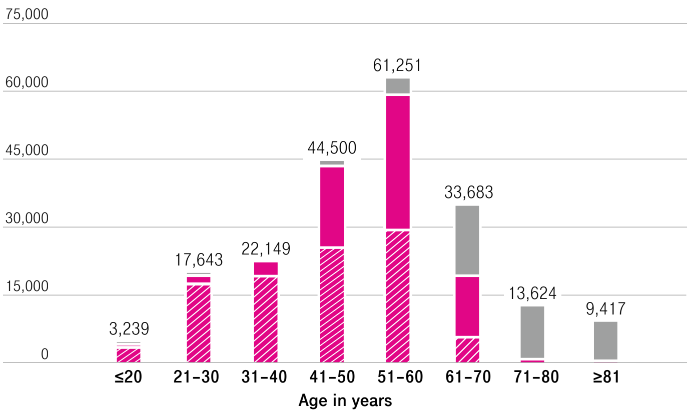
	Dec. 31, 2018				Dec. 31, 2017			
	Germany	Switzerland	Greece (OTE S.A.)	Other plans	Germany	Switzerland	Greece (OTE S.A.)	Other plans
Defined benefit obligations	10,874	220	198	298	10,688	221	239	314
Plan assets at fair value	(5,682)	(208)	0	(209)	(2,677)	(208)	0	(217)
Effect of asset ceiling	0	0	0	0	0	0	0	0
NET DEFINED LIABILITY (ASSET)	**5,192**	**12**	**198**	**89**	**8,011**	**13**	**239**	**97**

The following analyses in terms of age structure and sensitivity analysis, as well as descriptions of plans and the risks associated with them relate to the relevant pension obligations (Germany, Switzerland, and Greece (OTE S.A.)).

Age structure:

Deutsche Telekom's most significant plans are subject to the following status-related age structure.

Age structure of plan participants in the most significant pension plans at Deutsche Telekom[a]



- Benefit recipients
- Plan participants with vested pension rights who left the Group
- Active plan participants

[a] Figures relating to Greece (OTE S.A.) include the staff retirement indemnities plan only.

Sensitivity analysis for the defined benefit obligations:

The following sensitivity analysis describes the effects of possible adjustments in the material actuarial assumptions for measurement on the defined benefit obligations determined as of December 31, 2018. A change in the measurement assumptions to the extent described below, with otherwise unchanged assumptions, would have impacted the defined benefit obligations as of December 31, 2018 as follows:

millions of €

	Increase (decrease) of the defined benefit obligations as of Dec. 31, 2018		
	Germany	Switzerland[a]	Greece (OTE S.A.)
Increase of discount rate by 100 basis points	(1,203)	(18)	(19)
Decrease of discount rate by 100 basis points	1,465	25	22
Increase of salary increase rate by 50 basis points	6	3	7
Decrease of salary increase rate by 50 basis points	(6)	(3)	(7)
Increase of pension increase rate by 25 basis points	5	6	0
Decrease of pension increase rate by 25 basis points	(5)	(2)	0
Life expectancy increase by 1 year	279	5	0
Life expectancy decrease by 1 year	(274)	(5)	0

[a] Decline in the range of the DBO effects with variation of the discount rate on account of the risk sharing approach introduced with retroactive effect as of January 1, 2018 (please also refer to the section Global Pension Policy and descriptions of plans).

millions of €

	Increase (decrease) of the defined benefit obligations as of Dec. 31, 2017		
	Germany	Switzerland	Greece (OTE S.A.)
Increase of discount rate by 100 basis points	(1,219)	(25)	(26)
Decrease of discount rate by 100 basis points	1,490	42	31
Increase of salary increase rate by 50 basis points	7	3	9
Decrease of salary increase rate by 50 basis points	(6)	(3)	(9)
Increase of pension increase rate by 25 basis points	5	6	0
Decrease of pension increase rate by 25 basis points	(5)	(2)	0
Life expectancy increase by 1 year	270	6	0
Life expectancy decrease by 1 year	(269)	(6)	0

The sensitivity analysis was carried out separately for the discount rate, the salary increase rate, and the pension increase rate. For this purpose, further actuarial evaluations were made for both the increase and the decrease of the assumptions. The variations used in the assumptions were selected in such a way that the probability that the respective assumption will not move beyond the analysis range within one year is 60 to 90 percent. In this context, a decreasing pension increase rate is generally limited to 0 percent. It can be assumed that the life expectancy of the plan members will not change significantly within a year. Nevertheless, the effect of a change in life expectancy on the obligations was additionally determined from a risk perspective. Evaluations were carried out based on the assumption that the life expectancy of the plan members aged 65 would increase or decrease by one year (age shift method). The age shift was applied to the remaining plan members accordingly. Variations in the assumed retirement age or turnover rates would only have an immaterial effect, especially in Germany.

Global Pension Policy and description of the plans:
Deutsche Telekom manages its pension commitments based on the Group-wide Global Pension Policy. It ensures on a worldwide basis that Group minimum standards regarding the granting and management of company pension benefits are complied with, plans are harmonized, and financial and other risks to the core business are avoided or reduced. In addition, the policy provides guidelines for the implementation and management of pension commitments and defines requirements for the launch, adjustment, and closure of corresponding plans. The regulations and provisions laid down in this Group policy take into account the national differences in state pension and other commitments under labor, tax, and social law and the common business practices in the area of pension commitments.

Defined benefit plans based on final salaries in the Group have largely been replaced by plans with contribution-based promises to minimize the risks involved. In addition, a corporate CTA (Deutsche Telekom Trust e.V.) is used in Germany for additional funding of pension obligations. A CTA is a legally structured trust agreement to cover unfunded pension commitments with plan assets, and to provide greater protection against insolvency for these obligations.

As of the end of 2018, all existing obligations processed via the Deutsche Telekom Betriebsrenten-Service e.V. (DTBS) special pension fund (current pensions) were transferred to direct commitments and the Telekom Pension Fund (TPF). A new asset segment was set up in the TPF for these obligations. Part of the plan assets from DTBS were transferred to the CTA, and part to the new asset segment of the TPF as an initial allocation. To increase the funding rate of the German obligations in the Deutsche Telekom Group, the financial stake in BT was transferred to Deutsche Telekom Trust e.V. as plan assets.

In **Germany** there are commitments for pension and disability benefits for a majority of employees as well as pension benefits for their surviving dependents. As part of a reorganization of the company pension plan, a capital account plan was introduced across Germany in 1997 for active employees. Furthermore, in subsequent years, commitments acquired through company acquisitions were also transferred to the capital account plan scheme. The capital account plan is an employer-financed, contribution-based benefit promise. The salary-linked contributions granted annually are charged interest in advance for each year of provision up to age 60, calculated using age-based factors, converting the contribution into a guaranteed insured amount. The advance interest rate currently stands at 3.50 percent p. a. (target interest rate for the capital account plan).

Under the provisions of collective wage agreements, Deutsche Telekom reduced the interest granted on future contributions in its capital account plan in Germany in the 2016 financial year from 3.75 percent p.a. to the current level of 3.50 percent p.a. as past service cost by amending the plan. The option of changing the target interest rate makes it possible to achieve a yield on the contributions to the capital account that is in line with the capital market.

The period for providing contributions is initially limited to ten future contribution years. The contribution period will be extended automatically every year by a further year, unless terminated. The insured amounts accumulated over the period of active service are paid out if an insured event arises, primarily in the form of a lump sum. Hence there is only a limited longevity risk for these commitments. Based on the payment guidelines and the structure of the capital account plan, the employer can plan for this, and there is only a small risk inherent in the plan with regard to the volatility of remuneration dynamics.

In addition, in Germany there are various closed legacy commitments, which generally provide for old-age and disability benefits as well as benefits for surviving dependents in the form of life-long pensions. The commitments predominantly comprise the overall pension of the supplementary retirement pensions institution (Versorgungsanstalt der Deutschen Bundespost – VAP) that takes into account the statutory pension. Most of the plan members of these commitments are former employees with vested rights and retirees for whom the amount of benefits has already been determined. So the VAP overall pension scheme continues to apply to former employees who were already retired or who had left with vested claims in 1997.

To the extent that defined benefit plans in Germany grant annuities, the future adjustment for these pensions, except for insignificant exceptions, is bindingly defined in the existing benefit regulations. A change in the assumptions for the general pension trend in Germany therefore only has an immaterial impact on the defined benefit obligations.

As a change in life expectancy mainly impacts on the obligations from legacy pension commitments and, since 1997, commitments have been granted in the form of capital, the significance of the risk resulting from the change in life expectancy is expected to decline for the Group over subsequent years.

To cover pension obligations over the long term, Deutsche Telekom has transferred funds to a corporate CTA, a corporate special pension fund (Unterstützungskasse) (until 2018), and a corporate pension fund (from 2018).

As part of the company pension scheme in **Switzerland** for T-Systems Schweiz AG, there is a contribution-based benefit plan financed by employer and employee contributions, which is managed by the legally independent T-Systems pension fund. Following a restructuring of the Swiss companies and harmonization of the pension fund commitments as of January 1, 2014, T-Systems Data Migration Consulting AG has also since been included in the pension fund of T-Systems Schweiz AG. As is often the case in Switzerland, both companies grant higher benefits than legally required. The Swiss Federal Law on Occupational Retirement, Surviving Dependants' and Disability Pension (Bundesgesetz über die berufliche Alters-, Hinterlassenen- und Invalidenvorsorge – BVG) sets out minimum requirements for the pay to be insured, the age-based contributions, and a minimum annuity factor for the obligatory portion of the accrued retirement assets to be annuitized. In addition, the Swiss Federal Council defines a minimum interest rate for the obligatory retirement assets (2018: 1.00 percent, 2019: 1.00 percent).

The foundation board (Stiftungsrat) presides over the Swiss pension fund. It ensures the day-to-day running of the pension fund and decides on fundamental aspects, such as the amount and the structure of the pension benefits and the asset investment strategy. The foundation board is equally comprised of employer and employees' representatives. According to information provided by the pension fund, the average annual yield of the fund in the past amounted to approximately 1.25 percent.

Due to the minimum yield for the obligatory retirement assets, a risk exists for the plans in Switzerland that additional resources would have to be allocated to the pension fund if it were to be underfinanced. The pension fund offers the plan members the option to choose a life-long pension instead of a one-time payment. This option gives rise to longevity and investment risks, since at the time of retirement, assumptions must be made regarding life expectancy and return on assets. In 2016, the pension fund of T-Systems Schweiz AG had announced that it would lower its conversion rates as of 2017. This reduced the future annual retirement pensions and thus resulted in lower pension provisions in 2016 (past service cost due to plan amendments). From January 1, 2018, T-Systems Schweiz decided to apply the risk-sharing methodology, under which the measurement of obligations is changed such that employee participation in funding a possible deficit can be taken into account when measuring the employer's obligation. The general option for employee participation in funding a deficit is covered by Art. 28 of the pension regulations.

In **Greece (OTE S.A.)**, mandatory staff retirement indemnities are due in cases of premature termination by the employer and, to a lesser extent, upon retirement by the employee. These are paid out in the form of a lump sum and can amount to several times the employee's last monthly pay (including cap), depending on the employee's length of service. Due to a change in the law in 2012, the lump sum was capped at a maximum of twelve monthly salaries. The company also makes a voluntary top-up payment. In compliance with changes in the law, the minimum requirement of 35 years of service was eliminated as an eligibility requirement for early retirement benefits in 2017. Under the collective agreement concluded on March 22, 2018, employees are assigned to one of three pension commitments based on the date they joined the company (100 percent of the statutory benefits plus nine or seven monthly salaries or plus 40 percent of the statutory benefits).

OTE S.A. is also obligated to make a one-time payment for the employees' children when they reach the age of 25 (youth accounts). The benefit plan, which had previously been based on the level of the employee's final monthly salary, was changed in November 2011 to a plan with a contribution-based promise financed by contributions by the employee and corresponding limited matching contributions by the employer.

The benefits granted by the staff retirement indemnities and youth account plans are paid out as a lump sum. For this reason there is no longevity risk.

Development of plan assets at fair value in the respective reporting year:

millions of €

	2018	2017
PLAN ASSETS AT FAIR VALUE AS OF JANUARY 1	**3,102**	**2,990**
Changes attributable to business combinations/transfers of operation/acquisitions and disposals	0	0
Interest income on plan assets (calculated using the discount rate)	88	48
Amount by which the actual return exceeds (falls short of) the interest income on plan assets (remeasurement)	179	105
Contributions by employer	2,852	10
Contributions by plan participants	4	4
Benefits actually paid from plan assets	(132)	(31)
Settlements	0	0
Administration costs	0	0
Tax payments	0	0
Exchange rate fluctuations for plans in foreign currency	6	(24)
PLAN ASSETS AT FAIR VALUE AS OF DECEMBER 31	**6,099**	**3,102**

Contributions by employer in 2018 include shares in BT, which were paid into the corporate CTA, and, in an offsetting effect, a refund from the CTA to Deutsche Telekom for benefit payments made by the employer. In 2018, pension payments were made from the CTA on a pro-rata basis for the first time in Germany.

Breakdown of plan assets at fair value by investment category:

millions of €

	Dec. 31, 2018	Of which: price in an active market	Of which: price without an active market
Equity securities	4,278	4,278	0
Debt securities	922	922	0
Real estate	66	66	0
Derivatives	0	0	0
Investment funds	156	156	0
Asset-backed securities	0	0	0
Structured debt instruments	437	437	0
Cash and cash equivalents	118	118	0
Other	122	84	38
PLAN ASSETS AT FAIR VALUE	**6,099**	**6,061**	**38**

millions of €

	Dec. 31, 2017	Of which: price in an active market	Of which: price without an active market
Equity securities	1,312	1,312	0
Debt securities	1,244	1,244	0
Real estate	56	56	0
Derivatives	0	0	0
Investment funds	0	0	0
Asset-backed securities	0	0	0
Structured debt instruments	350	350	0
Cash and cash equivalents	2	2	0
Other	138	101	37
PLAN ASSETS AT FAIR VALUE	**3,102**	**3,065**	**37**

The investment policy and risk management is set in line with the risk and development characteristics of the pension obligations. On the basis of a systematic, integrated asset/liability management analysis, potential results from different investment portfolios, which can cover a large number of asset classes, are compared with the stochastically simulated development of the pension obligations, thereby explicitly considering the relative development of plan assets against the pension obligations. The investment strategy is mainly characterized by the objective of satisfying future obligations from granted pension commitments on time by systematically setting up and professionally managing a suitable portfolio for the plan assets. It aims to establish a widely diversified investment portfolio that generates a risk profile appropriate to the overall objective, by means of corresponding risk factors and diversification. The management of investments is subject to continuous monitoring to ensure active risk management. Cost-efficient investment management is effected by means of professional portfolio management involving external service providers.

At the reporting date, the plan assets at fair value include shares issued by Deutsche Telekom AG amounting to EUR 3,043 thousand (December 31, 2017: shares totaling EUR 3,349 thousand) and bonds in the amount of EUR 1,960 thousand of Deutsche Telekom International Finance B.V.

Development of the effect of the asset ceiling:

millions of €

	2018	2017
EFFECT OF ASSET CEILING AS OF JANUARY 1	**0**	**0**
Interest expense on asset ceiling (recognized in the income statement)	0	0
Changes in asset ceiling ((gains) losses recognized in equity)	0	0
Currency gain (loss)	0	0
EFFECT OF ASSET CEILING AS OF DECEMBER 31	**0**	**0**

The defined benefit cost for each period is composed of the following items and reported in the indicated accounts of the income statement:

millions of €

	Disclosure in income statement	2018	2017	2016
Current service cost	Personnel costs	257	265	259
Past service cost (due to plan amendments)	Personnel costs	(36)	2	(27)
Past service cost (due to curtailments)	Personnel costs	(6)	(9)	(4)
Settlements	Personnel costs	3	8	2
SERVICE COST		**217**	**266**	**230**
Interest cost	Other financial income (expense)	184	184	223
Interest income on plan assets (calculated using the discount rate)	Other financial income (expense)	(88)	(48)	(57)
Interest expense on the effect of the asset ceiling	Other financial income (expense)	0	0	0
NET INTEREST EXPENSE (INCOME) ON NET DEFINED BENEFIT LIABILITY (ASSETS)		**96**	**136**	**166**
DEFINED BENEFIT COST		**313**	**402**	**396**
Administration costs actually incurred (paid from plan assets)	Personnel costs	0	0	0
TOTAL AMOUNTS RECOGNIZED IN PROFIT OR LOSS		**313**	**402**	**396**

The consolidated statement of comprehensive income contains the following amounts:

millions of €

	2018	2017	2016
REMEASUREMENT ((GAIN) LOSS RECOGNIZED IN OTHER COMPREHENSIVE INCOME IN THE FINANCIAL YEAR)	**(127)**	**(116)**	**660**
Of which: remeasurement due to a change in defined benefit obligations	51	(11)	698
Of which: remeasurement due to a change in plan assets	(179)	(105)	(33)
Of which: remeasurement due to changes in the effect of asset ceiling (according to IAS 19.64)	0	0	(5)

Total benefit payments expected:

millions of €

	2019	2020	2021	2022	2023
Benefits paid from pension provisions	120	222	255	201	229
Benefits paid from plan assets	228	220	209	280	290
TOTAL BENEFITS EXPECTED	**348**	**443**	**464**	**480**	**519**

Benefits paid directly by the employer for which the assets of the CTA can generally be utilized are usually reimbursed to the employer from the CTA assets soon after payment. In previous years, Deutsche Telekom forwent such reimbursements, as this would have had a detrimental effect on the build-up of assets within the CTA in its first years. In 2018, Deutsche Telekom made benefit payments using the CTA funds for the first time and was reimbursed for payments made by the employer from the CTA assets.

For 2019, Deutsche Telekom does not plan any allocations to plan assets at fair value in Germany. Deutsche Telekom is also planning an international allocation of at least EUR 11 million in 2019.

Amounts for the current year and four preceding years of defined benefit obligations, plan assets, defined benefit obligations in excess of plan assets, and experience-based adjustments:

millions of €

	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015	Dec. 31, 2014
Defined benefit obligations	11,590	11,462	11,427	10,753	10,940
Plan assets at fair value	(6,099)	(3,102)	(2,990)	(2,744)	(2,498)
DEFINED BENEFIT OBLIGATIONS IN EXCESS OF PLAN ASSETS	**5,491**	**8,360**	**8,437**	**8,009**	**8,442**

%

Adjustments	2018	2017	2016	2015	2014
Experience-based increase (decrease) of defined benefit obligations	0.1	(0.1)	(0.1)	0.0	(0.1)
Experience-based increase (decrease) of plan assets	2.9	3.4	1.1	(3.0)	8.3

DEFINED CONTRIBUTION PLANS

The employer's contribution paid to the statutory pension scheme (Deutsche Rentenversicherung) in Germany in the 2018 financial year totaled EUR 0.4 billion (2017: EUR 0.3 billion; 2016: EUR 0.3 billion). Group-wide, EUR 120 million (2017: EUR 131 million, 2016: EUR 109 million) from current contributions for additional defined contribution plans was recognized in the consolidated income statement in 2018.

CIVIL-SERVANT RETIREMENT ARRANGEMENTS AT DEUTSCHE TELEKOM

An expense of EUR 441 million was recognized in the 2018 financial year (2017: EUR 458 million; 2016: EUR 516 million) for the annual contribution to the Civil Service Pension Fund generally amounting to 33 percent of the pensionable gross emoluments of active civil servants and the notional pensionable gross emoluments of civil servants on leave of absence. The present value of future payment obligations was EUR 2.5 billion at the reporting date (December 31, 2017: EUR 3.1 billion, December 31; 2015: EUR 3.6 billion) and is shown under other financial obligations (please refer to Note 38 "Other financial obligations," page 234).

15 OTHER PROVISIONS

millions of €

	Provisions for termination benefits	Other provisions for personnel costs	Provisions for restoration obligations	Provisions for litigation risks	Provisions for sales and procurement support	Miscellaneous other provisions	Total
AT DECEMBER 31, 2016	**197**	**2,554**	**1,652**	**328**	**423**	**1,234**	**6,388**
Of which: current	178	1,472	51	318	423	626	3,068
Changes in the composition of the Group	0	1	0	0	0	1	2
Currency translation adjustments	0	(59)	(65)	(2)	(25)	(44)	(195)
Addition	41	1,911	121	86	754	432	3,345
Use	(54)	(1,520)	(57)	(69)	(423)	(390)	(2,513)
Reversal	(17)	(121)	(68)	(17)	(23)	(163)	(409)
Interest effect	0	0	22	0	0	11	33
Other changes	0	(109)	(15)	0	0	0	(124)
AT DECEMBER 31, 2017	**166**	**2,657**	**1,591**	**326**	**706**	**1,080**	**6,527**
Of which: current	166	1,481	40	311	706	668	3,372
Transfer resulting from change in accounting standards	0	0	0	0	(46)	(22)	(68)
Changes in the composition of the Group	1	4	10	1	0	7	24
Currency translation adjustments	0	15	22	2	4	10	54
Addition	125	1,922	113	129	268	337	2,894
Use	(35)	(1,482)	(30)	(27)	(479)	(366)	(2,419)
Reversal	(3)	(74)	(101)	(144)	(4)	(177)	(503)
Interest effect	0	28	(16)	0	0	(2)	9
Other changes	0	(61)	(24)	1	6	(5)	(82)
AT DECEMBER 31, 2018	**255**	**3,010**	**1,564**	**289**	**456**	**862**	**6,435**
Of which: current	168	1,662	35	266	456	557	3,144

In the measurement of the other provisions, Deutsche Telekom is exposed to interest rate fluctuations, which is why the effect of a possible change in the interest rate on the principal non-current provisions was simulated. The other, non-staff-related provisions are discounted using maturity-related discount rates specific for the respective currency area. To this end, Deutsche Telekom determines discount rates with maturities of up to 30 years. In 2018, the discount rates ranged from 0.06 to 3.08 percent (2017: from 0.00 to 3.08 percent) in the euro currency area and from 3.87 to 6.21 percent (2017: from 2.42 to 4.96 percent) in the U.S. dollar currency area. If the discount rate were increased by 50 basis points with no other change in the assumptions, the present value of the principal other non-current provisions would decrease by EUR 102.7 million (December 31, 2017: EUR 103.1 million). If the discount rate were decreased by 50 basis points with no other change in the assumptions, the present value of the principal other non-current provisions would increase by EUR 107.3 million (December 31, 2017: EUR 111.6 million).

Provisions for termination benefits and other personnel provisions include provisions for staff restructuring. These provisions developed as follows in the 2018 financial year:

millions of €

	Jan. 1, 2018	Addition	Use	Reversal	Other changes	Dec. 31, 2018
Severance and voluntary redundancy models	167	125	(35)	(3)	0	255
Phased retirement	489	534	(360)	0	(55)	608
	656	**659**	**(395)**	**(3)**	**(55)**	**863**
Of which: current	316					352

Other provisions for personnel costs include provisions for deferred compensation and allowances, as well as for anniversary gifts.

Provisions for restoration obligations include the estimated costs for dismantling and removing an asset, and restoring the site on which it is located. The estimated costs are included in the costs of the relevant asset.

The provisions for litigation risks primarily relate to possible settlements attributable to pending lawsuits. For further information, please refer to Note 36 "Contingencies," pages 230 and 231.

Provisions for sales and procurement support are recognized for dealer commissions, subsidies for advertising expenses, and reimbursements.

Miscellaneous other provisions include a large number of low-value individual items, such as provisions related to executory contracts, the disposal of businesses and site closures, in particular in prior financial years, as well as warranty and environmental damage provisions.

16 OTHER LIABILITIES

millions of €

	Dec. 31, 2018	Of which: current	Dec. 31, 2017	Of which: current
Early retirement	1,227	422	1,283	447
Deferred revenue	28	28	2,321	1,759
Liabilities from straight-line leases	2,232	0	2,098	0
Liabilities from other taxes	1,157	1,157	1,133	1,133
Other deferred revenue	616	358	626	424
Liabilities from severance payments	138	137	140	139
Miscellaneous other liabilities	683	552	670	538
	6,081	**2,654**	**8,271**	**4,440**

Liabilities from early retirement arrangements for civil servants exist vis-à-vis the Civil Service Pension Fund and arise from payment obligations under agreements that had already been concluded. The obligations are payable in up to seven annual installments following retirement. The increase in liabilities from straight-line leases was mainly attributable to exchange rate effects from the translation of U.S. dollars into euros.

17 CONTRACT LIABILITIES

Following the transition to IFRS 15, a remeasurement effect totaling EUR 0.6 billion was recognized directly in equity as of January 1, 2018. This related to the initial recognition of contract liabilities that would have resulted in the later recognition of revenue under IFRS 15. In addition, a total of EUR 1.9 billion was reclassified as contract liabilities as of January 1, 2018 in connection with IFRS 15. These reclassifications mainly comprise deferred revenue that was recognized under other liabilities as of December 31, 2017. The carrying amount for current and non-current contract liabilities was remeasured at EUR 2.3 billion as of the end of the 2018 financial year. For further information on the new accounting standards, please refer to the section "Initial application of standards, interpretations, and amendments in the financial year," page 154 et seq.

Of the total of contract liabilities, EUR 1,720 million (January 1, 2018: EUR 1,911 million) is due within one year.

Revenue of EUR 1,619 million from contract liabilities that were still outstanding at the start of the 2018 financial year was realized during the reporting year. In addition, contract liabilities decreased by EUR 20 million due to a refund of already paid customer activation fees.

18 SHAREHOLDERS' EQUITY

ISSUED CAPITAL

As of December 31, 2018, the share capital of Deutsche Telekom totaled EUR 12,189 million. The share capital is divided into 4,761,458,596 no par value registered shares.

	2018		2017	
	thousands	%	thousands	%
Federal Republic of Germany – Berlin, Germany	689,601	14.5	689,601	14.5
KfW Bankengruppe – Frankfurt/Main, Germany	829,179	17.4	829,179	17.4
Free float	3,242,679	68.1	3,242,679	68.1
Of which: BlackRock, Inc. – Wilmington, DE, United States [a]	234,194		234,194	
	4,761,459	**100.0**	**4,761,459**	**100.0**

[a] According to the last notification from BlackRock published on September 22, 2017, the reporting threshold of 3 percent of the voting rights was exceeded. The stake in Deutsche Telekom was thus 4.92 percent of the voting rights on September 15, 2017.

Treasury shares. The shareholders' meeting resolved on May 25, 2016 to authorize the Board of Management to purchase shares in the Company by May 24, 2021, with the amount of share capital accounted for by these shares totaling up to EUR 1,179,302,878.72, provided the shares to be purchased on the basis of this authorization in conjunction with the other shares of the Company that the Company has already purchased and still possesses or are to be assigned to it under § 71d and § 71e AktG do not at any time account for more than 10 percent of the Company's share capital. Moreover, the requirements under § 71 (2) sentences 2 and 3 AktG must be complied with. Shares shall not be purchased for the purpose of trading in treasury shares. This authorization may be exercised in full or in part. The purchase can be carried out in partial tranches spread over various purchase dates within the authorization period until the maximum purchase volume is reached. Dependent Group companies of Deutsche Telekom AG within the meaning of § 17 AktG or third parties acting for the account of Deutsche Telekom AG or for the account of dependent Group companies of Deutsche Telekom AG within the meaning of § 17 AktG are also entitled to purchase the shares. The shares are purchased through the stock exchange in adherence to the principle of equal treatment (§ 53a AktG). Shares can instead also be purchased by means of a public purchase or share exchange offer addressed to all shareholders, which, subject to a subsequently approved exclusion of the right to offer shares, must also comply with the principle of equal treatment.

The shares may be used for one or several of the purposes permitted by the authorization granted by the shareholders' meeting on May 25, 2016 under item 6 on the agenda. The shares may also be used for purposes involving an exclusion of subscription rights. They may also be sold on the stock market or by way of an offer to all shareholders, or withdrawn. The shares may also be used to fulfill the rights of Board of Management members to receive shares in Deutsche Telekom AG, which the Supervisory Board has granted to these members as part of the arrangements governing the compensation of the Board of Management, on the basis of a decision by the Supervisory Board to this effect.

Under the resolution of the shareholders' meeting on May 25, 2016, the Board of Management is also authorized to acquire the shares through the use of equity derivatives.

On the basis of the authorization by the shareholders' meeting on May 25, 2016 described above and corresponding authorizations by the shareholders' meeting on May 12, 2011 and May 24, 2012, 110 thousand shares were acquired in June 2011, 206 thousand shares in September 2011, and 268 thousand shares in January 2013. The total volumes amounted to EUR 2,762 thousand in the 2011 financial year, and EUR 2,394 thousand in the 2013 financial year (excluding transaction costs). This increased the number of treasury shares by 316 thousand and 268 thousand, respectively. Further, 90 thousand shares and 860 thousand shares were acquired in September and October 2015, respectively, for an aggregate amount of EUR 14,787 thousand (excluding transaction costs); these acquisitions increased the number of treasury shares by 950 thousand.

No treasury shares were acquired in the reporting period.

As part of the Share Matching Plan, a total of 2 thousand treasury shares were transferred free of charge to the custody accounts of eligible participants in the 2012 and 2013 financial years. A further 90 thousand treasury shares were transferred free of charge in the 2014 financial year. An additional 140 thousand treasury shares were transferred in the 2015 financial year. In the 2016 financial year, 232 thousand treasury shares were transferred, in the 2017 financial year, 300 thousand. Transfers of treasury shares to the custody accounts of employees of Deutsche Telekom AG are free of charge. In cases where treasury shares are transferred to the custody accounts of employees of other Group companies, the costs have been transferred at fair value to the respective Group company since the 2016 financial year.

A total of 312 thousand shares were reallocated in all months of the reporting year and transferred to the custody accounts of eligible participants of the Share Matching Plan. As of December 31, 2018, disposals of treasury shares resulting from the transfers in the reporting period accounted for less than 0.01 percent, or EUR 798 thousand, of share capital. Gains on disposal arising from transfers of treasury shares amounted to EUR 3,036 thousand. In the reporting year, 81 thousand treasury shares with a fair value of EUR 1,157 thousand were billed to other Group companies. Transfers of treasury shares increased retained earnings by EUR 2,162 thousand and capital reserves by EUR 20 thousand.

As part of the acquisition of VoiceStream Wireless Corp., Bellevue, and Powertel, Inc., Bellevue, in 2001, Deutsche Telekom AG issued new shares from authorized capital to a trustee, for the benefit of holders of warrants, options, and conversion rights, among others. These options or conversion rights expired in full in the 2013 financial year. As a result, the trustee no longer had any obligation to fulfill any claims in accordance with the purpose of the deposit. The trust relationship was terminated at the start of 2016 and the deposited shares were transferred free of charge to a custody account of Deutsche Telekom AG. The 18,517 thousand previously deposited shares are accounted for in the same way as treasury shares in accordance with § 272 (1a) HGB. This equates to 0.4 percent, or EUR 48 million, of Deutsche Telekom's share capital. On the basis of authorization by the shareholders' meeting on May 25, 2016, the treasury shares acquired free of charge may be used for the same purposes as the treasury shares acquired for a consideration.

Voting rights. Each share entitles the holder to one vote. These voting rights are restricted, however, in relation to treasury shares (at December 31, 2018: around 19 million in total).

Authorized capital and contingent capital. Authorized capital and contingent capital comprised the following components as of December 31, 2018:

	Amount millions of €	No par value shares thousands	Purpose
2017 Authorized capital	3,600	1,406,250	Capital increase against cash contribution/contribution in kind (until May 30, 2022)
2018 Contingent capital	1,200	468,750	Servicing convertible bonds and/or bonds with warrants issued on or before May 16, 2023

TRANSACTIONS WITH OWNERS

The total of EUR -1,389 million shown under transactions with owners is made up of EUR -625 million from the share of equity held by the owners of the parent company, and EUR -764 million from the share held by non-controlling interests. These figures result on the one hand from the share buy-back program launched in December 2017, under which T-Mobile US acquired further ordinary shares for an amount of USD 1.1 billion (EUR 0.9 billion) in the first half of 2018. As a result, Deutsche Telekom holds around 63 percent of the shares in T-Mobile US. On the other hand, in March 2018, Deutsche Telekom exercised its right of first refusal as invited by the Greek privatization authority Hellenic Republic Asset Development Fund (HRADF) and acquired a 5 percent stake in its Greek subsidiary OTE. The transaction was consummated in May 2018 through the acquisition of additional shares in the amount of EUR 0.3 billion. As a result, Deutsche Telekom AG holds around 45 percent of the company's shares. The effects for the reporting year and the previous year are shown in Deutsche Telekom's consolidated statement of changes in equity as of December 31, 2018.

millions of €

	2018			2017		
	Issued capital and reserves attributable to owners of the parent	Non-controlling interests	Total shareholders' equity	Issued capital and reserves attributable to owners of the parent	Non-controlling interests	Total shareholders' equity
Changes in the composition of the Group	**0**	**11**	**11**	**0**	**6**	**6**
Other effects	0	11	11	0	6	6
Transactions with owners	**(625)**	**(764)**	**(1,389)**	**364**	**977**	**1,341**
Conversion of T-Mobile US preferred stock	0	0	0	599	1,108	1,707
Share buy-back program T-Mobile US	(245)	(613)	(858)	(133)	(242)	(375)
Share buy-back program at OTE	(16)	(78)	(94)	0	0	0
Acquisition of T-Mobile US shares	(72)	(90)	(162)	0	0	0
Acquisition of OTE shares	(150)	(135)	(285)	0	0	0
Other effects	(142)	152	10	(102)	111	9

For further information, please refer to the section "Changes in the composition of the Group and other transactions," page 176 et seq.

NON-CONTROLLING INTERESTS: TOTAL OTHER COMPREHENSIVE INCOME

Total other comprehensive income of non-controlling interests primarily comprises remeasurement effects as part of the acquisition of the OTE group (business combination achieved in stages) totaling EUR 0.4 billion (December 31, 2017: EUR 0.5 billion), currency translation effects of EUR 0.0 billion (December 31, 2017: EUR -0.5 billion), and a remeasurement loss recognized directly in equity in connection with forward-payer swaps in the United States operating segment.

NOTES TO THE CONSOLIDATED INCOME STATEMENT

For further information on special factors, please refer to the section "Development of business in the Group" in the combined management report, page 49 et seq.

19 NET REVENUE

Net revenue breaks down into the following revenue categories:

millions of €

	2018	2017[b]	2016[b]
Revenue from the rendering of services	**61,942**	**62,448**	**61,163**
Germany	17,657	18,382	18,453
United States	27,755	27,232	25,588
Europe	9,883	9,937	9,925
Systems Solutions	5,328	5,413	5,532
Group Development	1,257	1,374	1,450
Group Headquarters & Group Services	63	110	215
Revenue from the sale of goods and merchandise[a]	**12,443**	**11,079**	**10,063**
Germany	2,208	1,735	1,569
United States	8,170	7,714	6,869
Europe	1,588	1,236	1,141
Systems Solutions	154	90	145
Group Development	322	286	294
Group Headquarters & Group Services	0	18	45
Revenue from the use of entity assets by others	**1,271**	**1,420**	**1,869**
Germany	486	436	383
United States	596	789	1,280
Europe	51	45	45
Systems Solutions	15	0	0
Group Development	0	0	0
Group Headquarters & Group Services	123	150	161
NET REVENUE	**75,656**	**74,947**	**73,095**

[a] Revenue from the sale of goods and merchandise includes interest income of EUR 0.3 billion in the reporting period, calculated using the effective interest method. This income is primarily attributable to accrued interest on receivables in connection with handsets sold under installment plans in the United States operating segment.

[b] Prior-year figures were adjusted retrospectively on account of a change in the allocation between revenue categories.

The total transaction price attributable to performance obligations that have not been fulfilled or, in some cases, not yet fulfilled at the end of the reporting period (hereinafter: outstanding transaction price) amounts to EUR 18,323 million.

The portion of the outstanding transaction price attributable to performance obligations that have not been fulfilled or, in some cases, not yet fulfilled at the end of the reporting period is generally recognized as revenue over the remaining term of the service contracts concluded. Since most service contracts – insofar as they are not able to be terminated at any time – have a minimum contract term of 24 months, an average remaining term of approximately 12 months can be assumed, provided the course of business in the mass business remains virtually unchanged. The disclosures only refer to transactions within the scope of IFRS 15, i.e., they do not include portions of the transaction price being allocated to performance obligations outside the scope of the standard, e.g., leases.

Deutsche Telekom generally makes use of the practical expedients in IFRS 15, according to which outstanding performance obligations under contracts with an expected original term of no more than one year and revenues recognized in accordance with the billed amounts are exempt from the disclosure requirement. Individual subsidiaries deviate from this general approach and have not made use of these practical expedients for similar contracts.

For further information on changes in net revenue, please refer to the section "Development of business in the Group" in the combined management report, page 49 et seq.

SERVICE CONCESSION ARRANGEMENTS

Satellic NV, Machelen, Belgium, is a fully consolidated subsidiary of Deutsche Telekom and on July 25, 2014 signed a contractual arrangement with Viapass, the public agency responsible for toll collection in Belgium, for the set-up, operation, and financing of an electronic toll collection system. After Viapass accepted the system on March 30, 2016, the set-up phase was completed on March 31, 2016. The operation phase that follows will have a duration of twelve years, with the additional option for Viapass to extend the term three times by one year. Satellic has no entitlement to the toll revenue collected but will receive contractually agreed fees for setting up and operating the system. Viapass is authorized to terminate the arrangement giving notice of six months with payment of reasonable compensation. In the event of regular or premature termination of the agreement, Satellic has an obligation to hand over to Viapass, on request, material assets for the operation of the toll collection system that have not yet passed to the ownership of Viapass; in such an event, however, the software platform for toll collection would not be handed over to Viapass. The agreement was classified as a service concession arrangement within the meaning of IFRIC 12. Since the start of the operation phase on April 1, 2016, the separate fees for operation and maintenance services have been recognized as revenue in the respective periods, which totaled EUR 67 million in the reporting year (2017: EUR 75 million, 2016: EUR 68 million).

20 OTHER OPERATING INCOME

millions of €

	2018	2017	2016
Income from the reversal of impairment losses on non-current assets	8	1,665	17
Of which: IFRS 5	0	3	8
Income from the disposal of non-current assets	291	310	650
Income from reimbursements	164	197	223
Income from insurance compensation	335	71	88
Income from ancillary services	29	33	36
Miscellaneous other operating income	663	1,543	3,166
Of which: income from divestitures and from the sale of stakes accounted for using the equity method	0	763	2,598
	1,491	**3,819**	**4,180**

In 2017, income from the reversal of impairment losses on non-current assets mainly comprised the partial reversal in the third quarter of 2017 of impairment losses on spectrum licenses at T-Mobile US, which increased their carrying amount by EUR 1.7 billion before deferred taxes (please refer to Note 6 “Intangible assets,” page 184 et seq.). Income from the disposal of non-current assets was primarily attributable to the disposal of real estate previously classified as non-current assets and disposal groups held for sale. Total income of EUR 0.2 billion was recorded in 2017 from transactions for the exchange of spectrum licenses completed between T Mobile US and telecommunications companies. Income from insurance compensation mainly comprised compensation payments received by T-Mobile US for damage caused by hurricanes. Miscellaneous other operating income decreased by EUR 0.9 billion year-on-year. The main items included in 2017 were income of EUR 0.5 billion from the divestiture of Strato AG, income of EUR 0.2 billion from a payment received in connection with the settlement agreement concluded with BT in July 2017, and income of EUR 0.2 billion from the sale of the remaining shares in Scout24 AG, which had been accounted for using the equity method.

21 CHANGES IN INVENTORIES

Changes in inventories comprise both volume and value-based increases and decreases in inventories of finished goods and merchandise, and work in process. There were no significant changes in inventories in the reporting year or in prior years.

22 OWN CAPITALIZED COSTS

Own capitalized costs amounted to EUR 2.4 billion in the reporting year (2017: EUR 2.3 billion, 2016: EUR 2.1 billion) and mainly relate to investments in network build-out and the development of platforms for cell sites.

23 GOODS AND SERVICES PURCHASED

millions of €

	2018	2017	2016
Expenses for raw materials and supplies	1,711	1,960	2,397
Expenses for merchandise	15,031	14,618	13,516
Expenses for services purchased	21,418	21,583	21,171
	38,160	**38,161**	**37,084**

24 AVERAGE NUMBER OF EMPLOYEES AND PERSONNEL COSTS

	2018	2017	2016
GROUP (TOTAL)	**216,369**	**216,454**	**220,582**
Domestic	100,227	103,174	107,793
International	116,142	113,280	112,790
Non-civil servants	202,010	200,673	203,110
Civil servants (domestic, active service relationship)	14,359	15,781	17,472
Trainees and students on cooperative degree courses	5,713	6,559	7,510
PERSONNEL COSTS millions of €	**16,436**	**15,504**	**16,463**

Average headcount essentially remained unchanged year-on-year. It slightly decreased in Germany by 2.9 percent. Staff restructuring measures in the Germany operating segment and in the German part of the Group Headquarters & Group Services segment in particular contributed to this trend. The average headcount outside Germany grew by 2.5 percent, with moderate increases in the United States and Europe (primarily due to the first-time consolidation of UPC Austria) operating segments, as well as in the number of employees assigned to countries other than Germany in the Group Headquarters & Group Services segment.

Personnel costs increased by 6.0 percent year-on-year, due to restructuring expenses in connection with the early retirement arrangements for civil servants and increases in salaries under collective agreements concluded in 2018. The main collective agreements were concluded between Deutsche Telekom and union representatives on April 12, 2018 and apply with retroactive effect as of February 1, 2018 for a term of 26 months. By contrast, decreases in headcount in Germany had a decreasing effect on personnel costs.

25 OTHER OPERATING EXPENSES

millions of €

	2018	2017	2016
Impairment losses on financial assets [a]	394	n. a.	n. a.
Gains (losses) from the write-off of financial assets measured at amortized cost	120	n. a.	n. a.
Other	2,620	3,444	3,284
Legal and audit fees	338	265	212
Losses from asset disposals	165	207	157
Income (losses) from the measurement of factoring receivables	126	112	133
Income (losses) from the measurement of receivables [a]	n. a.	580	686
Other taxes	476	432	407
Cash and guarantee transaction costs	339	344	305
Insurance expenses	93	87	92
Miscellaneous other operating expenses	1,083	1,417	1,292
	3,134	**3,444**	**3,284**

[a] Due to the transition to IFRS 9, changes were made both to the method of measuring impairment losses on receivables and to their disclosure in the financial statements. A comparison with the prior period is possible to a limited extent only.

Miscellaneous other operating expenses comprise a large number of low-value individual items, including other administrative expenses and fees totaling EUR 181 million (2017: EUR 217 million, 2016: EUR 189 million).

26 DEPRECIATION, AMORTIZATION AND IMPAIRMENT LOSSES

The following table provides a breakdown of depreciation, amortization and impairment losses:

millions of €

	2018	2017	2016
AMORTIZATION AND IMPAIRMENT OF INTANGIBLE ASSETS	**5,021**	**6,193**	**4,602**
Of which: Goodwill impairment losses	639	2,071	471
Amortization of mobile licenses	1,049	1,038	949
Impairment losses on mobile licenses	19	4	0
DEPRECIATION AND IMPAIRMENT OF PROPERTY, PLANT AND EQUIPMENT	**8,814**	**8,393**	**8,778**
Of which: Impairment losses recognized on property, plant and equipment	38	81	221
	13,836	**14,586**	**13,380**

Impairment losses break down as follows:

millions of €

	2018	2017	2016
INTANGIBLE ASSETS	**685**	**2,077**	**472**
Of which: Goodwill from the year-end impairment test	639	829	471
Goodwill in connection with ad hoc impairment testing in the Systems Solutions operating segment	0	1,242	0
FCC licenses	0	4	0
PROPERTY, PLANT AND EQUIPMENT	**38**	**81**	**221**
Of which: from the year-end impairment test	0	37	128
	722	**2,158**	**693**

Depreciation, amortization and impairment losses decreased by EUR 0.8 billion year-on-year. This decline is due in particular to the impairment losses recognized in 2017 on goodwill in the Systems Solutions operating segment of EUR 1.2 billion and in the Europe operating segment in the national companies in Poland, Romania, and Albania of EUR 0.8 billion in total. Impairment losses recognized in 2018 on goodwill in the Europe operating segment in the national companies in Poland and Romania amounted to EUR 0.6 billion in total. Impairment losses amounting to EUR 35 million were recognized on property, plant and equipment and intangible assets in the reporting year in connection with the sale of the shares in Telekom Albania agreed in January 2019.

Depreciation and amortization was EUR 0.7 billion higher than in the prior-year period. This was attributable in particular to the United States and Germany operating segments and the Group Headquarters & Group Services segment.

For further information, please refer to Note 6 "Intangible assets," page 184 et seq., and Note 7 "Property, plant and equipment," pages 191 and 192.

27 FINANCE COSTS

millions of €

	2018	2017	2016
Interest income	277	320	223
Interest expense	(2,094)	(2,517)	(2,715)
	(1,817)	**(2,197)**	**(2,492)**
Of which: from financial instruments relating to measurement categories in accordance with IFRS 9			
Debt instruments measured at amortized cost	27	n. a.	n. a.
Debt instruments measured at fair value through other comprehensive income	0	n. a.	n. a.
Debt instruments measured at fair value through profit or loss	10	n. a.	n. a.
Financial liabilities measured at amortized cost [a]	(1,707)	(2,110)	n. a.
Of which: from financial instruments relating to measurement categories in accordance with IAS 39			
Loans and receivables (LaR)	n. a.	32	25
Held-to-maturity investments (HtM)	n. a.	0	0
Available-for-sale financial assets (AfS)	n. a.	15	12
Financial liabilities measured at amortized cost (FLAC) [a]	n. a.	(2,091)	(2,383)

[a] Interest expense calculated according to the effective interest method and adjusted for accrued interest from derivatives recognized in the reporting year that were used as hedging instruments against interest rate-based changes in the fair values of financial liabilities measured at amortized cost in the reporting year for hedge accounting in accordance with IFRS 9 (2018: interest income of EUR 223 million and interest expense of EUR 110 million, 2017: interest income of EUR 260 million and interest expense of EUR 165 million).

The year-on-year decrease in finance costs is mainly attributable to the fact that T-Mobile US has increasingly been financed internally since 2017, and that refinancing terms continue to be favorable. The Consent Fee of EUR 0.1 billion paid (or still payable) to lending banks in connection with the probable increase in the admissible amount of collateralized financing instruments at T-Mobile US as a consequence of the agreed business combination with Sprint had an increasing effect on finance costs.

EUR 290 million (2017: EUR 176 million, 2016: EUR 164 million) was capitalized as part of acquisition costs in the 2018 financial year. The EUR 114 million increase in this item mainly relates to investments in the United States operating segment. The amount was calculated on the basis of an interest rate in the average range between 3.9 percent at the start of the year and 3.5 percent at the end of the year (2017: between 4.4 and 3.9 percent) applied across the Group.

Interest payments (including capitalized interest) of EUR 3.6 billion (2017: EUR 4.0 billion, 2016: EUR 3.6 billion) were made in the 2018 financial year.

Accrued interest payments from derivatives (interest rate swaps) that were designated as hedging instruments in a fair value hedge in accordance with IFRS 9 are netted per swap contract and recognized as interest income or interest expense depending on the net amount. Finance costs are assigned to the measurement categories on the basis of the hedged item. Only financial liabilities were hedged in the reporting period.

28 SHARE OF PROFIT/LOSS OF ASSOCIATES AND JOINT VENTURES ACCOUNTED FOR USING THE EQUITY METHOD

millions of €

	2018	2017	2016
Share of profit (loss) of joint ventures	(536)	12	(5)
Share of profit (loss) of associates	6	64	(48)
	(529)	**76**	**(53)**

The share of profit/loss of associates and joint ventures included in the consolidated financial statements using the equity method decreased by EUR 0.6 billion compared with the prior year. This was mainly attributable to the settlement agreement reached to end the Toll Collect arbitration proceedings, which had a negative effect of EUR 0.6 billion. For further information, please refer to the section “Changes in the composition of the Group and other transactions,” page 176 et seq. By contrast, the profit distribution by Toll Collect GmbH – EUR 0.1 billion of which is attributable to Deutsche Telekom – had a positive effect. The prior-year figure included the reversal of an impairment loss previously recognized on the carrying amount of Ströer SE & Co. KGaA of EUR 50 million.

29 OTHER FINANCIAL INCOME/EXPENSE

millions of €

	2018	2017	2016
Income from investments	3	179	346
Gains (losses) from financial instruments	(352)	(2,270)	(2,136)
Interest component from measurement of provisions and liabilities	(178)	(178)	(282)
Gains (losses) from the write-off of financial assets measured at amortized cost	25	0	0
	(502)	**(2,269)**	**(2,072)**

All income/expense components including interest income and expense from financial instruments classified since January 1, 2018 as at fair value through profit or loss in accordance with IFRS 9 (in prior years – as held for trading in accordance with IAS 39) are reported under other financial income/expense.

Other financial expense decreased by EUR 1.8 billion year-on-year to EUR 0.5 billion. In 2017, this figure mainly included the impairment, equivalent to EUR 1.5 billion in total, of the financial stake in BT recognized in profit or loss. In March 2018, the financial stake in BT was transferred to Deutsche Telekom Trust e.V., where it will be used as plan assets to cover existing pension obligations. As a consequence of the transition to IFRS 9 as of January 1, 2018, changes in the value of the financial stake prior to the transfer date were no longer recognized in the income statement as other financial income/expense, but in other comprehensive income. For further information, please refer to Note 40 “Financial instruments and risk management,” page 236 et seq.

The losses from financial instruments of EUR 0.4 billion in the reporting year were mainly the result of negative effects from the remeasurement of derivatives – especially at T-Mobile US. EUR 57 million (2017: EUR -198 million, 2016: EUR 45 million) of this related to currency translation effects, including gains/losses from derivatives used as hedges in foreign-currency hedge accounting, and EUR -409 million (2017: EUR -2,072 million, 2016: EUR -2,181 million) to gains/losses from other derivatives as well as measurements of equity investments.

Income from investments in the prior year included the dividends of around EUR 0.2 billion received from the former financial stake in BT.

30 INCOME TAXES

INCOME TAXES IN THE CONSOLIDATED INCOME STATEMENT

A tax expense of EUR 1.8 billion was recorded in the 2018 financial year, giving rise to an effective tax rate of 32 percent. The main reason for the comparatively high tax burden was impairment losses on goodwill in the Europe operating segment that had no tax effect.

In the prior year, a tax benefit of EUR 0.6 billion was recorded. This tax benefit is mainly attributable to a high deferred tax benefit following the reduction in the U.S. federal tax rate from 35 percent to 21 percent.

The following table provides a breakdown of income taxes in Germany and internationally:

millions of €

	2018	2017	2016
CURRENT TAXES	**592**	**569**	**468**
Germany	217	219	161
International	375	350	307
DEFERRED TAXES	**1,232**	**(1,127)**	**975**
Germany	334	116	91
International	898	(1,243)	884
	1,824	**(558)**	**1,443**

Deutsche Telekom’s combined income tax rate for 2018 amounts to 31.4 percent (2017: 31.4 percent, 2016: 31.1 percent). It consists of corporate income tax at a rate of 15.0 percent, the solidarity surcharge of 5.5 percent on corporate income tax, and trade tax at an average multiplier of 445 percent (2017: 445 percent, 2016: 436 percent).

Reconciliation of the effective tax rate. Income taxes of EUR -1,824 million (as expense) in the reporting year (2017: EUR 558 million (as benefit), 2016: EUR -1,443 million (as expense)) are derived as follows from the expected income tax expense/benefit that would have arisen had the statutory income tax rate of the parent company (combined income tax rate) been applied to profit/loss before income taxes:

millions of €

		2018	2017	2016
PROFIT BEFORE INCOME TAXES		**5,153**	**4,994**	**4,547**
Expected income tax expense (benefit) (Income tax rate applicable to Deutsche Telekom AG: 2018: 31.4 %; 2017: 31.4 %; 2016: 31.1 %)		1,618	1,568	1,414
ADJUSTMENTS TO EXPECTED TAX EXPENSE (BENEFIT)				
Effect of changes in statutory tax rates		39	(2,738)	(49)
Tax effects from prior years		158	(132)	(58)
Tax effects from other income taxes		114	(141)	122
Non-taxable income		(16)	(329)	(75)
Tax effects from equity investments		(112)	(81)	(850)
Non-deductible expenses		170	591	790
Permanent differences		(57)	83	158
Goodwill impairment losses		186	620	133
Tax effects from loss carryforwards		22	(11)	(237)
Tax effects from additions to and reductions of local taxes		189	72	59
Adjustment of taxes to different foreign tax rates		(489)	(59)	26
Other tax effects		2	(1)	10
INCOME TAX EXPENSE (BENEFIT) ACCORDING TO THE CONSOLIDATED INCOME STATEMENT		**1,824**	**(558)**	**1,443**
Effective income tax rate	%	35	(11)	32

Current income taxes in the consolidated income statement

The following table provides a breakdown of current income taxes:

millions of €

	2018	2017	2016
CURRENT INCOME TAXES	**592**	**569**	**468**
Of which: Current tax expense	571	741	494
Prior-period tax expense	21	(172)	(26)

Deferred taxes in the consolidated income statement

Deferred taxes developed as follows:

millions of €

	2018	2017	2016
DEFERRED TAX EXPENSE (BENEFIT)	**1,232**	**(1,127)**	**975**
Of which: From temporary differences	1,217	(765)	567
From loss carryforwards	49	(381)	339
From tax credits	(34)	19	69

INCOME TAXES IN THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

Current income taxes in the consolidated statement of financial position:

millions of €

	Dec. 31, 2018	Dec. 31, 2017
Recoverable taxes	492	236
Tax liabilities	(328)	(224)
Current taxes recognized in other comprehensive income:		
Hedging instruments	(252)	(267)

Deferred taxes in the consolidated statement of financial position:

millions of €

	Dec. 31, 2018	Dec. 31, 2017
Deferred tax assets	2,949	4,013
Deferred tax liabilities	(8,240)	(6,967)
	(5,291)	**(2,954)**
Of which: Recognized in other comprehensive income:		
Gains (losses) from the remeasurement of defined benefit plans	1,315	1,280
Revaluation surplus	141	0
Hedging instruments	106	17
RECOGNIZED IN OTHER COMPREHENSIVE INCOME BEFORE NON-CONTROLLING INTERESTS	**1,562**	**1,297**
Non-controlling interests	(10)	(12)
	1,552	**1,285**

Development of deferred taxes:

millions of €

	Dec. 31, 2018	Dec. 31, 2017
Deferred taxes recognized in the statement of financial position	(5,291)	(2,954)
Difference to prior year	(2,337)	1,843
Of which: Recognized in income statement	(1,232)	1,127
Recognized in other comprehensive income	89	(13)
Recognized in capital reserves	10	(56)
Acquisitions (disposals) (including assets and disposal groups held for sale)	(970)	11
Currency translation adjustments	(234)	774

Development of deferred taxes on loss carryforwards:

millions of €

	Dec. 31, 2018	Dec. 31, 2017
Deferred taxes on loss carryforwards before allowances	1,917	2,251
Difference to prior year	(334)	(106)
Of which: Recognition (derecognition)	(131)	88
Acquisitions (disposals) (including assets and disposal groups held for sale)	(279)	(6)
Currency translation adjustments	76	(188)

Deferred taxes relate to the following key items in the statement of financial position, loss carryforwards, and tax credits:

millions of €

	Dec. 31, 2018		Dec. 31, 2017	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
CURRENT ASSETS	**1,602**	**(974)**	**1,255**	**(423)**
Trade and other receivables	823	(213)	497	(132)
Inventories	120	0	100	(16)
Other assets	655	(140)	658	(275)
Contract assets	4	(621)	n. a.	n. a.
NON-CURRENT ASSETS	**2,726**	**(12,701)**	**2,964**	**(10,803)**
Intangible assets	588	(7,499)	502	(6,339)
Property, plant and equipment	748	(4,205)	636	(3,236)
Other financial assets	1,390	(657)	1,826	(1,228)
Capitalized contract costs	0	(340)	n. a.	n. a.
CURRENT LIABILITIES	**992**	**(706)**	**925**	**(613)**
Financial liabilities	311	(386)	206	(384)
Trade and other payables	69	(30)	55	(11)
Other provisions	252	(103)	286	(58)
Other liabilities	127	(88)	378	(160)
Contract liabilities	233	(99)	n. a.	n. a.
NON-CURRENT LIABILITIES	**4,575**	**(2,753)**	**4,746**	**(2,859)**
Financial liabilities	1,172	(1,319)	1,288	(1,249)
Provisions for pensions and other employee benefits	1,653	(1,242)	1,735	(1,398)
Other provisions	737	(186)	693	(187)
Other liabilities	877	(4)	1,030	(25)
Contract liabilities	136	(2)	n. a.	n. a.
RETAINED EARNINGS	**0**	**(118)**	**0**	**(67)**
TAX CREDITS	**274**	**0**	**236**	**0**
LOSS CARRYFORWARDS	**1,608**	**0**	**1,537**	**0**
INTEREST CARRYFORWARDS	**184**	**0**	**148**	**0**
TOTAL	**11,961**	**(17,252)**	**11,811**	**(14,765)**
Of which: non-current	9,608	(15,620)	9,798	(13,738)
Netting	(9,012)	9,012	(7,798)	7,798
RECOGNITION	**2,949**	**(8,240)**	**4,013**	**(6,967)**

The loss carryforwards amount to:

millions of €

	Dec. 31, 2018	Dec. 31, 2017
LOSS CARRYFORWARDS FOR CORPORATE INCOME TAX PURPOSES	**6,564**	**6,473**
Expiry within		
1 year	31	89
2 years	28	29
3 years	25	55
4 years	571	18
5 years	69	711
After 5 years	4,005	3,629
Unlimited carryforward period	1,835	1,942

Loss carryforwards and temporary differences for which no deferred taxes were recorded amount to:

millions of €

	Dec. 31, 2018	Dec. 31, 2017
LOSS CARRYFORWARDS FOR CORPORATE INCOME TAX PURPOSES	**865**	**1,034**
Expiry within		
1 year	30	79
2 years	9	5
3 years	8	37
4 years	12	12
5 years	30	42
After 5 years	100	63
Unlimited carryforward period	676	796
TEMPORARY DIFFERENCES IN CORPORATE INCOME TAX	**507**	**665**

In addition, no deferred taxes are recognized on trade tax loss carryforwards of EUR 20 million (December 31, 2017: EUR 19 million) and on temporary differences for trade tax purposes in the amount of EUR 7 million (December 31, 2017: EUR 5 million). Furthermore, apart from corporate income tax loss carryforwards, no deferred taxes amounting to EUR 164 million (December 31, 2017: EUR 522 million) were recognized for other foreign income tax loss carryforwards and, apart from temporary differences for trade tax purposes, no deferred taxes in the amount of EUR 0 million (December 31, 2017: EUR 6 million) were recognized for other foreign income taxes.

No deferred tax assets were recognized on the aforementioned tax loss carryforwards and temporary differences as it is not probable that taxable profit will be available in the foreseeable future against which these tax loss carryforwards can be utilized.

A positive tax effect in the amount of EUR 31 million (2017: EUR 25 million, 2016: EUR 28 million) attributable to the utilization of tax loss carryforwards on which deferred tax assets had not yet been recognized, was recorded in the reporting year.

No deferred tax liabilities were recognized on temporary differences in connection with equity interests in subsidiaries amounting to EUR 840 million (December 31, 2017: EUR 558 million) as it is unlikely that these differences will be reversed in the near future.

Unrecognized deferred tax assets of EUR 20 million (December 31, 2017: EUR 0 million) arising in connection with company acquisitions in 2013 in the United States operating segment and in 2014 in the Europe operating segment were recognized in 2018, since their future utilization is deemed likely based on current earnings forecasts.

Disclosure of tax effects relating to each component of other comprehensive income:

millions of €

	2018			2017			2016		
	Before tax amount	Tax (expense) benefit	Net of tax amount	Before tax amount	Tax (expense) benefit	Net of tax amount	Before tax amount	Tax (expense) benefit	Net of tax amount
Items not subsequently reclassified to profit or loss (not recycled)									
Gains (losses) from the remeasurement of defined benefit plans	127	37	164	116	(19)	97	(660)	205	(455)
Gains (losses) from the remeasurement of equity instruments	(619)	(1)	(620)						
Share of profit (loss) of investments accounted for using the equity method				0	0	0	0	0	0
	(492)	**36**	**(456)**	**116**	**(19)**	**97**	**(660)**	**205**	**(455)**
Items subsequently reclassified to profit or loss (recycled), if certain reasons are given									
Exchange differences on translating foreign operations									
Recognition of other comprehensive income in income statement	(1)	0	(1)	0	0	0	(948)	0	(948)
Change in other comprehensive income (not recognized in income statement)	1,033	0	1,033	(2,196)	0	(2,196)	395	0	395
Gains (losses) from the remeasurement of available-for-sale assets									
Recognition of other comprehensive income in income statement	0	0	0	7	(2)	5	2,282	(1)	2,281
Change in other comprehensive income (not recognized in income statement)	0	0	0	27	0	27	2,282	0	(2,323)
Gains (losses) from hedging instruments									
Recognition of other comprehensive income in income statement	(75)	(3)	(78)						
Change in other comprehensive income (not recognized in income statement)	84	0	84						
Gains (losses) from hedging instruments (IAS 39 until December 2017, designated risk component)									
Recognition of other comprehensive income in income statement	(32)	10	(22)	450	(141)	309	328	(102)	226
Change in other comprehensive income (not recognized in income statement)	(382)	61	(321)	(270)	85	(185)	(457)	142	(315)
Gains (losses) from hedging instruments (IFRS 9 from January 2018, hedging costs)							2,282		
Recognition of other comprehensive income in income statement	3	(1)	2						
Change in other comprehensive income (not recognized in income statement)	56	20	76						
Share of profit (loss) of investments accounted for using the equity method									
Recognition of other comprehensive income in income statement	0	0	0	0	0	0	7	0	7
Change in other comprehensive income (not recognized in income statement)	7	0	7	0	0	0	1	0	1
	693	**87**	**780**	**(1,982)**	**(58)**	**(2,040)**	**6,172**	**39**	**6,211**
OTHER COMPREHENSIVE INCOME	**201**	**123**	**323**	**(1,866)**	**(77)**	**(1,943)**	**5,512**	**244**	**5,756**
Profit (loss)			3,328			5,551			3,104
TOTAL COMPREHENSIVE INCOME			**3,652**			**3,608**			**8,860**

31 PROFIT/LOSS ATTRIBUTABLE TO NON-CONTROLLING INTERESTS

millions of €

	2018	2017	2016
T-Mobile US	915	1,933	400
Hrvatski Telekom	69	48	55
Hellenic Telecommunications Organization (OTE)	119	49	(129)
Magyar Telekom	65	56	84
Other	(5)	4	19
	1,163	**2,090**	**429**

32 EARNINGS PER SHARE

Basic and diluted earnings per share are calculated in accordance with IAS 33 as follows:

		2018	2017	2016
Profit attributable to the owners of the parent (net profit (loss))	millions of €	2,166	3,461	2,675
Adjustment	millions of €	0	0	0
ADJUSTED NET PROFIT (LOSS) (BASIC/DILUTED)	millions of €	**2,166**	**3,461**	**2,675**
Number of ordinary shares issued	millions	4,761	4,722	4,645
Treasury shares	millions	(19)	(19)	(20)
ADJUSTED WEIGHTED AVERAGE NUMBER OF ORDINARY SHARES OUTSTANDING (BASIC/DILUTED)	millions	**4,742**	**4,703**	**4,625**
EARNINGS PER SHARE (BASIC/DILUTED)	millions of €	**0.46**	**0.74**	**0.58**

The calculation of earnings per share (basic/diluted) is based on the time-weighted number of all ordinary shares outstanding. Furthermore, the weighted average number of ordinary shares outstanding is determined by deducting the weighted average number of treasury shares held by Deutsche Telekom AG. There are currently no diluting shares.

33 DIVIDEND PER SHARE

For the 2018 financial year, the Board of Management proposes a dividend of EUR 0.70 for each no par value share carrying dividend rights. On the basis of this payout volume, total dividends in the amount of EUR 3,320 million would be appropriated to the no par value shares carrying dividend rights as of February 12, 2019. The final amount of the total dividend payment depends on the number of no par value shares carrying dividend rights as of the date of the resolution on the appropriation of net income as adopted on the day of the shareholders' meeting.

A dividend of EUR 0.65 for the 2017 financial year for each no par value share carrying dividend rights was paid out in 2018.

OTHER DISCLOSURES

34 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

NET CASH FROM OPERATING ACTIVITIES

Net cash from operating activities increased by EUR 0.8 billion year-on-year to EUR 17.9 billion. Exchange rate effects adversely affected the positive business trend in the United States operating segment. During the reporting year, factoring agreements were concluded concerning monthly revolving sales of trade receivables. However they did not have a significant impact on net cash from operating activities in the reporting year. The effect from factoring agreements of EUR 0.3 billion had a positive effect in the prior year. A EUR 0.1 billion increase in income tax payments compared with the prior year also had a negative impact. The prior-year figure included a EUR 0.1 billion higher dividend payment from BT (totaling EUR 0.2 billion), while the profit of EUR 0.1 billion distributed by Toll Collect GmbH was a key component in the reporting year. A decrease of EUR 0.8 billion in net interest payments compared with the prior year, mainly due to the fact that T-Mobile US has increasingly been financed internally since 2017, and that refinancing terms continue to be favorable, had a positive effect on the trend in net cash from operating activities.

Deutsche Telekom's working capital measures are focused on improvements in the area of liabilities as well as in the management of receivables and inventories. However, they are not used for active liquidity management. The negative effect on the change in assets carried as working capital can be attributed to the acquisition of mobile devices in connection with the JUMP! On Demand business model and to the increase in trade receivables as a result of net customer additions in the United States, mainly from agreements under the Equipment Installment Plan (EIP). In addition, an increase in trade receivables in the Germany operating segment also had a negative effect on working capital. By contrast, working capital was positively impacted by the reduction of stock levels of new terminal equipment models introduced in the United States at the end of 2017. For further information on individual assets carried as working capital, please refer to Note 2 "Trade and other receivables," page 182, and Note 4 "Inventories," page 182. Liabilities carried as working capital decreased mainly as a result of the reduction in trade payables, especially in the United States. For further information, please refer to Note 13 "Trade and other payables," page 201.

Net cash used in investing activities
millions of €

	2018	2017	2016
Cash capex			
Germany operating segment	(4,240)	(4,214)	(4,031)
United States operating segment	(4,661)	(11,932)	(5,855)
Europe operating segment	(1,887)	(1,874)	(2,600)
Systems Solutions operating segment	(462)	(383)	(402)
Group Development operating segment	(271)	(290)	(271)
Group Headquarters & Group Services	(1,078)	(1,005)	(936)
Reconciliation	107	204	455
	(12,492)	**(19,494)**	**(13,640)**
Net cash flows for collateral deposited and hedging transactions [a]	(170)	1,390	(3,015)
Cash inflows from the sale of shares in Scout24 AG	0	319	135
Cash outflows for the acquisition of the shares in Layer3 TV [b]	(258)	0	0
Cash outflows for the acquisition of shares in UPC Austria GmbH [c]	(1,791)	0	0
Proceeds from the disposal of property, plant and equipment, and intangible assets	525	400	364
Cash flows from the loss of control of subsidiaries and associates [d, e]	(67)	528	4
Allocation under contractual trust agreement (CTA) on pension commitments	0	0	(250)
Reverse allocation under contractual trust agreement (CTA) on pension commitments	225	0	0
Payment in relation to settlement reached in Toll Collect arbitration proceedings	(200)	0	0
Payment in relation to equity maintenance undertaking for Toll Collect GmbH	(60)	0	0
Acquisition/sale of government bonds, net	0	5	2,873
Other [f]	(9)	38	(79)
	(14,297)	**(16,814)**	**(13,608)**

[a] EUR 2.0 billion of which relates to a cash deposit placed in the first half of 2016 for the U.S. spectrum auction concluded in April 2017.
[b] Includes, in addition to the purchase price of EUR 260 million, inflows of cash and cash equivalents in the amount of EUR 2 million.
[c] Includes, in addition to the purchase price of EUR 1,792 million, inflows of cash and cash equivalents in the amount of EUR 1 million.
[d] Relates primarily to outflows of cash and cash equivalents in connection with the transfer of the stake in BT as plan assets to Deutsche Telekom Trust e.V. in March 2018.
[e] In 2017, EUR 600 million of this related to the cash inflows from purchase price payments and EUR 72 million to outflows of cash and cash equivalents.
[f] In 2017, EUR 201 million of this related to a payment received from BT in connection with a settlement agreement.

Cash capex decreased by EUR 7.0 billion to EUR 12.5 billion. In the reporting year, mobile spectrum licenses were acquired for a total of EUR 0.3 billion, compared with a total of EUR 7.4 billion in the prior year. In both years, these payments related almost exclusively to the United States operating segment. Cash capex (excluding spectrum investment) was up EUR 0.1 billion year-on-year in the Europe operating segment due to the network upgrade/expansion. By contrast, in the United States operating segment, this item decreased by EUR 0.2 billion, primarily due to currency translation effects. Adjusted for exchange rate effects, and excluding capital expenditure on mobile spectrum licenses, cash capex was substantially higher than in the prior year. Interest payments (including capitalized interest) of EUR 3.6 billion (2017: EUR 4.0 billion, 2016: EUR 3.6 billion) were made in the 2018 financial year. Capitalized interest was reported within cash capex in net cash used in investing activities, together with the associated assets.

Net cash used in financing activities
millions of €

	2018	2017	2016
Repayment of bonds	(4,604)	(10,992)	(3,255)
Dividends (including to non-controlling interests)	(3,254)	(1,559)	(1,596)
Repayment of financial liabilities from financed capex and opex	(260)	(266)	(225)
Repayment of EIB loans	(159)	(374)	(830)
Net cash flows for collateral deposited and hedging transactions	244	39	605
Repayment of lease liabilities	(1,174)	(715)	(374)
Repayment of financial liabilities for media broadcasting rights	(407)	(259)	(215)
Cash deposits of the former EE joint venture, net	0	0	(220)
Cash flows from continuing involvement factoring, net	31	1	(12)
Loans taken out with the EIB	150	825	889
Promissory notes, net	201	317	(582)
Secured loans	0	(1,863)	0
Issuance of bonds	7,824	10,189	8,631
Commercial paper, net	(623)	735	(3,658)
Overnight borrowings from banks	565	0	0
Cash inflows from transactions with non-controlling entities			
T-Mobile US stock options	3	18	26
Toll4Europe capital contributions	24	0	0
Other	2	0	0
	29	**18**	**26**
Cash outflows from transactions with non-controlling entities			
T-Mobile US share buy-backs	(997)	(511)	(112)
Share buy-back program at OTE	(94)	0	0
Acquisition of T-Mobile US shares	(164)	0	0
Acquisition of OTE shares	(285)	0	0
Other	(17)	(11)	(2)
	(1,557)	**(522)**	**(114)**
Other	(265)	(168)	(392)
	(3,259)	**(4,594)**	**(1,322)**

NON-CASH TRANSACTIONS IN THE CONSOLIDATED STATEMENT OF CASH FLOWS

In the 2018 financial year, Deutsche Telekom chose financing options totaling EUR 0.2 billion under which the payments for trade payables from operating and investing activities primarily become due at a later point in time by involving banks in the process (2017: EUR 0.3 billion). These payables will subsequently be recognized under financial liabilities in the statement of financial position. As soon as the payments have been made, they are disclosed under net cash used in/from financing activities.

In 2018, Deutsche Telekom leased network equipment recognized as a finance lease for a total of EUR 1.0 billion (2017: EUR 1.0 billion) in particular in the United States operating segment. This lease is now also shown under financial liabilities in the statement of financial position. Future repayments of the liabilities will be recognized in net cash used in/from financing activities.

Consideration for the acquisition of broadcasting rights will be paid by Deutsche Telekom in accordance with the terms of the contract on the date of its conclusion or spread over the term of the contract. Financial liabilities of EUR 0.3 billion were recognized in the 2018 financial year for future consideration for acquired broadcasting rights (2017: EUR 0.4 billion). As soon as the payments have been made, they are disclosed under net cash used in/from financing activities.

In the United States operating segment, mobile devices amounting to EUR 0.9 billion (2017: EUR 1.0 billion) were recognized under property, plant and equipment in the reporting year. These relate to the terminal equipment lease model JUMP! On Demand at T-Mobile US under which customers do not purchase the device but lease it. The payments are presented under net cash from operating activities.

Following the transfer of the financial stake in the BT Group to Deutsche Telekom Trust e.V. in the first quarter of 2018, a non-cash transfer of EUR 3.0 billion to plan assets was made in order to increase external capital funding; this reduced the provisions for pensions recognized in the statement of financial position.

The carrying amounts of the financial liabilities disclosed in net cash used in/from financing activities, divided into carrying amount changes having and not having an effect on cash flows, developed as follows in the reporting year:

millions of €

	Carrying amount changes having an effect on cash flows			
	As of January 1, 2018	Of which: disclosed in net cash (used in) from financing activities	Total carrying amount changes having an effect on cash flows	Changes in the composition of the Group
Bonds and other securitized liabilities	45,453	45,453	2,595	0
Liabilities to banks	4,974	4,974	536	0
	50,427	**50,427**	**3,131**	**0**
Finance lease liabilities	2,635	2,635	(1,174)	4
Liabilities to non-banks from promissory notes	480	480	2	0
Liabilities with the right of creditors to priority repayment in the event of default	0	0	0	0
Other interest-bearing liabilities	1,598	1,013	(680)	145
Other non-interest-bearing liabilities	1,443	4	3	6
Derivative financial liabilities	946	807	(5)	0
	7,102	**4,939**	**(1,854)**	**155**
FINANCIAL LIABILITIES	**57,529**	**54,635**	**1,277**	**155**
DERIVATIVE FINANCIAL ASSETS	**1,317**	**287**	**250**	**0**

Total carrying amount changes having an effect on cash flows disclosed in net cash used in/from financing activities of EUR 1.5 billion deviate from the net cash used in financing activities of EUR 3.3 billion due in particular to the dividend entitlements of Deutsche Telekom AG shareholders having an effect on cash flows and the T-Mobile US share buy-back program begun in December 2017. Other carrying amount changes not having an effect on cash flows mainly relate to additions to financial liabilities in connection with the recognition of leased network equipment of EUR 1.0 billion and of broadcasting rights of EUR 0.3 billion. This item also includes additions to financial liabilities of EUR 0.2 billion relating to selected financing options under which payments for trade payables become due at a later point in time by involving banks in the process. For further information, please refer to the section "Non-cash transactions in the consolidated statement of cash flows."

35 SEGMENT REPORTING

Deutsche Telekom reports on five operating segments, as well as on the Group Headquarters & Group Services segment. Three operating segments are distinguished by region (Germany, United States, Europe), one by customers and products (Systems Solutions), and another by tasks (Group Development). For three operating segments, business activities are assigned by customer and product (Germany, Systems Solutions, United States), while one operating segment allocates its activities on a regional basis (Europe) and another allocates them by equity investment (Group Development).

The Germany operating segment comprises all fixed-network and mobile activities for consumers and business customers in Germany. It also focuses on the wholesale business to provide telecommunications services for carriers and the Group's other operating segments. The United States operating segment comprises all mobile activities in the U.S. market. The Europe operating segment comprises all fixed-network and mobile operations of the national companies in Greece, Romania, Hungary, Poland, the Czech Republic, Croatia, Slovakia, Austria, Albania, Macedonia, and Montenegro. In addition to consumer business, most of the national companies also offer ICT solutions for business customers. On January 1, 2017, management of the Netherlands subsidiary was transferred to the Group Development operating segment. The new Technology and Innovation Board department, which was established as of January 1, 2017 as part of the Group Headquarters & Group Services segment, assumed responsibility for the GNF (Global Network Factory) and Group Technology units, and the Pan-Net companies. As part of the international wholesale business, Deutsche Telekom Global Carrier (TGC), which is assigned to the Europe operating segment, sells wholesale telecommunications services to the operating segments as well as to third parties. The Systems Solutions operating segment offers business customers a convergent product and solution portfolio. With offerings for fixed and mobile communications, IT infrastructure, digitalization, and security, in addition to global partnerships, customers receive help and guidance to implement digital business models. Since January 1, 2017, Deutsche Telekom has reported on the Group Development operating segment: This includes T-Mobile Netherlands (previously in the Europe operating segment),

	Carrying amount changes not having an effect on cash flows						
	Currency translation	Fair value	Changes in carrying amount according to the effective interest method	Other	Total carrying amount changes not having an effect on cash flows	Of which: disclosed in net cash (used in) from financing activities	As of December 31, 2018
	962	36	79	0	1,077	49,033	49,033
	51	18	32	0	101	4,968	5,710
	1,013	**54**	**111**	**0**	**1,178**	**54,001**	**54,743**
	70	0	0	989	1,063	2,471	2,471
	17	0	0	0	17	497	497
	0	0	0	0	0	0	0
	9	0	41	631	826	1,447	1,878
	0	0	0	0	6	13	1,609
	0	0	(75)	0	(75)	727	1,077
	96	**0**	**(34)**	**1,620**	**1,837**	**5,156**	**7,532**
	1,109	**54**	**77**	**1,620**	**3,015**	**59,157**	**62,275**
	0	**0**	**3**	**0**	**3**	**34**	**870**

Deutsche Funkturm (DFMG, previously in the Germany operating segment), Deutsche Telekom Capital Partners (DTCP), and the equity investment Ströer SE & Co. KGaA, as well as Strato AG, which was sold in March 2017, and the stake in Scout24 AG, which was sold in June 2017 (all previously in the Group Headquarters & Group Services segment). It also included the 12-percent financial stake in BT until March 23, 2018, when it was transferred to Deutsche Telekom Trust e.V. as plan assets. The Group functions of Mergers & Acquisitions and Strategic Portfolio Management have also been assigned to Group Development. The **Group Headquarters & Group Services** segment comprises all Group units that cannot be allocated directly to one of the operating segments. Since January 1, 2017, the segment also reports on the Technology and Innovation Board department, which unites the cross-segment network, innovation, and IT activities of our Germany, Europe, and Systems Solutions operating segments. Group Services provides services to the entire Group; in addition to typical services such as financial accounting, human resources services, and operational procurement, Group Services also includes agency services provided by the Group's personnel service provider, Vivento. Vivento Customer Services GmbH, a provider of call center services, was integrated into our Germany operating segment as of January 1, 2018. Further units are Group Supply Services (GSUS) for real estate management and strategic procurement, and MobilitySolutions, which is a full-service provider for fleet management and mobility services.

Comparative figures have been adjusted retrospectively in segment reporting.

The business segments shown are reviewed at regular intervals by the Deutsche Telekom Board of Management in terms of the allocation of resources and their earnings performance.

The measurement principles for Deutsche Telekom's segment reporting structure are primarily based on the IFRSs adopted in the consolidated financial statements. Deutsche Telekom evaluates the segments' performance based on revenue and profit or loss from operations (EBIT), among other factors. Revenue generated and goods and -services exchanged between segments are calculated on the basis of market prices. Services provided by Deutsche Telekom IT are generally charged at cost. Development services commissioned after January 1, 2016 are not charged but capitalized at segment level in accordance with the internal control logic. Segment assets and liabilities include all assets and liabilities that are carried in the financial statements prepared by the segments and included in the consolidated financial statements. Segment investments include additions to intangible assets and property, plant and equipment. Where entities accounted for using the equity method are directly allocable to a segment, their shares of profit or loss after income taxes and their carrying amounts are reported in this segment's accounts. The performance indicators are exclusively presented from the segments' perspective: The effects of intersegment transactions are eliminated and presented in aggregate form in the reconciliation line. The table on the next page shows the performance indicators used by Deutsche Telekom to evaluate the operating segments' performance as well as additional segment-related indicators:

millions of €

		Net revenue	Intersegment revenue	Total revenue	Profit (loss) from operations (EBIT)	Depreciation and amortization	Impairment losses	Interest income	Interest expense	Share of profit (loss) of associates and joint ventures accounted for using the equity method
Germany	**2018**	20,351	1,349	21,700	3,969	(4,037)	(6)	4	(163)	0
	2017	20,552	1,379	21,931	4,276	(3,822)	(6)	6	(142)	6
	2016	20,405	1,369	21,774	3,552	(3,690)	(13)	4	(166)	2
United States	**2018**	36,521	1	36,522	4,634	(5,294)	0	14	(993)	(1)
	2017	35,735	1	35,736	5,930	(5,015)	(4)	14	(1,434)	(1)
	2016	33,736	2	33,738	3,685	(5,282)	0	11	(1,367)	(6)
Europe	**2018**	11,522	363	11,885	744	(2,334)	(679)	8	(205)	3
	2017	11,218	371	11,589	462	(2,283)	(874)	6	(260)	2
	2016	11,111	343	11,454	1,184	(2,352)	(237)	10	(284)	(2)
Systems Solutions	**2018**	5,497	1,439	6,936	(291)	(403)	(50)	14	(9)	(535)
	2017	5,504	1,414	6,918	(1,356)	(394)	(1,242)	13	(10)	14
	2016	5,678	1,315	6,993	(150)	(428)	0	12	(10)	2
Group Development	**2018**	1,579	606	2,185	560	(334)	0	0	(13)	4
	2017	1,660	603	2,263	1,504	(304)	0	0	(11)	57
	2016	1,744	603	2,347	2,730	(345)	(415)	0	(17)	(48)
Group Headquarters & Group Services	**2018**	186	2,549	2,735	(1,662)	(815)	(10)	1,017	(1,490)	(1)
	2017	278	2,657	2,935	(1,437)	(625)	(32)	1,150	(1,526)	(1)
	2016	421	3,039	3,460	(1,848)	(648)	(28)	836	(1,545)	(1)
TOTAL	**2018**	**75,656**	**6,307**	**81,963**	**7,954**	**(13,217)**	**(745)**	**1,057**	**(2,873)**	**(529)**
	2017	**74,947**	**6,425**	**81,372**	**9,379**	**(12,443)**	**(2,157)**	**1,189**	**(3,383)**	**76**
	2016	**73,095**	**6,670**	**79,765**	**9,153**	**(12,745)**	**(693)**	**873**	**(3,389)**	**(53)**
Reconciliation	**2018**	0	(6,307)	(6,307)	47	104	23	(780)	779	0
	2017	0	(6,425)	(6,425)	4	16	(1)	(869)	866	0
	2016	0	(6,670)	(6,670)	11	58	0	(650)	674	0
GROUP	**2018**	**75,656**	**0**	**75,656**	**8,001**	**(13,113)**	**(722)**	**277**	**(2,094)**	**(529)**
	2017	**74,947**	**0**	**74,947**	**9,383**	**(12,428)**	**(2,158)**	**320**	**(2,517)**	**76**
	2016	**73,095**	**0**	**73,095**	**9,164**	**(12,687)**	**(693)**	**223**	**(2,715)**	**(53)**

[a] Group Headquarters & Group Services segment: Deutsche Telekom AG shareholders made use of the option of receiving part of their dividend entitlement for the 2016 financial year in the form of shares in Deutsche Telekom AG. As a result, this dividend in kind had no impact on cash flows (please also refer to Note 18 "Shareholders' equity," page 211 et seq.).

[b] Cash outflows for investments in intangible assets (excluding goodwill) and property, plant and equipment as shown in the statement of cash flows.

Information on geographic areas. The Group's non-current assets and net revenue are shown by region: Germany, Europe (excluding Germany), North America, and other countries. The North America region comprises the United States and Canada. The Europe (excluding Germany) region covers the entire European Union (excluding Germany) and the other countries in Europe. Other countries include all countries that are not Germany or in Europe (excluding Germany) or North America. Non-current assets are allocated to the regions according to the location of the assets in question. Non-current assets encompass intangible assets; property, plant and equipment; investments accounted for using the equity method; as well as other non-current assets. Net revenue is allocated according to the location of the respective customers' operations.

millions of €

	Non-current assets			Net revenue		
	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	**2018**	2017	2016
Germany	38,093	37,248	37,756	24,981	24,556	24,657
International	79,133	73,965	70,995	50,675	50,391	48,438
Of which: Europe (excluding Germany)	21,263	20,172	20,961	13,569	13,913	13,910
North America	57,817	53,724	49,948	36,714	35,897	33,915
Other countries	53	69	86	393	580	613
GROUP	**117,226**	**111,213**	**108,751**	**75,656**	**74,947**	**73,095**

Income taxes	Segment assets [a]	Segment liabilities	Segment investments	Investments accounted for using the equity method	Net cash from operating activities	Net cash (used in) from investing activities	Of which: cash capex [b]	Net cash (used in) from financing activities	Average number of employees
1	37,419	27,571	4,730	12	8,200	(4,538)	(4,240)	(4,303)	63,832
0	33,739	26,641	4,786	12	8,463	(4,246)	(4,214)	(3,976)	65,482
0	32,083	25,669	4,830	20	8,043	(4,107)	(4,031)	(5,182)	68,475
(882)	69,223	43,326	6,699	159	7,567	(4,936)	(4,661)	(2,606)	45,729
1,444	64,931	42,003	14,811	189	6,847	(9,948)	(11,932)	(966)	43,935
(1,109)	68,349	49,791	9,970	216	5,586	(5,174)	(5,855)	354	43,699
(282)	27,263	10,134	2,096	60	2,914	(1,960)	(1,887)	(1,161)	48,059
(281)	25,746	10,206	2,052	62	2,863	(1,761)	(1,874)	(1,067)	47,416
18	26,600	10,991	3,077	59	3,038	(2,640)	(2,600)	(482)	47,220
(36)	5,728	3,810	480	24	286	(1,116)	(462)	237	37,837
(28)	6,408	5,061	471	31	326	(422)	(383)	253	37,745
(59)	7,462	5,243	419	21	400	(687)	(402)	298	37,312
(114)	6,037	8,553	303	311	1,008	(391)	(271)	(3,064)	1,965
(36)	9,997	5,549	335	346	1,000	673	(290)	(4,656)	2,127
(27)	11,221	2,417	385	397	1,041	(168)	(271)	(999)	2,704
(487)	50,047	58,931	1,076	10	5,928	(2,412)	(1,078)	705	18,947
(541)	46,957	55,863	1,018	11	6,709	(10,082)	(1,005)	5,750	19,750
(261)	37,699	50,471	956	12	2,525	(949)	(936)	(320)	21,173
(1,800)	**195,717**	**152,325**	**15,384**	**576**	**25,903**	**(15,353)**	**(12,599)**	**(10,192)**	**216,369**
558	**187,778**	**145,323**	**23,473**	**651**	**26,207**	**(25,786)**	**(19,698)**	**(4,662)**	**216,454**
(1,438)	**183,414**	**144,582**	**19,637**	**725**	**20,633**	**(13,725)**	**(14,095)**	**(6,331)**	**220,582**
(24)	(50,342)	(50,387)	(130)	0	(7,955)	1,056	107	6,933	0
0	(46,444)	(46,459)	(332)	0	(9,011)	8,972	204	68	0
(5)	(34,929)	(34,942)	(742)	0	(5,100)	117	455	5,009	0
(1,824)	**145,375**	**101,938**	**15,255**	**576**	**17,948**	**(14,297)**	**(12,492)**	**(3,259)**	**216,369**
558	**141,334**	**98,864**	**23,141**	**651**	**17,196**	**(16,814)**	**(19,494)**	**(4,594)**	**216,454**
(1,443)	**148,485**	**109,640**	**18,895**	**725**	**15,533**	**(13,608)**	**(13,640)**	**(1,322)**	**220,582**

Information on products and services.
Revenue generated with external customers for groups of comparable products and services developed as follows:

millions of €

	Net revenue		
	2018	2017	2016
Telecommunications	68,241	67,688	66,048
ICT solutions	6,958	6,735	6,501
Other	457	524	546
	75,656	**74,947**	**73,095**

36 CONTINGENCIES

As part of its ordinary business activities, Deutsche Telekom is involved in various proceedings both in and out of court with government agencies, competitors, and other parties, the outcome of which often cannot be reliably anticipated. As of the reporting date, the Group was exposed to contingent liabilities amounting to EUR 0.5 billion (December 31, 2017: EUR 0.4 billion) and to contingent assets amounting to EUR 0.0 billion (December 31, 2017: EUR 0.1 billion) that, on the basis of the information and estimates available, do not fulfill the requirements for recognition as liabilities or assets in the statement of financial position. Litigation provisions include the costs of legal counsel services and any probable losses. Deutsche Telekom does not believe that any additional costs arising from legal counsel services or the results of proceedings will have a material adverse effect on the results of operations and financial position of the Group. In addition to individual cases that do not have any significant impact on their own, the aforementioned total contingent liabilities include the following items, the sequence of which does not imply an evaluation of their probability of occurrence or potential damage. In the event that in extremely rare cases disclosures required by IAS 37 are not made, Deutsche Telekom comes to the conclusion that these disclosures could seriously undermine the outcome of the relevant proceedings.

CONTINGENT LIABILITIES

Prospectus liability proceedings (third public offering, or DT3). This originally relates to around 2,600 ongoing lawsuits from some 16,000 alleged buyers of T-Shares sold on the basis of the prospectus published on May 26, 2000. The plaintiffs assert that individual figures given in this prospectus were inaccurate or incomplete. The amount in dispute totals approximately EUR 80 million plus interest. Some of the actions are also directed at KfW and/or the Federal Republic of Germany as well as the banks that handled the issuances. The Frankfurt/Main Regional Court had issued certified questions to the Frankfurt/Main Higher Regional Court in accordance with the German Capital Investor Model Proceedings Act (Kapitalanleger-Musterverfahrensgesetz – KapMuG) and has temporarily suspended the initial proceedings. On May 16, 2012, the Frankfurt/Main Higher Regional Court had ruled that there were no material errors in Deutsche Telekom AG's prospectus. In its decision on October 21, 2014, the Federal Court of Justice revoked this ruling, determined that there was a mistake in the prospectus, and referred the case back to the Frankfurt/Main Higher Regional Court. On November 30, 2016, the Frankfurt/Main Higher Regional Court ruled that the mistake in the prospectus identified by the Federal Court of Justice could result in liability on the part of Deutsche Telekom AG, although the details of that liability would have to be established in the initial proceedings. Both Deutsche Telekom AG and some of the individual plaintiffs in the model proceedings have brought an appeal before the Federal Court of Justice against this decision. We continue to hold the opinion that there are compelling reasons why Deutsche Telekom AG should not be liable for damages.

Claims by partnering publishers of telephone directories. Several publishers that had set up joint ventures with the then DeTeMedien GmbH – formerly a wholly owned subsidiary of Deutsche Telekom AG and now named Deutsche Tele Medien GmbH – to edit and publish subscriber directories, filed claims against DeTeMedien GmbH and/or Deutsche Telekom AG at the end of 2013. The plaintiffs are claiming damages or a refund from Deutsche Tele Medien GmbH and, to a certain extent, from Deutsche Telekom AG as joint and several debtor alongside Deutsche Tele Medien GmbH. The plaintiffs base their claims on allegedly excessive charges for the provision of subscriber data in the joint ventures. The amounts claimed by the 81 original plaintiffs totaled around EUR 470 million plus interest at the end of 2014. After an agreement was reached with the majority of the publishers in October 2015 to settle the disputes and a number of claims were since dismissed conclusively, twelve actions are still pending for a remaining amount in dispute of around EUR 89 million plus interest. In ten proceedings, the plaintiffs lodged appeals with the Federal Court of Justice after their claims were dismissed by the court of appeal. In one of these proceedings, the Federal Court of Justice dismissed the appeal in its ruling dated January 29, 2019. Three of the claims have been suspended in the first instance. Five publishers whose civil actions are still pending have been pursuing their claims in parallel since June 2016 through administrative court actions against the Federal Network Agency. Three of these claims were dismissed with legally binding effect.

Likewise, on the basis of the information and estimates available, the following issues do not fulfill the requirements for recognition as liabilities in the statement of financial position. As it is not possible to estimate the amount of the contingent liabilities or the group of contingent liabilities with sufficient reliability in each case due to the uncertainties described below, they have not been included in the aforementioned total contingent liabilities.

Claims relating to charges for the shared use of cable ducts. In 2012, Kabel Deutschland Vertrieb und Service GmbH (today Vodafone Kabel Deutschland GmbH (VKDG)) filed a claim against Telekom Deutschland GmbH to reduce the annual charge for the rights to use cable duct capacities in the future and gain a partial refund of the payments made in this connection since 2004. According to its latest estimates, VKDG's claims amounted to around EUR 624 million along with around EUR 9 million for the alleged benefit from additional interest, plus interest in each case. Claims prior to 2009 are now no longer being asserted by VKDG. After the Frankfurt/Main Regional Court had dismissed the complaint in 2013, the Frankfurt/Main Higher Regional Court also rejected the appeal in December 2014. In the ruling dated January 24, 2017, the Federal Court of Justice reversed the appeal ruling and referred the case back to the Frankfurt/Main Higher Regional Court for further consideration. In its ruling dated December 20, 2018, the Frankfurt/Main Higher Regional Court again rejected the appeal and disallowed a further appeal.

In similar proceedings, Unitymedia Hessen GmbH & Co. KG, Unitymedia NRW GmbH and Kabel BW GmbH filed claims against Telekom Deutschland GmbH in January 2013, demanding that it cease charging the plaintiffs more than a specific and precisely stated amount for the shared use of cable ducts. In addition, the plaintiffs are currently demanding a refund of around EUR 570 million plus interest. The claim was dismissed in the first instance by the Cologne Regional Court on October 11, 2016. In its ruling dated March 14, 2018, the Düsseldorf Higher Regional Court rejected the appeal against this decision. In both proceedings, the plaintiffs have lodged a complaint against the non-allowance of appeal with the Federal Court of Justice.

Claim for damages in Malaysia despite an earlier, contrary, legally binding arbitration ruling. Celcom Malaysia Berhad (Celcom) and Technology Resources Industries Berhad are pursuing actions with the state courts in Kuala Lumpur, Malaysia, against eleven defendants in total, including DeTeAsia Holding GmbH, a subsidiary of Deutsche Telekom AG. The plaintiffs are demanding damages and compensation of USD 232 million plus interest. DeTeAsia Holding GmbH had enforced this amount against Celcom in 2005 on the basis of a final ruling in its favor. The main proceedings in the court of first instance began in January 2018.

Consent Fee for Sprint. In connection with the agreed business combination of T-Mobile US and Sprint, T-Mobile US may be required to reimburse Sprint for 67 percent of the upfront consent and related bank fees it paid to lending banks, or USD 161 million, if the business combination agreement is terminated.

Toll Collect arbitration proceedings. On May 16, 2018, Daimler Financial Services AG, Deutsche Telekom AG, and the Federal Republic of Germany reached an agreement to cease the Toll Collect arbitration proceedings. For further information, please refer to the section "Changes in the composition of the Group and other transactions," page 176 et seq.

Patents and licenses. Like many other large telecommunications and internet providers, Deutsche Telekom is exposed to a growing number of intellectual property rights disputes. There is a risk that Deutsche Telekom may have to pay license fees and/or compensation; Deutsche Telekom is also exposed to a risk of cease-and-desist orders, for example relating to the sale of a product or the use of a technology.

Anti-trust and consumer protection proceedings. Deutsche Telekom and its subsidiaries, joint ventures, and associates are subject to proceedings under competition law in various jurisdictions, which may also lead to civil follow-on claims. Looking at each of the proceedings individually, none has a material impact. Deutsche Telekom believes the respective allegations and claims for damages are unfounded. The outcome of the proceedings cannot be foreseen at this point in time.

Claims for damages against Slovak Telekom following a European Commission decision to impose fines. The European Commission decided on October 15, 2014 that Slovak Telekom had abused its market power on the Slovak broadband market and as a result imposed fines on Slovak Telekom and Deutsche Telekom. Following the decision of the European Commission, competitors filed damage actions against Slovak Telekom with the civil court in Bratislava. These claims seek compensation for alleged damages due to Slovak Telekom's abuse of a dominant market position, as determined by the European Commission. Three claims totaling EUR 215 million plus interest are currently pending.
The fines imposed by the European Commission were paid in January 2015. Slovak Telekom and Deutsche Telekom challenged the European Commission's decision on December 29, 2014 before the Court of the European Union. On December 13, 2018, the court partially overturned the European Commission's decision and reduced the fines by a total of EUR 13 million. The rulings are not yet legally binding and can be challenged by the European Commission or by Slovak Telekom and Deutsche Telekom before the European Court of Justice.

Tax risks. In many countries, Deutsche Telekom is subject to the applicable legal tax regulations. Risks can arise from changes in local taxation laws or case law and different interpretations of existing provisions. As a result, they can affect Deutsche Telekom's tax expense and benefit as well as tax receivables and liabilities.

37 LEASES

DEUTSCHE TELEKOM AS LESSEE

Finance leases. When a lease transfers substantially all risks and rewards to Deutsche Telekom as lessee, Deutsche Telekom initially recognizes the leased assets in the statement of financial position at the lower of fair value or present value of the future minimum lease payments. Most of the leased assets carried in the statement of financial position as part of finance leases relate to long-term rental and lease agreements for office buildings and technical fixed-network or mobile facilities. The average lease term is 13 years. The agreements include extension and purchase options. The following table shows the net carrying amounts of leased assets capitalized in connection with a finance lease as of the reporting date:

millions of €

	Dec. 31, 2018	Of which: sale and leaseback transactions	Dec. 31, 2017	Of which: sale and leaseback transactions
Land and buildings	326	120	430	199
Technical equipment and machinery	2,177	(1)	2,012	0
Other	7	0	6	0
NET CARRYING AMOUNTS OF LEASED ASSETS CAPITALIZED	**2,510**	**119**	**2,448**	**199**

The increase of EUR 0.2 billion in technical equipment and machinery is primarily a result of new finance leases for network upgrades at T-Mobile US.

At the inception of the lease term, Deutsche Telekom recognizes a lease liability equal to the carrying amount of the leased asset. In subsequent periods, the liability decreases by the amount of lease payments made to the lessors using the effective interest method. The interest component of the lease payments is recognized in the income statement.

The following table provides a breakdown of these amounts:

millions of €

	Minimum lease payments		Interest component		Present values	
Maturity	Total	Of which: sale and leaseback transactions	Total	Of which: sale and leaseback transactions	Total	Of which: sale and leaseback transactions
DEC. 31, 2018						
Within 1 year	954	78	105	22	849	56
In 1 to 3 years	1,076	65	135	35	941	30
In 3 to 5 years	294	50	89	30	205	20
After 5 years	626	182	150	58	476	124
	2,950	**375**	**478**	**145**	**2,472**	**230**
Dec. 31, 2017						
Within 1 year	868	100	117	32	751	68
In 1 to 3 years	1,211	128	162	50	1,049	78
In 3 to 5 years	345	61	110	40	235	21
After 5 years	814	278	214	98	600	180
	3,238	**567**	**603**	**220**	**2,635**	**347**

Operating leases. Beneficial ownership of a lease is attributed to the lessor if this is the party to which all the substantial risks and rewards incidental to ownership of the asset are transferred. The lessor recognizes the leased asset in its statement of financial position. Deutsche Telekom recognizes the lease payments made during the term of the operating lease in profit or loss. Deutsche Telekom's obligations arising from operating leases are mainly related to long-term rental or lease agreements for cell sites, network infrastructure, and real estate.

Some leases include extension options and provide for stepped rents. Most of these leases relate to cell sites in the United States.

The operating lease expenses recognized in profit or loss amounted to EUR 3.9 billion in the 2018 financial year (2017: EUR 3.9 billion, 2016: EUR 3.9 billion). The following table provides a breakdown of future obligations arising from operating leases that are deemed to be reasonably certain:

millions of €

Maturity	Dec. 31, 2018	Dec. 31, 2017
Within 1 year	3,575	3,209
In 1 to 3 years	5,798	5,348
In 3 to 5 years	3,961	3,457
After 5 years	4,950	3,307
	18,284	**15,321**

The increase in expected future minimum lease payments from operating leases as of December 31, 2018 is mainly a result of newly leased cell sites and currency translation effects in the United States operating segment.

A need to adjust the disclosures on obligations arising from operating leases as of December 31, 2017 was identified at T-Mobile US in 2018. Certain automatic contract extensions for real estate (mainly cell sites) were not fully recorded. As a result, the lease liabilities disclosed were EUR 0.2 billion too low. The disclosures on obligations arising from operating leases for the prior period were therefore adjusted retrospectively as of December 31, 2018.

DEUTSCHE TELEKOM AS LESSOR

Finance leases. Deutsche Telekom is a lessor in connection with finance leases. Essentially, these relate to the leasing of routers and other hardware, which Deutsche Telekom provides to its customers for data and telephone network solutions. Deutsche Telekom recognizes a receivable in the amount of the net investment in the lease. The lease payments made by the lessees are split into an interest component and a principal component using the effective interest method. The lease receivable is reduced by the principal received.

The interest component of the payments is recognized as finance income in the income statement. The following table shows how the amount of the net investment in a finance lease is determined:

millions of €

	Dec. 31, 2018	Dec. 31, 2017
Minimum lease payments	143	157
Unguaranteed residual value	4	2
Gross investment	146	159
Unearned finance income	1	(6)
NET INVESTMENT (PRESENT VALUE OF THE MINIMUM LEASE PAYMENTS)	**147**	**153**

The following table presents the gross investment amounts and the present value of payable minimum lease payments:

millions of €

	Dec. 31, 2018		Dec. 31, 2017	
Maturity	Gross investment	Present value of minimum lease payments	Gross investment	Present value of minimum lease payments
Within 1 year	61	64	84	81
In 1 to 3 years	61	61	62	58
In 3 to 5 years	19	19	13	12
After 5 years	5	4	1	2
	146	**147**	**160**	**153**

Operating leases. If Deutsche Telekom is a lessor in connection with operating leases, it continues to recognize the leased assets in its statement of financial position. The lease payments received are recognized in profit or loss. The leases mainly relate to the rental of cell sites, building space, and terminal equipment, and have an average term of 10 years. The future minimum lease payments arising from non-cancelable operating leases are as follows:

millions of €

Maturity	Dec. 31, 2018	Dec. 31, 2017
Within 1 year	704	748
In 1 to 3 years	448	496
In 3 to 5 years	311	336
After 5 years	452	536
	1,915	**2,116**

The reduction in future minimum lease payments is mainly the result of a decline in the expected lease payments from the lease of mobile terminal equipment at T-Mobile US. In 2018, sales of mobile terminal equipment under installment plans increased.

38 OTHER FINANCIAL OBLIGATIONS

The following table provides an overview of Deutsche Telekom's other financial obligations:

millions of €

	Dec. 31, 2018			
	Total	Due within 1 year	Due > 1 year ≤ 5 years	Due > 5 years
Purchase commitments regarding property, plant and equipment	3,799	3,520	216	63
Purchase commitments regarding intangible assets	451	346	103	2
Firm purchase commitments for inventories	3,878	3,302	576	0
Other purchase commitments and similar obligations	14,648	7,476	5,902	1,270
Payment obligations to the Civil Service Pension Fund	2,493	354	1,101	1,038
Obligations from the acquisition for interests in other companies	23,339	23,339	0	0
Miscellaneous other obligations	53	6	6	41
	48,661	**38,343**	**7,904**	**2,414**

Obligations from the acquisition of interests in other companies mainly relate to the agreed business combination of T-Mobile US and Sprint at USD 26.5 billion (EUR 22.9 billion). Furthermore, the acquisition of Tele2 Netherlands Holding N.V. results in a commitment of EUR 190 million for the cash component to be paid. For further information on agreed corporate transactions, please refer to the section "Changes in the composition of the Group and other transactions," page 176 et seq.

39 SHARE-BASED PAYMENT

SHARE MATCHING PLAN

Since the 2011 financial year, specific executives have been contractually obligated to invest a minimum of 10 percent and a maximum of 33.3 percent of their variable short-term remuneration component, which is based on the achievement of targets set for each person for the financial year (Variable I), in Deutsche Telekom AG shares. Deutsche Telekom AG will award one additional share for every share acquired as part of this executive's aforementioned personal investment (Share Matching Plan). These shares will be allotted to the beneficiaries of this plan on expiration of the four-year lock-up period.

Since the 2015 financial year, executives who are not contractually obligated to participate in the Share Matching Plan have been given the opportunity to participate on a voluntary basis. To participate, the executives invested a minimum of 10 percent and a maximum of 33.3 percent of their variable short-term remuneration component, which is based on the achievement of targets set for each person for the financial year (Variable I), in Deutsche Telekom AG shares. Deutsche Telekom AG will award additional shares for every share acquired as part of this executive's aforementioned personal investment (Share Matching Plan).

Participation in the Share Matching Plan and the number of additional shares granted are contingent on the executive's individual performance. The additional shares will be allotted to the beneficiaries of this plan on expiration of the four-year lock-up period. The offer to executives to participate voluntarily in the Share Matching Plan is only made in the years in which the previous year's free cash flow target was achieved.

The individual Share Matching Plans are each recognized for the first time at fair value on the grant date. To determine the fair value, the expected dividend entitlements are deducted from Deutsche Telekom AG's share price, as there are no dividend entitlements until the matching shares have been allocated. In the 2018 financial year, a total of 0.7 million (2017: 0.5 million) matching shares were allocated to beneficiaries of the plan at a weighted average fair value of EUR 10.64 (2017: EUR 14.05). The cost is to be recognized against the capital reserves pro rata temporis until the end of the service period and amounted to EUR 6.1 million in total for all tranches as of December 31, 2018 (December 31, 2017: EUR 5.1 million). In the reporting year, reserves were reduced by transfers of shares to plan participants in a total value of EUR 2.6 million (2017: EUR 5.5 million). The capital reserves recognized for the Share Matching Plan as of December 31, 2018 amounted to EUR 14.6 million (December 31, 2017: EUR 11.1 million).

For the compensation system of Board of Management members who also participate in the Share Matching Plan, please refer to the "Compensation report" in the combined management report, page 132 et seq.

LONG-TERM INCENTIVE PLAN

In the 2015 financial year, executives who had not yet made a contractual commitment to participate in the long-term incentive plan were given the first-time opportunity to participate. The participating executives receive a package of virtual shares at the inception of the plan. The number of virtual shares is contingent on the participant's management group assignment, individual performance, and annual target salary. Taking these factors into account, the value of the package of virtual shares at the inception of the plan is between 10 and 43 percent of the participant's annual target salary.

Over the term of the four-year plan, the value of the virtual shares changes in line with Deutsche Telekom AG's share price development. The number of virtual shares will change on achievement of the targets for four equally weighted performance indicators (return on capital employed, adjusted earnings per share, employee satisfaction, and customer satisfaction), to be determined at the end of each year. In addition, each beneficiary receives a dividend during the term of the plan, which is reinvested in virtual shares, increasing the number of virtual shares held by each plan participant. At the end of the four-year plan, the results of each of the four years will be added together and the virtual shares will be converted on the basis of a share price calculated in a reference period and paid out in cash.

The long-term incentive plan was measured at fair value on the grant date. The fair value of the plan is calculated by multiplying the number of virtual shares by Deutsche Telekom AG's share price discounted to the reporting date. In the 2018 financial year, a total of 3.46 million (2017: 3.17 million) virtual shares were granted at a weighted average fair value of EUR 15.03 (2017: EUR 16.15). The plan must be remeasured at every reporting date until the end of the service period and expensed pro rata temporis. As of December 31, 2018, the cost of the long-term incentive plan amounted to EUR 62 million in total for all tranches (December 31, 2017: EUR 42 million). The provision totaled EUR 151 million as of December 31, 2018 (December 31, 2017: EUR 89 million).

SHARE-BASED PAYMENT AT T-MOBILE US

As of June 18, 2018, the T-Mobile US Omnibus Incentive Plan, which was set up in 2013, was revised and an increase of 18.5 million shares was approved. Furthermore, the acquisition of Layer3 TV and certain predecessor plans resulted in the registration of a total of 19.3 million new shares. Under the Omnibus Incentive Plan, the Company may grant stock options, stock appreciation rights, restricted stock, restricted stock units (RSUs), and performance awards to employees, consultants, advisors and non-employee directors. As of December 31, 2018, there were 12 million T-Mobile US shares of common stock (December 31, 2017: 15 million shares) available for future grants under the incentive plan.

T-Mobile US grants RSUs to eligible employees and certain non-employee directors, and performance-based restricted stock units (PRSUs) to eligible key executives of the company. RSUs entitle the grantee to receive shares of T-Mobile US common stock at the end of a vesting period of up to three years. PRSUs entitle the holder to receive shares of T-Mobile US common stock at the end of a vesting period of up to three years if a specific performance goal is achieved. Some of the PRSUs issued in 2018 relate to the agreed business combination of T-Mobile US and Sprint. The number of shares ultimately received is dependent on the actual performance of T-Mobile US measured against a defined performance target.

The RSU and PRSU plans resulted in the following share-related development:

Time-based restricted stock units and restricted stock awards (RSU)

	Number of shares	Weighted average fair value at grant date USD
Non-vested as of January 1, 2018	**12,061,608**	**50.69**
Granted	6,259,169	60.44
Vested	(6,455,617)	47.89
Forfeited	(854,525)	56.90
Non-vested as of December 31, 2018	**11,010,635**	**57.66**

Performance-based restricted stock units (PRSUs)

	Number of shares	Weighted average fair value at grant date USD
Non-vested as of January 1, 2018	**1,633,935**	**48.06**
Granted	3,364,629	63.54
Vested	(1,006,769)	36.47
Forfeited	(140,241)	64.14
Non-vested as of December 31, 2018	**3,851,554**	**64.03**

The program is measured at fair value on the grant date and recognized as expense, net of expected forfeitures, following a graded vesting schedule over the related service period. The fair value of stock awards for the RSUs is based on the closing price of T-Mobile US' common stock on the date of grant. The fair value of stock awards for the PRSUs was determined using the Monte Carlo model. Stock-based compensation expense was EUR 440 million as of December 31, 2018 (December 31, 2017: EUR 330 million).

Prior to the business combination, MetroPCS had established various stock option plans (predecessor plans). The MetroPCS stock options were adjusted in connection with the business combination. Following stockholder approval of T-Mobile US' 2013 Omnibus Incentive Plan, no new awards may be granted under the predecessor plan.

The plan resulted in the following development of the T-Mobile US stock options:

	Number of shares	Weighted average exercise price USD	Weighted average remaining contractual life (years)
Stock options outstanding/exercisable at January 1, 2018	**373.158**	**16,36**	**2,8**
Transferred as a result of the the acquisition of Layer3 TV	118.645	15,51	
Exercised	(187.965)	18,28	
Forfeited/canceled	(19.027)	18,81	
Stock options outstanding at December 31, 2018	**284.811**	**14,58**	**3,8**
Stock options exercisable at December 31, 2018	244.224	14,18	3,1

The exercise of stock options generated cash inflows of EUR 3 million (USD 3 million) in the 2018 financial year (2017: EUR 18 million (USD 21 million)).

40 FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

For further information on financial instruments, please refer in particular to Note 2 “Trade and other receivables,” Note 10 “Other financial assets,” Note 12 “Financial liabilities,” Note 27 “Finance costs,” and Note 29 “Other financial income/expense.”

Carrying amounts, amounts recognized, and fair values by class and measurement category

millions of €

			Amounts recognized in the statement of financial position in accordance with IFRS 9					
	Measurement category in accordance with IFRS 9	Carrying amount Dec. 31, 2018	Amortized cost	Fair value through other comprehensive income without recycling to profit or loss	Fair value through other comprehensive income with recycling to profit or loss	Fair value through profit or loss	Amounts recognized in the statement of financial position in accordance with IAS 17	Fair value Dec. 31, 2018 [a]
ASSETS								
Cash and cash equivalents	AC	3,679	3,679					
Trade receivables								
At amortized cost	AC	4,280	4,280					
At fair value through other comprehensive income	FVOCI	5,703			5,703			5,703
At fair value through profit or loss	FVTPL	5				5		5
Other financial assets								
Originated loans and other receivables								
At amortized cost	AC	2,982	2,982					3,013
Of which: collateral paid	AC	299	299					
At fair value through other comprehensive income	FVOCI	0						0
At fair value through profit or loss	FVTPL	103				103		103
Equity instruments								
At fair value through other comprehensive income	FVOCI	324		324				324
At fair value through profit or loss	FVTPL	0						
Derivative financial assets								
Derivatives without a hedging relationship	FVTPL	597				597		597
Of which: termination rights embedded in bonds issued	FVTPL	99				99		99
Of which: energy forward agreements embedded in contracts	FVTPL	12				12		12
Derivatives with a hedging relationship	n. a.	273			5	268		273
Lease assets	n. a.	147					147	
Cash and cash equivalents and trade receivables directly associated with non-current assets and disposal groups held for sale	AC	27	27					
Equity instruments within non-current assets and disposal groups held for sale	FVOCI	34		34				34

[a] The exemption provisions under IFRS 7.29a were applied for information on specific fair values.

Carrying amounts, amounts recognized, and fair values by class and measurement category

millions of €

			Amounts recognized in the statement of financial position in accordance with IFRS 9					
	Measurement category in accordance with IFRS 9	Carrying amount Dec. 31, 2018	Amortized cost	Fair value through other comprehensive income without recycling to profit or loss	Fair value through other comprehensive income with recycling to profit or loss	Fair value through profit or loss	Amounts recognized in the statement of financial position in accordance with IAS 17	Fair value Dec. 31, 2018 [a]
LIABILITIES								
Trade payables	AC	10,735	10,735					
Bonds and other securitized liabilities	AC	49,033	49,033					51,736
Liabilities to banks	AC	5,710	5,710					5,749
Liabilities to non-banks from promissory note bonds	AC	497	497					578
Other interest-bearing liabilities	AC	1,878	1,878					1,927
Of which: collateral received	AC	404	404					
Other non-interest-bearing liabilities	AC	1,608	1,608					
Finance lease liabilities	n. a.	2,472					2,472	2,695
Derivative financial liabilities								
Derivatives without a hedging relationship	n. a.	242				242		242
Of which: options granted to third parties for the purchase of shares in subsidiaries and associates	FVTPL	10				10		10
Of which: energy forward agreements embedded in contracts	FVTPL	52				52		52
Derivatives with a hedging relationship	n. a.	836			486	350		836
Trade payables directly associated with non-current assets and disposal groups held for sale	AC	36	36					
Of which: aggregated by measurement category in accordance with IFRS 9								
ASSETS								
Financial assets at amortized cost	AC	10,968	10,968					3,013
Financial assets at fair value through other comprehensive income with recycling to profit or loss	FVOCI	5,703			5,703			5,703
Financial assets at fair value through other comprehensive income without recycling to profit or loss	FVOCI	358		358				358
Financial assets at fair value through profit or loss	FVTPL	705				705		705
LIABILITIES								
Financial liabilities at amortized cost	AC	69,497	69,497					59,990
Financial liabilities at fair value through profit or loss	FVTPL	242				242		242

[a] The exemption provisions under IFRS 7.29a were applied for information on specific fair values.

Trade receivables include receivables amounting to EUR 1.7 billion (December 31, 2017: EUR 1.6 billion) due in more than one year. The fair value generally equals the carrying amount.

Carrying amounts, amounts recognized, and fair values by class and measurement category
millions of €

			Amounts recognized in the statement of financial position in accordance with IAS 39					
	Measurement category in accordance with IAS 39	Carrying amount Dec. 31, 2017	Amortized cost	Cost	Fair value recognized in equity	Fair value through profit or loss	Amounts recognized in the statement of financial position in accordance with IAS 17	Fair value Dec. 31, 2017 [b]
ASSETS								
Cash and cash equivalents	LaR	3,312	3,312					
Trade receivables	LaR	9,553	9,553					
Originated loans and receivables	LaR/n. a.	3,507	3,354				153	3,539
Of which: collateral paid	LaR	504	504					
Other non-derivative financial assets								
Held-to-maturity investments	HtM	5	5					
Available-for-sale financial assets	AfS	4,216		187	4,029			4,029
Derivative financial assets [a]								
Derivatives without a hedging relationship	FAHfT	1,103				1,103		1,103
Of which: termination rights embedded in bonds issued	FAHfT	351				351		351
Of which: energy forward agreements embedded in renewable energy purchase agreements	FAHfT	0						
Derivatives with a hedging relationship	n. a.	214			42	172		214
LIABILITIES								
Trade payables	FLAC	10,934	10,934					
Bonds and other securitized liabilities	FLAC	45,453	45,453					50,472
Liabilities to banks	FLAC	4,974	4,974					5,062
Liabilities to non-banks from promissory notes	FLAC	480	480					582
Liabilities with the right of creditors to priority repayment in the event of default	FLAC	0	0					0
Other interest-bearing liabilities	FLAC	1,598	1,598					1,629
Of which: collateral received	FLAC	569	569					0
Other non-interest-bearing liabilities	FLAC	1,443	1,443					0
Finance lease liabilities	n. a.	2,635	2,635				2,635	2,893
Derivative financial liabilities [a]								
Derivatives without a hedging relationship	FLHfT	337				337		337
Of which: conversion rights embedded in Mandatory Convertible Preferred Stock	FLHfT	0						0
Of which: options granted to third parties for the purchase of shares in subsidiaries and associates	FLHfT	10				10		10
Of which: energy forward agreements embedded in renewable energy purchase agreements	FLHfT	46				46		46
Derivatives with a hedging relationship	n. a.	609			168	441		609
Derivative financial liabilities directly associated with non-current assets and disposal groups held for sale	FLHfT	0						0
Of which: aggregated by measurement category in accordance with IAS 39 Loans and receivables	LaR	16,219	16,219					3,386
Held-to-maturity investments	HtM	5	5					0
Available-for-sale financial assets	AfS	4,216		187	4,029			4,029
Financial assets held for trading	FAHfT	1,103				1,103		1,103
Financial liabilities measured at amortized cost	FLAC	64,882	64,882					57,745
Financial liabilities held for trading	FLHfT	337				337		337

[a] For details, please refer to the derivatives table in this Note, page 258.
[b] The exemption provisions under IFRS 7.29a were applied for information on specific fair values.

The portfolio of financial assets by measurement category in accordance with IAS 39 is reconciled to the IFRS 9 measurement categories as follows:

Reconciliation of financial assets from IAS 39 to IFRS 9
millions of €

	Carrying amount Dec. 31, 2017 (IAS 39)	Reclassifications [a]	Reclassifications to other comprehensive income	Remeasurements [b]	Carrying amount Jan. 1, 2018 (IFRS 9) [c]	Effect to be recognized in retained earnings Jan. 1, 2018 [d]
AT FAIR VALUE THROUGH PROFIT OR LOSS						
Ending balance in accordance with IAS 39	1,103				1,103	
Additions to IFRS 9 – At fair value through profit or loss from						
IAS 39 – Loans and receivables or held-to-maturity investments		8			8	
IAS 39 – Available-for-sale financial assets		12			12	
	1,103	**20**			**1,123**	
AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME						
Ending balance in accordance with IAS 39	4,216				4,216	
Additions to IFRS 9 – At fair value through other comprehensive income with recycling to profit or loss from IAS 39 – Loans and receivables or held-to-maturity investments		5,035	(101)	(2)	4,931	(97)
Disposals from IAS 39 – Available-for-sale financial assets to IFRS 9 – At amortized cost		(185)			(185)	
IFRS 9 – At fair value through other comprehensive income with recycling to profit or loss				(1)	(1)	(1)
IFRS 9 – At fair value through profit or loss		(12)			(12)	
	4,216	**4,838**	**(101)**	**(3)**	**8,950**	**(99)**
AT AMORTIZED COST						
Ending balance in accordance with IAS 39	16,226				16,226	
Additions to IFRS 9 – At amortized cost from IAS 39 – Available-for-sale financial assets		185			185	
Disposals from IAS 39 – Loans and receivables or held-to-maturity investments to IFRS 9 – At amortized cost		(313)		(60)	(371)	(61)
IFRS 9 – At fair value through other comprehensive income with recycling to profit or loss		(5,035)			(5,035)	
IFRS 9 – At fair value through profit or loss		(8)			(8)	
	16,226	**(5,170)**		**(60)**	**10,996**	**(61)**
TOTAL CHANGE	**21,544**	**(313)**	**(101)**	**(63)**	**21,069**	**(159)**

[a] Carrying amount under IAS 39 that must be reclassified from an IAS 39 category to a new IFRS 9 category.
[b] Resulting difference from the remeasurement of an IAS 39 instrument under the new IFRS 9 category.
[c] The allowances posted under trade receivables recognized at fair value through other comprehensive income were offset with the receivables. On initial presentation of the transition to IFRS 9 in the Interim Group Report for the period January 1 to March 31, 2018, these allowances were presented gross in other comprehensive income.
[d] Effects include shares attributable to non-controlling interests.

The main reclassifications from the old IAS 39 measurement categories to the new IFRS 9 measurement categories relate to portfolios of trade receivables that are to be sold under a factoring agreement. Previously assigned to the category "Loans and receivables" and measured at amortized cost, these receivables are now measured – depending on the underlying business model – either at fair value through other comprehensive income with recycling to profit or loss, or at fair value through profit or loss. Trade receivables with a carrying amount of EUR 150 million were reclassified as contract assets in accordance with IFRS 15.

In addition, Deutsche Telekom reclassified all equity instruments previously recognized as available-for-sale financial assets to the IFRS 9 category "At fair value through other comprehensive income without recycling to profit or loss."

Under IFRS 9, debt instruments previously assigned to the categories "Available-for-sale financial assets," "Held-to-maturity investments," and "Loans and receivables" are reclassified – depending on the underlying business model and the cash flow characteristics of each instrument – to the new categories "At amortized cost," "At fair value through other comprehensive income with recycling to profit or loss," or "At fair value through profit or loss."

The allocation of financial liabilities to IFRS 9 measurement categories does not result in any changes. The names of the measurement categories were updated to reflect the wording of the new standard.

Subsidiaries that are not included in the consolidated financial statements due to their subordinate significance, and which were previously recognized under IAS 39 at amortized cost as available-for-sale financial assets, are recognized under other assets as of the 2018 financial year and were reclassified as of January 1, 2018 with a carrying amount of EUR 177 million.

The table on the next page shows the classes of financial assets and liabilities under IFRS 9 along with their previous and current measurement categories and carrying amounts:

Classes of financial instruments in accordance with IFRS 9

	Measurement categories		Carrying amounts Dec. 31, 2017 / Jan. 1, 2018		
	IAS 39	IFRS 9	IAS 39	IFRS 9	Difference
ASSETS					
Cash and cash equivalents	Loans and receivables (LaR)	Amortized cost (AC)	3,312	3,312	0
Trade receivables					
At amortized cost		Amortized cost (AC)		4,323	(5,077)
At fair value through other comprehensive income	Loans and receivables (LaR)	Fair value through other comprehensive income (FVOCI)	9,400	4,919	4,919
At fair value through profit or loss		Fair value through profit or loss (FVTPL)		6	6
Other financial assets					
Originated loans and other receivables					
At amortized cost	Loans and receivables (LaR) or held-to-maturity investments (HtM) or available-for-sale financial assets (AfS)	Amortized cost (AC)	3,512	3,361	(151)
Of which: collateral paid	Loans and receivables (LaR)	Amortized cost (AC)	504	504	0
At fair value through profit or loss	Available-for-sale financial assets (AfS)	Fair value through profit or loss (FVTPL)	14	14	0
Equity instruments At fair value through other comprehensive income	Available-for-sale financial assets (AfS)	Fair value through other comprehensive income (FVOCI)	4,202	4,029	(173)
At fair value through profit or loss	Available-for-sale financial assets (AfS)	Fair value through profit or loss (FVTPL)	0	0	0
Derivative financial assets					
Derivatives without a hedging relationship	Financial assets held for trading (FAHfT)	Fair value through profit or loss (FVTPL)	1,103	1,103	0
Of which: termination rights embedded in bonds issued	Financial assets held for trading (FAHfT)	Fair value through profit or loss (FVTPL)	351	351	0
Derivatives with a hedging relationship	n. a.	n. a.	214	214	0
Lease assets [a]	n. a.	n. a.	153	153	0
LIABILITIES					
Trade payables	Financial liabilities measured at amortized cost (FLAC)	Amortized cost (AC)	10,934	10,934	0
Bonds and other securitized liabilities	Financial liabilities measured at amortized cost (FLAC)	Amortized cost (AC)	45,453	45,453	0
Liabilities to banks	Financial liabilities measured at amortized cost (FLAC)	Amortized cost (AC)	4,974	4,974	0
Liabilities to non-banks from promissory notes	Financial liabilities measured at amortized cost (FLAC)	Amortized cost (AC)	480	480	0
Other interest-bearing liabilities	Financial liabilities measured at amortized cost (FLAC)	Amortized cost (AC)	1,598	1,598	0
Of which: collateral received	Financial liabilities measured at amortized cost (FLAC)	Amortized cost (AC)	569	569	0
Other non-interest-bearing liabilities	Financial liabilities measured at amortized cost (FLAC)	Amortized cost (AC)	1,443	1,443	0
Finance lease liabilities	n. a.	n. a.	2,635	2,635	0
Derivative financial liabilities Derivatives without a hedging relationship	Financial liabilities held for trading (FLHfT)	Fair value through profit or loss (FVTPL)	337	337	0
Of which: options granted to third parties for the purchase of shares in subsidiaries andassociates	Financial liabilities held for trading (FLHfT)	Fair value through profit or loss (FVTPL)	10	10	0
Of which: energy forward agreements embedded in contracts	Financial liabilities held for trading (FLHfT)	Fair value through profit or loss (FVTPL)	46	46	0
Derivatives with a hedging relationship	n. a.	n. a.	609	609	0

[a] Carrying amount in accordance with IAS 17.

The allowances on financial assets in accordance with IAS 39 are being reconciled to the IFRS 9 requirements as follows:

Allowances on financial assets
millions of €

	Trade receivables		Contract assets	Originated loans and other receivables	Total
Measurement categories					
in accordance with IAS 39	LaR	LaR	n. a.	LaR	
in accordance with IFRS 9	AC	FVOCI	n. a.	AC	
Allowances					
Amount in accordance with IAS 39 (Dec. 31, 2017)	1,303	334	0	19	**1,657**
Additions resulting from change in measurement category	45	99	28		**172**
Disposals resulting from change in measurement category				(13)	**(13)**
Amount in accordance with IFRS 9 (Jan. 1, 2018)	1,348	433	28	6	**1,816**
DIFFERENCE IN RETAINED EARNINGS (DEBIT (CREDIT))	**45**	**99**	**28**	**(13)**	**159**

Financial instruments not measured at fair value, the fair values of which are disclosed nevertheless.
When determining the fair value, it is important to maximize the use of current inputs observable in liquid markets for the financial instrument in question and minimize the use of other inputs (e.g., historical prices, prices for similar instruments, prices on illiquid markets). A three-level measurement hierarchy is defined for these purposes. If prices quoted in liquid markets are available at the reporting date for the respective financial instrument, these will be used unadjusted for the measurement (Level 1 measurement). Other input parameters are then irrelevant for the measurement. One such example is shares and bonds that are actively traded on a stock exchange. Even if quoted prices on liquid markets are not available at the reporting date for the respective financial instrument, the instrument can be measured using other inputs that are observable on the market at the reporting date (Level 2 measurement). The conditions for this are that no major adjustments have been made to the observable inputs and no unobservable inputs are used. Examples of Level 2 measurements are collateralized interest rate swaps, currency forwards, and cross-currency swaps that can be measured using current interest rates or exchange rates. If the conditions for a Level 1 or Level 2 measurement are not met, a Level 3 measurement is applied. In such cases, major adjustments must be made to observable inputs or unobservable inputs must be used.

millions of €

	Dec. 31, 2018				Dec. 31, 2017			
	Level 1 Inputs as prices in active markets	Level 2 Other inputs that are directly or indirectly observable	Level 3 Inputs that are unobservable[a]	Total	Level 1 Inputs as prices in active markets	Level 2 Other inputs that are directly or indirectly observable	Level 3 Inputs that are unobservable	Total
ASSETS								
Originated loans and receivables		3,013		**3,013**		3,539		**3,539**
LIABILITIES								
Financial liabilities measured at amortized cost	41,342	18,548	100	**59,990**	41,233	16,161	351	**57,745**
Of which: bonds and other securitized liabilities	41,342	10,294	100	**51,736**	41,233	8,888	351	**50,472**
Of which: liabilities to banks		5,749		**5,749**		5,062		**5,062**
Of which: liabilities to non-banks from promissory notes		578		**578**		582		**582**
Of which: liabilities with the right of creditors to priority repayment in the event of default		0		**0**		0		**0**
Of which: other interest-bearing liabilities		1,927		**1,927**		1,629		**1,629**
Finance lease liabilities		2,695		**2,695**		2,893		**2,893**

[a] Separation of embedded derivatives; the fair value of the entire instrument must be categorized as Level 1.

Financial instruments measured at fair value
millions of €

	Dec. 31, 2018			
	Level 1	Level 2	Level 3	Total
ASSETS				
Trade receivables				
At fair value through other comprehensive income			5,703	**5,703**
At fair value through profit or loss			5	**5**
Other financial assets – Originated loans and other receivables				
At fair value through other comprehensive income				
At fair value through profit or loss	93		10	**103**
Equity instruments				
At fair value through other comprehensive income			358	**358**
Derivative financial assets				
Derivatives without a hedging relationship		486	111	**597**
Derivatives with a hedging relationship		273		**273**
LIABILITIES				
Derivative financial liabilities				
Derivatives without a hedging relationship		180	62	**242**
Derivatives with a hedging relationship		836		**836**

Financial instruments measured at fair value
millions of €

	Dec. 31, 2017			
	Level 1	Level 2	Level 3	Total
ASSETS				
Available-for-sale financial assets (AfS)	3,752		277	**4,029**
Financial assets held for trading (FAHfT)		752	351	**1,103**
Derivative financial liabilities with a hedging relationship		214		**214**
LIABILITIES				
Financial liabilities held for trading (FLHfT)		281	56	**337**
Derivative financial liabilities with a hedging relationship		609		**609**

Of the equity instruments measured at fair value through other comprehensive income and recognized under other financial assets, the instruments presented in the different levels constitute separate classes of financial instruments. In each case, the fair values of the total volume of equity instruments recognized as Level 1 are the price quotations at the reporting date. The total volume of instruments recognized as Level 1 in the prior year included a strategic financial stake of 12 percent in BT with a carrying amount equivalent to around EUR 3.7 billion. In the reporting year, this stake was transferred to plan assets.

The listed bonds and other securitized liabilities are assigned to Level 1 or Level 2 depending on the market liquidity of the relevant instrument. Consequently, issues denominated in euros or U.S. dollars with relatively large nominal amounts are to be classified as Level 1, the rest as Level 2. The fair values of the instruments assigned to Level 1 equal the nominal amounts multiplied by the price quotations at the reporting date. The fair values of the instruments assigned to Level 2 are calculated as the present values of the payments associated with the debts, based on the applicable yield curve and Deutsche Telekom's credit spread curve for specific currencies.

The fair values of liabilities to banks, liabilities to non-banks from promissory notes, other interest-bearing liabilities, and finance lease liabilities are calculated as the present values of the payments associated with the debts, based on the applicable yield curve and Deutsche Telekom's credit spread curve for specific currencies.

Since there are no market prices available for the derivative financial instruments in the portfolio assigned to Level 2 due to the fact that they are not listed on the market, the fair values are calculated using standard financial valuation models, based entirely on observable inputs. The fair value of derivatives is the price that Deutsche Telekom would receive or have to pay if the financial instrument were transferred at the reporting date. Interest rates of contractual partners relevant as of the reporting date are used in this respect. The middle rates applicable as of the reporting date are used as exchange rates. In the case of interest-bearing derivatives, a distinction is made between the clean price and the dirty price. In contrast to the clean price, the dirty price also includes the interest accrued. The fair values carried correspond to the full fair value or the dirty price.

The equity instruments measured at fair value through other comprehensive income contain a large number of investments in strategic, unlisted individual positions. Deutsche Telekom considers the chosen measurement through other comprehensive income without recycling to profit or loss to be appropriate because there are no plans to use the investments for short-term profit-taking. At the date of disposal of an investment, the total cumulative gain or loss is reclassified to retained earnings. Acquisitions and disposals are based on business policy investment decisions.

Furthermore, the financial stake of 12 percent in BT was transferred to plan assets in the reporting year, at which point it was derecognized. Upon derecognition, the fair value was the equivalent of around EUR 3.1 billion. Upon initial recognition in 2016, the carrying amount stood at the equivalent of around EUR 7.4 billion. Due to the impairment losses already recognized in profit or loss in prior years in accordance with IAS 39, the total other comprehensive income amounted to EUR 0 and the carrying amount equivalent to around EUR 3.7 billion as of December 31, 2017. The decline in value equivalent to around EUR 0.7 billion that occurred in the reporting year before the transfer was recognized in other comprehensive income and reclassified to retained earnings upon the transfer.

Investments in equity instruments at fair value through other comprehensive income
millions of €

FAIR VALUE AS OF DECEMBER 31, 2018	**358**
Dividends recognized in profit/loss	
on investments divested in the reporting period	
on investments still held at the reporting date	3
Fair value at the derecognition date of instruments divested in the reporting period	91
Cumulative losses reclassified in the reporting period from other comprehensive income to retained earnings	47
Of which: from the disposal of investments	47

Development of the carrying amounts of the financial assets and financial liabilities assigned to Level 3
millions of €

	Equity instruments at fair value through other comprehensive income	Derivative financial assets at fair value through profit or loss: energy forward agreements embedded in contracts	Derivative financial assets at fair value through profit or loss: energy forward agreements embedded in contracts	Derivative financial liabilities at fair value through profit or loss: energy forward agreements embedded in contracts
Carrying amount as of January 1, 2018	**277**	**351**	**0**	**(46)**
Additions (including first-time categorization as Level 3)	150	11		
Decreases in fair value recognized in profit/loss (including losses on disposal)		(220)		(26)
Increases in fair value recognized in profit/loss (including gains on disposal)		68	12	23
Decreases in fair value recognized directly in equity	(42)			
Increases in fair value recognized directly in equity	68			
Disposals	(95)	(118)		
Currency translation effects recognized directly in equity		7		(3)
CARRYING AMOUNT AS OF DECEMBER 31, 2018	**358**	**99**	**12**	**(52)**

Development of the carrying amounts of the financial assets and financial liabilities assigned to Level 3
millions of €

	Available-for-sale financial assets (AfS)	Financial assets held for trading (FAHfT): early redemption options embedded in bonds	Financial assets held for trading (FAHfT): energy forward agreements embedded in renewable energy purchase agreements	Financial liabilities held for trading (FLHfT): conversion rights embedded in Mandatory Convertible Preferred Stock	Financial liabilities held for trading (FLHfT): energy forward agreements embedded in renewable energy purchase agreements
Carrying amount as of January 1, 2017	210	915	0	(837)	0
Additions (including first-time categorization as Level 3)	101	16	0	0	0
Decreases in fair value recognized in profit/loss (including losses on disposal)	(43)	(311)	(3)	(246)	(50)
Increases in fair value recognized in profit/loss (including gains on disposal)	17	152	3	117	4
Decreases in fair value recognized directly in equity	(50)	0	0	0	0
Increases in fair value recognized directly in equity	70	0	0	0	0
Disposals	(28)	(353)	0	864	0
Currency translation effects recognized directly in equity	0	(68)	0	102	0
Carrying amount as of December 31, 2017	**277**	**351**	**0**	**0**	**(46)**

The equity instruments assigned to Level 3 that are measured at fair value through other comprehensive income and carried under other financial assets are equity investments with a carrying amount of EUR 354 million measured using the best information available at the reporting date. As a rule, Deutsche Telekom considers transactions involving shares in those companies to have the greatest relevance. Transactions involving shares in comparable companies are also considered. The closeness of the transaction in question to the reporting date and the question of whether the transaction was at arm's length are relevant for the decision on which information will ultimately be used for the measurement. Furthermore, the degree of similarity between the object being measured and comparable companies must be taken into consideration. Based on Deutsche Telekom's own assessment, the fair values of the equity investments at the reporting date could be determined with sufficient reliability. Please refer to the table on the previous page for the development of the carrying amounts in the reporting year. At the reporting date, investments with a carrying amount of EUR 34 million were held for sale, while there were no plans to sell the remaining investments. In the case of investments with a carrying amount of EUR 252 million, transactions involving shares in these companies took place at arm's length sufficiently close to the reporting date, which is why the share prices agreed in the transactions were to be used without adjustment for the measurement as of December 31, 2018. In the case of investments with a carrying amount of EUR 78 million, an analysis of operational indicators (especially revenue, EBIT and liquidity) revealed that the carrying amounts were equivalent to current fair values. Due to better comparability, previous arm's-length transactions involving shares in these companies are preferable to more recent transactions involving shares in similar companies. In the case of investments with a carrying amount of EUR 24 million, for which the last arm's length transactions relating to shares in these companies took place some time ago, a measurement performed more recently relating to shares in similar companies provides the most reliable representation of the fair values. Here, multiples to the reference variable of expected revenue (ranging between 3.2 and 11.2) were taken. The 25 percent quantile, the median, or the 75 percent quantile was used for the multiples depending on the specific circumstances. If other values had been used for the multiples and for the expected revenue amounts, the fair values calculated would have been different. These hypothetical deviations (sensitivities) are shown in the table on the next page. In addition, non-material individual items with a carrying amount of EUR 4 million are included with differences in value of minor relevance. For the development of the carrying amounts in the reporting year, please refer to the corresponding table on the previous page.

The derivatives without a hedging relationship assigned to Level 3 and carried under derivative financial assets relate to options embedded in bonds issued by T-Mobile US with a carrying amount of EUR 99 million when translated into euros. The options, which can be exercised by T-Mobile US at any time, allow early redemption of the bonds at fixed exercise prices. Observable market prices are available regularly and also at the reporting date for the bonds as entire instruments, but not for the options embedded therein. The termination rights are measured using an option pricing model. Historical interest rate volatilities of bonds issued by T-Mobile US and comparable issuers are used for the measurement because these provide a more reliable estimate at the reporting date than current market interest rate volatilities. The absolute figure used for the interest rate volatility at the current reporting date was between 1.1 and 2.0 percent. The spread curve, which is also unobservable, was derived on the basis of current market prices of bonds issued by T-Mobile US and debt instruments of comparable issuers. The spreads used at the current reporting date were between 3.6 and 4.2 percent for the maturities of the bonds and between 1.6 and 3.4 percent for shorter terms. For the mean reversion input, which is likewise unobservable, 10 percent was used. In our opinion, the values used constitute the best estimate in each case. If other values had been used for interest rate volatility, spread curve or mean reversion, the fair values calculated would have been different. These hypothetical deviations (sensitivities) are shown in the table on the next page. In the reporting year, a net expense of EUR 108 million when translated into euros was recognized under the Level 3 measurement in other financial income/expense for unrealized losses for the options in the portfolio at the reporting date. In the reporting year, several options were exercised and the relevant bonds canceled prematurely. At the time of termination, the options and their total carrying amount of EUR 118 million when translated into euros were expensed and derecognized. The changes in value recognized in profit or loss in the reporting year were mainly attributable to fluctuations in the interest rates and historical interest rate volatilities in absolute terms that are relevant for measurement. For the development of the carrying amounts in the reporting year, please refer to the corresponding table on the previous page. Due to their distinctiveness, these instruments constitute a separate class of financial instruments.

Sensitivities[a] of the carrying amounts of the financial assets and financial liabilities assigned to Level 3 depending on unobservable inputs
millions of €

	Equity instruments at fair value through other comprehensive income	Derivative financial assets at fair value through profit or loss: termination rights embedded in bonds issued	Derivative financial assets at fair value through profit or loss: energy forward agreements embedded in contracts	Derivative financial liabilities at fair value through profit or loss: energy forward agreements embedded in contracts
Multiple next–level-up quantile	5			
Multiple next–level-down quantile	(5)			
Expected revenues +10 %	2			
Expected revenues -10 %	(2)			
Interest rate volatility[b] +10 %		19		
Interest rate volatility[b] -10 %		(16)		
Spread curve[c] +100 basis points		(58)		
Spread curve[c] -100 basis points		103		
Mean reversion[d] +100 basis points		(3)		
Mean reversion[d] -100 basis points		5		
Future energy prices +10 %			25	25
Future energy prices -10 %			(25)	(25)
Future energy output +5 %			9	6
Future energy output -5 %			(9)	(6)
Future prices for renewable energy credits[e] +100 %			6	8
Future prices for renewable energy credits[e] from zero			(6)	(8)

[a] Change in the relevant input parameter assuming all other input parameters are unchanged.
[b] Interest rate volatility shows the magnitude of fluctuations in interest rates over time (relative change). The larger the fluctuations, the higher the interest rate volatility.
[c] The spread curve shows, for the respective maturities, the difference between the interest rates payable by T-Mobile US and the interest rates on U.S. government bonds.
[d] Mean reversion describes the assumption that, after a change, an interest rate will revert to its average over time. The higher the selected value (mean reversion speed), the faster the interest rate will revert to its average in the measurement model.
[e] Renewable energy credits is the term used for U.S. emission certificates.

With a carrying amount of EUR 52 million when translated into euros, the derivatives without a hedging relationship assigned to Level 3 and carried under derivative financial liabilities relate to energy forward agreements embedded in contracts entered into by T-Mobile US. The same applies to derivative financial instruments with a carrying amount of EUR 12 million when translated into euros. These agreements consist of two components: the energy forward agreement and the acquisition of renewable energy credits by T-Mobile US. The agreements were entered into with energy producers in 2017 and 2018, and will run for terms of between 12 and 20 years from the commencement of commercial operations. In the case of one energy forward agreement, commercial operations began at the end of 2017; with the others, commercial operations are set to begin between 2019 and 2020. The respective settlement period of the energy forward agreements, which are accounted for separately as derivatives, also starts when the facility begins commercial operation. Under the energy forward agreements, T-Mobile US receives variable amounts based on the facility's actual energy output and the then current energy prices, and pays fixed amounts per unit of energy generated throughout the term of the contract. The energy forward agreements are measured using valuation models because no observable market prices are available. The value of the derivatives is materially influenced by the facility's future energy output, for which T-Mobile US estimated a value of 2,207 gigawatt hours per year at the reporting date. The value of the derivatives is also significantly influenced by future energy prices, which are not observable for the period beyond five years. Further, the value of the derivatives is materially influenced by the future prices for renewable energy credits, which are also not observable. For the unobservable portion of the term, T-Mobile US used on-peak energy prices of between EUR 25.75/MWh and EUR 40.34/MWh when translated into euros and off-peak prices of between EUR 16.63/MWh and EUR 28.90/MWh when translated into euros. An average on-peak/off-peak ratio of 52 percent was used. In our opinion, the values used constitute the best estimate in each case. If other values had been used for future energy prices, future energy output or future prices of renewable energy credits, the fair values calculated would have been different. These hypothetical deviations (sensitivities) are shown in the table on the previous page. Due to their distinctiveness, these instruments constitute a separate class of financial instruments. In the reporting year, net income of EUR 7 million (when translated into euros) was recognized under the Level 3 measurement in other operating income/expense for unrealized gains for the derivatives. For the development of the carrying amounts in the reporting year, please refer to the corresponding table on page 244. The market-price changes in the reporting year were largely attributable to changes in observable and unobservable energy prices and to interest rate effects. A contract whose fair value was still negative at the beginning of the reporting year now has a positive fair value from Deutsche Telekom's perspective, which is why it has to be disclosed as a financial asset. In the view of T-Mobile US, the contracts were entered into at current market conditions, and the most appropriate parameters for the unobservable inputs were used for measurement purposes. The transaction price at inception was zero in each case. Since the unobservable inputs have a material influence on the measurement of the derivatives, the respective amount resulting from initial measurement was not carried on initial recognition. Instead, these amounts are amortized in profit or loss on a straight-line basis over the period of commercial energy generation (for a total amount of EUR 11 million per year when translated into euros). This amortization adjusts the effects from measuring the derivatives in each accounting period using the respective valuation models and updated parameters. All amounts from the measurement of the derivatives are presented in net terms per contract in the statement of financial position (derivative financial assets/liabilities) and in the income statement (other operating income/expenses). The difference yet to be amortized in the income statement developed as follows during the reporting year:

Energy forward agreements: development of the not-yet-amortized measurement amounts on initial recognition
millions of €

Measurement amounts on initial recognition	**112**
Measurement amounts on initial recognition (additions during the reporting period)	39
Measurement amounts amortized in profit or loss in prior periods	0
Measurement amounts amortized in profit or loss in the current reporting period	(3)
Currency translation adjustments	0
MEASUREMENT AMOUNTS NOT AMORTIZED AS OF DECEMBER 31, 2018	**148**

For the trade receivables, loans issued and other receivables assigned to Level 3, which are measured either at fair value through other comprehensive income or at fair value through profit or loss, the main factor in determining fair value is the credit risk of the relevant counterparties. If the default rates applied as of the reporting date had been 1 percent higher (lower) with no change in the reference variables, the fair values of the instruments would have been 1 percent lower (higher).

The financial liabilities measured at fair value through profit or loss and assigned to Level 3 include derivative financial liabilities with a carrying amount of EUR 10 million resulting from an option granted to third parties in the prior-year period for the purchase of shares in an associate of Deutsche Telekom. The option was granted in connection with a sale of shares in this associate, and no notable fluctuations in value are expected. Due to its distinctiveness, this instrument constitutes a separate class of financial instruments.

Net gain/loss by measurement category

millions of €

	Recognized in profit or loss from interest and dividends	Recognized in profit or loss from subsequent measurement			Recognized directly in equity from subsequent measurement	Recognized in profit or loss from derecognition	Net gain (loss) 2018
		At fair value	Currency translation	Impairments/ allowances	At fair value		
Debt instruments measured at amortized cost	27	n. a.	1,059	(80)	n. a.	(145)	**861**
Debt instruments measured at fair value through profit or loss	10	0	n. a.	n. a.	n. a.	(3)	**7**
Debt instruments measured at fair value through other comprehensive income	0	n. a.	n. a.	(322)	23	51	**(248)**
Equity instruments measured at fair value through profit or loss	0	0	n. a.	n. a.	n. a.	0	**0**
Equity instruments measured at fair value through other comprehensive income	2	n. a.	n. a.	n. a.	(620)	n. a.	**(618)**
Derivative financial instruments measured at fair value through profit or loss	n. a.	(382)	n. a.	n. a.	n. a.	n. a.	**(382)**
Financial liabilities measured at amortized cost	(1,820)	n. a.	(963)	n. a.	n. a.	n. a.	**(2,783)**
	(1,781)	**(382)**	**96**	**(402)**	**(597)**	**(97)**	**(3,163)**

Net gain/loss by measurement category

millions of €

	Recognized in profit or loss from interest and dividends	Recognized in profit or loss from subsequent measurement			Recognized directly in equity from subsequent measurement	Recognized in profit or loss from derecognition	Net gain (loss) 2017
		At fair value	Currency translation	Impairments/ allowances	At fair value		
Loans and receivables (LaR)	31		(3,152)	(581)			**(3,702)**
Held-to-maturity investments (HtM)	0						**0**
Available-for-sale financial assets (AfS)	224			(1,514)	34	16	**(1,240)**
Financial instruments held for trading (FAHfT and FLHfT)	n. a.	(632)					**(632)**
Financial liabilities measured at amortized cost (FLAC)	(2,186)		2,981				**795**
	(1,931)	**(632)**	**(171)**	**(2,095)**	**34**	**16**	**(4,779)**

Interest from financial instruments is recognized in finance costs, dividends in other financial income/expense (please also refer to Note 27 “Finance costs,” page 217, and Note 29 “Other financial income/expense, pages 217 and 218). The other components of the net gain/loss are recognized in other financial income/expense, except for allowances on trade receivables (see Note 2 “Trade and other receivables,” page 182) that are classified as debt instruments measured at amortized cost and debt instruments measured at fair value through other comprehensive income, which are reported under other operating expenses. The net loss from the subsequent measurement for financial instruments measured at fair value through profit or loss (EUR 382 million) also includes interest and currency translation effects. The net currency translation gains on financial assets classified as debt instruments measured at amortized cost (EUR 1,059 million) are primarily attributable to the Group-internal transfer of foreign-currency loans taken out by Deutsche Telekom’s financing company, Deutsche Telekom International Finance B.V., on the capital market. These were offset by corresponding currency translation losses on capital market liabilities of EUR 963 million. These include currency translation gains from derivatives that Deutsche Telekom used as hedges for hedge accounting in foreign currency (EUR 143 million; 2017: currency translation loss of EUR 544 million). Finance costs from financial liabilities measured at amortized cost (expense of EUR 1,820 million) primarily consist of interest expense on bonds and other (securitized) financial liabilities. The item also includes interest expenses from the accumulation of interest added back and interest income from interest discounted from trade payables. However, it does not include the interest expense and interest income from interest rate derivatives Deutsche Telekom used in the reporting year to hedge the fair value risk of financial liabilities (please also refer to Note 27 “Finance costs,” page 217).

Principles of risk management. Deutsche Telekom is exposed in particular to risks from changes in exchange rates, interest rates, and market prices that affect its assets, liabilities, and forecast transactions. Financial risk management aims to limit these market risks through ongoing operational and finance activities. Selected derivative and non-derivative hedging instruments (hedging transactions) are used for this purpose, depending on the risk assessment. However, Deutsche Telekom only hedges the risks that affect the Group's cash flow. Derivatives are exclusively used as hedging instruments, i.e., not for trading or other speculative purposes. To reduce the credit risk, hedging instruments are generally only concluded with leading financial institutions whose credit rating is at least BBB+/Baa1. In addition, the credit risk for derivatives with a positive market value is generally minimized through collateral agreements with all core banks. Furthermore, the limits for deposits are also set and monitored on a daily basis depending on the rating, share price performance, and credit default swap level of the respective counterparty.

The fundamentals of Deutsche Telekom's financial policy are established by the Board of Management and overseen by the Supervisory Board. Group Treasury is responsible for implementing the financial policy and for ongoing risk management. Certain transactions require the prior approval of the Board of Management, which is also regularly briefed on the severity and amount of the current risk exposure.

Group Treasury regards effective management of the market risk as one of its main tasks. The main risks relate to foreign currencies and interest rates.

Currency risks. Deutsche Telekom is exposed to currency risks from its investing, financing, and operating activities. Risks from foreign currencies are hedged to the extent that they influence the Group's cash flows. Foreign-currency risks that do not influence the Group's cash flows (i.e., the risks resulting from the translation of assets and liabilities of foreign operations into the Group's reporting currency) are generally not hedged, however. Deutsche Telekom may nevertheless also hedge this foreign-currency risk under certain circumstances.

Foreign-currency risks in the area of investment result, for example, from the acquisition and disposal of investments in foreign companies. Deutsche Telekom hedges these risks. If the risk position exceeds EUR 100 million, the Board of Management must make a special decision on how the risk shall be hedged. If the risk position is below EUR 100 million, Group Treasury performs the currency hedging itself. At the reporting date, Deutsche Telekom was not exposed to any significant risks from foreign-currency transactions in the field of investments.

Foreign-currency risks in the financing area are caused by financial liabilities in foreign currency and loans in foreign currency that are extended to Group entities for financing purposes. Group Treasury hedges these risks in full. Cross-currency swaps and currency derivatives are used to convert financial obligations and intragroup loans denominated in foreign currencies into the Group entities' functional currencies.

At the reporting date, the foreign-currency liabilities for which currency risks were hedged mainly consisted of bonds in Australian dollars, pounds sterling, Hong Kong dollars, Japanese yen, Norwegian kroner, and U.S. dollars. On account of these hedging activities, Deutsche Telekom was not exposed to any significant currency risks in the area of financing at the reporting date.

The Group entities predominantly execute their operating activities in their respective functional currencies. Payments made in a currency other than the respective functional currency result in foreign-currency risks in the Group. These relate in particular to payments for the procurement of network equipment and mobile handsets as well as payments to international telecommunications companies for the provision of access services. Deutsche Telekom generally uses currency derivatives for hedging purposes. On account of these hedging activities, Deutsche Telekom was not exposed to any significant exchange rate risks from its operating activities at the reporting date.

For the presentation of market risks, IFRS 7 requires sensitivity analyses that show the effects of hypothetical changes of relevant risk variables on profit or loss and shareholders' equity. In addition to currency risks, Deutsche Telekom is exposed to interest rate risks and price risks in its investments. The periodic effects are determined by relating the hypothetical changes in the risk variables to the balance of financial instruments at the reporting date. It is assumed that the balance at the reporting date is representative for the year as a whole.

Currency risks as defined by IFRS 7 arise on account of financial instruments being denominated in a currency that is not the functional currency and being of a monetary nature; differences resulting from the translation of financial statements into the Group's presentation currency are not taken into consideration. Relevant risk variables are generally all non-functional currencies in which Deutsche Telekom has contracted financial instruments.

The currency sensitivity analyses are based on the following assumptions: Major non-derivative monetary financial instruments (liquid assets, receivables, interest-bearing securities and/or debt instruments held, interest-bearing liabilities, finance lease liabilities, non-interest-bearing liabilities) are either directly denominated in the functional currency or are transferred to the functional currency through the use of derivatives. Exchange rate fluctuations therefore have no effects on profit or loss, or shareholders' equity.

Non-interest-bearing securities or equity instruments held are of a non-monetary nature and therefore are not exposed to a currency risk as defined by IFRS 7.

Interest income and interest expense from financial instruments are also either recorded directly in the functional currency or transferred to the functional currency using derivatives. For this reason, there can be no effects on the variables considered in this connection.

In the case of fair value hedges designed to hedge currency risks, the changes in the fair values of the hedged item and the hedging transaction attributable to exchange rate movements balance out almost completely in the income statement in the same period. As a consequence, these financial instruments are not exposed to currency risks with an effect on profit or loss, or shareholders' equity, either.

In the case of net investment hedges designed to hedge currency risks, the changes in the fair values of the hedged item and the hedging instrument attributable to exchange rate movements balance out completely in shareholders' equity in the same period. As a consequence, these financial instruments are not exposed to currency risks with an effect on profit or loss, or shareholders' equity, either.

Cross-currency swaps are always assigned to non-derivative hedged items, so these instruments do not have any currency effects, either.

Deutsche Telekom is therefore only exposed to currency risks from specific currency derivatives. Some of these are currency derivatives that are part of an effective cash flow hedge for hedging payment fluctuations resulting from exchange rate movements in accordance with IFRS 9. Exchange rate fluctuations of the currencies on which these transactions are based affect the hedging reserves in shareholders' equity and the fair value of these hedging instruments. Others are currency derivatives that are neither part of one of the hedges defined in IFRS 9 nor part of a natural hedge. These derivatives are used to hedge planned transactions. Exchange rate fluctuations of the currencies on which such financial instruments are based affect other financial income or expense (net gain/loss from remeasurement of financial assets and liabilities to fair value).

If the euro had gained (lost) 10 percent against all currencies at December 31, 2018, the hedging reserves in shareholders' equity and the fair values of the hedging instruments before taxes would have been EUR 14 million higher (lower) (December 31, 2017: EUR 80 million higher (lower)). The hypothetical effect of EUR 14 million on profit or loss primarily results from the currency sensitivities EUR/USD: EUR 23 million and EUR/GBP: EUR -9 million. If the euro had gained (lost) 10 percent against all currencies at December 31, 2018, other financial income and the fair value of the hedging instruments before taxes would have been EUR 40 million lower (higher) (December 31, 2017: EUR 90 million higher (lower)). The hypothetical effect on profit or loss of EUR -40 million primarily results from the currency sensitivities EUR/HRK: EUR -14 million; EUR/USD: EUR -13 million; EUR/HUF: EUR -8 million and EUR/INR: EUR -4 million.

Interest rate risks. Deutsche Telekom is exposed to interest rate risks, mainly in the euro zone and in the United States. The interest rate risks are managed as part of the interest rate management activities, in the course of which the maximum percentage of gross debt with a variable interest rate is determined. The composition of the liabilities portfolio (ratio of fixed to variable and average fixed-interest period) is managed by issuing primary (non-derivative) financial instruments and, where necessary, also deploying derivative financial instruments. Regular reports are submitted to the Board of Management and Supervisory Board.

Including derivative hedging instruments, an average of 37 percent (2017: 37 percent) of gross debt denominated in euros had a fixed rate of interest in 2018. In U.S. dollars, the fixed-rate percentage decreased compared with 2017 from around 100 percent to an average 83 percent. There were no significant fluctuations in the course of the reporting year.

Interest rate risks are presented by way of sensitivity analyses in accordance with IFRS 7. These show the effects of changes in market interest rates on interest payments, interest income and expense, other income components, and, if appropriate, shareholders' equity. The interest rate sensitivity analyses are based on the following assumptions: Changes in the market interest rates of non-derivative financial instruments with fixed interest rates only affect income if these are measured at their fair value. As such, all financial instruments with fixed interest rates that are carried at amortized cost are not subject to interest rate risk as defined in IFRS 7.

In the case of fair value hedges designed for hedging interest rate risks, the changes in the fair values of the hedged item and the hedging instrument attributable to interest rate movements balance out almost completely in the income statement in the same period. This means that interest-rate-based changes in the measurement of the hedged item and the hedging instrument largely do not affect income and are therefore not subject to interest rate risk.

In the case of interest rate derivatives in fair value hedges, however, changes in market interest rates affect the amount of interest payments. As a consequence, they have an effect on interest income and are therefore included in the calculation of income-related sensitivities.

Changes in the market interest rate regarding financial instruments that were designated as hedging instruments in a cash flow hedge to hedge payment fluctuations resulting from interest rate movements affect the hedging reserve in shareholders' equity and are therefore taken into consideration in the equity-related sensitivity calculations.

Changes in market interest rates affect the interest income or expense of non-derivative variable-interest financial instruments, the interest payments of which are not designated as hedged items of cash flow hedges against interest rate risks. As a consequence, they are included in the calculation of income-related sensitivities.

In addition, changes in the market interest rate had an impact on the carrying amount of trade receivables recognized at fair value and originated loans and other receivables. However, these changes in value are not managed.

Changes in the market interest rate regarding interest rate derivatives (interest rate swaps, cross-currency swaps) that are not part of a hedging relationship as set out in IFRS 9 affect other financial income or expense and are therefore taken into consideration in the income-related sensitivity calculations. Currency derivatives are not exposed to interest rate risks and therefore do not affect the interest rate sensitivities.

If the market interest rates had been 100 basis points higher at December 31, 2018, profit or loss before taxes would have been EUR 23 million (December 31, 2017: EUR 134 million) lower. If the market interest rates had been 100 basis points lower at December 31, 2018, profit or loss before taxes would have been EUR 70 million (December 31, 2017: EUR 209 million) higher. This simulation includes the effects from the financial instruments assigned to Level 3 described above. The hypothetical effect of EUR 70 million/EUR -23 million on income primarily results from the potential effects of EUR 16 million/EUR 30 million from interest rate derivatives, and EUR 45 million/EUR -45 million from non-derivative, variable-interest financial liabilities. Potential effects from interest rate derivatives are partially balanced out by the contrasting performance of non-derivative financial instruments, which cannot, however, be shown as a result of applicable accounting standards. If the market interest rates had been 100 basis points higher (lower) at December 31, 2018, the hedging and revaluation reserves in equity before taxes would have been EUR 673 million higher (EUR 672 million lower) (December 31, 2017: EUR 32 million lower (higher)).

Other price risks. As part of the presentation of market risks, IFRS 7 also requires disclosures on how hypothetical changes in risk variables affect the price of financial instruments. Important risk variables are stock exchange prices or indexes.

Aside from the value-creating factors in the financial instruments assigned to Level 3 described above, there were no other price risks at the reporting date. In the prior year, in addition to the price risks resulting from Level 3, there were also equity instruments assigned to Level 1. If the price of these instruments had been 10 percent lower (higher) on December 31, 2017, other comprehensive income and the fair value of the equity instruments before taxes would have been EUR 366 million lower (higher).

Deutsche Telekom is exposed to a credit risk from its operating activities and certain financing activities. As a rule, transactions with regard to financing activities are only concluded with counterparties that have at least a credit rating of BBB+/Baa1, in connection with an operational credit management system. At the level of operations, the outstanding debts are continuously monitored in each area, i.e., locally. Credit risks are taken into account through individual allowances and allowances calculated at portfolio level. The solvency of the business with corporate customers, especially international carriers, is monitored separately. In terms of the overall risk exposure from the credit risk, however, the receivables from these counterparties are not so extensive as to justify extraordinary concentrations of risk.

The following table shows the maximum credit risk for each class of financial assets, taking collateral held and other loan collateral into account (net credit risk).

millions of €

Classes of financial instruments (IFRS 7)	Measurement category (IFRS 9)	Amount of maximum credit risk taking collateral held or other loan collateral into account
Originated loans and other receivables	AC	2,952
	FVOCI	0
	FVTPL	103
Cash and cash equivalents	AC	3,679
Trade receivables	AC	4,280
	FVOCI	5,699
	FVTPL	5
Contract assets (IFRS 15)	n. a.	1,764
Lease receivables	n. a.	147

The allowances of financial assets measured at amortized cost or at fair value through other comprehensive income developed as follows:

millions of €

Reconciliation of loss allowance	General approach											Simplified approach	
	12-month expected credit losses			Lifetime expected credit losses									
	Stage 1 – No change in credit risk since initial recognition			Stage 2 – Significant increase in credit risk since initial recognition, not credit-impaired			Stage 3 – Credit-impaired at the reporting date (not purchased or originated credit-impaired)						
	Cash and cash equivalents	Originated loans and other receivables		Cash and cash equivalents	Originated loans and other receivables		Cash and cash equivalents	Originated loans and other receivables		Trade receivables		Contract assets	Lease assets
	AC	AC	FVOCI	AC	AC	FVOCI	AC	AC	FVOCI	AC	FVOCI	n. a.	n. a.
At January 1, 2018	**0**	**(6)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**(1,348)**	**(433)**	**(28)**	**0**
Transfers													
from stage 1 to stage 2										n. a.	n. a.	n. a.	n. a.
from stage 1 to stage 3										n. a.	n. a.	n. a.	n. a.
from stage 2 to stage 3										n. a.	n. a.	n. a.	n. a.
from stage 3 to stage 2										n. a.	n. a.	n. a.	n. a.
from stage 2 to stage 1										n. a.	n. a.	n. a.	n. a.
Reclassification due to a change in business model		1						0		(164)	152		
Additions										(606)	(322)	(23)	
Use										259	271	8	
Reversal										419	51	17	
Other		1								(25)	(20)		
Foreign currency effect											24		
AT DECEMBER 31, 2018	**0**	**(4)**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**(1,465)**	**(277)**	**(26)**	**0**

The financial assets measured at amortized cost or at fair value through other comprehensive income show the following credit ratings:

millions of €

	Contractual obligations fulfilled to date	Disruptions in performance have already occurred	Non-performing	Total	Depreciation, amortization and impairment losses
GENERAL APPROACH (SHORT TERM)					
12-month expected credit losses (stage 1)	6,167			**6,167**	
Lifetime expected credit losses					
Significant increase in credit risk, but not credit-impaired (stage 2)		9		**9**	
Credit-impaired at the reporting date, but not purchased or originated credit-impaired (stage 3)			30	**30**	
	6,167	**9**	**30**	**6,206**	**0**
GENERAL APPROACH (LONG TERM)					
12-month expected credit losses (stage 1)	455			**455**	
Lifetime expected credit losses					
Significant increase in credit risk, but not credit-impaired (stage 2)					
Credit-impaired at the reporting date, but not purchased or originated credit-impaired (stage 3)					
	455	**0**	**0**	**455**	**0**
SIMPLIFIED APPROACH					
Trade receivables	8,759	448	776	**9,983**	(98)
Contract assets	1,757	8	0	**1,765**	(2)
Lease receivables	130	14	3	**147**	0
	10,646	470	779	**11,895**	**(100)**
FINANCIAL ASSETS THAT ARE PURCHASED OR ORIGINATED CREDIT-IMPAIREDT					
Receivables					
	17,268	**479**	**809**	**18,556**	**(100)**

The following table presents expenses for the full write-off of trade receivables as well as income from recoveries on trade receivables written off:

millions of €

	2018	2017	2016
Expenses for full write-off of receivables	139	81	126
Income from recoveries on receivables written off	20	105	67

millions of €

	Dec. 31, 2018			
	Trade receivables	Trade payables	Derivative financial assets	Derivative financial liabilities
Gross amounts subject to enforceable master netting arrangements or similar agreements	376	424	759	1.016
Amounts set off in the statement of financial position in accordance with IAS 32.42	(137)	(137)		
Net amounts presented in the statement of financial position	**239**	**287**	**759**	**1.016**
Amounts subject to enforceable master netting arrangements or similar agreements and not meeting all offsetting requirements in accordance with IAS 32.42	**(27)**	**(27)**	**(733)**	**(618)**
Of which: amounts related to recognized financial instruments	(27)	(27)	(333)	(333)
Of which: amounts related to financial collateral (including cash collateral)			(400)	(285)
NET AMOUNTS	**212**	**260**	**26**	**398**

millions of €

	Dec. 31, 2017			
	Trade receivables	Trade payables	Derivative financial assets	Derivative financial liabilities
Gross amounts subject to enforceable master netting arrangements or similar agreements	383	439	966	890
Amounts set off in the statement of financial position in accordance with IAS 32.42	(121)	(121)	0	0
Net amounts presented in the statement of financial position	**262**	**318**	**966**	**890**
Amounts subject to enforceable master netting arrangements or similar agreements and not meeting all offsetting requirements in accordance with IAS 32.42	**(29)**	**(29)**	**(936)**	**(870)**
Of which: amounts related to recognized financial instruments	(29)	(29)	(370)	(370)
Of which: amounts related to financial collateral (including cash collateral)	0	0	(566)	(500)
NET AMOUNTS	**233**	**289**	**30**	**20**

Offsetting is applied in particular to receivables and liabilities at Deutsche Telekom AG and Telekom Deutschland GmbH for the routing of international calls via the fixed network and for roaming fees in the mobile network.

In line with the contractual provisions, in the event of insolvency all derivatives with a positive or negative fair value that exist with the respective counterparty are offset against each other, leaving a net receivable or liability. The net amounts are normally recalculated every bank working day and offset against each other. When the netting of the positive and negative fair values of all derivatives was positive from Deutsche Telekom's perspective, the counterparty provided Deutsche Telekom with cash pursuant to the collateral contracts mentioned in Note 1 "Cash and cash equivalents," page 182. The credit risk was thus further reduced.

When the netting of the positive and negative fair values of all derivatives was negative from Deutsche Telekom's perspective, Deutsche Telekom provided cash collateral to counterparties pursuant to collateral agreements. The net amounts are normally recalculated every bank working day and offset against each other. The cash collateral paid (please also refer to Note 10 "Other financial assets," page 196) is offset by corresponding negative net derivative positions of EUR 285 million at the reporting date, which is why it was not exposed to any credit risks in this amount as of the reporting date. The collateral paid is reported under originated loans and other receivables within other financial assets. On account of its close connection to the corresponding derivatives, the collateral paid constitutes a separate class of financial assets. Likewise, the collateral received, which is reported as other interest-bearing liabilities under financial liabilities, constitutes a separate class of financial liabilities on account of its close connection to the corresponding derivatives.

According to agreement, no cash collateral was provided for interest rate swaps concluded by T-Mobile US with a nominal value of EUR 8.4 billion (when translated into euros). The fair values at the reporting date were negative in each case from the perspective of T-Mobile US (total value of EUR -391 million (when translated into euros)).

In accordance with the terms of bonds issued by T-Mobile US, T-Mobile US has the right to terminate the bonds prematurely under specific conditions. The rights of termination constitute embedded derivatives and are presented separately as derivative financial assets in the consolidated statement of financial position. Since they are not exposed to any credit risk, they constitute a separate class of financial instruments.

There were no other significant agreements reducing the maximum exposure to the credit risks of financial assets. The maximum exposure to credit risk of the other financial assets thus corresponds to their carrying amounts.

Liquidity risk. See also Note 12 “Financial liabilities,” page 196 et seq.

Hedge accounting

Fair value hedges. To hedge the fair value risk of fixed-interest liabilities, Deutsche Telekom primarily uses interest rate swaps and forward interest rate swaps (pay variable, receive fixed) denominated in EUR, GBP, and USD. Fixed-income bonds denominated in EUR, GBP, and USD were designated as hedged items. The changes in the fair values of the hedged items resulting from changes in the Euribor, GBP Libor, or USD Libor swap rate are offset against the changes in the value of these interest rate swaps. In addition, cross-currency swaps (EUR/AUD), (EUR/GBP), (EUR/HKD), (EUR/NOK) and (EUR/USD) are designated as fair value hedges, which convert fixed-income foreign currency bonds into variable-interest EUR securities to hedge the interest rate and currency risk. The changes in the fair value of the hedged items resulting from changes in the AUD LIBOR, GBP LIBOR, HKD HIBOR, NOK OIBOR, and USD LIBOR swap rate as well as the AUD, GBP, HKD, NOK, and USD exchange rate are offset against the changes in the value of these cross-currency and interest rate swaps. The aim of the fair value hedges is thus to transform the fixed-income bonds into variable-interest debt, thus hedging the fair value (interest rate risk and currency risk) of these financial liabilities. Credit risks are not part of the hedging.

Hedge of the interest rate, currency, and cross-currency risk
millions of €

	2019					2020–2023	
	Nominal amount	Average hedge rate	Average swap rate received	Average swap rate paid	Average margin paid	Nominal amount	Average hedge rate
FAIR VALUE HEDGES							
Interest rate risk							
EURIBOR	156		0.2200 %	6M EURIBOR	0.0000 %	8,668	
USD LIBOR	655		6.0000 %	3M USD LIBOR	4.0675 %	2,401	
GBP LIBOR						335	
Cross-currency risk							
USD/EUR							
GBP/EUR							
NOK/EUR						79	9.4840
HKD/EUR							
AUD/EUR							
CASH FLOW HEDGES							
Currency risk							
Buy							
USD/EUR							
GBP/EUR	274	0.9168	7.3750 %	6.8240 %		770	0.9072
USD/EUR	238	1.1428				7	1.1373
GBP/EUR	88	0.8362					
MYR/USD	15	4.4804				41	4.5325
GBP/USD	3	1.2620				7	1.2469
RUB/CHF	2	67.0499				1	70.9158
CAD/USD	0	1.3425				1	1.3424
Sell							
USD/EUR	138	1.0629				335	1.0000
Interest rate risk							
USD LIBOR							

Cash flow hedges – interest rate risks. Deutsche Telekom mainly uses payer interest rate swaps and forward payer interest rate swaps (pay fixed, receive variable) to hedge the cash flow risk of existing and future debt. The interest payments to be made in the hedging period are the hedged items and are recognized in profit or loss in the same period. The changes in the cash flows of the hedged items resulting from changes in the USD LIBOR rate are offset against the changes in the cash flows of the interest rate swaps. The aim of this hedging is to transform the variable-interest bonds into fixed-income debt, thus hedging the cash flows of the financial liabilities. Credit risks are not part of the hedging.

Cash flow hedges – currency risks. Deutsche Telekom entered into currency derivative and cross-currency swap agreements (pay fixed, receive variable) to hedge cash flows not denominated in functional currency. The payments in foreign currency to be made in the hedging period are the hedged items and are recognized in profit or loss in the same period. The terms of the hedging relationships will end in the years 2018 through 2033. In the case of rolling cash flow hedges for currency risks, short-term currency forwards are entered into, which are then extended by means of follow-up transactions.

At each reporting date, the effectiveness of the fair value and cash flow hedges is reviewed prospectively based on the main contract features and determined retrospectively in the form of a statistical regression analysis; rolling foreign currency hedges are reviewed using the dollar offset test. All hedging relationships were sufficiently effective as of the reporting date.

Hedging of a net investment. The hedges of the net investment in T-Mobile US against fluctuations in the U.S. dollar spot rate de-designated in prior periods did not generate any effects in 2018. The amounts recognized in total other comprehensive income would be reclassified in the event of the disposal of T-Mobile US.

The table below sets out the conditions of the derivative financial instruments designated in hedging relationships as of the reporting date:

2020–2023			2024 and thereafter				
Average swap rate received	Average swap rate paid	Average margin paid	Nominal amount	Average hedge rate	Average swap rate received	Average swap rate paid	Average margin paid
0.4438 %	6M EURIBOR	0.1423 %	7,550		1.2066 %	6M EURIBOR	0.5610 %
2.4249 %	3M USD LIBOR	0.8962 %	3,493		4.3094 %	3M USD LIBOR	1.5856 %
1.2500 %	3M GBP LIBOR	0.7870 %	447		2.5590 %	6M GBP LIBOR	0.6477 %
			1,557	1.1221	8.7500 %	3M EURIBOR	5.8751 %
			339	0.8853	2.5000 %	3M EURIBOR	0.6485 %
2.2500 %	6M EURIBOR	0.4200 %	158	9.5236	2.7900 %	6M EURIBOR	0.4683 %
			158	8.2380	2.9500 %	3M EURIBOR	0.6200 %
			83	1.5757	4.3137 %	6M EURIBOR	0.7376 %
			1,758	1.3666	8.7877 %	7.7887 %	
6.5000 %	6.5718 %		441	0.9122	7.9388 %	7.5811 %	
			8,383		3M USD LIBOR	3.2912 %	0.0000 %

The nominal and carrying amounts of the derivative financial instruments designated in existing hedging relationships are shown in the following table:

Disclosures on hedging instruments [a]
millions

	Nominal amount of the hedging instruments		Carrying amount of the hedging instruments			
	in foreign currency	in euros	Financial assets	Financial liabilities	Change in value of the hedging instruments in the reporting period for determining ineffectiveness	Disclosure of the hedging instruments in the statement of financial position
FAIR VALUE HEDGES						
Interest rate risk		23,705	264	(129)	85	Other financial assets/ financial liabilities
Of which: EUR		16,374				
Of which: USD	7,500	6,549				
Of which: GPB	700	782				
Cross-currency risk		2,373	4	(221)	43	Other financial assets/ financial liabilities
Of which: USD	1,747	1,557				
Of which: GPB	300	339				
Of which: NOK	2,250	237				
Of which: HKD	1,300	158				
Of which: AUD	131	83				
CASH FLOW HEDGES						
Currency risk		4,121	5	(95)	(107)	Other financial assets/ financial liabilities
Buy						
USD/EUR	2,584	2,004				
GBP/EUR	1,429	1,574				
MYR/USD	262	55				
GBP/USD	9	10				
RUB/CHF	230	3				
CAD/USD	3	2				
Sell						
USD/EUR	540	473				
Interest rate risk				(391)	(391)	Other financial assets/ financial liabilities
USD LIBOR	9,600	8,383				

[a] In this and the following tables on hedging relationships, losses are shown as negative amounts unless explicitly stated otherwise.

The hedged items are as follows:

Disclosures on hedged items [a]
millions of €

	Carrying amount of the hedged items (including cumulative fair value hedge adjustments)	Balance of cumulative adjustments to the carrying amount of the designated fair value hedges	Change in the fair value of the hedged items for determining ineffectiveness in the reporting period	Remaining balance of cumulative adjustments to the carrying amount of the de-designated fair value hedges	Balance of amounts recognized in other comprehensive income relating to hedged risk (existing hedging relationships) [a]	Balance of amounts recognized in other comprehensive income relating to hedged risk (terminated hedging relationships)	Presentation of the hedged items in the statement of financial position
FAIR VALUE HEDGES							
Interest rate risk	23,749	62	(67)	319	n. a.	n. a.	Financial liabilities
Cross-currency risk	2,102	(254)	(13)	0	n. a.	n. a.	Financial liabilities
CASH FLOW HEDGES							
Currency risk	n. a.	n. a.	103	n. a.	(19)	8	n. a.
Interest rate risk	n. a.	n. a.	393	n. a.	(393)	(16)	n. a.
HEDGE OF NET INVESTMENT							
Currency risk	n. a.	n. a.	0	n. a.	0	794	n. a.

[a] Figures include non-controlling interests.

Gains or losses from designated hedging relationships are presented in the following table:

Gains/losses from hedge accounting in the reporting period
millions of €

	Hedge ineffectiveness of existing hedging relationships recognized in profit or loss	Changes in fair value recognized directly in other comprehensive income	Amounts reclassified to profit or loss from other comprehensive income due to occurrence of the hedged items (designated hedging relationships)[a]	Amounts reclassified to profit or loss from other comprehensive income due to occurrence of the hedged items (de-designated hedging relationships)[a]	Total change in other comprehensive income	Presentation of the reclassified effective amounts in profit or loss	Presentation of the ineffectiveness in profit or loss
FAIR VALUE HEDGES							
Interest rate risk	18	n. a.	n. a.	n. a.	n. a.	n. a.	Other financial income (expense)
Cross-currency risk	30	n. a.	n. a.	n. a.	n. a.	n. a.	Other financial income (expense)
CASH FLOW HEDGES							
Currency risk	(4)	11	(114)	0	(103)	Net revenue/goods and services purchased/other financial income (expense)	Other financial income (expense)
Interest rate risk	(1)	(393)	0	82	(311)	Interest expense	Other financial income (expense)

[a] Negative amounts represent gains in the income statement.

The recorded ineffectiveness in the income statement mainly results from the different discount rates of the hedged items (fixed-income) and designated hedging instruments (fixed-income and variable-interest). Furthermore, cross-currency interest rate hedges are impacted by effects from cross currency basis spreads, which are included in the hedging instruments, but not in the hedged items. The relative scope of the ineffectiveness is not expected to increase significantly in the future. Furthermore, there are no other potential sources of ineffectiveness.

Total other comprehensive income from hedging relationships developed as follows in the reporting year:

Reconciliation of total other comprehensive income from hedging relationships[a]
millions of €

	Designated risk components (effective portion)					
	Cash flow hedges		Hedges of net investment			
	Currency risk	Interest rate risk	Currency risk	Total designated risk components	Hedging costs[b]	Total other comprehensive income
Balance at January 1, 2018	**93**	**(98)**	**794**	**789**	**0**	**789**
Changes recognized directly in equity	11	(393)	0	(382)	56	(326)
Reclassification to profit or loss due to occurrence of the hedged item	(114)	82	0	(32)	2	(30)
BALANCE AT DECEMBER 31, 2018	**(10)**	**(409)**	**794**	**375**	**58**	**433**

[a] Figures include non-controlling interests.
[b] In the 2018 reporting period, hedging costs relate entirely to cross currency basis spreads.

Derivatives. The following table shows the fair values of the various derivatives. A distinction is made depending on whether these are part of an effective hedging relationship as set out in IFRS 9 (fair value hedge, cash flow hedge, net investment hedge) or not. Other derivatives can also be embedded, i.e., a component of a composite instrument that contains a non-derivative host contract. The following table also includes derivative financial liabilities directly associated with non-current assets and disposal groups held for sale.

millions of €

	Net carrying amounts Dec. 31, 2018	Net carrying amounts Dec. 31, 2017
ASSETS		
Interest rate swaps		
Without a hedging relationship	121	83
In connection with fair value hedges	264	172
In connection with cash flow hedges	0	0
Currency forwards/currency swaps		
Without a hedging relationship	24	49
In connection with cash flow hedges	2	37
Cross-currency swaps		
Without a hedging relationship	339	619
In connection with fair value hedges	4	0
In connection with cash flow hedges	3	5
Other derivatives in connection with cash flow hedges	0	0
Other derivatives without a hedging relationship	2	1
Embedded derivatives	112	351
LIABILITIES		
Interest rate swaps		
Without a hedging relationship	31	65
In connection with fair value hedges	128	114
In connection with cash flow hedges	391	0
Currency forwards/currency swaps		
Without a hedging relationship	36	59
In connection with cash flow hedges	3	3
In connection with net investment hedges	0	0
Cross-currency swaps		
Without a hedging relationship	112	154
In connection with fair value hedges	221	328
In connection with cash flow hedges	91	164
Other derivatives in connection with cash flow hedges	0	0
Other derivatives without a hedging relationship	12	3
Embedded derivatives	52	56
Derivative financial liabilities directly associated with non-current assets and disposal groups held for sale (without a hedging relationship)	0	0

TRANSFER OF FINANCIAL ASSETS

Factoring transactions with substantially all risks and rewards being transferred

Deutsche Telekom is party to several factoring agreements under which it sells current trade receivables on a revolving basis; under these agreements, Deutsche Telekom has the right to decide on a case-by-case basis whether and to what extent the revolving nominal volume will be used. Sales exceeding this amount must be agreed on a case-by-case basis. The risks relevant for the risk assessment with respect to the receivables sold are the credit risk and the late-payment risk. If the credit risk alone represents substantially all the risks and rewards of ownership of the receivables, it is transferred to the buyer of the receivables in full in return for payment of a fixed purchase price discount and the late-payment risk continues to be borne in full by Deutsche Telekom. If both types of risk together represent substantially all the risks and rewards of ownership of the receivables, they are transferred to the buyer of the receivables in full in return for payment of a fixed purchase price discount. Losses relating to certain receivables are reimbursed up to a maximum amount under a credit insurance policy, which reduces credit risk. The receivables sold until the reporting date were derecognized in full. At the derecognition date, the fixed purchase price discount and the fair value of the expected loss resulting from the retained risks are expensed. The expected loss resulting from the retained risks recognized under financial liabilities represents Deutsche Telekom's entire continuing involvement. Deutsche Telekom continues to perform receivables management against payment for the receivables sold. Please refer to the table on page 260 for the disclosures on the continuing involvement resulting from the receivables sold.

Factoring transactions involving the splitting of significant risks and rewards as well as the transfer of control

There are also revolving factoring transactions in place under which banks are required to purchase trade receivables from both charges already due and charges from sales of handsets payable over a period of up to two years. Deutsche Telekom has the right to decide on a case-by-case basis whether the revolving nominal volume will be used and to what extent. Sales exceeding this amount must be agreed on a case-by-case basis. In these arrangements, the purchase price up to a contractually agreed amount will be paid out immediately upon sale; remaining portions of the purchase price will only be paid to the extent that the volume of receivables sold decreases further accordingly. The risks relevant for the risk assessment with respect to the receivables sold are the credit risk and the late-payment risk. Deutsche Telekom bears credit risk-related losses from the various tranches up to a certain amount in each case; the other credit risk-related losses are borne by the banks. The existing credit insurance policy reimburses losses relating to certain receivables to a maximum amount and thus reduces the exposure to credit loss. The late-payment risk is borne largely by Deutsche Telekom. Due to the allocation of the material risks between Deutsche Telekom and the banks, substantially all the risks and rewards of ownership of the receivables were neither transferred nor retained.

Control of the receivables sold was transferred to the banks because these have the practical ability to resell the receivables. The banks have the right to sell back all overdue receivables to Deutsche Telekom. For some of the transactions, the buy-back purchase price corresponds to the nominal amount and is payable in the month following the buy-back. In other transactions, the purchase price equals the actual proceeds from collection or disposal and is payable in the month after Deutsche Telekom receives these proceeds from collection or disposal. Such buy-backs would not affect the allocation of the credit risk-related losses in any way, not even in the event of buy-back at nominal amount, as such losses would be passed back to the bank in line with the agreed risk allocation. All receivables sold have been derecognized. At the derecognition date, the fair value of the expected losses is expensed as financial liabilities. Please refer to the table on page 260 for the disclosures on the continuing involvement resulting from the receivables sold. One transaction expired as scheduled in the reporting period.

Factoring transactions involving the splitting of significant risks and rewards with control remaining at Deutsche Telekom

In addition, there are several factoring agreements in place under which Deutsche Telekom sells – on a revolving basis – trade receivables from consumers and business customers relating to both charges already due and charges from sales of handsets payable over a period of up to two years.

In two transactions, subsidiaries of Deutsche Telekom sell receivables to structured entities that are also subsidiaries of Deutsche Telekom and were established for the sole purpose of these factoring agreements. The required funding is provided to these structured entities in the context of Deutsche Telekom's general Group financing. These structured entities have no assets and liabilities other than those resulting from the purchase and sale of the receivables under factoring agreements. They resell the receivables to a second structured entity in each case. Deutsche Telekom does not consolidate the two second structured entities because it has no control over these entities' relevant activities. In one of the transactions, the second structured entity resells the ownership interests in the receivables to two banks and a third structured entity on a pro-rata basis. Deutsche Telekom does not consolidate this third structured entity either because it likewise does not control this entity's relevant activities. The structured entities not consolidated by Deutsche Telekom are financed by the external buyers of the receivables. In the other transaction, the second structured entity transfers the legal role of creditor for the receivables to a bank that performs this role on behalf of the investors who have beneficial ownership of the receivables (administrative agent). These investors are a bank and two other structured entities. Deutsche Telekom does not consolidate these other structured entities either because it likewise has no control over these entities' relevant activities. The two other structured entities are financed through the issue of commercial paper to third parties outside the Group or, alternatively, through a credit facility provided by a bank.

In a third transaction, receivables are sold directly to a structured entity. This structured entity holds the receivables and allocates the risks and rewards resulting from these to Deutsche Telekom and a bank on the basis of contractual arrangements. It is financed through the issue of commercial paper to third parties outside the Group or, alternatively, through a credit facility provided by a bank. Deutsche Telekom does not consolidate the structured entity because it does not control the relevant activities.

The receivables being sold are selected from the relevant portfolios, either in an automated process in compliance with the eligibility criteria set out in the receivables purchase agreement or based on the decision of the relevant structured entity taking an obligatory minimum volume into account. The increase in the contractual maximum volume compared with the previous year results from the possibility to sell additional credit classes in a transaction at otherwise unchanged conditions. Receivables are sold on a daily basis and billed on a monthly basis. The purchase price up to a specific amount will be paid out immediately upon sale; remaining portions of the purchase price will only be paid to the extent that the volume of receivables sold in the relevant portfolio decreases further accordingly or the characteristics of the receivables change. In all transactions, Deutsche Telekom is obligated to buy back aged receivables and receivables for which write-off is imminent at nominal value. Such buy-backs would not affect the allocation of the credit risk-related losses in any way, as the latter would be passed back to the buyers in line with the agreed risk allocation. The cash flows resulting from the buy-backs normally occur in the month following the buy-back. None of the structured entities has business activities other than the purchase or sale of trade receivables or other investments. In none of the transactions is Deutsche Telekom exposed to risks other than the credit risk and late-payment risk resulting from the sold receivables agreed in the respective agreement.

In other transactions, receivables are sold directly to buyers outside the Group without the involvement of structured entities. If more receivables are purchased in individual portfolios, the purchase price payment is deferred until the maximum program volume decreases further accordingly. In all those transactions, Deutsche Telekom has the right to decide whether receivables are sold and in which volume. In individual portfolios, receivables for which a write-off is imminent are sold back to Deutsche Telekom. Here the purchase price corresponds to the actual proceeds from collection or disposal and is payable after Deutsche Telekom receives these proceeds from collection or disposal. These buy-backs would affect neither the allocation of the credit risk-related losses nor Deutsche Telekom's liquidity situation. In a portfolio, the existing credit insurance reimburses losses relating to certain receivables to a specific maximum amount and thus reduces the exposure to loss.

The risks relevant for the risk assessment with respect to the sold receivables are based on the credit risk and the late-payment risk. Deutsche Telekom bears certain portions of the credit risk in the individual transactions. The other credit risk-related losses are borne by the respective buyers. The late-payment risk in all transactions continues to be borne in full by Deutsche Telekom. Substantially all the risks and rewards of ownership of the receivables were neither transferred nor retained (allocation of the material risks and rewards between Deutsche Telekom and the buyers). Deutsche Telekom continues to perform servicing for the receivables sold. Under the factoring agreements in which structured entities are engaged, buyers have the unilateral right to transfer the servicing to third parties for no specific reason. Although Deutsche Telekom is not authorized to use the receivables sold other than in its capacity as servicer, it retains control over the receivables sold because the buyers and the structured entities do not have the practical ability to resell the purchased receivables. At the time the receivables are sold, the fair value of the expected losses is expensed. Expected future payments are presented as a component of the associated liability. In transactions with structured entities, certain portions of the purchase price are initially held back and, depending on the amount of the actual defaults, are only paid to Deutsche Telekom at a later date. To the extent that such portions of the purchase price are expected to be received in the future, they are recognized at fair value. Deutsche Telekom continues to recognize the trade receivables sold to the extent of its continuing involvement, i.e., in the maximum amount with which it is still liable for the credit risk and late-payment risk inherent in the receivables sold, and recognizes a corresponding associated liability presented in liabilities to banks. The receivables and the associated liability are then derecognized in the extent to which Deutsche Telekom's continuing involvement is reduced (particularly when payment is made by the customer). The carrying amount of the receivables is subsequently reduced by the extent to which the actual losses to be borne by Deutsche Telekom resulting from the credit risk and the late-payment risk exceed the losses initially expected. This amount is recognized as an expense.

Transfer of financial assets
millions of €

	Transfer of substantially all risks and rewards		Allocation of substantially all risks and rewards			
			Transfer of control	Retention of control		
				Partial transfer of the credit risk and full retention of the late-payment risk		
	Full transfer of the credit and late-payment risk	Full transfer of the credit risk and full retention of the late-payment risk	Partial transfer of the credit risk and retention of most of the late-payment risk	With the involvement of structured entities	Without the involvement of structured entities	Total
End of contract terms	2020–2022	2022	2019	2019–2023	2019–2022	
Contractual maximum volume	197	250	620	4,734	925	**6,726**
Purchase prices to be paid immediately	197	250	390	2,115	925	**3,877**
Volume of receivables sold as of the reporting date	133	285	393	2,949	904	**4,664**
Scope of volume of receivables sold in the reporting year	62–147	144–285	92–420	1,708–2,161	881–1,120	**0**
Provision for receivables management	0	2	0	0	4	**6**
CONTINUING INVOLVEMENT						
Maximum credit risk (before credit insurance)	0	0	87	584	46	**717**
Credit insurance	33	0	150	0	17	**200**
Maximum late-payment risk	0	1	5	75	3	**84**
Carrying amount of the continuing involvement (asset side)	0	0	0	659	49	**708**
Carrying amount of the associated liability	0	0	1	681	80	**762**
Fair value of the associated liability	0	0	1	22	31	**54**
BUY-BACK AGREEMENTS						
Nominal value of receivables that can be bought back at the nominal amount	0	0	379	2,822	0	**3,201**
Nominal value of receivables that can be bought back at the collected amount	0	0	15	127	814	**956**
PURCHASE PRICE DISCOUNTS RECOGNIZED IN PROFIT OR LOSS, PROGRAM FEES, AND PRO-RATA LOSS ALLOCATIONS						
Current reporting year	1	37	8	187	53	**286**
Cumulative since commencement of the agreement	3	206	68	824	290	**1,391**

41 CAPITAL MANAGEMENT

Disclosures on capital management. The overriding aim of Deutsche Telekom's capital management is to strike a balance between the contrasting expectations of the following four stakeholders:

- Shareholders
- Providers of debt capital
- Employees
- "Entrepreneurs within the enterprise"

For further information, please refer to the section "Management of the Group" in the combined management report, page 38 et seq.

An important key performance indicator for the capital market communication with investors, analysts, and rating agencies is relative debt, i.e., net debt to adjusted EBITDA. This ratio stood at 2.4x at December 31, 2018 (December 31, 2017: 2.3x). The target corridor for relative debt has shifted from 2.00 to 2.50x to 2.25 to 2.75x on account of the mandatory first-time application of the IFRS 16 accounting standard as of January 1, 2019. Net debt is a non-GAAP figure not governed by International Financial Reporting Standards, and its definition and calculation may vary from one company to another. A further essential key performance indicator is the equity ratio, i.e., the ratio of shareholders' equity to total assets as shown in the consolidated statement of financial position. The equity ratio was 29.9 percent as of December 31, 2018 (December 31, 2017: 30.0 percent). The target corridor remains unchanged between 25 and 35 percent. In addition, Deutsche Telekom maintains a liquidity reserve covering all maturities of the next 24 months.

Calculation of net debt
millions of €

	Dec. 31, 2018	Dec. 31, 2017
Financial liabilities (current)	10,527	8,358
Financial liabilities (non-current)	51,748	49,171
FINANCIAL LIABILITIES	**62,275**	**57,529**
Accrued interest	(719)	(692)
Other	(928)	(781)
GROSS DEBT	**60,628**	**56,056**
Cash and cash equivalents	3,679	3,312
Available-for-sale financial assets/financial assets held for trading	0	7
Derivative financial assets	870	1,317
Other financial assets	654	629
NET DEBT	**55,425**	**50,791**

42 RELATED-PARTY DISCLOSURES

Federal Republic of Germany and other related parties. The Federal Republic of Germany is both a direct and an indirect shareholder (via KfW Bankengruppe) and holds approximately 31.9 percent (December 31, 2017: 31.9 percent) of the share capital of Deutsche Telekom AG. In previous years, this resulted in the Federal Republic of Germany representing a solid majority at the shareholders' meetings of Deutsche Telekom AG due to its level of attendance, giving it control over Deutsche Telekom. Thanks to higher levels of attendance, the Federal Republic has not had a majority of the voting rights at the shareholders' meetings of Deutsche Telekom AG since 2016. As such, it is no longer deemed to have control over Deutsche Telekom, but rather only a significant influence. Therefore, the Federal Republic and the companies controlled and jointly controlled by the Federal Republic, but not the companies over which the Federal Republic can exercise a significant influence are classified as related parties of Deutsche Telekom. In the course of business, Deutsche Telekom deals directly with these companies, and with authorities and other government agencies as an independent party. Deutsche Telekom participates in the spectrum auctions of the Federal Network Agency. The acquisition of mobile spectrum through licenses may result in build-out requirements.

The Federal Posts and Telecommunications Agency (Federal Agency) has been assigned certain tasks by law that affect cross-company issues at Deutsche Telekom AG, Deutsche Post AG, and Deutsche Postbank AG. The Federal Agency's responsibilities include the continuation of the Civil Service Health Insurance Fund (Postbeamtenkrankenkasse), the Recreation Service (Erholungswerk), the Deutsche Bundespost Institution for Supplementary Retirement Pensions for Salaried Employees and Wage Earners (Versorgungsanstalt der Deutschen Bundespost), and the Welfare Service (Betreuungswerk) for Deutsche Telekom AG, Deutsche Post AG, and Deutsche Postbank AG. The coordination and administrative tasks are performed on the basis of agency agreements. Up to and including the 2012 reporting year, Deutsche Telekom AG maintained a joint pension fund, Bundes-Pensions-Service für Post und Telekommunikation e.V., Bonn (Federal Pension Service for Post and Telecommunications – BPS-PT), together with Deutsche Post AG and Deutsche Postbank AG for civil-servant pension plans. The German Act on the Reorganization of the Civil Service Pension Fund (Gesetz zur Neuordnung der Postbeamtenversorgungskasse – PVKNeuG) transferred the functions of BPS-PT relating to civil-servant pensions (organized within the Civil Service Pension Fund) to the existing Federal Agency effective January 1, 2013. The civil-servant pension functions are therefore performed by the Civil Service Pension Fund as an integral part of the Federal Agency. This joint Civil Service Pension Fund works for the funds of all three companies and also handles the financial administration of the pension plan for the Federal Republic on a trust basis. For the 2018 financial year, Deutsche Telekom made payments in the amount of EUR 123 million (2017: EUR 94 million; 2016: EUR 84 million). Furthermore, payments are made to the Civil Service Pension Fund in accordance with the provisions of the Act on the Reorganization of the Civil Service Pension Fund (please also refer to Note 14 "Provisions for pensions and other employee benefits," page 201 et seq.).

The Federal Republic and the companies controlled and jointly controlled by the Federal Republic, are customers or suppliers of Deutsche Telekom and as such have mutual contractual relationships with Deutsche Telekom.

Deutsche Telekom Trust e.V. On March 23, 2018, the 12 percent stake in BT, which was worth EUR 3.1 billion at the time, was transferred to the Group's own trust, Deutsche Telekom Trust e.V., where it will serve as plan assets to cover pension entitlements.

Joint ventures. In March 2018, the shareholders of the joint venture Toll Collect GmbH, which was accounted for using the equity method until August 31, 2018, resolved to distribute a dividend, Deutsche Telekom's share of which is EUR 0.1 billion.

On May 16, 2018, Daimler Financial Services AG, Deutsche Telekom AG, and the Federal Republic of Germany reached an agreement to cease the Toll Collect arbitration proceedings. As it had announced in advance, the Federal Republic of Germany exercised its option as of September 1, 2018 to purchase 100 percent of the shares in the operating company, Toll Collect GmbH, when the operating agreement expired on August 31, 2018. Even after the acquisition of Toll Collect GmbH by the Federal Republic of Germany, the consortium Toll Collect GbR – comprising Deutsche Telekom AG, Daimler Financial Services AG, and Compagnie Financière et Industrielle des Autoroutes S.A. (Cofiroute) – continues to exist with an unchanged ownership structure. The bank guarantees for third parties for a maximum amount of EUR 100 million that were issued during the term of the operating agreement expired as scheduled on October 15, 2018. The equity maintenance undertaking entered into by the aforementioned consortium members under the operating agreement remained in place until the Federal Republic of Germany assumed full control of Toll Collect GmbH, and was replaced as of August 31, 2018 by a guaranteed equity base of at least EUR 50 million for Toll Collect GmbH, depending on the date of transfer. For further information, please refer to the section "Changes in the composition of the Group and other transactions," page 176 et seq.

Revenue generated with Toll Collect totaled EUR 67 million (2017: EUR 57 million; 2016: EUR 52 million), in particular from data processing and telecommunications services as well as consulting services. As of December 31, 2018, receivables amounted to EUR 0 million (December 31, 2017: EUR 15 million) and liabilities to EUR 350 million (December 31, 2017: EUR 1 million).

There are otherwise no material revenue, receivables or liabilities from or to joint ventures.

Related individuals. In the reporting period, expenses for short-term benefits payable to members of the Board of Management and the Supervisory Board amounted to EUR 17.7 million (2017: EUR 17.1 million) and expenses for other long-term benefits amounted to EUR 5.2 million (2017: EUR 5.3 million). Service cost of EUR 2.8 million (2017: EUR 3.6 million) was recorded for Board of Management benefits. In addition, expenses for share-based payment for Board of Management members were incurred in the amount of EUR 1.5 million (2017: EUR 1.3 million). EUR 0.0 million (2017: EUR 4.3 million) was paid for termination benefits and recognized as an expense.

As of December 31, 2018, Deutsche Telekom recognized provisions for Board of Management and Supervisory Board compensation from short-term benefits of EUR 10.2 million (2017: EUR 7.2 million) and from other long-term benefits of EUR 11.3 million (2017: EUR 12.4 million). Furthermore, the present value of the defined benefit obligation (DBO) from the Board of Management pension amounts to EUR 23.9 million (2017: EUR 29.1 million).

The compensation of the Board of Management and the Supervisory Board totaled EUR 30.4 million in the reporting year (2017: EUR 32.7 million).

For further information, please refer to the "Compensation report" in the combined management report, page 132 et seq., and Note 43 "Compensation of the Board of Management and the Supervisory Board," pages 262 and 263.

Employees elected to the Supervisory Board of Deutsche Telekom AG continue to be entitled to a regular salary as part of their employment contract. The amount of the salary is the adequate compensation for their job or activity within the Company. Besides this, no major transactions took place with related individuals.

The members of the Board of Management and Supervisory Board of Deutsche Telekom AG are members of supervisory boards or management boards of other companies or are shareholders of other companies with which Deutsche Telekom AG maintains relations in the ordinary course of business. All related party transactions are performed on an arm's length basis

43 COMPENSATION OF THE BOARD OF MANAGEMENT AND THE SUPERVISORY BOARD

COMPENSATION OF THE BOARD OF MANAGEMENT

The presentation of the system used for compensation of the Board of Management and the disclosures required in accordance with § 314 (1) No. 6a sentences 5–8 HGB are a component of the combined management report, page 132 et seq.

Board of Management compensation for the 2018 financial year

Total compensation of the members of the Board of Management for the 2018 financial year amounted to EUR 24.6 million (2017: EUR 21.3 million). This includes a total of 212,687 entitlements to matching shares with a fair value of EUR 2.3 million on the date granted (2017: EUR 1.6 million).

Former members of the Board of Management

A total of EUR 8.1 million (2017: EUR 11.3 million) was included for payments to and entitlements for former members of the Board of Management as well as any surviving dependents. Provisions (measured in accordance with IAS 19) totaling EUR 198.6 million (2017: EUR 195.4 million) were recognized for current pensions a nd vested rights to pensions for this group of persons and their surviving dependents.

Other

The Company has not granted any advances or loans to current or former Board of Management members, nor were any other financial obligations to the benefit of this group of people entered into.

COMPENSATION OF THE SUPERVISORY BOARD

The main features of the compensation system and the disclosure of the compensation of the individual members of the Supervisory Board are a component of the combined management report, page 132 et seq.

Total compensation of the members of the Supervisory Board for 2018 amounted to EUR 2,887,833.37 (plus VAT) and is comprised of fixed annual remuneration plus meeting attendance fees.

The Company has not granted any advances or loans to current or former Supervisory Board members, nor were any other financial obligations to the benefit of this group of people entered into.

44 DECLARATION OF CONFORMITY WITH THE GERMAN CORPORATE GOVERNANCE CODE IN ACCORDANCE WITH § 161 AKTG

In accordance with § 161 AktG, the Board of Management and the Supervisory Board of Deutsche Telekom AG have submitted the mandatory declaration of conformity and made it available to shareholders on Deutsche Telekom AG's website. The full text of the Declaration of Conformity can be found on the Deutsche Telekom website (www.telekom.com) under Investor Relations in the Management & Corporate Governance section.

45 EVENTS AFTER THE REPORTING PERIOD

Acquisition of Tele2 Holding N.V. On November 27, 2018, the European Commission unconditionally approved the acquisition of telecommunications provider Tele2 Netherlands Holding N.V. by T-Mobile Netherlands Holding B.V. and the transaction was consummated on January 2, 2019. For further information, please refer to the section "Changes in the composition of the Group and other transactions," page 176 et seq.

OTE agrees sale of Telekom Albania. On January 15, 2019, OTE concluded an agreement concerning the sale of its stake in Telekom Albania to the Bulgarian company Albania Telecom Invest AD for a purchase price of EUR 50 million. The transaction is subject to approval by the authorities as well as other closing conditions and is expected to be completed in the first half of 2019.

Claims by partnering publishers of telephone directories. For information on the ruling of the Federal Court of Justice dated January 29, 2019, please refer to Note 36 "Contingencies," pages 230 and 231.

46 AUDITOR'S FEES AND SERVICES IN ACCORDANCE WITH § 314 HGB

PricewaterhouseCoopers Gesellschaft mit beschränkter Haftung, Wirtschaftsprüfungsgesellschaft (PwC) Frankfurt/Main, member of the German Chamber of Public Accountants in Berlin, has audited the consolidated financial statements of Deutsche Telekom since the Company's listing in 1996. Following a change within PwC in 2015, Thomas Tandetzki has been the responsible auditor in charge at PwC.

The following table provides a breakdown of the auditor's professional fees recognized as expenses in the 2018 financial year:

PricewaterhouseCoopers Gesellschaft mit beschränkter Haftung, Wirtschaftsprüfungsgesellschaft
millions of €

	2018
Auditing services	12
Other assurance services	3
Tax advisory services	0
Other non-audit services	1
	16

Professional fees for auditing services include in particular fees for the statutory auditing of annual and consolidated financial statements and the subsidiaries included in the consolidated financial statements, the review of the interim financial statements, auditing activities in connection with the implementation of new accounting provisions, and the auditing of information systems and processes, as well as fees for other auditing services.

The fees recognized under other assurance services relate primarily to services in connection with regulatory requirements stipulated by the Federal Network Agency and with comfort letters.

Other non-audit services mainly consist of professional services in connection with strategic projects.

RESPONSIBILITY STATEMENT

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the Group management report, which is combined with the management report of Deutsche Telekom AG, includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Bonn, February 12, 2019

Deutsche Telekom AG
Board of Management

Timotheus Höttges

Adel Al-Saleh | Birgit Bohle | Srini Gopalan | Dr. Christian P. Illek

Dr. Thomas Kremer | Thorsten Langheim | Claudia Nemat | Dr. Dirk Wössner

INDEPENDENT AUDITOR'S REPORT

To Deutsche Telekom Aktiengesellschaft, Bonn

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE GROUP MANAGEMENT REPORT

Audit Opinions

We have audited the consolidated financial statements of Deutsche Telekom Aktiengesellschaft, Bonn, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2018, and the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from January 1 to December 31, 2018, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of Deutsche Telekom Aktiengesellschaft, which is combined with the Company's management report, for the financial year from January 1 to December 31, 2018. We have not audited the content of those parts of the group management report listed in the "Other Information" section of our auditor's report in accordance with the German legal requirements.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to § [Article] 315e Abs. [paragraph] 1 HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at December 31, 2018, and of its financial performance for the financial year from January 1 to December 31, 2018, and

- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the group management report does not cover the content of those parts of the group management report listed in the "Other Information" section of our auditor's report.

Pursuant to § 322 Abs. 3 Satz [sentence] 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with § 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). We performed the audit of the consolidated financial statements in supplementary compliance with the International Standards on Auditing (ISAs). Our responsibilities under those requirements, principles and standards are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the group management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1 to December 31, 2018. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In our view, the matters of most significance in our audit were as follows:

1 | Recoverability of goodwill

2 | Appropriateness of revenue recognition and the effects of the initial application of IFRS 15

Our presentation of these key audit matters has been structured in each case as follows:

1 | Matter and issue

2 | Audit approach and findings

3 | Reference to further information

Hereinafter we present the key audit matters:

1 | Recoverability of goodwill

1 | Goodwill in an amount of EUR 12.3 billion (8.4 % of consolidated total assets) is reported under the line item "Intangible assets" of the consolidated statement of financial position in the consolidated financial statements of Deutsche Telekom Aktiengesellschaft. The Company tests goodwill for impairment (impairment test) once a year or if there are indications that goodwill may be impaired. The carrying amount of the relevant cash-generating unit or group of cash-generating units (referred to subsequently as "unit" or "units"), in each case including allocated goodwill, is compared with the corresponding recoverable amount in the context of the impairment test. These measurements are generally based on the present value of future cash flows of the unit to which the respective goodwill is allocated. The recoverability of the unit "USA" is determined on the basis of the listed share price of T-Mobile US, Inc. The other measurements are based on budget projections of the individual units, which in turn are based on the financial budgets approved by the executive directors. The discount rate used is the weighted average cost of capital for the relevant unit. The impairment tests of the units "Poland" and "Romania" (both segment Europe) led to impairment losses on goodwill totaling EUR 0.6 billion in the financial year 2018.

The result of these measurements depends particularly on the executive directors' assumptions of future cash inflows and the discount rate used. The measurements are therefore subject to uncertainty. Against this background and due to the complex nature of the measurement, this matter was of particular significance in the context of our audit.

2 | We assessed whether the future cash inflows underlying the measurements and the discount rates used on the whole provide a proper basis for the impairment tests of the individual units. As part of our assessment, we relied, among other things, on a comparison with general and sector-specific market expectations as well as the management's detailed explanations regarding key planning value drivers. In this context, we also assessed whether the costs of Group functions were properly included in the impairment tests of the respective cash-generating units. With the knowledge that even relatively small changes in the discount rate applied can in some cases have material effects on values, we also focused our testing on the parameters used to determine the discount rate applied, and evaluated the measurement model. We also conducted our own sensitivity analyses for the units with a low carrying amount to present value ratio in order to estimate any potential impairment risk related to any potential changes in key assumptions of the measurement. In our view, the measurement inputs and assumptions used by the executive directors were properly derived for conducting impairment tests.

3 | The Company's disclosures pertaining to impairment tests are contained in the "Accounting policies" section of the "Summary of accounting policies" chapter and in section "6 – Intangible assets" of the notes to the consolidated financial statements.

2 | Appropriateness of revenue recognition and the effects of the initial application of IFRS 15

1 | In the consolidated financial statements of Deutsche Telekom Aktiengesellschaft, revenue of EUR 75.7 billion is recognized in the consolidated income statement. This significant item in terms of its amount is subject to particular risk due to the complexity of the systems necessary for properly recording and allocating the impact of everchanging business, price and tariff models (including tariff structures, customer discounts, incentives), and the existence of multiple element arrangements.

In addition, the first time application of the new accounting standard on revenue recognition, "International Financial Reporting Standard 15 – Revenue from Contracts with Customers" (IFRS 15), had a significant impact on the consolidated financial statements and the systems and processes of revenue recognition and revenue deferral implemented in the Group. Deutsche Telekom Aktiengesellschaft exercised the option to use a practical expedient on initial application and recognized the cumulative effect of the transition directly in equity as of January 1, 2018, in accordance with the transitional provisions. The effect leading to an increase in equity (after deferred taxes) in the balance sheet of Deutsche Telekom Aktiengesellschaft as of January 1, 2018, amounts to EUR 1.8 billion and primarily resulted from the initial recognition of contract assets, capitalized contract cost and contract liabilities.

The initial application of IFRS 15 required group-wide adjustments or implementation of systems and processes regarding the new requirements for revenue recognition and revenue deferral and a re-assessment of existing contracts throughout the whole Group. Furthermore, IFRS 15 requires for certain areas – such as the determination of the transaction price and its allocation to the performance obligations identified within a multiple element arrangement based on the relative stand-alone selling prices – estimations and judgmental decisions, which needed to be assessed in the context of our audit. The initial application of IFRS 15 also resulted in a significant increase in disclosure requirements.

The correct revenue recognition and revenue deferral under the Group-wide application of the new accounting standard IFRS 15 is considered to be complex. Against this background, the accounting for revenues was of particular importance in the context of our audit.

2 | In the knowledge that the complexity and the need to make estimates and assumptions give rise to an increased risk of accounting misstatements, we, as part of our audit, initially assessed the processes and controls implemented by the Group and adjusted for IFRS 15 including the IT-systems used to recognize revenue. This included in particular an evaluation of the environment of the IT systems related to invoicing and measurement as well as of other relevant systems to support the accounting for revenue as well as the invoicing and measurement systems up to the entries in the general ledger.

Furthermore, our audit also involved assessing the effects of the initial application of IFRS 15. For this purpose, we assessed, among other things, the effects determined in the context of the Group-wide project for implementing the new standard and evaluated the design of the processes set up to report the transactions in accordance with IFRS 15 as well as the IT-systems developed to support the implementation of the new regulations. Our audit also covered the changes made to the systems and the controls implemented for this purpose. In addition, we assessed the appropriateness of the procedure to determine the impact of the initial application of IFRS 15. As part of this assessment, we also inspected customer contracts, assessed the determination of the transaction price and its allocation to the performance obligations identified within a multi element arrangement based on the relative standalone selling prices, and evaluated whether these performances were rendered over time or at a particular point in time. In relation to the disclosure requirements under the initial application of IFRS 15, we also assessed, among other things, the appropriateness of the procedures used, including the impact analysis conducted within the Group, and assessed the estimates and judgmental decisions made by the executive directors with regard to revenue recognition and revenue deferral. By instructing component auditors regarding the initial application of IFRS 15, we ensured to respond to the complexity with consistent audit procedures on a Groud-wide basis.

Furthermore, we assessed the accounting consequences of new business and price models and examined customer invoices and the related contracts as well as receipts of payment on a sample basis.

We were able to satisfy ourselves that the systems, processes and controls in place are appropriate and that the estimates and assumptions made by the executive directors are sufficiently documented and substantiated to ensure that revenue is properly accounted for under the first-time application of IFRS 15.

3 | The Company's disclosures pertaining to the recognition of revenue in the consolidated financial statements of Deutsche Telekom Aktiengesellschaft are contained in the comments on the accounting policies found in the "Accounting policies" and "Judgments and estimates" sections of the "Summary of accounting policies" chapter and in section "19 – Net revenue" of the "Notes to the consolidated income statement" chapter of the notes to the consolidated financial statements. The disclosures pertaining to the effects of the initial application of IFRS 15 are presented in the section "Initial application of standards, interpretations, and amendments in the financial year" in the "Summary of accounting policies" chapter in the notes to the consolidated financial statements.

Other Information

The executive directors are responsible for the other information. The other information comprises the following non-audited parts of the group management report:

- the statement on corporate governance pursuant to § 289f HGB and § 315d HGB included in section "Other Disclosures – Corporate Governance Statement in accordance with §§ 289f, 315d HGB" of the group management report
- the non-financial statement pursuant to § 289b Abs. 1 HGB and § 315b Abs. 1 HGB included in section "Corporate Responsibility and Non-Financial Statement" of the group management report

The other information comprises further the remaining parts of the annual report – excluding cross-references to external information – with the exception of the audited consolidated financial statements, the audited group management report and our auditor's report.

Our audit opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) and supplementary compliance with the ISAs will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.

- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor by the annual general meeting on May 17, 2018. We were engaged by the supervisory board on October 1, 2018. We have been the group auditor of Deutsche Telekom Aktiengesellschaft, Bonn, without interruption since the Company first met the requirements as a Public Interest Entity in accordance with § 319a Abs. 1 Satz 1 HGB in the financial year 1996.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is Thomas Tandetzki.

Frankfurt am Main, February 12, 2019

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

sgd. Dr. Peter Bartels	sgd. Thomas Tandetzki
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

MEMBERS OF THE SUPERVISORY BOARD OF DEUTSCHE TELEKOM AG IN 2018

PROF. DR. ULRICH LEHNER

Member of the Supervisory Board since April 17, 2008
Chairman of the Supervisory Board since April 25, 2008
Member of the Shareholders' Committee of
Henkel AG & Co. KGaA, Düsseldorf

Seats on the supervisory boards of other companies:
- E.ON SE, Essen (4/2003 to 5/2018)
- Porsche Automobil Holding SE, Stuttgart (since 11/2007)
- thyssenkrupp AG, Duisburg and Essen (1/2008 to 7/2018), Chairman of the Supervisory Board (3/2013 to 7/2018)

LOTHAR SCHRÖDER

Member of the Supervisory Board since June 22, 2006
Deputy Chairman of the Supervisory Board since June 29, 2006
Member of the ver.di National Executive Board, Berlin

Seats on the supervisory boards of other companies:
- Vereinigte Postversicherung VVaG, Stuttgart (since 6/2008)
- VPV Holding AG, Stuttgart (since 6/2018)
- VPV Lebensversicherungs-AG, Stuttgart (since 10/2015)

Member of the supervisory boards of subsidiaries, associates, and joint ventures:
- Deutsche Telekom Services Europe AG, Bonn, Deputy Chairman of the Supervisory Board (since 9/2016) (formerly Deutsche Telekom Services Europe GmbH, Bonn)

JOSEF BEDNARSKI

Member of the Supervisory Board since November 26, 2013
Chairman of the Group Works Council of Deutsche Telekom AG, Bonn
– No other seats –

DR. ROLF BÖSINGER

Member of the Supervisory Board since June 1, 2018
State Secretary at the Federal Ministry of Finance, Berlin
– No other seats –

DR. GÜNTHER BRÄUNIG

Member of the Supervisory Board since March 21, 2018
CEO of the Executive Board of KfW, Frankfurt/Main

Seats on the supervisory boards of other companies:
- Deutsche Pfandbriefbank AG, Unterschleißheim (since 8/2009), Chairman of the Supervisory Board (since 8/2014)
- Deutsche Post AG, Bonn (since 3/2018)

ODYSSEUS D. CHATZIDIS

Member of the Supervisory Board since January 3, 2018
Chairman of the European Works Council of Deutsche Telekom AG, Bonn
– No other seats –

CONSTANTIN GREVE

Member of the Supervisory Board since November 20, 2018
Chairman of the Central Works Council of Deutsche Telekom AG, Bonn
– No other seats –

LARS HINRICHS

Member of the Supervisory Board since October 1, 2013
CEO of Cinco Capital GmbH, Hamburg

Seats on the supervisory boards of other companies:
- xbAV AG, Munich, Chairman of the Supervisory Board (since 1/2016)

DR. HELGA JUNG

Member of the Supervisory Board since May 25, 2016
Member of the Board of Management of Allianz SE, Munich

Seats on the supervisory boards of other companies:
- Allianz Deutschland AG, Munich (since 3/2016) [a]
- Allianz Global Corporate & Specialty SE, Munich, Deputy Chairwoman of the Supervisory Board (since 5/2013) [a]
- Allianz Private Krankenversicherungs-AG, Munich (since 3/2018) [a]
- Allianz Beratungs- und Vertriebs-AG, Munich (since 3/2018) [a]

Member of comparable supervisory bodies of companies in Germany or abroad:
- Allianz Compañia de Seguros y Reaseguros S.A., Barcelona, Spain, Member of the Board of Directors (since 5/2012) [a]
- Companhia de Seguros Allianz Portugal S.A., Lisbon, Portugal, Member of the Board of Directors (since 3/2012) [a]

PROF. DR. MICHAEL KASCHKE

Member of the Supervisory Board since April 22, 2015
CEO & President of Carl Zeiss AG, Oberkochen

Seats on the supervisory boards of other companies:

- Carl Zeiss Meditec AG, Jena, Chairman of the Supervisory Board (since 3/2010) [a]
- Carl Zeiss Microscopy GmbH, Jena, Chairman of the Supervisory Board (10/2006 to 2/2018) [a]
- Carl Zeiss Industrielle Messtechnik GmbH, Oberkochen, Chairman of the Supervisory Board (since 1/2014) [a]
- Carl Zeiss SMT GmbH, Oberkochen, Chairman of the Supervisory Board (since 1/2011) [a]
- Henkel AG & Co. KGaA, Düsseldorf (since 4/2008)
- Robert Bosch GmbH, Stuttgart (since 4/2016)

Member of comparable supervisory bodies of companies in Germany or abroad:

- Carl Zeiss Co., Ltd., Seoul, South Korea, Chairman of the Board of Directors (since 1/2017) [a]
- Carl Zeiss Far East Co., Ltd., Hong Kong, China, Chairman of the Board of Directors (since 4/2002) [a]
- Carl Zeiss India (Bangalore) Private Ltd., Bangalore, India, Chairman of the Board of Directors (since 12/2009) [a]
- Carl Zeiss Pte. Ltd., Singapore, Singapore, Member of the Board of Directors (since 4/2002) [a]
- Carl Zeiss (Shanghai) Co., Ltd., Shanghai, China, Member of the Board of Directors (since 6/2017) [a]

NICOLE KOCH

Member of the Supervisory Board since January 1, 2016
Deputy Chairwoman of the Group Works Council of Deutsche Telekom AG, Bonn, until April 26, 2018
Chairwoman of the Works Council of Deutsche Telekom Privatkunden-Vertrieb GmbH, Bonn

Member of the supervisory boards of subsidiaries, associates, and joint ventures:

- Deutsche Telekom Privatkunden-Vertrieb GmbH, Bonn (since 6/2004)

DAGMAR P. KOLLMANN

Member of the Supervisory Board since May 24, 2012
Entrepreneur, member of several supervisory boards and advisory boards as well as the Monopolies Commission
Former CEO of Morgan Stanley Bank, Frankfurt/Main
Former Member of the Board of Directors of Morgan Stanley Bank International Limited, London, United Kingdom

Seats on the supervisory boards of other companies:

- Deutsche Pfandbriefbank AG, Unterschleißheim, Deputy Chairwoman of the Supervisory Board (since 8/2009)
- KfW IPEX-Bank GmbH, Frankfurt/Main (since 5/2012)

Member of comparable supervisory bodies of companies in Germany or abroad:

- Bank Gutmann Aktiengesellschaft, Vienna, Austria, Member of the Supervisory Board (since 9/2010)
- Landeskreditbank Baden-Württemberg – Förderbank (L-Bank) (regional state bank/development bank of Baden-Württemberg), Karlsruhe, agency under public law (not a commercial enterprise within the meaning of § 100 (2), sentence 1, no. 1 AktG), Member of the Advisory Board, purely advisory body (since 7/2004)
- Unibail-Rodamco SE, Paris, France, Member of the Supervisory Board (since 5/2014)

PETRA STEFFI KREUSEL

Member of the Supervisory Board since January 1, 2013
Senior Vice President, Customer & Public Relations at T-Systems International GmbH, Frankfurt/Main
Deputy Chairwoman of the Group Executive Staff Representation Committee of Deutsche Telekom AG, Bonn
Chairwoman of the Executive Staff Representation Committee of T-Systems International GmbH, Frankfurt/Main

Member of the supervisory boards of subsidiaries, associates, and joint ventures:

- T-Systems International GmbH, Frankfurt/Main (since 12/2010)

HARALD KRÜGER

Member of the Supervisory Board since May 17, 2018
Chairman of the Board of Management of Bayerische Motoren Werke AG, Munich
– No other seats –

[a] Supervisory board seats in companies that are part of the same group, as defined in § 100 (2) sentence 2 AktG (German Stock Corporation Act).

FRANK SAUERLAND

Member of the Supervisory Board since November 20, 2018
Head of the Collective Bargaining Policy Committee,
TC/IT National Committee at the ver.di National Executive Board, Berlin

Member of the supervisory boards of subsidiaries, associates, and joint ventures:

- Deutsche Telekom Außendienst GmbH, Bonn (10/2007 to 11/2018), Deputy Chairman of the Supervisory Board (6/2010 to 11/2018)
- Telekom Deutschland GmbH, Bonn (since 12/2016), Deputy Chairman of the Supervisory Board (since 1/2017)

NICOLE SEELEMANN-WANDTKE

Member of the Supervisory Board since July 5, 2018
Deputy Chairwoman of the Works Council of the Consumers unit at Telekom Deutschland GmbH, Bonn

Member of the supervisory boards of subsidiaries, associates, and joint ventures:

- Telekom Deutschland GmbH, Bonn (1/2018 to 10/2018)

SIBYLLE SPOO

Member of the Supervisory Board since May 4, 2010
Lawyer, Trade Union Secretary at the ver.di Federal Administration, Berlin
– No other seats –

KARL-HEINZ STREIBICH

Member of the Supervisory Board since October 1, 2013
President of acatech – Deutsche Akademie der Technikwissenschaften (National Academy of Science and Engineering), Berlin, since May 8, 2018
CEO of Software AG, Darmstadt, until July 31, 2018

Seats on the supervisory boards of other companies:

- Deutsche Messe AG, Hanover (1/2013 to 7/2018)
- Dürr AG, Bietigheim-Bissingen (since 5/2011), Chairman of the Supervisory Board (since 1/2018)
- Siemens Healthineers AG, Erlangen (since 3/2018)
- WITTENSTEIN SE, Igersheim (9/2017 to 3/2019)

MARGRET SUCKALE

Member of the Supervisory Board since September 28, 2017
Former Member of the Board of Executive Directors of BASF SE, Ludwigshafen

Seats on the supervisory boards of other companies:

- DWS Group GmbH & Co. KGaA, Frankfurt/Main (since 3/2018)
- HeidelbergCement AG, Heidelberg (since 8/2017)

KARIN TOPEL

Member of the Supervisory Board since July 1, 2017
Chairwoman of the Works Council of Deutsche Telekom Technik GmbH, Bonn, Technical Branch Office Eastern District
– No other seats –

Supervisory Board members who left in 2018:

SARI BALDAUF

Member of the Supervisory Board from November 1, 2012 to May 17, 2018
Non-Executive Director and Chairwoman of the Board of Directors of Fortum Oyj, Espoo, Finland, until March 27, 2018

Seats on the supervisory boards of other companies:

- Daimler AG, Stuttgart (since 2/2008)

Member of comparable supervisory bodies of companies in Germany or abroad:

- Nokia Oyj, Espoo, Finland (since 5/2018)
- Vexve Holding Oyj, Helsinki, Finland, Chairwoman of the Board of Directors (since 6/2016)

MONIKA BRANDL

Member of the Supervisory Board from November 6, 2002 to June 30, 2018
Chairwoman of the Central Works Council of Deutsche Telekom AG, Bonn, until April 16, 2018
Member of the Central Works Council of Deutsche Telekom AG, Bonn, until June 30, 2018
– No other seats –

JOHANNES GEISMANN

Member of the Supervisory Board
from February 6, 2014 to May 17, 2018
State Secretary, Federal Ministry of Finance, Berlin, until March 23, 2018
State Secretary, Federal Chancellery, Berlin, since March 23, 2018
– No other seats –

KLAUS-DIETER HANAS

Member of the Supervisory Board
from June 1, 2012 to November 20, 2018
Deputy Chairman of the Works Council of
Deutsche Telekom Service GmbH, Bonn,
Central-Eastern District, until March 27, 2018

Seats on the supervisory boards of other companies:

- PSD-Bank Braunschweig eG, Braunschweig (since 11/1999), Deputy Chairman of the Supervisory Board (since 7/2011)

DR. ULRICH SCHRÖDER

Member of the Supervisory Board
from October 1, 2008 to February 6, 2018
Former CEO of the Executive Board of KfW, Frankfurt/Main

Seats on the supervisory boards of other companies:

- DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH, Cologne (10/2009 to 1/2018)[a]
- Deutsche Post AG, Bonn (9/2008 to 2/2018)
- 2020 European Fund for Energy, Climate Change and Infrastructure (Marguerite Fund), Luxembourg, Luxembourg (11/2009 to 2/2018)

MICHAEL SOMMER

Member of the Supervisory Board
from April 15, 2000 to November 20, 2018
Trade Union Secretary, former Chairman of
the German Confederation of Trade Unions (DGB), Berlin

Seats on the supervisory boards of other companies:

- ZDF Enterprises GmbH, Mainz (since 10/2017)

Member of comparable supervisory bodies of companies in Germany or abroad:

- Zweites Deutsches Fernsehen, Mainz, Member of the Administrative Council (since 4/2016)

[a] Supervisory board seats in companies that are part of the same group, as defined in § 100 (2) sentence 2 AktG (German Stock Corporation Act).

MEMBERS OF THE BOARD OF MANAGEMENT OF DEUTSCHE TELEKOM AG IN 2018

TIMOTHEUS HÖTTGES
Chairman of the Board of Management since January 1, 2014

Seats on the supervisory boards of other companies:
- FC Bayern München AG, Munich (since 2/2010)
- Henkel AG & Co. KGaA, Düsseldorf (since 4/2016)

Member of comparable supervisory bodies of companies in Germany or abroad:
- BT Group plc, London, United Kingdom,
  Member of the Board of Directors (since 1/2016)

Member of the supervisory boards of subsidiaries, associates, and joint ventures:
- Telekom Deutschland GmbH, Bonn (since 4/2005),
  Chairman of the Supervisory Board (since 7/2009)
- T-Mobile US, Inc., Bellevue, United States,
  Chairman of the Board of Directors (since 4/2013)

ADEL AL-SALEH
Board member responsible for T-Systems since January 1, 2018
– No other seats –

BIRGIT BOHLE
Board member responsible for Human Resources and
Labor Director since January 1, 2019

Member of the supervisory boards of subsidiaries, associates, and joint ventures:
- Telekom Deutschland GmbH, Bonn (since 1/2019)

SRINI GOPALAN
Board member responsible for Europe since January 1, 2017

Member of the supervisory boards of subsidiaries, associates, and joint ventures:
- HELLENIC TELECOMMUNICATIONS ORGANIZATION S.A.
  (OTE S.A.), Marousi, Athens, Greece (since 1/2017)
- T-Mobile Polska S.A., Warsaw, Poland (since 1/2017),
  Chairman of the Supervisory Board (since 1/2017)

DR. CHRISTIAN P. ILLEK
Board member responsible for Human Resources and
Labor Director from April 1, 2015 to December 31, 2018
Board member responsible for Finance since January 1, 2019

Member of the supervisory boards of subsidiaries, associates, and joint ventures:
- Deutsche Telekom Services Europe AG, Bonn,
  Chairman of the Supervisory Board (since 1/2019)
  (formerly Deutsche Telekom Services Europe GmbH, Bonn)
- Telekom Deutschland GmbH, Bonn (from 5/2015 to 12/2018)
- T-Mobile US, Inc., Bellevue, United States,
  Member of the Board of Directors (since 1/2019)
- T-Systems International GmbH, Frankfurt/Main (since 5/2015),
  Chairman of the Supervisory Board (since 11/2016)

DR. THOMAS KREMER
Board member responsible for Data Privacy, Legal Affairs
and Compliance since June 1, 2012

Member of the supervisory boards of subsidiaries, associates, and joint ventures:
- T-Systems International GmbH, Frankfurt/Main (since 5/2015)

THORSTEN LANGHEIM
Board member responsible for USA and Group Development
since January 1, 2019

Member of the supervisory boards of subsidiaries, associates, and joint ventures:
- DFMG Deutsche Funkturm GmbH, Münster (since 9/2016)
- DT Capital Partners Management GmbH, Hamburg,
  Chairman of the Investment Committee (since 6/2015)
- T-Mobile US, Inc., Bellevue, United States,
  Member of the Board of Directors (since 6/2014)

CLAUDIA NEMAT

Board member responsible for Technology and Innovation since January 1, 2017

Seats on the supervisory boards of other companies:

- Airbus Group SE, Leiden, Netherlands (since 5/2016)
- Airbus Defence and Space GmbH, Ottobrunn (since 5/2016)

Member of the supervisory boards of subsidiaries, associates, and joint ventures:

- Deutsche Telekom IT GmbH, Bonn, Chairwoman of the Supervisory Board (since 6/2017)

DR. DIRK WÖSSNER

Board member responsible for Germany since January 1, 2018

Member of the supervisory boards of subsidiaries, associates, and joint ventures:

- Deutsche Telekom Außendienst GmbH, Bonn, Chairman of the Supervisory Board (since 1/2018)
- Deutsche Telekom Geschäftskunden-Vertrieb GmbH, Bonn (since 1/2018), Chairman of the Supervisory Board (since 2/2018)
- Deutsche Telekom Service GmbH, Bonn, Chairman of the Supervisory Board (since 1/2018)
- Deutsche Telekom Technik GmbH, Bonn, Chairman of the Supervisory Board (since 1/2018)
- Deutsche Telekom Privatkunden-Vertrieb GmbH, Bonn, Chairman of the Supervisory Board (since 1/2018)

Board of Management members who left in 2018:

THOMAS DANNENFELDT

Board member responsible for Finance from January 1, 2014 to December 31, 2018

Member of the supervisory boards of subsidiaries, associates, and joint ventures:

- BuyIn SA/NV, Brussels, Belgium, Member of the Board of Directors (2/2014 to 12/2018)
- Deutsche Telekom Services Europe AG, Bonn, Chairman of the Supervisory Board (1/2016 to 11/2018) (formerly Deutsche Telekom Services Europe GmbH, Bonn)
- T-Mobile US, Inc., Bellevue, United States, Member of the Board of Directors (11/2013 to 12/2018)

GLOSSARY

4G. Refers to the fourth-generation mobile communications standard that supports higher transmission rates (see LTE).

5G. New communications standard, which offers data rates in the gigabit range, converges fixed-network and mobile communications, and supports the Internet of Things – rollout starting 2020.

All IP – All Internet Protocol. An all-IP network makes services such as VoIP (Voice over IP), IPTV (Internet Protocol Television), data transfer, etc. available to all users anywhere at all times. The data is transmitted in switched packets using the Internet Protocol (IP).

AT&T transaction. For details on the AT&T transaction relating to T-Mobile US and the effects of the termination of the agreement on the sale of the former T-Mobile US to AT&T, please refer to the 2011 Annual Report (in particular pages 76 and 182 et seq.).

Bitstream access. Wholesale service used by alternative telephone companies to provide broadband lines.

Bot. A bot (short for robot) is a computer program that processes repetitive tasks in a largely autonomous manner without the need for interaction with a human user.

Carrier. A telecommunications network operator.

CDP. CDP is an initiative involving more than 822 institutional investors with total investment assets of 95 trillion U.S. dollars (as of 2015). The CDP aims to promote dialog between investors and companies on climate change issues. Currently, some 11,000 (as of 2013) of the world's largest companies are involved in the project and provide information on their greenhouse gas emissions and climate protection strategies. The CDP collects and publishes the data on an annual basis.

Cloud computing. Refers to the dynamic provision of infrastructure, software, or platform services online. Apart from a high level of automation and virtualization, the services provided have to be multi-client-capable and include standardized hardware and software. Customers source these services on demand and pay based on actual usage. The communication infrastructure may be the internet (public cloud), a corporate network (private cloud), or a mix of the two (hybrid cloud). Dynamic Services is a T-Systems product for the flexible procurement of ICT resources and services.

Contingent model. Contract concluded over a long period of time with defined advance payment and minimum purchase requirement. In return, the resellers pay a reduced monthly charge for VDSL. This allows them to put together interesting offers for their own consumers without having to invest in fiber-optic lines of their own. This improves the utilization of Telekom Deutschland GmbH's existing VDSL network. The current "contingent model" is being developed further to reflect the network build-out in terms of availability and bandwidth.

Cybersecurity. Protection against internet crime.

Desktop services. Global desktop services involve a variety of support services, including the outsourcing of entire IT networks. In this context, Deutsche Telekom offers a full portfolio of corporate IT services, from server infrastructure and PC workstations through to application management and call center services that provide user support.

ERP – Enterprise Resource Planning. Refers to systems that help deploy an organization's resources such as capital, equipment, and human resources as efficiently as possible in order to optimize business processes.

Fiber-optic lines. Sum of all FTTx access lines (e.g., FTTC/VDSL, vectoring, and FTTH).

Fixed-network lines. Lines in operation excluding internal use and public telecommunications, including IP-based lines. The totals reported in the combined management report were calculated on the basis of precise figures and rounded to millions or thousands. Percentages were calculated on the basis of the figures shown.

FMC – Fixed-Mobile Convergence. The merger of fixed-network and mobile rate plans for customers that have fixed-network and mobile contracts with Deutsche Telekom.

FMCC – Fixed-Mobile Cloud Convergence. The merger of telecommunications and ICT solutions for small and medium-sized enterprises. Mobile communications, fixed network, mobile internet, broadband internet, and cloud/ICT products are bundled in one rate plan.

FTTB – Fiber To The Building or Fiber To The Basement. In telecommunications, FTTB means that the fiber-optic cable is terminated in the user's house (basement).

FTTC – Fiber To The Curb. In the FTTC architecture the fiber-optic cable is not terminated inside users' homes (see FTTH) but in a cable distribution box (gray street cabinet). Existing copper technology is used for the last section of the connection to the user.

FTTH – Fiber To The Home. In telecommunications, FTTH means that the fiber-optic cable is terminated right in the user's home or apartment.

FTTx. This includes the three options for fiber-optic rollout: FTTB, FTTC, and FTTH.

GHG Protocol. The Greenhouse Gas (GHG) Protocol divides emissions of greenhouse gases into the categories of Scope 1, Scope 2, and Scope 3, depending on their source.

- **Scope 1** includes all emissions directly generated in the Company, e.g., as a result of the consumption of fuel or fuel oil.
- **Scope 2** covers all indirect emissions associated with the generation of energy purchased by the Company from external sources, e.g., electricity and district heating.
- **Scope 3** applies to all other emissions generated along the corporate value chain. This comprises both indirect emissions in the company itself (e.g., business trips, commuting), and emissions from upstream value chain stages (e.g., procurement, logistics) and downstream stages (e.g., during customer use of products and services, during disposal).

Hybrid line. Combines the strengths of the DSL/VDSL fixed network and the LTE mobile network. While using the internet at home the hybrid router transports the permanent data load with first priority via the DSL/VDSL line. During peak load the router automatically connects to the high-speed mobile network for down- and uploading.

Hybrid router. Routers that are able to combine the customer's fixed and mobile bandwidths.

IC – Interconnection.

ICT – Information and Communication Technology.

IoT – Internet of Things. The IoT enables the intelligent networking of things like sensors, devices, machines, vehicles, etc., with the aim of automating applications and decision-making processes. Deutsche Telekom's IoT portfolio ranges from SIM cards and flexible data rate plans to IoT platforms in the cloud and complete solutions from a single source.

IP – Internet Protocol. Non-proprietary transport protocol in Layer 3 of the OSI reference model for inter-network communications.

IPTV – Internet Protocol Television. Refers to the digital transfer of television programs and films over a digital data network using the Internet Protocol (IP).

LTE – Long-Term Evolution. New generation of 4G mobile communications technology using, for example, wireless spectrum on the 800 MHz band freed up by the digitization of television. Powerful TV frequencies enable large areas to be covered with far fewer radio masts. LTE supports speeds of over 100 Mbit/s downstream and 50 Mbit/s upstream, and facilitates new services for cell phones, smartphones, and tablets.

M2M – Machine to Machine. Communication between machines. The information is automatically sent to the recipient. For example, in an emergency, alarm systems automatically send a signal to security or the police.

MIMO – Multiple-Input Multiple-Output. MIMO is a multiple-antenna technology that is used, for example, with LTE and 5G. It makes it possible to increase both the data rate and the quality of the service.

Mobile customers. In the combined management report, one mobile communications card corresponds to one customer. The totals were calculated on the basis of precise figures and rounded to millions or thousands. Percentages were calculated on the basis of the figures shown (see also SIM card).

MVNO – Mobile Virtual Network Operator. Company that offers mobile minutes at relatively low prices without subsidized handsets. A mobile virtual network operator does not have its own wireless network, but uses the infrastructure of another mobile operator to provide its services.

Optical fiber. Channel for optical data transmission.

OTT player – Over-the-top player. Provider of IP-based, platform-independent services, such as WhatsApp.

Postpaid. Customers who pay for communication services after receiving them (usually on a monthly basis).

Prepay/prepaid. In contrast to postpay contracts, prepay communication services are services for which credit has been purchased in advance with no fixed-term contractual obligations.

PSTN – Public Switched Telephone Network. Global public telephone network comprising elements such as telephones, connecting cables, and exchanges.

PUE – Power Usage Effectiveness. PUE is the ratio of the entire electrical energy consumed in a data center or network node to the energy delivered to the computing equipment.

Retail. The sale of goods and services to end users, as opposed to resale or wholesale.

Roaming. Refers to the use of a communication device or just a subscriber identity in a visited network rather than one's home network. This requires the operators of both networks to have reached a roaming agreement and switched the necessary signaling and data connections between their networks. Roaming comes into play when cell phones and smartphones are used across national boundaries.

Router. A coupling element that connects two or more sub-networks. Routers can also extend the boundaries of a network, monitor data traffic, and block any faulty data packets.

Science-Based Targets initiative. The Science-Based Targets initiative helps companies to set climate goals that comply with emissions budgets determined based on scientific data. Companies can forward their goals to the initiative for review. The initiative was set up jointly by several organizations: CDP, United Nations Global Compact (UNGC), World Resources Institute (WRI), and the World Wide Fund for Nature (WWF).

Service revenues. Revenues generated with mobile customers from services (i.e., revenues from voice services – incoming and outgoing calls – and data services), plus roaming revenues, monthly charges, and visitor revenues.

SIM card – Subscriber Identification Module card. Chip card that is inserted into a cell phone to identify it in the mobile network. Deutsche Telekom counts its customers by the number of SIM cards activated and not churned. Customer totals also include the SIM cards with which machines can communicate automatically with one another (M2M cards). The churn rate is determined and reported based on the local markets of the respective countries.

ULL – Unbundled Local Loop. Competitors whose own networks do not reach into customers' premises can rent unbundled local loop lines from Deutsche Telekom. Their networks end at the local exchanges. The ULL bridges the distance between the local exchange and the termination point on the customer's premises or in their home, so it is also known as the "last mile."

Unified Communications. Integration of synchronous communication media in a standardized application environment.

Vectoring. Vectoring is a noise-canceling technology that removes the electro-magnetic interference between lines, enabling higher bit rates. However, in order to cancel noise, the operator must have control over all lines. This means that other operators cannot install their own technology at the cable distribution boxes.

VPN – Virtual Private Network. A computer network that uses a public network to transmit private data. The data is "tunneled" through the public network and is usually encrypted in the process. However, the term "private" does not necessarily imply encrypted transmission. The variant commonly used today is the IP VPN that connects users via IP tunnels.

Wholesale. Refers to the business of selling services to third parties who sell them to their own retail customers either directly or after further processing.

DISCLAIMER

This Report (particularly the section "Forecast") contains forward-looking statements that reflect the current views of Deutsche Telekom's management with respect to future events. They are generally identified by the words "expect," "anticipate," "believe," "intend," "estimate," "aim," "goal," "plan," "will," "seek," "outlook," or similar expressions and include generally any information that relates to expectations or targets for revenue, adjusted EBITDA, or other performance measures.

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The figures shown in this report were rounded in accordance with standard business rounding principles. As a result, the total indicated may not be equal to the precise sum of the individual figures.

Our Annual Report (printed, PDF, and online) includes references and links to websites with additional information not contained in the Annual Report. These references and links are purely of a supplementary nature and are only intended to simplify access to this information. Please note that this information is not part of the Annual Report.

FINANCIAL CALENDAR

February 21, 2019	March 28, 2019	May 9, 2019
Press conference on the 2018 financial statements and publication of the 2018 Annual Report	2019 shareholders' meeting	Publication of the Interim Group Report as of March 31, 2019
August 8, 2019	**November 7, 2019**	**February 20, 2020**
Publication of the Interim Group Report as of June 30, 2019	Publication of the Interim Group Report as of September 30, 2019	Press conference on the 2019 financial statements and publication of the 2019 Annual Report

All dates are subject to change.

For more dates, an updated schedule, and information on webcasts, please go to www.telekom.com/financial-calendar.

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Our Annual Report is available at:
www.telekom.com/geschaeftsbericht
www.telekom.com/annualreport

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