

# DEUTSCHE TELEKOM

## THE 2016 FINANCIAL YEAR



LIFE IS FOR SHARING.

# SELECTED FINANCIAL DATA OF THE GROUP

billions of €

	Change compared to prior year %	2016	2015	2014	2013	2012	2011	2010	2009
<b>REVENUE AND EARNINGS</b>									
Net revenue	5.6	73.1	69.2	62.7	60.1	58.2	58.7	62.4	64.6
Of which: domestic	% (2.5)	33.7	36.2	39.9	42.2	44.3	44.9	43.7	43.4
Of which: international	% 2.5	66.3	63.8	60.1	57.8	55.7	55.1	56.3	56.6
Profit (loss) from operations (EBIT)	30.4	9.2	7.0	7.2	4.9	(4.0)	5.6	5.5	6.0
Net profit (loss)	(17.8)	2.7	3.3	2.9	0.9	(5.4)	0.5	1.7	0.4
Net profit (loss) (adjusted for special factors)	0.0	4.1	4.1	2.4	2.8	2.5	2.9	3.4	3.4
EBITDA	22.6	22.5	18.4	17.8	15.8	18.0	20.0	17.3	19.9
EBITDA (adjusted for special factors)	7.6	21.4	19.9	17.6	17.4	18.0	18.7	19.5	20.7
EBITDA margin (adjusted for special factors)	% 0.5	29.3	28.8	28.0	28.9	30.9	31.8	31.2	32.0
<b>PROFITABILITY</b>									
ROCE	% 0.9	5.7	4.8	5.5	3.8	(2.4)	3.8	3.5	3.9
<b>STATEMENT OF FINANCIAL POSITION</b>									
Total assets	3.2	148.5	143.9	129.4	118.1	107.9	122.5	127.8	127.8
Shareholders' equity	1.8	38.8	38.2	34.1	32.1	30.5	40.0	43.0	41.9
Equity ratio	% (0.3)	26.2	26.5	26.3	27.1	28.3	32.7	33.7	32.8
Net debt	5.0	50.0	47.6	42.5	39.1	36.9	40.1	42.3	40.9
Relative debt (Net debt/EBITDA (adjusted for special factors))	n.a.	2.3	2.4	2.4	2.2	2.1	2.1	2.2	2.0
<b>CASH FLOWS</b>									
Net cash from operating activities	3.6	15.5	15.0	13.4	13.0	13.6	16.2	14.7	15.8
Cash capex	6.7	(13.6)	(14.6)	(11.8)	(11.1)	(8.4)	(8.4)	(9.9)	(9.2)
Free cash flow (before dividend payments, spectrum investment) <sup>a</sup>	8.6	4.9	4.5	4.1	4.6	6.2	6.4	6.5	7.0
Net cash used in investing activities	9.4	(13.6)	(15.0)	(10.8)	(9.9)	(6.7)	(9.3)	(10.7)	(8.6)
Net cash (used in) from financing activities	(50.9)	(1.3)	(0.9)	(3.4)	1.0	(6.6)	(6.0)	(6.4)	(5.1)
<b>EMPLOYEES</b>									
Average number of employees (full-time equivalents, without trainees)	thousands (2.5)	221	226	228	230	232	240	252	258
Revenue per employee	thousands of € 8.3	331.4	305.9	274.5	261.8	250.4	244.0	247.2	250.8
<b>T-SHARE - KEY FIGURES</b>									
Earnings per share (basic and diluted)	€ (18.3)	0.58	0.71	0.65	0.21	(1.24)	0.13	0.39	0.08
Dividend per share <sup>b</sup>	€ 9.1	0.60	0.55	0.50	0.50	0.70	0.70	0.70	0.78
Total dividend <sup>c</sup>	billions of € 10.7	2.8	2.5	2.3	2.2	3.0	3.0	3.0	3.4
Total number of ordinary shares at the reporting date <sup>d</sup>	millions 1.5	4,677	4,607	4,536	4,451	4,321	4,321	4,321	4,361

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

<sup>a</sup>And before PTC and AT&T transactions and compensation payments for MetroPCS employees.

<sup>b</sup>Subject to approval by the relevant bodies and the fulfillment of other legal requirements.

<sup>c</sup>Subject to approval by the 2017 shareholders' meeting concerning the dividend payments for the 2016 financial year. For more detailed explanations, please refer to Note 29 "Dividend per share" in the notes to the consolidated financial statements, page 189.

<sup>d</sup>Including treasury shares held by Deutsche Telekom AG.

millions

	Change compared to prior year %	2016	2015	2014	2013	2012	2011	2010	2009
<b>NUMBER OF FIXED-NETWORK AND MOBILE CUSTOMERS</b>									
Mobile customers	5.5	165.0	156.4	150.5	142.5	127.8	125.1	124.6	130.6
Fixed-network lines	(1.7)	28.5	29.0	29.8	30.8	32.1	34.7	36.0	38.5
Broadband lines <sup>e</sup>	3.9	18.5	17.8	17.4	17.1	16.9	16.9	16.4	15.4

<sup>e</sup>Excluding Wholesale.

The key parameters used by Deutsche Telekom are defined in the section "Management of the Group," page 31 et seq.

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# LETTER FROM THE CHAIRMAN OF THE BOARD OF MANAGEMENT

## DEAR SHAREHOLDERS,

This year we have slimmed down our Annual Report and for a very specific reason: We want to concentrate on the essentials. Not only that, but we will use fewer valuable resources by reducing the amount of paper needed for the print version of the annual reports. And, of course – it's no secret – it saves us money. In this digital age, an era of many exciting digital services from Deutsche Telekom, it is important to ask ourselves how much money we still want to spend on printed material. So we are pleased to present our 2016 Annual Report – no frills, no fancy pictures, just plain facts.

And these facts speak for themselves: Deutsche Telekom once again saw strong growth in 2016. We continued to invest and our customers are rewarding our efforts. We are No. 1 in Europe.

In figures, net revenue rose by 5.6 percent to EUR 73.1 billion. Our two most important indicators also developed extremely positively. Adjusted earnings before interest, tax, depreciation and amortization is the barometer of our earnings power from operations. At EUR 21.4 billion, it exceeded the target we set ourselves. Free cash flow is also up significantly, totaling EUR 4.9 billion despite us ramping up our investment activities further.

As shareholders, you also benefit from our good results. Specifically, in the form of your dividend. And our dividend in kind shows that you, our shareholders, have confidence in our Company and our share. For almost 41 percent of dividend-bearing shares, you decided to make use of the option to convert the dividend for the 2015 financial year into shares instead of receiving it as a cash payment. You kept your money in the Group and, in doing so, sent a clear message of support for our strategy and our investments. Thank you very much for that!

We are seizing the opportunity this presents and last year invested some EUR 11 billion in the best networks and products in Germany, Europe, and the United States. Our efforts are seeing great overall success.

We can now offer fiber-optic broadband lines to 27 million households in Germany and have already connected 6.8 million lines (2.4 million of these in the past twelve months alone).

We have started work to expand our data center in Biere, near Magdeburg. This data center is already the biggest in Europe. The expansion should be finished in just under two years, right on time to serve the growing demand for secure and reliable cloud services. This will help us to continue expanding our market leadership in Europe.

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And we are not stopping there. We will keep on offering our customers the best. That is why we continued to set standards in 2016, including with the development of the new 5G standard where we achieve record transmission speeds and have specific applications in mind. 5G will make ultra-fast response times of less than one millisecond possible. Speeds like these are crucial to allow applications such as in-car sensors to respond to dangers in time. And with data rates of 70 gigabits per second, multiple users at the same location can, for example, load movies in HD simultaneously without having to wait for the data to buffer.

In addition, in our networks in Germany and the Netherlands we rolled out the world's first narrowband communication system. Narrowband technology allows the use of low-energy, cost-efficient sensors and thus is ideal for use in industry and economy. It provides the first essential link between the Internet of Things and our broadband networks.

Our rate plans have also improved: MagentaOne, our one-stop product bundle for worry-free connectivity has been available to consumers in all of our integrated markets in Europe since March 2016. And, since April, MagentaMobil includes even more features, from the inclusive data limit to roaming terms. Our customers like what we're doing, which is why last year we gained some 1.5 million mobile contract customers in Germany alone.

And speaking of mobile business, T-Mobile US has excelled itself this year. Our colleagues in the United States just kept on raising – and meeting – their projected figures in 2016. T-Mobile US won 8.2 million new customers while continuing to improve its results and the company's value by a significant margin. T-Mobile US is now No. 3 in the United States and our stake in the company has substantially increased in value. Between May 2013 and the end of 2016, we recorded an increase of some EUR 23 billion, or around 360 percent.

Our TV offerings also set us apart from the competition. The EntertainTV service includes a completely revamped user interface and innovative features such as the restart function, which lets Entertain customers watch a program that is already in progress from the beginning.

Our TV products are very popular in our European subsidiaries, too, because we offer more – more content and more services. In Greece, for example, for a few months now we have been offering a TV product that combines the best of both the satellite and Internet TV worlds. These examples show how our innovations are paying off across all of Europe. Our TV customer base had grown to four million by the year-end.

Throughout all of our efforts, our clear focus remains on one thing: quality. This approach is underscored by numerous awards, and 2016 was no exception. We received accolades for our “outstanding” networks, our “excellent” service, our innovative marketing concepts, and the extremely valuable Telekom brand – at the beginning of February 2017, our brand was singled out as the most valuable in Europe.

All of this is made possible thanks to a great team of people. Our employees work tirelessly to serve customers and the entire Group, and I would like to take this opportunity to express my gratitude for their superb work.

Dear Shareholders,

As you can see, the figures speak for themselves. Our strategy is working. We are seeing ongoing growth and continue to pursue our goal of becoming Europe's leading telecommunications provider.

An important part of our strategy is to involve you, our shareholders, in the Group's success. We promised that dividends would increase in tandem with free cash flow growth. That is why, subject to approval by the relevant bodies and the fulfillment of other legal requirements, we will be proposing to the shareholders' meeting a dividend of EUR 0.60 per dividend-bearing share. We are also considering offering our shareholders the choice once again of having their dividend paid out in cash or converting it into shares.

We are a reliable partner. We have sustained the dynamic growth of recent years and have once again grown profitably. Our forecast through 2018 is set. Here is a brief reminder: We plan to increase revenue by an average of one to two percent per year in the years 2014 through 2018. Adjusted EBITDA is to grow by an average of two to four percent per year in this period, and free cash flow by around ten percent on average.

We are very firmly on track to achieve these goals. We will do this with ambition and motivation, but also with prudence and level-headed reasoning, because we cannot let ourselves be carried away by our success. We are leaders on many levels. Our continued success rests on our ability to keep pushing forward and prove ourselves time and again. That is what we are working to achieve.

Yours sincerely,



Tim Höttges

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# SUPERVISORY BOARD'S REPORT TO THE 2017 SHAREHOLDERS' MEETING

The 2016 financial year was again characterized by the development and implementation of the Group strategy and the Group's transformation in an age of digitization and technological change. Strong development on the domestic German market, excellent business development in the United States, the ongoing difficult macroeconomic situation in southern and

eastern Europe and continued high competitive and regulatory pressure were major features. Despite these ongoing challenges, the Group generated good results in the 2016 financial year and fulfilled expectations. The Supervisory Board exercised its statutory functions as an advisory and supervisory body and gave the Board of Management its full support.

## SUPERVISORY BOARD ACTIVITIES IN THE 2016 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, 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 2016 financial year for approval in line with the aforementioned 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 2016 financial year, six Supervisory Board meetings, a one-day off-site conference, and 22 meetings of the Supervisory Board committees took place. The overall average participation rate was 98 percent. Written votes were used where resolutions were required between the meetings.

In the Supervisory Board meeting on February 24, 2016, in the presence of the external auditor, we dealt with Deutsche Telekom AG's annual financial statements and the 2015 consolidated financial statements, as well as the combined management report. Our approval of the 2015 annual financial statements was based on the recommendation of the Audit Committee, which had previously checked the documents in detail. We agreed to the Board of Management's proposal on the appropriation of net income. We also approved the agenda for the 2016 shareholders' meeting and the proposal to the shareholders' meeting that the vacant position on the Supervisory Board following the resignation of Dr. Hubertus von Grünberg be filled by Dr. Helga Jung. In addition, we dealt with the results of the Supervisory Board's self-evaluation for 2015, service quality in Germany, the rights to broadcast German soccer league games, and the development of business at T-Mobile Netherlands. 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 the meeting before the shareholders' meeting on May 24, 2016, 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 2016. We dealt with the most important business developments and in particular with the development of T-Mobile Polska. We also approved the decision of the Board of Management on the utilization of authorized capital in connection with the offer of a share dividend.

In the meeting on June 30, 2016, we dealt with matters concerning the Board of Management and decided to expand the Board of Management with the addition of the new Technology and Innovation Board department. The new department will be headed by Claudia Nemat effective January 1, 2017, who was previously responsible for the Europe and Technology department. We also appointed Srinji Gopalan the new Board member responsible for Europe, effective January 1, 2017.

In the meeting on August 30, 2016, 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 2016. We also reappointed Dr. Thomas Kremer effective June 1, 2017.

During the one-day 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, discussed individual aspects, and agreed on focal topics for the coming year. We were also given a market and competition analysis by an external expert.

In the Supervisory Board meeting on November 3, 2016, we adopted resolutions on the sale of Strato AG and on a change in the schedule of responsibilities of the Board of Management.

In our meeting on December 14, 2016, we adopted resolutions on a variety of Board of Management remuneration topics, such as target achievement for variable compensation, and on the reappointment of Reinhard Clemens. 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 2016. A further focus of the meeting was the resolution on the budget for the 2017 financial year and on the annual financial plan. We also acknowledged the medium-term planning for 2018 to 2020 and dealt with the Group risk report.

In our plenary meetings and in the Audit Committee in particular, we also regularly verified that the Board of Management acted lawfully and ensured compliance with legal provisions and internal standards and policies, for example by setting up a Group-wide compliance organization. We also regularly met with the Board of Management to discuss the Group-wide risk management system that had been introduced. Based on our own reviews and on the audit reports from the external auditors, we came to the conclusion that the internal control and risk management system is functional and effective.

## 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 (as of January 1, 2016)  
Johannes Geismann  
Lothar Schröder

### Finance Committee

Dr. Ulrich Schröder (Chairman)  
Dr. Wulf H. Bernotat  
Monika Brandl  
Klaus-Dieter Hanas (as of January 1, 2016)  
Sylvia Hauke  
Karl-Heinz Streibich

### Audit Committee

Dagmar P. Kollmann (Chairwoman)  
Josef Bednarski (as of January 1, 2016)  
Johannes Geismann  
Hans-Jürgen Kallmeier  
Prof. Dr. Michael Kaschke  
Petra Steffi Kreusel

### Staff Committee

Lothar Schröder (Chairman)  
Josef Bednarski (as of January 1, 2016)  
Dagmar P. Kollmann  
Prof. Dr. Ulrich Lehner

### Nomination Committee

Prof. Dr. Ulrich Lehner (Chairman)  
Johannes Geismann  
Dagmar P. Kollmann

### Mediation Committee

Prof. Dr. Ulrich Lehner (Chairman)  
Josef Bednarski (as of January 1, 2016)  
Johannes Geismann (as of May 25, 2016, at the close of the shareholders' meeting)  
Dr. Hubertus von Grünberg (until May 25, 2016, at the close of the shareholders' meeting)  
Lothar Schröder

### Technology and Innovation Committee

Lothar Schröder (Chairman as of May 25, 2016, at the close of the shareholders' meeting, previously member)  
Dr. Hubertus von Grünberg (Chairman until May 25, 2016, at the close of the shareholders' meeting)  
Sari Baldauf  
Lars Hinrichs  
Hans-Jürgen Kallmeier  
Michael Sommer  
Karl-Heinz Streibich (as of May 25, 2016, at the close of the shareholders' meeting)

### Special Committee for U. S. Business

Prof. Dr. Ulrich Lehner (Chairman)  
Dr. Wulf H. Bernotat  
Sylvia Hauke  
Lothar Schröder  
Dr. Ulrich Schröder  
Sibylle Spoo (as of January 1, 2016)



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The **General Committee** met nine times in 2016, 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. In 2016, this also included the question of expanding the Board of Management with the addition of the Technology and Innovation Board department, which was created effective January 1, 2017, and is headed by Claudia Nemat, previously responsible for the Europe and Technology Board department. The committee also dealt with the appointment of Srini Gopalan as the new member of the Board of Management responsible for the Europe Board department effective January 1, 2017. The committee also reviewed the remuneration system and the appropriateness of Board of Management remuneration as scheduled, and revised and updated the reporting obligations of the Board of Management to the Supervisory Board. In the joint meeting with the Finance Committee, the General Committee dealt in particular with the 2017 budget and the medium-term planning for 2018 to 2020.

The **Finance Committee** held three meetings, one of which was together with the General Committee. One meeting dealt with increasing the investment budget in connection with a spectrum auction. In another meeting, the committee dealt with general topics such as interest and foreign currency management, pension obligations, and ratings. In the joint meeting with the General Committee, the Finance Committee discussed the 2017 annual financial plan in particular.

The **Audit Committee** held a total of six meetings in 2016. The external auditor was present at five 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 quarterly monitoring of accounting, the effectiveness of the internal control system, risk management and the internal auditing system, 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 of external auditor to be nominated by the 2016 shareholders' meeting. The Audit Committee also regularly discussed the quarterly report on business development. In the 2016 financial year, the Audit Committee again held one meeting on fundamental issues affecting the Group.

At this meeting, the Committee dealt in particular with the effectiveness of the reporting system and 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. In addition, as well as its meetings, the Audit Committee also met to discuss the topic of EU audit reform and accounting standards (IFRS 15 and IFRS 16). At the meeting on December 13, 2016, the Audit Committee revised its Rules of Procedure and adapted these to the stipulations of the Audit Reform Act.

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 2016 and mainly discussed matters relating to headcount and staffing requirement planning for the purpose of preparing Supervisory Board resolutions on the 2017 budget. The committee also dealt with topics including the future training concept, management succession planning, and early retirement for civil servants. In addition, it discussed the Group's diversity strategy.

The **Nomination Committee** met once in 2016, on December 1, 2016. In this meeting it dealt 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 2016.


The **Technology and Innovation Committee** held two meetings in 2016 and dealt with a very broad range of topics from a variety of areas, such as artificial intelligence. The 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.

The **Special Committee for U. S. Business** did not meet in 2016.

## CONFLICTS OF INTEREST

Johannes Geismann is a member of the Supervisory Board of Deutsche Telekom AG and, at the same time, State Secretary at the Federal Ministry of Finance. Dr. Ulrich Schröder is a member of the Supervisory Board of Deutsche Telekom AG and is also CEO of the Executive Board at Kreditanstalt für Wiederaufbau (KfW). We are aware that Deutsche Telekom AG is involved in various 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.


## CORPORATE GOVERNANCE

The Supervisory Board and Board of Management are aware that good corporate governance is essential 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 Corporate Governance Code on December 30, 2016. 

## CHANGES IN THE COMPOSITION OF THE BOARD OF MANAGEMENT

As of January 1, 2017, the Board departments increased to eight with the addition of the Technology and Innovation Board department. The new department is headed by Claudia Nemat as of January 1, 2017, who was previously responsible for the Europe and Technology department. Europe and Technology continues to exist as the Europe Board department. Srinii Gopalan was appointed new member of the Board of Management responsible for the Europe Board department effective January 1, 2017. Dr. Thomas Kremer was reappointed as member of the Board of Management responsible for Data Privacy, Legal Affairs and Compliance effective June 1, 2017 as per a resolution of August 30, 2016. Reinhard Clemens was reappointed as member of the Board of Management responsible for T-Systems effective December 1, 2017 as per a resolution of December 14, 2016.

## CHANGES IN THE COMPOSITION OF THE SUPERVISORY BOARD

**Shareholders' representatives:** Dr. Hubertus von Grünberg's term of office on the Supervisory Board expired at the end of the shareholders' meeting on May 25, 2016. Dr. Helga Jung was elected to the Supervisory Board by the shareholders' meeting on May 25, 2016. 

**Employees' representatives:** Nicole Koch was court-appointed to the Supervisory Board of Deutsche Telekom AG effective January 1, 2016.

The Supervisory Board would like to thank all of the former members for their valuable support. In particular, we would like to thank Dr. von Grünberg for his many years of valuable activities in the interests of the Company.

## REVIEW OF ANNUAL FINANCIAL STATEMENTS OF THE PARENT COMPANY AND CONSOLIDATED FINANCIAL STATEMENTS FOR THE 2016 FINANCIAL YEAR

The Board of Management submitted the annual financial statements, the consolidated financial statements, and the combined management report of Deutsche Telekom AG, which was combined with the management report, together with its proposal for the appropriation of net income, to us in good time.

PricewaterhouseCoopers Aktiengesellschaft 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 2016 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, 2016, 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, 2016, which were prepared in accordance with IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to § 315a (1) HGB, and the combined management report, and issued an unqualified audit opinion for each document.

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 executive bodies and audit managers on the one hand and the Company and its executive 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 28 and March 1, 2017, 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 March 1, 2017, 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 aforementioned financial statements, the external auditor's audit report, and the Board of Management's proposal for the appropriation of net income were made available to the members of the Supervisory Board in good time.



The Company's corporate governance policy is also presented in greater detail in a separate section of the Annual Report, page 11 et seq.



For detailed information on the Supervisory Board members, please refer to Deutsche Telekom AG's website: [www.telekom.com/company/supervisory-board/15692](http://www.telekom.com/company/supervisory-board/15692)

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We conducted our own 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, 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 28, 2017. The members of the Board of Management also answered the committee members' questions. Moreover, the external auditor explained its audit, in particular the key audit areas defined in agreement with the Audit Committee and the Supervisory Board, the main results of its audit, and 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 are no material weaknesses, in particular with regard to the accounting process, in the internal control or risk management systems at Group level. 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, as well as the combined management report, and 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, as well as the Board of Management's proposal for the appropriation of net income, on March 1, 2017, 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.

Based on the final outcome of our review of the annual financial statements, the consolidated financial statements, and the combined management report, 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. It followed the Audit Committee's recommendation and approved these documents.

When dealing with the budget and medium-term planning on December 14, 2016, 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 28, 2017 and by the Supervisory Board on March 1, 2017. 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 2,794.4 million and to carry forward EUR 1,000.7 million to unappropriated net income.

### REVIEW OF THE DEPENDENT COMPANY REPORT

The Board of Management presented its dependent company report for the 2016 financial year to us in good time.

The external auditor audited the dependent company report and issued the following audit opinion:

"Based on the results of our statutory audit and our judgment we confirm that

1. The actual information included in the report is correct;
2. The Company's compensation with respect to the legal transactions listed in the report was not inappropriately high."

The external auditor submitted the audit report to us. The dependent company report and the associated audit report were made available to all members of the Supervisory Board in good time.

We reviewed the dependent company report of the Board of Management and the audit report of the external auditor.

Prior to the review and resolution by the Supervisory Board, the Audit Committee conducted a thorough review of the aforementioned documents. At its meeting on February 28, 2017, the Audit Committee asked the Board of Management to explain the details of the dependent company report. The members of the Board of Management also answered the committee members' questions. Moreover, the external auditor, who also attended the meeting, reported on its audit, in particular its key audit areas and the significant results of its audit, and explained its audit report. 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 recommended that we approve the results presented by the external auditor and, as the committee saw no grounds for objections to the Board of Management's statement on the dependent company report, that we pass a corresponding resolution.

We performed the final review at our meeting on March 1, 2017, taking into account the resolution and the Audit Committee's recommendation as well as the external auditor's report. The members of the Board of Management also attended this meeting, explained the dependent company report, and answered our questions. The external auditor also attended this meeting and reported on its audit of the dependent company report 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 of the dependent company report and the audit findings. Based on this and the report presented by the Audit Committee, we were satisfied that the audit of the dependent company report and the audit report were compliant. In particular, we were satisfied that the audit report and the audit conducted by the independent auditor met the legal requirements. We did not find any indications of discrepancies, incompleteness, or any other objections as part of our review. We were also satisfied that the group of dependent companies had been defined with due care and that the necessary systems had been put in place for recording legal transactions and measures subject to disclosure. We followed the Audit Committee's recommendation and approved the result of the external auditor's audit of the dependent company report. Based on the final result of our review of the dependent company report, we have no objections to the Board of Management's statement on the dependent company report.

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 2016 financial year.

Bonn, March 1, 2017  
The Supervisory Board



Prof. Dr. Ulrich Lehner  
Chairman

# CORPORATE GOVERNANCE REPORT 2016

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 § 289a and § 315 (5) HGB, which is published on Deutsche Telekom's website. □

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 2016 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, 2016:

## Declaration of Conformity pursuant to § 161 of the German Stock Corporation Act (Aktengesetz – 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, 2015, 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 June 12, 2015 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 complies 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 June 12, 2015, 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 Supervisory Board and the Board of Management.** The Supervisory Board and the Board of Management work closely together for the good of the Company and maintain regular contact. The Supervisory Board of Deutsche Telekom AG holds a minimum of four meetings a year. In 2016 there were six Supervisory Board meetings and an off-site conference on the strategic alignment of the Company. In addition, 22 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, 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 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 issues. The Chairmen of the two Boards also exchange information regularly in person. The shareholders' representatives and the employees' representatives come together in separate preparatory meetings prior to every regular meeting of the Supervisory Board. Regular meetings of the Supervisory Board are sometimes held without the presence of the Board of Management. Outside of the Supervisory Board meetings, regular dialog is maintained between the Chairman of the Supervisory Board, the chair of the Audit Committee, the Board of Management, and the external auditors. □

**Composition of the Board of Management.** In accordance with the Board of Management's schedule of responsibilities, there were seven Board departments up to the end of 2016: the department of the Chairman of the Board of Management; Finance; Human Resources; Data Privacy, Legal Affairs and Compliance; T-Systems; Germany; and Europe and Technology. As of January 1, 2017, the Board departments increased to eight with the addition of the Technology and Innovation Board department. Europe and Technology continues to exist as the Europe Board department. Each Board of Management member is authorized to manage the spheres 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. As a rule, members of the Board of Management should not be older than 62 years of age (standard age limit). The contract term for the initial appointment of members of the Board of Management is generally three years. 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



[www.telekom.com/en/investor-relations/company-management--corporate-governance](http://www.telekom.com/en/investor-relations/company-management--corporate-governance)



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 5 et seq. of the Annual Report.



[www.telekom.com/declaration-of-conformity](http://www.telekom.com/declaration-of-conformity)



Further information about the women's quota, please refer to the Corporate Governance Statement: [www.telekom.com/en/investor-relations/investor-relations/declaration-of-conformity-pursuant-to-161-479770](http://www.telekom.com/en/investor-relations/investor-relations/declaration-of-conformity-pursuant-to-161-479770)

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. □

From January 2014 to October 2016, an Executive Committee existed, consisting of the members of the Board of Management and the following heads of Group units: Chief Technology Officer, Chief Product and Innovation Officer, Chief Information Officer, Head of Group Development and Head of the Corporate Operating Office. The Executive Committee supported the Board of Management with cross-segment management and the transformation of the Group. The Executive Committee normally met on a weekly basis and acted in an advisory capacity. The Executive Committee was dissolved in October 2016 in view of the new Board of Management structure.

**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. 18 of the 20 members of the Supervisory Board can be considered independent. 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 held at the last shareholders' meeting on May 25, 2016. The 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 26, 2013 according to the provisions of the German Codetermination Act (Mitbestimmungsgesetz – MitbestG). ■

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 female representation on the Supervisory Board. Its aim was to have a proportion of 30 percent women on the Supervisory Board, the Company's intended proportion of women in management positions, by the end of 2015.
- 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 shall be independent.

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

Regarding the achievement level of the Supervisory Board membership target:

By the end of 2015, the proportion of women on the Supervisory Board was 35 percent, and following the shareholders' meeting on May 25, 2016, it increased to 40 percent. This means that the target of reaching the quota of 30 percent, which is now set out by law, was achieved.

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.

With the appointment of Dr. Helga Jung, member of the Board of Management of Allianz SE, to the Supervisory Board by the shareholders' meeting in 2016, Deutsche Telekom AG gained a manager with many years of experience in key management positions. Her expertise is recognized at both national and international level.


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.




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 5 et seq. of the Annual Report.


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**Tasks assigned to the Supervisory Board.** The Supervisory Board appoints the members of the Board of Management, advises the Board of Management on issues concerning the operations of the Company and supervises its activities. The Supervisory Board is directly involved in all decisions of strategic importance to 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 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 Audit Committee's last assessment was carried out in the 2016 financial year. The Supervisory Board carried out its last efficiency audit in the 2015 financial year. 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. The Company offers new Supervisory Board members a customized program to introduce them to the industry and the situation of the Company. Furthermore, an annual 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. In addition, a one-day seminar on selected accounting issues and the content and impact of the EU audit reform legislation package was held for the members of the Audit Committee in the 2016 financial year. 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 committee and Supervisory Board meetings.

In order to perform its tasks more effectively, the Supervisory Board has eight standing 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 tasks include, in particular, monitoring the accounting process, the effectiveness of the internal control system, the risk management and internal auditing system, 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. Finally, there is a Mediation Committee, which was formed in accordance with § 27 (3) of the Codetermination Act. In addition, a Special Committee for U. S. Business was established in May 2014. 

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, its plans, the development of its business, the situation in terms of risks and risk management as well as 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 position 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. 



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 224 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 shareholders' meeting," **page 5 et seq.** of the Annual Report.



For more information, please refer to the section "Risk and opportunity management," **page 97 et seq.** of the Annual Report.



For details about the composition and working methods of the committees, please refer to the "Supervisory Board's report to the shareholders' meeting," **page 5 et seq.** of the Annual Report.



[www.cr-report.telekom.com/site16/](http://www.cr-report.telekom.com/site16/)

**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 2015 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.



For detailed information about the compliance management system, please refer to Deutsche Telekom AG's website: [www.telekom.com/en/company/compliance](http://www.telekom.com/en/company/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 2012 through 2014 in accordance with IDW audit standard 980 with the focus on anti-corruption. The Company aims to attain similar certification with the same focus again for 2016 and 2017.



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

**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 2016 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.



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 112 of the Annual Report.

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 auditors' 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 assesses 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 website.

**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 14, 2017

The Supervisory Board and the Board of Management



## TO OUR SHAREHOLDERS

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# THE T-SHARE

T-Share information		2016	2015
<b>XETRA CLOSING PRICES</b>			
Share price on the last trading day	€	16.36	16.69
Year high	€	16.43	17.60
Year low	€	13.98	12.63
<b>TRADING VOLUME</b>			
German exchanges	billions of shares	2.5	3.0
Market capitalization on the last trading day	billions of €	76.5	76.9
<b>WEIGHTING OF THE SHARE IN MAJOR STOCK INDEXES ON THE LAST TRADING DAY</b>			
DAX 30	%	5.5	5.9
Dow Jones EURO STOXX 50®	%	2.4	2.5
<b>T-SHARE - KEY FIGURES</b>			
Earnings per share (basic and diluted)	€	0.58	0.71
Proposed dividend	€	0.60	0.55
Number of shares issued	millions, at year-end	4,677	4,607

## CAPITAL MARKETS ENVIRONMENT

The development of the global economy in 2016 was slightly positive at around 3.1 percent, in line with the current estimate of the International Monetary Fund (IMF). This positive trend is attributable to stable production in most industrialized nations and, in particular, to an economic improvement in the emerging economies. The IMF estimates that in 2016 gross domestic product (GDP) increased by 4.1 percent in the emerging and developing countries and by 1.6 percent in the industrialized countries.

The expansionary monetary policy of the central banks, a low interest rate environment, and the encouraging economic prospects continued to be dominant factors on the stock markets in 2016 and created a mixed picture.

## DEVELOPMENT OF INTERNATIONAL INDEXES

Up 6.9 percent, the DAX sustained its growth trajectory for the fifth year in a row. After a rocky start, it remained below the prior-year figure during the year before closing higher on the strength of a final spurt in December.

The Dow Jones EURO STOXX 50® saw slightly weaker performance than the DAX though with a similar trend, ultimately posting gains of 4.8 percent on a total return basis, i. e., including reinvested dividends.

The Nikkei finished 2016 trading just 0.4 percent higher, while the United States' stock market barometer, the Dow Jones, easily outstripped the other indexes with gains of 13.4 percent.

## T-SHARE PERFORMANCE

The European telecommunications sector came under pressure in 2016, however. By the end of the year, the industry barometer Dow Jones STOXX® Europe 600 Telecommunications had posted losses of around 12 percent on a total return basis. Share price performance was dampened in particular by fears that the regulatory environment in Europe would deteriorate.

In this environment, the T-Share ended the year at a closing price of EUR 16.36, or minus just 2.0 percent. The lowest price recorded during the year of EUR 13.98 on June 27, 2016 was connected to the Brexit vote, while the highest price of EUR 16.43 was recorded on May 25, 2016, the day of our shareholders' meeting.

On a total return basis – i. e., similar to the DAX – our share nevertheless finished the year up a modest 1.4 percent. In 2016, we again offered our shareholders the option of converting the dividend into Deutsche Telekom AG shares instead of receiving it as a cash payment. The option was exercised for a total of 40.9 percent or around 1.9 billion of the shares carrying dividend rights. This led to around 70 million new shares being issued.

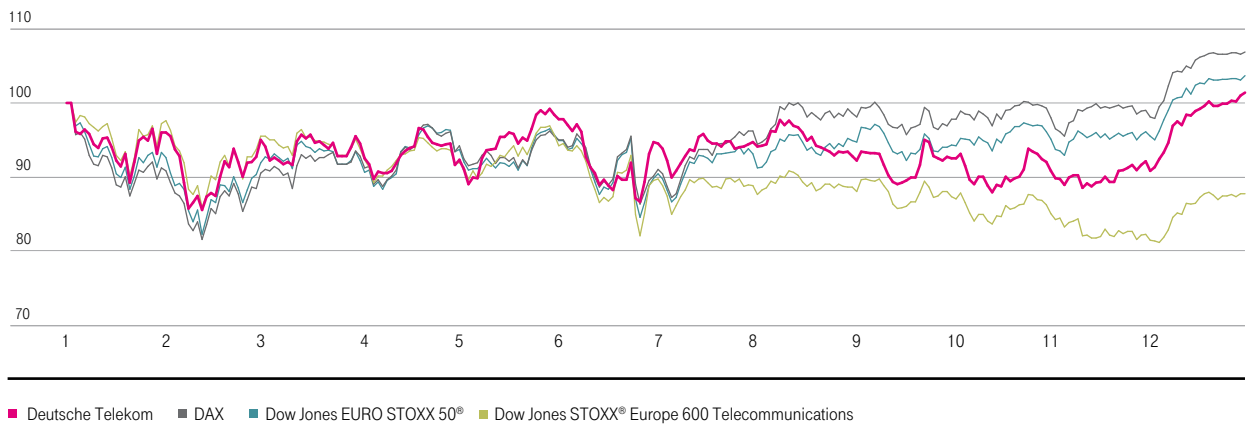
**SHARE OWNERSHIP BY MEMBERS OF THE BOARD OF MANAGEMENT AND THE SUPERVISORY BOARD**

Members of the Deutsche Telekom AG Board of Management and Supervisory Board bought a total of 158,035 shares, and sold 14,000 shares in 2016. 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.

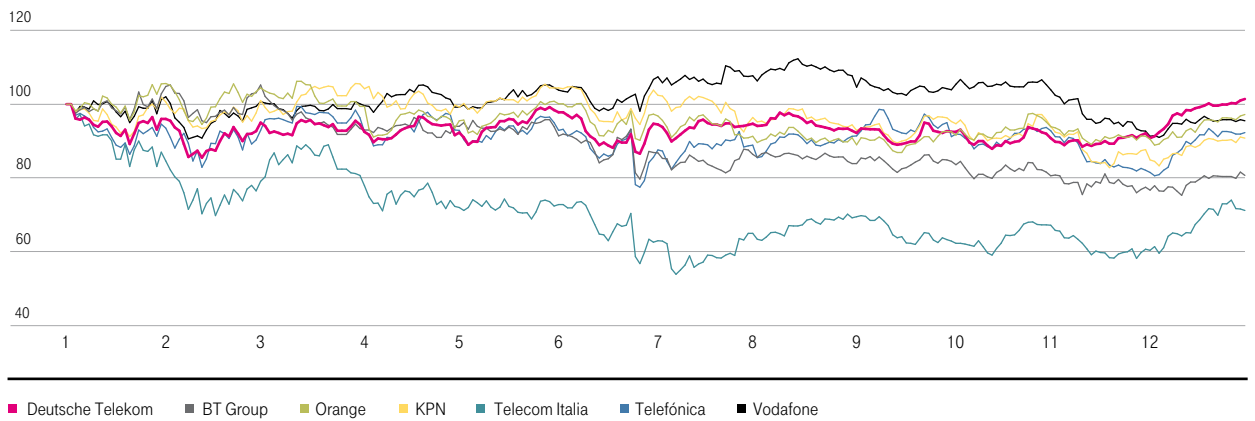
**DIVIDEND**

The Board of Management and Supervisory Board of Deutsche Telekom AG propose to this year's shareholders' meeting, to be held on May 31, 2017, the distribution of a dividend of EUR 0.60 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, 2016 (based on total shareholder return<sup>a</sup>)



**T-Share as compared to other European telecommunications companies**  
January 1 to December 31, 2016 (based on total shareholder return<sup>a</sup>)



<sup>a</sup>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.

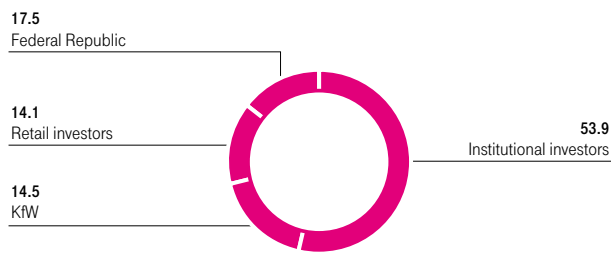
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**SHAREHOLDER STRUCTURE**

The Federal Republic's shareholding including that of Kreditanstalt für Wiederaufbau (KfW), stands at approximately 32.0 percent. The proportion of institutional investors increased slightly to 53.9 percent, while the share of retail investors decreased to 14.1 percent. As a result, the percentage of shares in free float remains at 68 percent of the share capital.

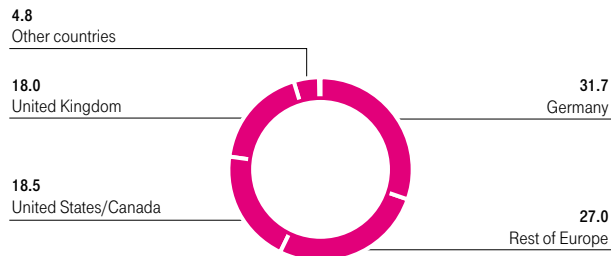
**Shareholder structure**

% (as of December 31, 2016)



**Geographical distribution of free float**

% (as of December 31, 2016)



**INVESTOR RELATIONS**

In the 2016 financial year, Deutsche Telekom continued its intensive dialog with institutional investors, retail investors, and financial analysts. Activities focused on individual and group discussions with institutional investors during roadshows and participation in conferences in the international financial centers in Europe, the United States, and Asia. The annual and quarterly figures were presented to the public in conference calls and web conferences. In addition, the topics of upcoming changes in reporting and Deutsche Telekom's cloud strategy were presented in two webinars.

The IR team provides retail investors with a direct point of contact on +49 (0) 228 181 88880 (fax +49 (0) 228 181 88899) or via e-mail (investor.relations@telekom.de) for questions relating to Deutsche Telekom or the T-Share. We actively exploit the opportunities of social networks. All live recordings of our quarterly presentations and investor events are available on YouTube and can also be viewed conveniently on mobile devices using the corresponding apps.

Deutsche Telekom's Investor Relations team and management team gained recognition through the results of the Extel Survey, among other ratings. Each year, this extensive poll conducted by Thomson Reuters surveys around 15,000 investors and analysts who rate various aspects of good investor relations work. This is the third year in a row that Deutsche Telekom performed extremely well as the best IR team in Europe.

# SUSTAINABLE DEVELOPMENT GOALS

In order to successfully tackle global challenges, the member states of the United Nations (UN) adopted the 2030 Agenda for Sustainable Development at their General Assembly in September 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: All emerging and developing economies as well as industrial nations must play their part.

The core of the 2030 Agenda comprises 17 sustainable development goals (SDGs), which officially came into force in January 2016. They cover all three dimensions of sustainable development: the social, environmental and economic. In particular, it seeks to reduce poverty and hunger, promote healthcare and education, enable equality, protect the environment and climate, and make consumption increasingly 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. With our smart home solutions, for example, our customers can better monitor, manage, and reduce their energy consumption (SDG 13); our broadband roll-out enables many people to get access to digital education media (SDG 4), our services in the area of e-health improve medical care (SDG 3), and our cloud solutions can help to save energy and other resources in many sectors (SDG 13). In this Annual Report, we meet our responsibility to transparently communicate our contributions to the SDGs.

To clearly highlight the contribution our products, services and activities make towards the individual Sustainability Development Goals, we have marked the relevant passages of the following pages with the respective SDG symbol.

**1 NO POVERTY**



**2 ZERO HUNGER**



**3 GOOD HEALTH AND WELL-BEING**



**4 QUALITY EDUCATION**



**5 GENDER EQUALITY**



**6 CLEAN WATER AND SANITATION**



**7 AFFORDABLE AND CLEAN ENERGY**



**8 DECENT WORK AND ECONOMIC GROWTH**



**9 INDUSTRY, INNOVATION AND INFRASTRUCTURE**



**10 REDUCED INEQUALITIES**



**11 SUSTAINABLE CITIES AND COMMUNITIES**



**12 RESPONSIBLE CONSUMPTION AND PRODUCTION**



**13 CLIMATE ACTION**



**14 LIFE BELOW WATER**



**15 LIFE ON LAND**



**16 PEACE, JUSTICE AND STRONG INSTITUTIONS**



**17 PARTNERSHIPS FOR THE GOALS**



**SUSTAINABLE DEVELOPMENT GOALS**

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## DEUTSCHE TELEKOM AT A GLANCE

We keep our promises: In 2016, we once again met our annual forecast. Net revenue increased substantially as planned. And with adjusted EBITDA of EUR 21.4 billion, we exceeded our target of around EUR 21.2 billion. Free cash flow was exactly on target despite a consistently high level of capital expenditure. Our shareholders also benefited from the positive development of business in the form of a dividend payment of EUR 0.55 per share for the 2015 financial year, which meant they were able to participate in the growth of free cash flow of around 9 percent.

**Net revenue** increased again year-on-year from EUR 69.2 billion to EUR 73.1 billion – an increase of 5.6 percent – driven once again by the strong U. S. business, where revenue was up 16.6 percent. In our home market of Germany, revenue decreased by 1.7 percent, primarily due to lower revenue from non-contract mobile devices. Business in our Europe operating segment remained under regulatory and competitive pressure. The 2.1 percent decline was mainly a result of the spin-off of the energy resale business in Hungary as of January 1, 2016. Despite the completion of the set-up phase of the toll collection system in Belgium in early 2016, revenue in our Systems Solutions operating segment decreased 3.5 percent year-on-year. In general, the downward price trend in ICT business had a negative effect on net revenue.

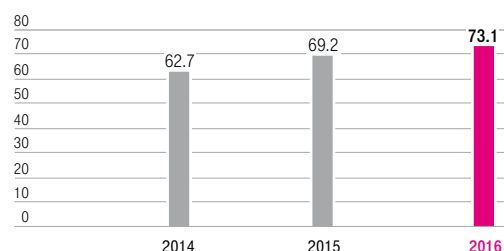
**Adjusted EBITDA** increased substantially by 7.6 percent compared with 2015. As with revenue, the growth driver was our U. S. business, which recorded an increase of 28.7 percent. In our Germany operating segment, adjusted EBITDA remained stable against the prior year, while in our Europe operating segment it decreased in particular due to competitive and regulatory pressure. Adjusted EBITDA also declined in our Systems Solutions operating segment as a result of the accounting treatment of risks from individual corporate customer contracts.

The adjusted EBITDA margin of 29.3 percent was up on the prior-year level. The operating segments with the strongest margins are still Germany with 39.9 percent and Europe with 32.1 percent.

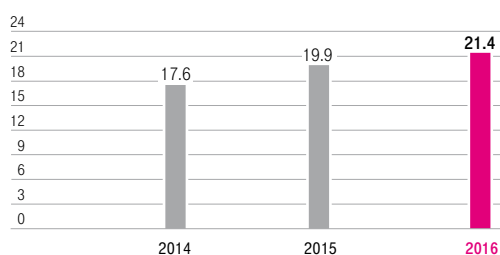
Our **EBIT** increased substantially by EUR 2.1 billion compared with the prior year to EUR 9.2 billion, mainly as a result of income of around EUR 2.5 billion from the sale of our stake in the EE *joint venture*. The transactions for the exchange of spectrum licenses made in the United States during the year and the sale of further parts of our share package in Scout24 AG also made a positive contribution to the development of EBIT. Higher amortization of intangible assets (including goodwill) and higher depreciation of property, plant and equipment reduced EBIT.

Despite strong EBIT growth, **net profit** declined by EUR 0.6 billion or 17.8 percent. This is due in part to the increase in losses from financial activities. The EUR 2.2 billion impairment of our financial stake in BT, which was recognized in profit and loss, was one of the main factors for this decrease. The tax expense in 2016 amounted to EUR 1.4 billion, up EUR 0.2 billion year-on-year. Profit attributable to non-controlling interests increased compared with 2015 by EUR 0.2 billion.

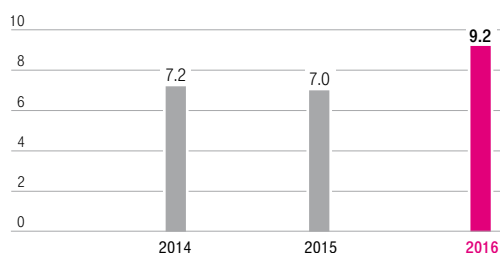
**Net revenue**  
billions of €



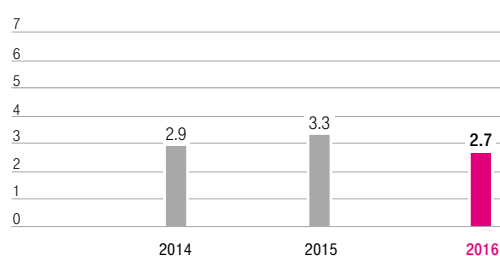
**Adjusted EBITDA**  
billions of €



**EBIT**  
billions of €

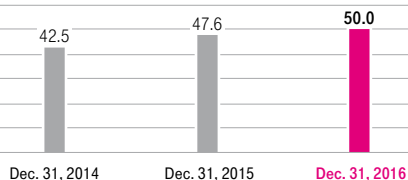


**Net profit/loss**  
billions of €

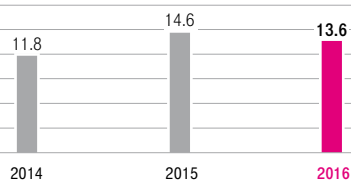


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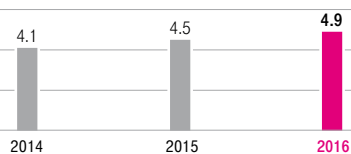
**Net debt**  
billions of €



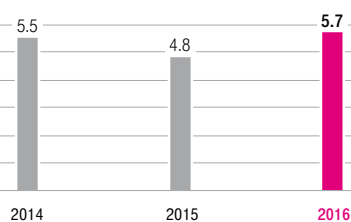
**Cash capex**  
billions of €



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




**ROCE**  
%



Net debt increased in the reporting year by EUR 2.4 billion to EUR 50.0 billion. This was attributable to the acquisition of mobile spectrum for EUR 2.7 billion, dividend payments – including to non-controlling interests – of EUR 1.6 billion, exchange rate effects of EUR 0.8 billion, and payments to external pension funds (allocation under contractual trust agreement: EUR 0.3 billion). Free cash flow (EUR 4.9 billion) as well as the sale of parts of our share package in the Scout24 group (EUR 0.1 billion) reduced net debt.

Cash capex (including spectrum investment) decreased by EUR 1.0 billion to EUR 13.6 billion. This was mainly due to spectrum acquired for EUR 2.7 billion, primarily in the United States and in Europe, down from EUR 3.8 billion in total in the prior year. Cash capex (before spectrum investment) increased slightly year-on-year to EUR 11.0 billion in the reporting year. The focus was principally on our Germany, Europe, and United States operating segments, where cash capex increased in connection with investments made in building out and modernizing our networks.

Despite continuing to invest heavily in building out our network, free cash flow increased to EUR 4.9 billion. The overall positive development of business was reflected in improved net cash from operating activities, which more than compensated for the higher level of investment.

Our key performance indicator ROCE (return on capital employed) improved by 0.9 percentage points in the reporting period to reach 5.7 percent. This positive trend was due to a substantial increase in net operating profit after taxes (NOPAT), which more than offset the rise in the average amount of net operating assets (NOA) over the year. The main positive factors influencing NOPAT in 2016 were income from the sale of our stake in the EE joint venture and income from transactions for the exchange of spectrum licenses at T-Mobile US. These positive factors were partially offset by the impairments of goodwill and property, plant and equipment recognized in the financial year. The increase in average NOA is largely related to the build-up of assets in our United States and Germany operating segments. In Germany, this development was largely due to the investments made as part of our integrated network strategy. In the United States, the increase in NOA was not only down to ongoing network build-out, but also to the acquisition of spectrum and spectrum exchange transactions. 



For a more detailed explanation, please refer to the section "Development of business in the Group," page 40 et seq.

## HIGHLIGHTS IN THE 2016 FINANCIAL YEAR

### BOARD OF MANAGEMENT

As of January 1, 2017, the Deutsche Telekom AG Group Board of Management was extended to include the additional Board department Technology and Innovation, headed by Claudia Nemat. Srinivasan (Sri) Gopalan joined the Board of Management as of January 1, 2017 as the member responsible for Europe. The Supervisory Board of Deutsche Telekom AG approved this decision in its meeting on June 30, 2016. The number of Board of Management members has thus been increased from seven to eight.

### EMPLOYEES

On April 13, 2016, we and the ver.di union agreed the terms for a collective agreement for the following companies: Deutsche Telekom AG, Telekom Deutschland GmbH, Deutsche Telekom Kundenservice GmbH, Deutsche Telekom Technischer Service GmbH, Deutsche Telekom Technik GmbH, and Deutsche Telekom Regional Services and Solutions GmbH. The new collective agreement provides for salaries to increase with retrospective effect by 2.2 percent as of April 1, 2016 and by a further 2.1 percent as of April 1, 2017. Lower salary bands increased at the higher rate of 2.6 percent as of April 1, 2016. The agreement took effect on February 1, 2016 and runs for two years.

In the collective negotiations for T-Systems in Germany, we reached an agreement with ver.di on June 15, 2016. One of the points agreed was to increase salaries under the collective agreement by 1.0 percent, and in the lower salary bands by 1.5 percent, as of July 1, 2016, and by a further 1.5 percent as of April 1, 2017. The agreement took effect retrospectively on April 1, 2016 and runs for two years.

Both collective agreements exclude compulsory redundancies until December 31, 2018.

### DIVIDEND

In 2016, we once again offered our shareholders the option of converting the dividend for the 2015 financial year into shares instead of receiving it as a cash payment. The acceptance rate stood at almost 41 percent of dividend-bearing shares, which means this option was taken up for some 1.9 billion shares. With a subscription ratio of 26.7: 1, this resulted in the issue of around 70 million new shares. Shareholders who did not choose this option received a cash dividend, which amounted to around EUR 1.5 billion in total. We are considering offering our shareholders this choice again for the 2016 financial year.

### CORPORATE TRANSACTIONS

After the British Competition and Markets Authority (CMA) had approved the sale of the **EE joint venture** to the UK company BT unconditionally and without remedies in January 2016, we and the French telecommunications provider Orange consummated the transaction on January 29, 2016 at a purchase price of GBP 13.2 billion. In return for our stake in the EE joint venture, we received a financial stake of 12.0 percent in BT and a cash payment of GBP 15.7 million.

In December 2016, we agreed to sell our hosting service provider **Strato** to United Internet AG for a purchase price of around EUR 0.6 billion. We expect the transaction to close in the first half of 2017. Payment of most of the purchase price is to be made immediately after closing. Until this


date, our stake in Strato will be reported in the consolidated financial statements under non-current assets and liabilities held for sale. The sale of Strato is in line with our strategy of developing other options for increasing the value of business areas that can no longer be adequately developed within the Group, through partnerships or disposals.

In April 2016, we placed approximately 2.6 million shares in **Scout24 AG** at a price of EUR 30.00 per share. In another book-building process in December 2016, we brought 1.8 million shares to market at a price of EUR 32.00 per share, with gross proceeds of EUR 0.1 billion in total. Following the transactions, we continue to hold directly and indirectly approximately 10.2 percent of the total number of shares of Scout24 AG. Due to the continued significant influence on Scout24 AG's finance and operations, we continue to include the remaining stake in this company in the consolidated financial statements using the equity method, reporting it under the Group Headquarters & Group Services segment in the reporting year.

### BOND ISSUANCES

Under our debt issuance program, we placed **euro bonds** totaling EUR 4.5 billion in March 2016, followed in April 2016 by a fixed-interest euro bond with a volume EUR 0.5 billion, and in October 2016 by a fixed-interest **GBP bond** of GBP 300 million. In September 2016, we also placed separate **U. S. dollar bonds** with a total volume of USD 2.75 billion. All bonds were issued by Deutsche Telekom International Finance B. V. with the guarantee of Deutsche Telekom AG. The issuances form part of our general corporate financing and did not increase the level of our net debt. 

### FINANCING RELATIONSHIPS

In order to optimize the financing terms and conditions for our subsidiary **T-Mobile US** and thus also those for the Group, we provided T-Mobile US with a 3-year partially secured credit line of USD 2.5 billion and a secured loan of USD 660 million in December 2016. Together with the temporary loan commitments for up to USD 4.0 billion, which were made in March and April 2016 and run until the end of May 2017, Deutsche Telekom AG provided its subsidiary T-Mobile US with a total funding framework of more than USD 7 billion as of the reporting date. This does not increase the Group's net debt. 

### INVESTMENTS IN NETWORKS AND NEW SPECTRUM

■ In 2016, **T-Mobile US** acquired spectrum licenses from a number of competitors for a total of around EUR 1.7 billion. Swap arrangements were also consummated with competitors in the reporting year; giving rise to a total non-cash gain of EUR 0.5 billion. In September 2016, T-Mobile US agreed the swap of spectrum licenses with a competitor. The spectrum licenses to be exchanged in the value of EUR 0.1 billion were reclassified to non-current assets and disposal groups held for sale. The transaction is expected to be closed in the first half of 2017.



For further information on the issuances, please refer to the section "Development of business in the Group," page 40 et seq.



For further information on our financing relationship with T-Mobile US, please refer to the section "Significant events after the reporting period," page 87.



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■ At the spectrum auction in Poland which ended in October 2015, **T-Mobile Polska** was the highest bidder, acquiring spectrum of some EUR 0.5 billion, which was paid at the beginning of February 2016. In June 2016, T-Mobile Polska acquired additional mobile spectrum for around EUR 0.5 billion. This was offered to our subsidiary by the Polish regulatory authority UKE after the highest bidder had declined to accept the spectrum. T-Mobile Polska was offered the spectrum for purchase as the second highest bidder in accordance with the rules of the auction. Payment was made in July 2016.

■ Work to expand Europe's largest **data center in Biere** near Magdeburg began on schedule in June 2016. It is expected to be put into operation after only two years of construction – in time to serve the increasing demand for secure and reliable cloud services and further cement our market leadership in Europe. We expect the investment for the expansion in Biere to be in the three-digit million range. [SDG](#)

■ For the new age of telecommunications, as part of our “Leading European Telco” Group strategy, we are working towards a **pan-European production model** with an **IP-based infrastructure**. We laid the foundation for this in August 2016 with the commissioning of our first production sites in the Hungarian capital of Budapest; two more will be set up in Poland and Greece in 2017. These production sites will provide services like voicemail, text messaging, and e-mail for all our European subsidiaries in the form of product modules. Each subsidiary can assemble these modules tailored to the needs of their respective market. In this way, the set-up of our pan-European network ensures long-term competitiveness on our markets while at the same time creating synergies throughout the Group.

**INNOVATION**

■ We proved our technology leadership once again in the reporting year. In particular, we reached milestones in the development of the new **5G standard** and in narrowband communications. At the Mobile World Congress in Barcelona, for example, we unveiled the world's first end-to-end 5G system: with a latency of less than a millisecond – a technical record and a major step towards achieving genuine real-time applications such as self-driving cars or remote medical surgery.

■ In October 2016, we introduced the world's first end-to-end system for **narrowband communications** (Narrowband Internet of Things – NB-IoT) in our networks in Germany and the Netherlands. One of the first applications is an innovative parking system we developed together with our partner Huawei. The sensors installed in parking spaces communicate with drivers via an app, directing them to empty spaces. The narrowband technology allows the use of low-energy, cost-efficient sensors and thus is ideal for flexible use in all sectors of the industry and economy. [SDG](#)

**PARTNERSHIPS**

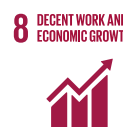
“Win with partners” is one of the four areas of operation in our Group strategy, and it underscores just how important collaboration and partnerships are for the success of our Group. We have successfully partnered with key players for many years, including Apple, Samsung, and Microsoft. We again entered into and expanded a large number of partnerships in the reporting year. We would like to present some of them in detail:

■ At the end of February 2016, we entered into a strategic partnership with South Korea's largest mobile telecommunications services provider, **SK Telecom**. The shared aim is to further expand our performance potential as industry leaders, so as to create additional customer benefits. Our collaboration covers in particular the areas of media and IoT platforms. The partnership is also driving forward the development of 5G technology. We managed to win SK Telecom as a committed partner for the Next Generation Enterprise Network Alliance (ngena) initiated by us.

■ At the Hannover Messe in June 2016, where we exhibited under the motto “Digitization. Simply. Make it happen.”, we expanded our alliance to drive the progress of the industrial Internet. We agreed to collaborate with **Huawei** to open up the IoT mass market for hardware and sensor technology. We are expanding our longstanding collaboration with the **German Research Center for Artificial Intelligence (DFKI)** to make it possible to promptly incorporate the latest scientific and research findings into our in-house product development processes. For industrial data analysis, we intend to work with **GE Digital**, a subsidiary of the U. S. industrial group General Electric (GE), and use their Predix cloud platform. We want to work with GE Digital to drive forward digital innovations in industrial segments like production, transport, energy, or healthcare.

■ Our business customer arm T-Systems and the energy management company **Eaton** have been pooling their IoT expertise since November 2016. Together we want to offer small and medium-sized mechanical and plant engineering companies secure IoT solutions for networking their systems in the cloud. Eaton provides an automation component that ensures easy connection to our multi-IoT platform. This will enable mechanical engineering companies to monitor and maintain entire facilities directly from the cloud and, thanks to intelligent data analysis, to improve their productivity. [SDG](#)

■ When digitizing critical business processes, sustainable quality is crucial. Our **Zero Outage** quality program aims for stable ICT operation and the highest possible level of customer satisfaction. We have been further developing this vision since 2016 in our global partner ecosystem together with other big names from the ICT industry and have set up a Zero Outage Industry Standard association: We have defined an industry-wide, cross-company standard for IT quality, which we now plan to establish with all partners.



For further information on our innovations, please refer to the section “Innovation and product development,” page 77 et seq.

- T-Systems, Daimler and DKV EURO SERVICE are working to establish a partnership for the development and provision of a **European Electronic Toll System (EETS)** throughout all of Europe. For marketing the EETS services and handling toll collection vis-à-vis end customers, the joint venture parties intend to integrate the services of sales and marketing partners. The intended technical basis for the planned services is an on-board unit that can be used internationally to enable billing of toll charges Europe-wide with a single device.

#### NEW DEALS WITH CORPORATE CUSTOMERS

We continued our streak of success in cloud services in the reporting year. But we also succeeded in concluding, extending, and expanding various contracts in other areas in Germany and abroad. Examples of new corporate customer contracts:

- At the end of May 2016, T-Systems concluded an agreement with **ITSCare**, the IT service provider for the AOK health insurance fund for Baden-Württemberg, Hesse, and Rhineland-Palatinate/Saarland. This triple-digit-million, multi-year deal covers the centralized operation of the IT infrastructure with data center and network services, as well as decentralized services like service desk and workplace services.
- The Austrian highway operator **ASFINAG** has commissioned T-Systems with the operation of the central toll collection system **GoMaut 2.0** from 2018. This deal, awarded in August 2016 with a term of ten years, involves operating the toll billing IT systems, around 230 points of sale in Austria and abroad, as well as the 48 mobile control units. We will operate the hardware in our own highly secure data center, the T-Center in Vienna, as well as further develop and modernize existing applications. The company will deploy state-of-the-art virtualization and automation technologies, with the aim of increasing security and quality while reducing costs.
- T-Systems once again convinced the automotive group **Daimler** of its IT expertise, concluding an agreement with a three-digit million order volume: It includes the operation and modernization of the mainframe computers as well as key IT applications. Furthermore, we will connect more than two million vehicles around the world via Daimler's connected car platform.
- At the end of November 2016, **Deutsche Bahn** awarded us the contract to deliver tens of thousands of terabytes of data to supply the ICE fleet with fast Internet. This makes us one of the largest suppliers of data volumes for Deutsche Bahn's new, free Wi-Fi service on board its trains. The service requires a fast, resilient network in which we have continuously invested along the ICE routes.

- At the end of December 2016, **Swiss National Railways (SBB)** and T-Systems signed another corporate customer agreement. After T-Systems Switzerland successfully transferred some of SBB's applications to the cloud in the reporting year, the entire SAP infrastructure is now to follow. In the future, we will provide this as Infrastructure-as-a-Service (IaaS). In addition, Platform-as-a-Service (PaaS) services are to be pooled in a cloud-based platform in Switzerland in the future.

- The UK telecommunications company **BT** is expanding its cloud ecosystem with T-Systems. The agreement, signed in December 2016, covers the provision of cloud-based SAP solutions from our data centers. From the first half of 2017, BT's business customers will be able to purchase the new PaaS service "BT Compute for SAP."

#### 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: □

- At CeBIT in March 2016, we unveiled another central component of our cloud ecosystem with our **Open Telekom Cloud**. This secure online solution allows business customers to purchase not only tailor-made private cloud solutions, but also infrastructure, software, and applications as needed.
- We have added to our **security solutions** in the MagentaSecurity portfolio. We have pooled all of the Group's security units in our new Telekom Security organization, where we make use of both proprietary innovations and solutions offered in partnership with leading international security specialists.
- **MagentaOne** has been available to consumers in all of our European integrated markets since March 2016. We employ an international marketing concept adapted to the local markets and their requirements to market our convergent product portfolio.
- The **MagentaMobil Happy** rate plans, available since March 2016, provide our MagentaEins customers in Germany with a new top smartphone or tablet at a reduced price every 12 months when extending their contract. Since mid-April 2016, the **MagentaMobil** rate plans include even more features: In addition to larger high-speed data volumes, subscribers can benefit from an integrated HotSpot flat rate and a free EU **roaming** package for calls, text messages, and mobile data usage. We have redesigned our **MagentaMobil Start** **prepay** portfolios: Since October 2016, our customers in Germany have been able to profit from attractive offers, such as 50 percent bigger data volumes compared with the old rate plans and data speeds of up to 300 Mbit/s in the LTE network.




For more information, please go to [www.telekom.com/media](http://www.telekom.com/media)

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- At the 2016 Hannover Messe, we unveiled our new **Cloud of Things starter kit** that provides companies with a simple entry-level digitization solution. It enables companies of all sizes to connect their machines, equipment, or vehicles and monitor them remotely without any costly installation. Our platform, which we operate in our secure data center in Germany, receives the data and makes them available to customers via an online portal.
- In May 2016, we launched our new service **EntertainTV** – with a new design, new highly user-friendly interface, and new, elegant hardware. Customers can now use unique features: The “restart” option means they never again have to miss the beginning of programs that have already started. The “seven-day replay” function provides even greater freedom, allowing viewers to watch replayable programs for up to a week after their broadcast. EntertainTV combines live television, on-demand content, apps, and media libraries on one platform, and not just on television, but also on tablets and smartphones using the EntertainTV mobil add-on option.
- Since May 2016, fixed-network customers switching to us from another provider have benefited from a **personal switch advisor** – complementing the service for owner builders and the moving home manager as an additional component for enhancing the customer experience and improving customer retention. In addition, since December 2016, we have offered two new services for our **customer hotline**: First, customers have the option of being connected with the same advisor; second, our hotline calls customers back within a previously specified waiting period.
- Since June 2016, our **mobile customers** have been able to make calls on their smartphones via any Wi-Fi (WLAN) network in Germany or abroad with the free add-on **WLAN Call**. All they need is a WLAN Call-enabled smartphone and a mobile contract that includes Voice over LTE. The software needed for this add-on is installed in the smartphone, i.e., no additional app is required. WLAN Call is of particular benefit in places that for construction reasons do not have sufficient mobile reception, but do have Wi-Fi, such as underground garages or basements.
- Together with the Fraunhofer Institute for Secure Information Technology (SIT), we launched **Volkverschlüsselung – secure e-mail for everyone** – at the end of June 2016. The Fraunhofer SIT is developing this user-friendly software, which generates a cryptographic key and configures the users’ e-mail programs. Volkverschlüsselung, which is free of charge, is part of an initiative we have launched together with Fraunhofer SIT to promote the widespread usage of end-to-end encryption among the general public and thus bolster the protection of electronic communications of consumers and businesses. **SDG**
- The **PaketButler**, our connected solution to make it easier to receive parcels and send back returns, has been in use across Germany since November 2016. We developed the PaketButler together with our partner feldsechs from Hamburg and launched it on the market in close partnership with DHL. But in principle all delivery companies can use it. The connected parcel box makes it secure, simple and convenient to receive and return parcels, even when no one is home. The customer simply places the box, with its integrated **SIM card**, outside their door and then secures it by placing the tear-resistant belt between door and frame. The delivery company places the parcel inside the theft-proof box, and the PaketButler then sends a push message to the recipient’s smartphone, informing them that their goods have arrived.
- In September 2016, T-Mobile US launched the latest Un-carrier initiative: With the **T-Mobile ONE** and **T-Mobile ONE Plus** rate plans, customers can make unlimited calls, send unlimited text messages, and enjoy an unlimited high-speed 4G/LTE data volume. On T-Mobile ONE, video typically streams at DVD (480p) quality and tethering is at maximum 3G speeds. Customers on T-Mobile ONE Plus plans also receive unlimited high-speed 4G/LTE mobile HotSpot data volume, unlimited High Definition Day Passes, and up to two times faster speeds when traveling abroad in more than 140 countries and destinations.
- Since October 2016, our new **multi-IoT platform** in the cloud data center in Biere has been bringing together the IoT platforms of various well-known companies, such as Microsoft, Cisco and Huawei. IoT solutions can thus be used across platforms and on any terminal equipment. Differing platforms and standards inhibit the market development of the Internet of Things. With our multi-IoT platform, we offer a cross-industry, scalable platform as well as the right complete IoT packages for fast entry to IoT.

## AWARDS

We received a large number of awards again in the reporting year – among other things for our outstanding networks, our excellent service, our innovative marketing concepts, and for our extremely valuable Telekom brand. The following graphic summarizes the main awards received in 2016. 

## 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

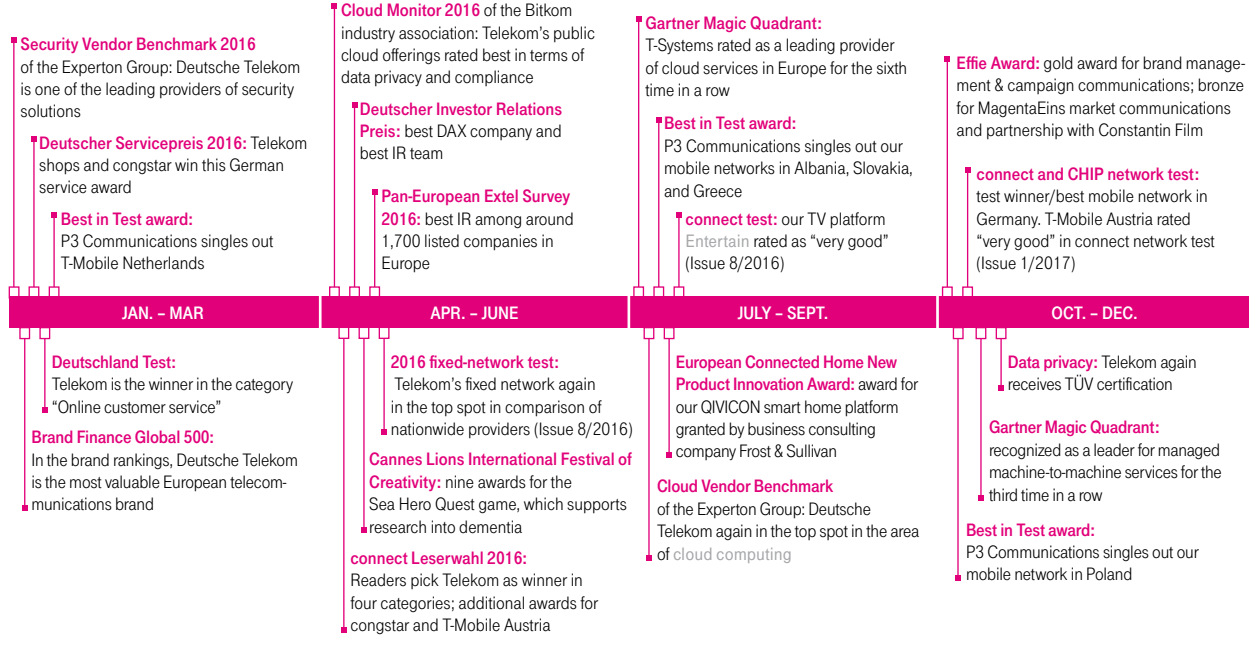


For details on more awards, please go to [www.telekom.com/media](http://www.telekom.com/media)



For information on awards received for our HR activities, please refer to the section “Employees,” page 82 et seq.

## Major awards in 2016



## GROUP ORGANIZATION

- Organization and business activities
- Management and supervision

### BUSINESS ACTIVITIES AND ORGANIZATION

**Business activities.** With 165 million mobile customers, around 29 million fixed-network and around 19 million broadband lines, we are one of the leading integrated telecommunications companies worldwide. We offer our customers fixed-network/broadband, mobile communications, Internet, and Internet-based TV products and services for consumers, and ICT solutions for business and corporate customers. We have an international focus and are represented in more than 50 countries. In the 2016 financial year, we generated around 66 percent of net revenue, i. e., EUR 48.4 billion, outside Germany. Overall, we employ some 218,300 people (December 31, 2016).

The fixed-network business encompasses 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. When marketing these services, we also sell mobile handsets and other hardware. In addition, we also sell mobile services to resellers and to companies that buy network services and market them independently to third parties (mobile virtual network operator, 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, and place sustainability at the heart of all we do. A range of sector-specific and general conditions are crucial to the success of business activities. These include qualified staff and excellent working conditions within our own Group but also at our suppliers, as well as first-rate quality at reasonable costs – with regard to data protection and security, customer service, network build-out, and in materials procurement. 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 are cutting back our own energy consumption. 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](#)

Our responsible corporate governance and business success are based on our shared corporate values and 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.

For information on our footprint, please visit [www.telekom.com/worldwide](http://www.telekom.com/worldwide)

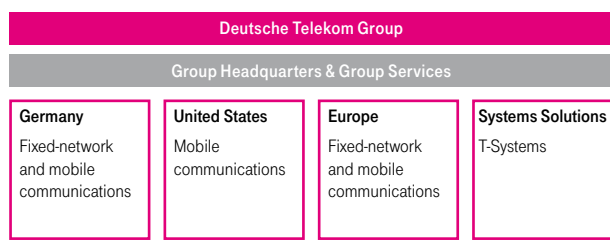


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**Organization.** Our financial reporting conforms with our Group strategy and is based on the following organizational structure. Our Group is broken down into four operating segments whose business activities are assigned in three segments by region and in one segment by customer and product.

The following graphic provides an overview of the organizational structure of our Group, which we will explain in detail.

**Organizational structure**



Our **Germany** operating segment comprises all fixed-network and mobile activities for consumers and business customers in Germany. In addition, it provides **wholesale** telecommunications services for the Group's other operating segments.

Our **United States** operating segment combines all mobile activities in the U. S. market.

Our **Europe** operating segment comprises all fixed-network and mobile operations of the national companies in Greece, Romania, Hungary, Poland, the Czech Republic, Croatia, the Netherlands, Slovakia, Austria, Albania, the F.Y.R.O. Macedonia, and Montenegro. In addition to consumer business, most of our national companies also offer information and communication technology (ICT) solutions to business customers. On January 1, 2016, we bundled the business customer operations at Magyar Telekom under our Europe operating segment; previously they had been assigned to the Systems Solutions operating segment. The units International Carrier Sales & Solutions (ICSS), Group Technology, and Global Network Factory (GNF) also belong to our Europe operating segment: ICSS primarily provides wholesale telecommunications services for the operating segments in our Group. Group Technology ensures efficient and customized provision of technologies, platforms, and services for mobile and fixed-network communications. GNF designs and operates a global network for providing wholesale customers with voice and data communication. Deutsche Telekom Pan-Net, established in 2015, also belongs to the Europe operating segment. It operates and manages the shared pan-European network and is responsible for developing and providing services for our European national companies.

Drawing on a global infrastructure of data centers and networks, our **Systems Solutions** operating segment operates ICT systems for multinational corporations and public sector institutions. In this way, T-Systems provides customers all over the world with integrated solutions for the digital age. But the operating segment also offers ICT solutions tailored to the needs of small and medium-sized enterprises. The offering primarily includes services from the cloud, M2M, and security solutions, complementary, standardized mobile and fixed-network products, as well as solutions for virtual collaboration and IT platforms. They form


the basis for the digital business models of our corporate customers. The Systems Solutions operating segment comprises two business areas: Market Unit and Telekom IT. Telekom IT focuses on the Group's internal national IT projects. The Market Unit mainly comprises business with external customers and since October 2015 has been divided into three divisions: the IT Division, the TC Division (Telecommunications), and the Digital Division. These roles and responsibilities are more closely aligned to address the needs of our customers and enable us to grow as we improve efficiency and profitability.


**Group Headquarters & Group Services** comprises all Group units that cannot be allocated directly to one of the operating segments. 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 acts as service provider for the Group; in addition to typical services such as financial accounting, human resources services, and operational procurement, Group Services also includes Vivento, our personnel service provider. On the one hand, it is in charge of securing external employment opportunities for employees and 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. Further units are Group Supply Services (GSUS) for our real estate management, and MobilitySolutions, which is a full-service provider for fleet management and mobility services. Our central innovation unit Group Innovation<sup>+</sup> is working to develop new business areas and products in close dialog with our operating segments.

**Changes in the organizational structure from January 1, 2017.** We have created the new Board of Management department **Technology and Innovation**, in which we have pooled our Group's overarching network, innovation, and IT tasks. As a result, organizational changes took effect at the beginning of 2017: We have transferred the Innovations, Telekom IT, and Technology units of our Germany, Europe and Systems Solutions operating segments into a separate Board department. As of January 1, 2017, we will report on the Technology and Innovation Board department under the Group Headquarters & Group Services segment.

In addition, as of January 1, 2017, we will be reporting on the new **Group Development** operating segment. The objective of Group Development is to actively manage and increase the value of selected subsidiaries or equity investments of the Group. For this purpose, the following units and subsidiaries have been assigned to this operating segment: T-Mobile Netherlands from the Europe operating segment, Deutsche Funkturm (DFMG) from the Germany operating segment, and Deutsche Telekom Capital Partners (DTCP), our stakes in BT, Scout24 AG, Ströer SE & Co. KGaA, and the held-for-sale company Strato AG from the Group Headquarters & Group Services segment. The Group functions of Mergers & Acquisitions and Strategic Portfolio Management have also been assigned to Group Development. Our approach of integrated, value-driven management aims to give our subsidiaries and equity investments the level of entrepreneurial freedom they need and thus to promote their strategic further development. The management teams maintain an intensive dialog with the segment management and the relevant supervisory and advisory boards.

Our integrated planning and management process will take account of this new structure from 2017.

 For more information, please refer to Note 31 "Segment reporting" in the notes to the consolidated financial statements, **page 192 et seq.**

 For more information, please refer to the section "Forecast," **page 87 et seq.**

## 8 DECENT WORK AND ECONOMIC GROWTH



For a description of the compensation of the Board of Management and the Supervisory Board, please refer to the section "Other disclosures," page 113 et seq.

### MANAGEMENT AND SUPERVISION

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. [SDG](#)

As of December 31, 2016, Board of Management responsibilities were distributed across seven Board departments. Four of these cover cross-functional management areas:

- Chairman of the Board of Management and the Board departments
- Finance
- Human Resources
- Data Privacy, Legal Affairs and Compliance

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

- Germany
- Europe and Technology
- T-Systems

**Changes in the composition of the Board of Management.** Claudia Nemat was reappointed as member of the Board of Management responsible for Europe and Technology effective October 1, 2016 as per a resolution of December 16, 2015. Dr. Thomas Kremer was reappointed as member of the Board of Management responsible for Data Privacy, Legal Affairs and Compliance effective June 1, 2017 as per a resolution of August 30, 2016. Reinhard Clemens was reappointed as member of the Board of Management responsible for T-Systems effective December 1, 2017 as per a resolution of December 14, 2016.

**Changes in the composition of the Supervisory Board (shareholders' representatives).** Dr. Hubertus von Grünberg's term of office on the Supervisory Board expired at the end of the shareholders' meeting on May 25, 2016. At that shareholders' meeting, Dr. Helga Jung was elected to the Supervisory Board.

**Changes in the composition of the Supervisory Board (employees' representatives).** Waltraud Litzberger resigned her position on the Supervisory Board effective midnight December 31, 2015. Nicole Koch was court-appointed to the Supervisory Board effective January 1, 2016.

The Supervisory Board of Deutsche Telekom AG advises the Board of Management and oversees its management of business. It is composed of 20 members: Ten represent the shareholders and ten the employees. [SDG](#)

The members of the Board of Management are appointed and discharged in accordance with § 84 and § 85 of the German Stock Corporation Act (Aktengesetz – AktG) and § 31 of the German Code-termination 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)
Reinhard Clemens	T-Systems
Niek Jan van Damme	Germany
Thomas Dannenfeldt	Finance (CFO)
Dr. Christian P. Illek	Human Resources
Dr. Thomas Kremer	Data Privacy, Legal Affairs and Compliance
Claudia Nemat	Europe and Technology

**Changes in the organizational structure from January 1, 2017.** At its meeting on June 30, 2016, the Supervisory Board resolved to extend the Group Board of Management to eight Board departments by setting up a new Technology and Innovation Board department effective January 1, 2017; the previous Europe and Technology Board department will continue as a separate Europe Board department. The new Board department will be headed by Claudia Nemat effective January 1, 2017, who was previously responsible for the Europe and Technology department. At the same meeting, our Supervisory Board appointed Srinu Gopalan as the new Board of Management member responsible for the Europe department effective January 1, 2017.

## GROUP STRATEGY

- Deutsche Telekom aims to be the leading telecommunications provider in Europe
- Group strategy successfully implemented again in 2016

### 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. We see ourselves as a driving force for a modern and competitive digital Europe. Our leadership goal covers four dimensions: best network, best service, best products, and preferred provider for business customers. Furthermore, we work towards making the information and knowledge society accessible to all, and endeavor to reconcile economic, ecological, and social aims in the interests of sustainable economic activity. In this way we strive to make a positive contribution to sustainable development at all levels of the value chain. The key action areas for our sustainability management focus on both its importance for our business success and the expectations of our stakeholders. [SDG](#)

As the following graphic shows, our Leading European Telco strategy is based on four areas of operation which are derived from our leadership goal and focus on our customers, as well as on three supporting areas of operation which provide the framework for our internal activities.



For details on the activities of the Supervisory Board in the reporting year, please refer to page 5 et seq.

## 12 RESPONSIBLE CONSUMPTION AND PRODUCTION



For more information, please refer to the section "Corporate responsibility," page 70 et seq.

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**Leading European Telco corporate strategy**



**STRATEGIC AREAS OF OPERATION**

**Integrated IP networks**

Our core business is setting up, operating, and marketing networks and communication services. We aim to offer our customers the best network and fastest possible connection. Above-average **network quality** is therefore a differentiator for us, with which we can clearly set ourselves apart from the competition. We regularly perform outstandingly in independent network tests: proof that we are systematically upgrading our networks and remain quality leader, despite rising competitive pressure. The built-out of our networks also serves our corporate and social aims: A modern network makes our products and services attractive for a larger number of potential customers and thus increases our revenue potential. Modern networks and systems also improve our energy efficiency. At the same time, we give more people access to modern information and telecommunications services.

Step by step we are migrating our entire fixed network to the **Internet Protocol (IP)** for all customers. In the long term, an **integrated, pan-European IP network** will allow us to meet our customers' wishes quickly, flexibly, and economically. The gradual migration to modern IP networks was completed in Croatia and Montenegro in 2015, and was also almost fully completed in Hungary in the reporting year. In Germany and our other integrated national companies, this transformation is well underway and is set to be virtually complete by 2018. The establishment of a new Board of Management department for Technology and Innovation, headed by Claudia Nemat, underscores the importance we place on uniform network production and management. As technology, IT and innovation increasingly converge, this lays important groundwork for the ongoing digitization of our telecommunications networks.

We continue to invest in our fixed networks to provide the best possible broadband coverage and remain competitive. We are bringing **optical fiber** closer to our customers with the **FTTC** (fiber to the curb) technology and in doing so, increase bandwidths. In Germany, we are planning to be able to offer approximately 80 percent of the population a download bandwidth of at least 50 Mbit/s – thanks, for example, to **vectoring** technology.

In mobile communications, we intend to further roll out our **LTE networks**: In Germany, we plan to cover approximately 95 percent of the population with LTE by 2018; in our European national companies, coverage is to reach between 75 and 95 percent. Furthermore, we want to provide substantially more Wi-Fi HotSpots in Germany and build an even denser mobile communications network using high-performance small cells. In the United States, our 4G/LTE network covered around 314 million people at the end of 2016.

As a leading telecommunications provider, we are actively involved in developing and standardizing the **fifth generation mobile communications standard (5G)**. 5G will open the door to entirely new and flexible use cases. The key components of the 5G concept are the deployment and distribution of computing power in the network, dedicated network layers for individual applications, and the seamless integration of fixed-network and mobile communications technologies. 5G provides the basis for future technologies such as virtual reality, autonomous driving, and the Internet of Things. We anticipate that 5G will be ready from 2020.

**Best customer experience**

With our award-winning network, integrated products, and service excellence, we are creating an **outstanding customer experience**. We delight our customers with expertise, simplicity, and speed. Also for this reason, we continuously improve our processes and IT systems.

Fixed-mobile convergence (**FMC**), i.e., the joint marketing of fixed-network and mobile communications in one product, offers our customers a seamless telecommunications experience – consistently and across different technologies. We therefore intend to significantly expand the range of convergent products we offer. Among other reasons, the aim is to win new customers and retain existing customers, as well as to increase revenue. Around three million customers in Germany had opted for MagentaEins by the end of 2016. We thus met our target of gaining three million FMC customers by 2018 in the 2016 financial year – two years earlier than originally planned. In total, the integrated national companies of our Europe operating segment won around 1.4 million customers for our FMC products as of the end of 2016.

Our customers benefit from our **convergent product portfolio**, which shows them just how easy and uncomplicated telecommunications can be. Take the EU-Flat Plus mobile flat rate, for example, which is only available to our MagentaEins customers. We had launched our **hybrid router** in Germany in 2014. It combines the strengths of the fixed network (consistent high capacity) with those of mobile communications (high transmission rates).

By 2018, we plan to improve our **customer service**, focusing on customers and efficiency. We want to offer our customers an outstanding and consistent service experience on all channels – shop, hotline, and online. We are paying particular attention to expanding our online channel and seamless switching between the different channels. In 2016 we improved customer service in a number of areas. In Germany, for example, we overhauled the mobile and fixed-network portal, the online shop, and the Customer Center to give them a modern look and began work to combine these onto one single platform. Every new fixed-network customer is assigned a personal switch adviser – this is just one of the ways in which we set ourselves apart from the competition as a premium service provider. Our integrated sales and service app, which can handle all important customer issues, has now been rolled out at six of our European national companies, most recently in Austria.



For more information on our outstanding network, please refer to the section "Highlights in the 2016 financial year," page 22 et seq.



For information on our progress with building out the network, please refer to the section "Development of business in the operating segments," page 52 et seq.

We measure **customer retention/satisfaction** using the globally recognized TRI\*M method. Based on this TRI\*M performance indicator, we improve our customer contact processes, and our products and services. We determine the loyalty of our customers towards the Company in surveys. The results are presented as a performance indicator, the TRI\*M index, which ranges between minus 66 and plus 134 points. In the reporting year, the value stood at 70.2 points, compared with 68.3 points in the prior year, based on the equivalent basis for calculation. Our aim is to improve this result step by step through 2018.

For our customers, **data privacy and security** are very important and hence are a vital differentiator in competition. We guarantee our customers that we will handle their data securely and confidentially. We also see data privacy and security as a growing business area, which we want to significantly expand with existing and new security solutions. The new Telekom Security business unit, which bundles all security activities across the Group, went into operation on January 1, 2017. [SDG](#)

#### Win with partners

We are an innovative company. We are focusing our own innovative power on our networks, our process landscape, selected platforms for the production and sale of our products, and on our access products. Together with partners, we offer an even wider range of products and services and deliver the digital offerings our customers want. We offer our partners access to a large and attractive customer base, to our established marketing and sales, and to technical wholesale services. In addition, these partnerships offer the chance to set ourselves apart from the competition. [E](#)

We want to be the preferred telecommunications provider when it comes to innovative partners selling their products. For this reason, we have developed a **standardized platform**, which can be thought of as a power strip (Steckerleiste) that partners can simply plug in to integrate their services. We launched the "Steckerleiste" platform in Albania, Austria and Montenegro in the reporting year. More countries, including Poland and Macedonia, are to follow in 2017.

We are also further developing our **TV business** and want to drive growth here too. We make attractive content accessible across all screens. We rolled out a new TV platform in the reporting year with the aim of guaranteeing an even better TV experience. EntertainTV has a completely redesigned user interface, new hardware, and innovative features. The service includes more than 300 channels and some 120,000 on-demand titles from partners such as Sky and Maxdome. The new "restart" and "seven-day replay" functions mean live television and video on demand are converging to an ever greater extent. An added benefit for MagentaEins customers is the EntertainTV mobil option, which is included free of charge in their product bundle until December 31, 2017.

With our **cloud partner solutions** such as Microsoft Azure and Office 365, Salesforce, Informatica, or the VMware vCloud, we provide our customers with an attractive platform offering from a single source:

highly integrated and secure. We also operate the Open Telekom Cloud together with our partner Huawei as a stand-out solution "Made in Germany" that offers utmost security at low prices. Our public cloud offering had already attracted more than 65,000 registered customers by the end of the reporting year.

In 2016 we established a new alliance, **ngena** (Next Generation Enterprise Network Alliance), together with our partners CenturyLink, Reliance, and SK Telecom. ngena aims to provide services to international business customers from 2017 as an independent company and attract a further 20 partners in the coming years. All members of ngena ensure network access in their markets. ngena links the individual networks to create a global network using Cisco cloud and virtualization technology and offers this global network to ngena's members as a platform. Using this "sharing economy" business model, ngena aims to secure a competitive advantage in corporate customer network business.

#### Lead in business

The strengthening of our position on the business customer market is an important step on our journey to become the leading telecommunications company in Europe. In addition to traditional IT and telecommunications business, we will continue to focus increasingly on platform-based services (in the area of the Internet of Things, for example) and cloud services.

In particular, business in IT and telecommunications services from the cloud is growing unabatedly and in response, we are constantly expanding our **cloud ecosystem** to include technology partners who are in turn market leaders. We are already one of the leading providers in Europe with our scalable cloud platforms and we are growing faster than the market in the area of public cloud computing.

The Market Unit of our corporate customer arm, T-Systems, comprises three divisions that are closely aligned with the needs of our customers: the IT Division, the TC Division (Telecommunications), and the Digital Division. The **Digital Division** will be an especially important growth driver: We expect substantial double-digit growth rates through 2018 with platform-based solutions in the healthcare, mobility, and industry business areas, as well as with our own and partner cloud products. We plan to generate more than half of T-Systems' external revenue in such digital growth areas by 2018. In 2016, the annual average stood at around 48 percent. [SDG](#)

#### SUPPORTING AREAS OF OPERATION

The supporting areas of operation provide the framework for our internal activities.

**Transform portfolio.** In 2016, we steadily continued to develop our **portfolio of investments** with a view to our strategic target. The portfolio of business areas that cannot be developed adequately in the Group has been streamlined systematically. For example, we expect to add substantial further value by selling Strato AG to United Internet AG, which was



For more information on our partnerships, please refer to the section "Highlights in the 2016 financial year," page 22 et seq.






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agreed in December 2016. To ensure the efficient management of our investments in BT, T-Mobile Netherlands, DFMG (Deutsche Funkturm) and Deutsche Telekom Capital Partners going forward, we have created the new Group Development operating segment. With a 12-percent financial stake, we remain BT's largest shareholder and continue to participate in the development of the company and the UK telecommunications market. In future, we plan to support and intensify the partnership and thus increase the value of our investment. At T-Mobile Netherlands, our focus is on repositioning the business in the market with the aim of reversing the current downward trend in revenue and earnings. The acquisition of the fixed-network operations from Vodafone Netherlands means we are now in a position to offer fixed-network and convergence products in the Netherlands as well. DFMG will continue to concentrate heavily on its biggest customer within the Group, Telekom Deutschland, but the company will also redouble its efforts to expand third-party business and tap growth areas.

**Evolve financial targets & efficiency.** Our finance strategy ensures that our balance sheet ratios remain sound. We want to earn our cost of capital in the medium term and cost-effectively manage our non-current assets in terms of utilization and replacement investments. We are sticking to our strict cost discipline.

**Encourage leadership & performance development.** The digital transformation makes work more flexible, more virtual and more participative. Our managers are the architects of the digital transformation and support our employees as we move into the new digital age. They do so on the basis of our leadership principles "Collaborate," "Innovate," and "Empower to perform," our Guiding Principles, and our leadership model "Lead to win," which is based on a continuous dialog between manager and employee. At the heart of this is feedback on performance and development, a direct link between performance assessment and incentives, and the determination of personal development paths. 

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

#### To be the leading European telecommunications provider.

- As one of the **leading providers**, we already have very high-performance networks and offer outstanding service for our customers.
- Our networks are **integrated** and employ uniform technical standards.
- We provide the platforms for **successful partnerships** in the consumer and business customer segments.
- At heart we are a **telecommunications provider** – that also offers selected connectivity-based, scalable ICT business models.

## MANAGEMENT OF THE GROUP

- Finance strategy implemented consistently
- Group-wide value management

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

In 2016, we continued to systematically execute the finance strategy that we announced at our Capital Markets Days in February 2015. Part of our finance strategy was 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. We intend to pay a dividend of at least EUR 0.50 per dividend-bearing share for the financial years 2015 to 2018. Relative growth in free cash flow is also to be taken into account when measuring the amount of the dividend for the specified financial years. Thus we offer our shareholders both an attractive return and planning reliability. Following its success in previous years, we again offered our shareholders the option of converting the dividend for the 2015 financial year into Deutsche Telekom AG shares instead of receiving it as a cash payment. The latter offers investors the opportunity to leave funds in our Company, improve financial ratios further, and to benefit even more from the success of their investment in the long term. We consider offering our shareholders this option again for the 2016 financial year.

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 drive forward the transformation of the Company to an IP-based production model. In mobile communications, the infrastructure build-out will focus on the LTE standard, and in the fixed network, on optical fiber and vectoring.

## 8 DECENT WORK AND ECONOMIC GROWTH

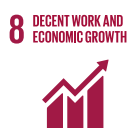


For more information on the priorities of our HR work, please refer to the section "Employees," page 82 et seq.

## Our finance strategy until 2018

Equity	Leading European Telco strategy				Debt
<p><b>Reliable shareholder remuneration policy</b></p> <p><b>Dividend<sup>a</sup></b> Following free cash flow growth Floor at EUR 0.50 per share and year</p> <p>Attractive option: choice of converting dividend entitlements into shares (dividend in kind)</p>	<p><b>Integrated IP networks</b></p>	<p><b>Best customer experience</b></p>	<p><b>Win with partners</b></p>	<p><b>Lead in business</b></p>	<p><b>Undisputed access to debt capital markets</b></p> <p><b>Rating:</b> A-/BBB</p> <p><b>Net debt/adj. EBITDA:</b> 2 to 2.5x</p> <p><b>Equity ratio:</b> 25 to 35%</p> <p><b>Liquidity reserve:</b> covers maturities of coming 24 months</p>
Value creation: ROCE > WACC					
<ol style="list-style-type: none"> <li><b>1 Infrastructure transformation</b> Support fast IP migration and transform network infrastructure</li> <li><b>2 Cost transformation</b> Reduce indirect cost</li> <li><b>3 Portfolio management</b> Deliver on preferred business model (integrated + B2C/B2B) and value generation</li> <li><b>4 Risk management</b> Maintain a low-risk country portfolio</li> </ol>					

<sup>a</sup>Subject to approval by the relevant bodies and the fulfillment of other legal requirements.



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. A good example of this is the creation of our multi-shared service center Deutsche Telekom Services Europe GmbH, which bundles cross-functional service units with the aim of establishing end-to-end process responsibility on an international level. Improvements like this will ensure our viability. We also focus our performance management on unadjusted EBIT. Taking capital expenditure into consideration brings EBIT closer

to the ROCE concept and supports our rigorous focus on the efficient allocation of capital at the Deutsche Telekom Group. [SDG](#)

### VALUE MANAGEMENT AND PERFORMANCE MANAGEMENT SYSTEM

In order to set and achieve our strategic goals more effectively, we are pursuing a Group-wide value management approach. Ultimately, specific performance indicators are required to measure success. The basis for this is a reliable and understandable performance management system. The following tables and information provide an overview of our key financial and non-financial performance indicators.

#### Financial performance indicators

		2016	2015	2014	2013	2012
ROCE	%	5.7	4.8	5.5	3.8	(2.4)
Net revenue	billions of €	73.1	69.2	62.7	60.1	58.2
Profit (loss) from operations (EBIT)	billions of €	9.2	7.0	7.2	4.9	(4.0)
EBITDA (adjusted for special factors)	billions of €	21.4	19.9	17.6	17.4	18.0
Free cash flow (before dividend payments, spectrum investment) <sup>a</sup>	billions of €	4.9	4.5	4.1	4.6	6.2
Cash capex <sup>b</sup>	billions of €	(11.0)	(10.8)	(9.5)	(8.9)	(8.0)
Rating (Standard & Poor's, Fitch)		BBB+	BBB+	BBB+	BBB+	BBB+
Rating (Moody's)		Baa1	Baa1	Baa1	Baa1	Baa1

<sup>a</sup>And before AT&T transactions and compensation payments for MetroPCS employees.

<sup>b</sup>Before spectrum investment.

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## 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 (key performance indicator) KPI 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 €

		2016	2015
<b>ROCE</b>	%	<b>5.7</b>	<b>4.8</b>
Profit from operations (EBIT)		9,164	7,028
Share of profit (loss) of associates and joint ventures accounted for using the equity method		(53)	24
Interest component of unrecognized rental and lease obligations		573	725
Other NOPAT adjustments		0	0
<b>NET OPERATING PROFIT (NOP)</b>		<b>9,684</b>	<b>7,777</b>
Tax (imputed tax rate 2016: 30.3%; 2015: 30.3%)		(2,934)	(2,356)
<b>NET OPERATING PROFIT AFTER TAXES (NOPAT)</b>		<b>6,750</b>	<b>5,421</b>
Cash and cash equivalents		7,747	6,897
Operating working capital		(5,056)	(5,311)
Intangible assets		60,599	57,025
Property, plant and equipment		46,758	44,637
Non-current assets and disposal groups held for sale <sup>a</sup>		372	849
Investments accounted for using the equity method		725	822
Other assets		279	532
Present value of unrecognized rental and lease obligations		14,320	18,137
Other provisions		(6,388)	(6,345)
Other NOA adjustments		0	0
<b>NET OPERATING ASSETS (NOA)</b>		<b>119,356</b>	<b>117,243</b>
<b>AVERAGE NET OPERATING ASSETS (Ø NOA)</b>		<b>119,101</b>	<b>112,441</b>

<sup>a</sup> 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** include 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 include 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. ROCE has given us a holistic perspective from which to consider our investments with fresh insight.

## 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 EBITDA/EBIT 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 45.

### 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, e.g., for generating organic growth and 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, evaluating inventories management in Germany and Europe, and further optimizing receivables management in all our operating segments; this also involved factoring measures. 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.

### NON-FINANCIAL PERFORMANCE INDICATORS


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.

### Non-financial performance indicators

		2016	2015	2014	2013	2012
Customer satisfaction (TRI*M index)		70.2	67.4	65.9	64.9	-
Employee satisfaction (commitment index) <sup>a</sup>		4.1	4.1	4.0	4.0	4.0
<b>FIXED-NETWORK AND MOBILE CUSTOMERS</b>						
Mobile customers	millions	165.0	156.4	150.5	142.5	127.8
Fixed-network lines	millions	28.5	29.0	29.8	30.8	32.1
Broadband lines <sup>b</sup>	millions	18.5	17.8	17.4	17.1	16.9
<b>SYSTEMS SOLUTIONS</b>						
Order entry <sup>c</sup>	millions of €	6,605	5,608	7,107	7,792	8,737

<sup>a</sup> Commitment index according to the most recent employee surveys in 2015 and 2012.

<sup>b</sup> Excluding wholesale.


<sup>c</sup> The prior-period comparative for 2015 and 2014 was adjusted retrospectively due to changes in the structure of the Group implemented as of January 1, 2016. 




For more information, please refer to Note 31 "Segment reporting" in the notes to the consolidated financial statements, page 192 et seq.

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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 and fixed-network lines.

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 our customers 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 executives. It was also used as a parameter in the long-term incentive plan which was launched in 2015. 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 executives 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. 

In view of the major significance of employee satisfaction for the success of the Company, executives 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. This allows eligible executives to benefit from the development of employee satisfaction across the Group.

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 – those yet to be processed – within the Systems Solutions operating segment. 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 markets positive
- Telecommunications market impacted by further regulatory interventions

### MACROECONOMIC DEVELOPMENT

The global economy recovered somewhat over the course of the reporting year. This positive trend is attributable to stable production in most industrialized nations and, in particular, to an economic improvement in the emerging economies. In its January 2017 forecast, the International Monetary Fund (IMF) estimates that in 2016 gross domestic product (GDP) increased by 4.1 percent in the emerging and developing countries and by 1.6 percent in the industrialized countries.

In our core markets, economic growth rates largely recorded positive trends in 2016. GDP in Germany increased by 1.8 percent year-on-year, again driven largely by private consumption. Unemployment was low in December 2016 at 6.1 percent. The U.S. economy grew by 1.6 percent in the 2016 reporting year. At the end of 2016, the unemployment rate stood at 4.9 percent; its lowest level for nine years. GDP growth rates continued to develop positively in 2016 in virtually all countries in our Europe operating segment. The economies continued to profit from rising domestic consumption and stable demand, primarily from the eurozone. Greece is still in a period of transition and could only participate to a limited extent in the growth across Europe as a whole in 2016; however, the economy there is showing signs of stabilization, reflected in slight growth in the second half of the year.

The situation in the national labor markets in our Europe operating segment continued to improve in most countries thanks to positive economic growth. However, some countries, such as Greece and Croatia, continue to report high structural unemployment. The recession of recent years, along with economic uncertainties, have weakened the labor market situation in Greece. The labor markets in Poland and Slovakia recovered in 2016, although levels of unemployment at the older end of the working-age population and in rural areas remain high.

High structural unemployment rates lead to reduced purchasing power among those affected and impact on their willingness to spend. Some customers have adapted their demand behavior. In addition to long-term unemployment, austerity measures in the public sector and the low willingness to invest also had a detrimental effect on demand for telecommunications and ICT services. In some countries, the intense pressure to shore up state finances led to special taxes being maintained or introduced for telecommunications companies.



For more information on customer satisfaction, please refer to the section "Group strategy," page 28 et seq.

### 8 DECENT WORK AND ECONOMIC GROWTH



For more information on employee satisfaction, please refer to the section "Employees," page 82 et seq.

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

**Development of GDP and the unemployment rate in our core markets from 2014 to 2016**

	GDP for 2014 compared with 2013	GDP for 2015 compared with 2014	GDP estimate for 2016 compared with 2015	Unemployment rate in 2014	Unemployment rate in 2015	Estimated unemployment rate for 2016
Germany	1.6	1.7	1.8	6.7	6.4	6.1
United States	2.4	2.6	1.6	6.2	5.3	4.9
Greece	0.7	(0.2)	0.1	26.5	25.0	23.4
Romania	3.1	3.8	4.8	5.2	5.1	4.8
Hungary	3.7	2.9	2.0	7.5	6.7	5.0
Poland	3.3	3.6	3.1	12.3	10.5	9.0
Czech Republic	2.7	4.5	2.5	7.7	6.5	5.5
Croatia	(0.4)	1.6	2.4	19.3	17.1	15.0
Netherlands	1.4	2.0	2.1	9.0	8.7	7.3
Slovakia	2.5	3.6	3.3	13.2	11.5	9.7
Austria	0.6	1.0	1.5	5.6	5.7	6.1
United Kingdom	3.1	2.2	2.0	6.2	5.3	4.9

Sources: Bloomberg Consensus, Consensus Economics, Oxford Economics; January 2017.

## TELECOMMUNICATIONS MARKET

Worldwide, the market for information and communications technologies (ICT) grew by 2.1 percent in 2016 to EUR 3.1 trillion. This increase was due to strong demand for telecommunications equipment and services, especially in India, China, and the United States. The high-tech association Bitkom (Federal Association for Information Technology, Telecommunications and New Media) and the EITO (European Information Technology Observatory) expect the telecommunications market segment to record an increase of 1.5 percent to EUR 1.8 trillion and the information technology (IT) market segment to record an increase of 2.9 percent for 2016. The global market for telecommunications services grew by 1.7 percent. In the European Union, revenues from telecommunications services stabilized in the 2016 financial year and for the first time recorded a slight plus of 0.3 percent following eight consecutive years of decline. The European Telecommunications Network Operators' Association (ETNO) expects total revenues in the EU telecommunications market to have grown slightly by 0.2 percent year-on-year to EUR 245 billion in the reporting year. The growth in data revenues in the 2016 reporting year offset the declines in traditional voice and messaging services, which remain under pressure from extensive regulatory interventions including cuts in roaming charges and termination rates, and from the substitution effects caused by OTT (over-the-top) players.

The digitization of the economy and society changes on the one hand the existing market structures, and on the other, the market realities of many industries that have previously been exclusively analog. Use of data services is growing exponentially. Demand is also rising for more speed – for both download and upload, for fixed and mobile networks. New technologies, like the Internet of Things (IoT), Industry 4.0, big data, or cloud computing place high demands on network infrastructure: Ubiquitous connectivity and high performance standards and security are critical to success for many applications. In a market environment in which the network infrastructure needs to be substantially upgraded and

a broad ecosystem of rival market players has developed, investment incentives must be created – for the good of consumers, the industry, and a digitally sovereign economy.

Consolidation pressure remains high in the European telecommunications industry, partly due to declining revenues in many markets as a result of regulatory interventions, increasing competition, and technological change. In addition, high investments are needed for the network build-out, for innovation, and the acquisition of spectrum. The British Competition and Markets Authority approved the acquisition of EE by BT unconditionally and without remedies in January 2016. By contrast, the European Commission only approved the combination of Liberty Global and BASE in Belgium subject to strict conditions. The Commission intervention resulted in consolidation plans being blocked in Denmark (between Telia and Telenor) and in the United Kingdom (between Three and O<sub>2</sub>); in Italy the Commission supported the establishment of a fourth mobile provider, thus creating favorable conditions for Iliad to enter the market. The Commission approved the combination of Vodafone and Liberty Global in the Netherlands subject to Vodafone selling its fixed-network business to a suitable competitor. Our Dutch subsidiary T-Mobile Netherlands participated successfully in a bidding process.

**European General Data Protection Regulation.** The European General Data Protection Regulation will enter into force on May 25, 2018. The new data protection law closes a large gap in the regulation of service providers outside of the EU by imposing the same rules for all market players operating in the EU. The Regulation assures Europe of a high level of data protection and, at the same time, will pave the way for new digital business models. The General Data Protection Regulation applies directly in the member states and does not need to be transposed into national law. Contrary or redundant German law must be repealed by way of a specific act (Rechtsbereinigungsgesetz).

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**EU-U.S. Privacy Shield.** The European Commission put forward the EU-U.S. Privacy Shield in early February 2016. As in the case of the former Safe Harbor Agreement, the Privacy Shield is intended to enable personal data of EU citizens to be transmitted to and processed in the United States. The majority of EU member states approved the final draft of the Privacy Shield, which was then adopted by the European Commission on July 11, 2016. The Privacy Principles it contains represent an improved set of data protection requirements compared with the Safe Harbor Agreement. Following criticism of the first draft of the Privacy Shield, the European Commission endeavored in a revised draft to assuage in particular the concerns expressed recently by the Article 29 Working Party, which comprises representatives from national data protection authorities in Europe. It cannot be ruled out that the Privacy Shield will be referred to the European Court of Justice again, in particular with regard to the legality of the still possible mass recording of personal data by national U.S. authorities.

**IT security legislation.** Within the scope of the German IT Security Act (IT-Sicherheitsgesetz – IT-SiG), a draft ordinance (BSI-KritisV) was drawn up in the first quarter of 2016, which sets out, inter alia, specific criteria that operators of critical infrastructure (KRITIS) from the information technology and telecommunications, water, energy, and food sectors can use to determine whether they are subject to the provisions of the IT-SiG. The ordinance entered into force on May 3, 2016. As a result, the provisions of the German Telecommunications Act (Telekommunikationsgesetz) were tightened up for the telecommunications sector, requiring precautions to be taken in particular with regard to the failure safety of the networks and services. In our own interests, we took these precautions before the Act was amended, and hence we already satisfied the main obligations for safeguarding public security.

The European Parliament adopted the EU Network and Information Security Directive on July 6, 2016. The Directive – in addition to the provisions of IT-SiG – requires online marketplaces, search engine operators, and cloud service providers to comply with minimum requirements designed to safeguard the security of their infrastructures and to report incidents. It may become necessary for German lawmakers to amend the IT-SiG. It remains to be seen whether such an amendment would also remedy the previous deficiency of the IT-SiG regarding the non-consideration of hardware and software vendors.

Work on the new **Payment Services Directive 2** at EU level is complete. The Directive will replace Payment Services Directive 1 from 2007 and must be implemented in the member states by the start of 2018. The Federal Ministry of Finance (BMF) published a first draft in December 2016. Where no payment services license exists, billing models for voice and non-voice services for invoicing third-party services via the telephone bill are restricted to a maximum of EUR 300 per month and EUR 50 per transaction. Depending on its transposition into national law, this may lead to severe restrictions in business models for billing third-party and to costs for implementing compliance with the thresholds. In addition, it will impose additional reporting obligations on the Federal Financial Supervisory Authority (BaFin).

## GERMANY

According to Bitkom, revenue from IT products and services, telecommunications, and consumer electronics increased by 1.7 percent to around EUR 161 billion in Germany in the reporting year. Information technology in particular recorded strong growth of 3.6 percent. Telecommunications revenues (telecommunications services, hardware, and infrastructure systems) decreased by 0.4 percent in 2016 to around EUR 67 billion. The positive development in infrastructure systems could not completely offset weakening business with terminal equipment – caused in part by the first ever decline in smartphone revenues in 2016 – and steadily declining revenues from fixed-network and mobile services. Regulatory effects such as the reduction in EU roaming charges and interconnection rates were the main reason for lower revenues from telecommunications services.

The German broadband market grew by more than 4 percent in 2016. There are now some 32 million broadband lines in Germany. Providers with their own infrastructure benefited the most from this market growth, along with resellers and regional providers that do not have their own network. 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. Integrated offerings comprising fixed-network and mobile communications not only offer customers numerous advantages, but also increase customer retention. The trend towards integrated offerings continued in 2016, with more and more providers incorporating them into their portfolios. We launched our first integrated offering, MagentaEins, 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 services, and security applications. Vodafone followed suit in 2015 with Red One; then O<sub>2</sub> in 2016 with Blue One.

In the German mobile market, **service revenues** decreased slightly by around 0.5 percent year-on-year to approximately EUR 18.2 billion, driven largely by the aforementioned regulatory effects and ongoing price 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; use of these services requires use of the mobile Internet and data flat rates. The growing popularity of connected products such as smartphones and tablets, as well as watches, shoes, bicycles, and much more, is pushing up demand for mobile broadband speeds and for large data volumes in the rate plan portfolios.

Digitization is continuing apace. The result: growing demand by the industry for ever 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. We believe that the M2M sector alone grew by around 30 percent in 2016, and this growth is unlikely to slow in the coming years. In the IT sector, we expect market growth to be around 5 percent, driven largely by the strong development of cloud services of over 17 percent. [SDG](#)



## UNITED STATES

The mobile communications market in the United States continues to be divided between four major nationwide providers – AT&T, Verizon Wireless, Sprint, and T-Mobile US – 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 mobile and data traffic. The two largest national network operators are AT&T and Verizon Wireless. The market continues to be very dynamic. The Dutch company Altice completed its USD 17.7 billion acquisition of Cablevision Systems Corp. in June 2016. Charter Communications completed its USD 55.1 billion acquisition of Time Warner Cable in May 2016. AT&T has announced plans to acquire media giant Time Warner Inc. for USD 85.4 billion. Comcast, Charter, and Altice have all hinted at interest in launching their own mobile virtual networks, as well. The consolidation and convergence of the U. S. telecommunications market is expected to continue, as fixed and wireless become more integrated.

Growth has slowed as a result of the high market penetration. Voice revenues continued to decline slightly in 2016. However, the persistent data revenue surplus could more than compensate the decline. Mobile data usage remains at a high level, in line with the rapid development of LTE networks and the high use of smartphones, which now account for around 80 percent of all handsets. Data revenue is growing steadily year after year and is accompanied by tough price competition from the main market players. Since 2013, T-Mobile US has brought about a significant operational turnaround and intensified competition in the U. S. mobile market. This is mainly due to improvements in their network, as well as successful implementation of the Un-carrier initiatives, which contributed very successfully to customer satisfaction.

The fierce competition is accompanied by regulatory announcements of the FCC (Federal Communications Commission). In June 2016, the DC Circuit Court of Appeals upheld the FCC's Open Internet Order. The provisions define a standard, which in the future is to apply to the conduct of the affected companies. For the first time, this also includes interconnection agreements between Internet service providers (ISPs) and third parties. The FCC reserves the right to carry out case-by-case reviews with regard to the conduct of the affected companies. The challengers have petitioned the court for a rehearing.

The Broadcast Incentive Auction for frequencies began in May 2016, and will continue into 2017. The underlying intention is for television providers to voluntarily hand back their licensed frequencies in exchange for a portion of the proceeds from the auction of the returned spectrum to mobile providers.

## EUROPE

Revenues in the traditional communication markets of our Europe operating segment declined slightly overall in 2016. In fixed-network business, ongoing growth in broadband and TV business only partially offset the decline in fixed-network telephony. The mobile communications markets also reported a slight downward trend: Growth rates for

mobile data usage were high, but not enough to fully offset the declines in traditional voice and messaging services. Special levies on telecommunications services, in Greece for example, along with the costs of acquiring new spectrum, in Poland for example, continued to put pressure on the telecommunications industry in some of our national companies.

Competitive and price pressure continued throughout 2016 – despite business combinations and partnerships. This is largely a result of the trend towards convergent product bundles such as KPN Compleet in the Netherlands and Kombinieren & Sparen (combine & save) in Austria. In addition, providers with aggressive pricing strategies entered the market, e.g., Digi in Hungary and SWAN in Slovakia. Services from OTT (over-the-top) players, like WhatsApp, are also increasingly replacing traditional voice and messaging services. We have already rolled out our MagentaOne convergence product (CosmoteOne in Greece) in all countries with an integrated telecommunications infrastructure. The growing significance of FMC is placing more consolidation pressure on non-integrated providers, as demonstrated by the combination of Vodafone and Ziggo in the Netherlands. We continue to develop our mobile-centric national companies in the direction of convergence and our aim is to establish integrated business models. Corresponding measures have been put in place and some are already being implemented, such as the acquisition of Vodafone's broadband arm in the Netherlands.

The fixed-network operators in the markets of our Europe operating segments are increasingly switching from conventional telephony (PSTN) to Internet technology (all IP). By the end of 2016, we had almost completed the migration to IP in our fifth national company. The broadband build-out trend in fixed-network and mobile communications continued unabated. We invested heavily in driving forward the roll-out of the LTE and fiber-optic networks in many countries. In Hungary, the first production site for our pan-European all-IP network (Pan-Net) was ready for operation in August 2016 and is now starting central production of the first virtualized services. Our TV services were subject to intense competition in the reporting year; we successfully stood our ground thanks to exclusive broadcasting rights, such as for sporting events, and the modernization of our TV platforms in countries including Greece. [SDG](#)

## SYSTEMS SOLUTIONS

The business volume in the ICT industry in Western Europe, i. e., our core market, that the Systems Solutions operating segment and the T-Systems brand can address increased by 3.1 percent, from EUR 182 billion in the prior year to EUR 188 billion. However, this trend impacted the individual business areas in very different ways.

In the telecommunications (TC) segment, the market was dominated by continued price erosion in telecommunications services and by intense competition, while the economic recovery had relatively little impact. 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), Internet of Things (IoT), cloud computing, and unified communications is leading to a long-term stabilization of the markets





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served by our segment. Substitution effects between fixed-network and mobile operations continue to intensify. The migration to all-IP solutions, such as the combination of Internet access, Voice over IP, IP VPN, and unified communications solutions continued to increase.

In terms of IT services, demand has grown further for cloud services and cyber security services, as has the importance of digitization, intelligent networks, the Internet of Things (including Industry 4.0), and communication between machines (M2M). The advance of digitization and the shift towards cloud solutions also transformed demand in the systems integration business. Traditional project business – application development and the associated integration – declined by 0.4 percent. By contrast, the market for consultation and integration services, infrastructure and Platforms-as-a-Service (PaaS) models grew by 31 percent.

The market for outsourcing computing and desktop services (CDS) shrank by 1.1 percent in the reporting year to EUR 57 billion. Two contrasting trends played a role in this context: Business from long-term, rather traditional outsourcing contracts declined by 5 percent, while the market for cloud computing grew by 14 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, OBS, and NTT in the telecommunications market, and IBM, HP, 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 Salesforce. 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. But we are also entering increasingly into strategic partnerships with our competitors so as to offer our customers innovative solutions.

## 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 2016. The focus was mainly on the regulation of services for wholesale customers and the corresponding charges as well as the award of mobile frequencies.

## REGULATION

**Further vectoring roll-out agreed.** On February 23, 2015, we applied to the Federal Network Agency to provide another 6.1 million households with superfast Internet connections (vectoring technology) in the areas near local exchanges (nearshore areas). The Federal Network Agency published the regulatory order on September 1, 2016, thus giving the green light for the vectoring roll-out. As part of an agreement under

public law, we have undertaken to roll out vectoring technology in the nearshore area in more than 7,000 service areas throughout Germany. This is tied to a fine of up to EUR 224 million that will be charged if we fail to meet this contractually agreed roll-out target on time. The Federal Network Agency is currently reviewing the specific conditions required for nearshore vectoring by way of a reference offer procedure; this review is expected to be concluded by mid-2017.


**Regulation on the bitstream market.** The Federal Network Agency also regulates the offer terms and conditions for Layer 2 Bitstream access (BSA) products in a reference offer procedure. It reached a final decision on the reference offer on December 9, 2016. The rates were reviewed in a separate procedure and, on December 21, 2016, following the completion of an EU-wide consolidation process, were approved until November 30, 2017. On November 18, 2016, the Federal Network Agency launched a new, separate procedure to review whether payments for Layer 3 BSA can be offset against the purchase of Layer 2 BSA.

**Applications for ULL monthly charges.** On June 29, 2016, the Federal Network Agency published the final decision on monthly charges for unbundled local loops (ULLs) and for the necessary access to passive infrastructure: The charges for the main option – access to the unbundled local loop up to the main distribution frame – are 1.7 percent lower than the charges that were previously approved, taking them from EUR 10.19/month to EUR 10.02/month. The rental fees for cable ducts and dark fiber were also reduced substantially. The new rates took effect as of July 1, 2016.

**Regulation of termination rates.** For the first time ever, the Federal Network Agency has now set termination rates for mobile and fixed networks in accordance with European Commission recommendations on the basis of “pure LRIC cost modeling.” According to the draft decision on mobile termination rates (MTR), rates are to be reduced by more than 30 percent, staggered over three years. Fixed-network termination rates (FTR) are even to decrease by around 58 percent in the next two years from the current approved level. Provided the Commission does not express any serious doubts, the final decision on termination rates is expected in the first quarter of 2017.

**Additional special taxes affecting our international subsidiaries.** In addition to the existing special taxes, e.g., in Greece, Hungary, Romania, and Croatia, Greece introduced taxes of 5 percent on broadband Internet access and of 10 percent on pay TV as part of an additional package of measures.

## AWARDING OF FREQUENCIES

The table on the following page provides an overview of the main spectrum awards and auctions as well as license extensions at our international subsidiaries. It also indicates spectrum to be awarded in the near future in various countries. 



For further information on the spectrum awards, please refer to the section “Risk and opportunity management,” page 97 et seq.

## Main spectrum awards

	Start of award procedure	End of award procedure	Frequency ranges (MHz)	Award process	Acquired spectrum (MHz)	Spectrum investment
Albania	Q3 2017	Q4 2017	800	Sealed bid <sup>a</sup> or auction	tbd	tbd
Greece	Q1 2017	Q2 2017	1,500/1,800/2,100/2,600	Details tbd	tbd	tbd
Macedonia	Q2 2017	Q3 2017	900/1,800	Sealed bid <sup>a</sup> or auction	tbd	tbd
Montenegro	Q3 2016	Q3 2016	800/900/1,800/2,100/2,600	Auction (CCA <sup>b</sup> )	2 x 20 in 800 MHz and further spectrum	€ 27 million
Austria	Q3 2017	Q4 2017	3,500/3,700	Auction (CCA <sup>b</sup> ) (expected)	tbd	tbd
Netherlands	Q2 2014	Q1 2016	2,100	License extended until 2020	2 x 20	€ 24 million
Poland	Q1 2015	Q2 2016	800/2,600	Auction (SMRA <sup>c</sup> )/ Sealed bid <sup>a</sup>	2 x 10/2 x 15	Approx. PLN 4 billion (around € 1.0 billion)
Slovakia	Q1 2017	Q2 2017	1,800/3,700	Auction (SMRA <sup>c</sup> )	tbd	tbd
Czech Republic	Q2 2016	Q2 2016	1,800/2,600	Auction (SMRA <sup>c</sup> )	2 x 10/1 x 25	€ 27 million
Czech Republic	Q1 2017	Q2 2017	3,700	Auction (SMRA <sup>c</sup> )	tbd	tbd
Czech Republic	Q1 2017	Q2 2017	900/1,800	Extension of licenses (expected)	tbd	tbd
United States	Q3 2016	Q1 2017 (expected)	600	Incentive auction <sup>d</sup>	tbd	tbd

<sup>a</sup> Submission of an individual bid in a sealed envelope, in some cases sequential, in several awards.

<sup>b</sup> Combinatorial Clock Auction, three-stage, multi-round auction for spectrum from all frequency ranges.

<sup>c</sup> Simultaneous electronic multi-round auction with ascending, parallel bids for all ranges.

<sup>d</sup> Quantity and prices of spectrum to be traded depends on spectrum surrendered by radio broadcasters.

## DEVELOPMENT OF BUSINESS IN THE GROUP

- Adjusted EBITDA of EUR 21.4 billion
- Free cash flow of EUR 4.9 billion

### STATEMENT OF THE BOARD OF MANAGEMENT ON BUSINESS DEVELOPMENT IN 2016

Bonn, February 14, 2017

We can once again look back on a successful financial year and are on track to meet our medium-term ambition level. We met, and in some cases actually exceeded, our key company targets for 2016. Adjusted EBITDA stood at EUR 21.4 billion, slightly exceeding our guidance of EUR 21.2 billion. This was largely attributable to the positive development of business in the United States. Free cash flow (before dividend payments and spectrum investments) reached EUR 4.9 billion as expected – growth of almost 9 percent year-on-year. ROCE increased by 0.9 percentage points year-on-year, mainly as a result of income from the sale of our stake in the EE joint venture to BT. This one-time effect also benefited ROCE, which was at 5.7 percent higher than expected.

Our net revenue rose by as much as 5.6 percent to EUR 73.1 billion. The driving force here was once again our United States operating segment, which grew by 16.6 percent year-on-year, mainly thanks to strong mobile customer additions of 8.2 million in particular as a result of T-Mobile US' successful Un-carrier initiatives.

In the reporting year, our profit from operations (EBIT) amounted to EUR 9.2 billion, which was substantially higher than the prior-year figure. This was mainly as a result of income of around EUR 2.5 billion from the sale of our stake in the EE joint venture. The transactions for the exchange of spectrum licenses made in the United States during the year and the sales of further parts of our share package in Scout24 AG also had a positive effect on the development of EBIT. This trend was partially offset by higher amortization of intangible assets (including goodwill) and higher depreciation of property, plant and equipment compared with 2015 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. SDG Net profit decreased by around 18 percent to EUR 2.7 billion. The EUR 2.2 billion impairment of our financial stake in BT, which was recognized in profit and loss, almost completely offset the income from the sale of our stake in the EE joint venture, which was recognized in EBIT.

Net debt increased from EUR 47.6 billion to EUR 50.0 billion, primarily as a result of acquiring mobile spectrum and continuing to invest heavily in building out and modernizing our networks in the United States, Germany, and Europe.

Subject to approval by the relevant bodies and the fulfillment of other legal requirements, we continue to adhere to our shareholder remuneration strategy as planned and will propose to the shareholders' meeting a dividend of EUR 0.60 per dividend-bearing share. We thus once again kept the promise we made at our Capital Markets Days in February 2015, which was to include our shareholders in the relative growth of free cash



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flow. We are also considering offering our shareholders the choice – as in previous years – of having their dividend paid out in cash or converting it into Deutsche Telekom AG shares.

The trends in the industry, in particular on the European telecommunications markets, remain challenging: saturated markets, rising competition, strict regulatory requirements – all resulting in further price erosion. In order to succeed in the future, we continue to invest heavily in the key to our success: our networks. In 2016, we made investments (before spectrum) of EUR 11.0 billion, a marginally higher amount than in the prior year. In the fixed network, our focus was on investments in vectoring and fiber-optic roll-out in Germany, 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 transfer rates in all our operating segments. Our rating remained solid in 2016 with undisputed access to the capital market at all times. This helps us to flexibly manage our planned investments for the coming years and establish the basis for further growth.

Our customer satisfaction levels developed positively. In the reporting year, we raised our TRI\*M customer loyalty score once again. Employee satisfaction at Deutsche Telekom also remains at a high level. The surveys conducted in 2016 corroborated the good results of our last employee survey in 2015. [SDG](#)

Against this backdrop, we are reasserting our commitment to the strategic goal we set ourselves in 2014 of becoming the leading European telecommunications provider. With this goal in mind, in 2016 we continued to focus intently on delivering state-of-the-art networks and products that give our customers simple, convenient access to the digital world. We continue to see ourselves as the driving force behind the creation of a modern and competitive digital Europe. [SDG](#)

### COMPARISON OF THE GROUP'S EXPECTATIONS WITH ACTUAL FIGURES

In the 2015 Annual Report, we outlined expectations for the 2016 financial year for our financial and non-financial key performance indicators anchored in our management system. The following tables summarize the results in 2015, the results expected for the reporting year, and the actual results achieved in 2016. The performance indicators that we also forecast in the 2015 Annual Report and their development are presented in the individual sections.

#### Comparison of the expected financial key performance indicators with actual figures

		Results in 2015	Expectations for 2016	Results in 2016
ROCE	%	4.8	slight increase	5.7
Net revenue	billions of €	69.2	increase	73.1
Profit (loss) from operations (EBIT)	billions of €	7.0	strong increase	9.2
EBITDA (adjusted for special factors)	billions of €	19.9	around 21.2	21.4
Free cash flow (before dividend payments and spectrum investment)	billions of €	4.5	around 4.9	4.9
Cash capex <sup>a</sup>	billions of €	10.8	around 11.2	11.0
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

		Results in 2015	Expectations for 2016	Results in 2016
Customer satisfaction (TRI*M index)		67.4	slight increase	70.2
Employment satisfaction (commitment index) <sup>b</sup>		4.1	stable trend	4.1
<b>FIXED-NETWORK AND MOBILE CUSTOMERS</b>				
<b>GERMANY</b>				
Mobile customers	millions	40.4	slight increase	41.8
Fixed-network lines	millions	20.2	slight decrease	19.8
Broadband lines	millions	12.6	slight increase	12.9
<b>UNITED STATES</b>				
Branded postpaid	millions	31.7	strong increase	34.4
Branded prepay	millions	17.6	slight increase	19.8
<b>EUROPE</b>				
Mobile customers	millions	52.7	decrease	51.7
Fixed-network lines	millions	8.8	slight decrease	8.7
Retail broadband lines	millions	5.2	increase	5.6
<b>SYSTEMS SOLUTIONS</b>				
Order entry	millions of €	5,608	increase	6,605

<sup>a</sup> Before spectrum investment.

<sup>b</sup> Commitment index according to the most recent employee surveys in 2015 and 2012.

8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE





Details on the trends in our financial and non-financial key performance indicators can be found in this section as well as in the section "Development of business in the operating segments," page 52 et seq.

In the reporting year, we met or exceeded all of our financial key performance indicators forecast in the prior year. Our performance in 2016 was dominated by substantial growth in revenue and adjusted EBITDA, driven mainly by U. S. business, which recorded growth on the back of the persistently rapid rate of new customer acquisition as a result of the Un-carrier campaigns. Net exchange rate effects were only a subordinate factor influencing these performance indicators. The positive effect of the terminal equipment lease model introduced at T-Mobile US had already been factored into our expectations for adjusted EBITDA and, at the time of our forecast, we had also made reference to the higher volatility of our financial figures. As for cash capex (before spectrum investments), though we came in just below the forecast figure of around EUR 11.2 billion, our investment volume of EUR 11.0 billion was even higher than last year's already strong level. In the Germany, Europe, and United States operating segments, cash capex increased as a result of the investments made in connection with the network build-out and the network modernization.

Our key performance indicator ROCE (return on capital employed) improved by 0.9 percentage points in the reporting period to reach 5.7 percent. This positive trend was due to a substantial increase in net operating profit after taxes (NOPAT), which more than offset the rise in the average amount of net operating assets (NOA) over the year. The main positive factors influencing NOPAT in 2016 were income from the sale of our stake in the EE joint venture and income from transactions for the exchange of spectrum licenses between T-Mobile US and two competitors. These positive factors were partially offset by the impairments of goodwill and property, plant and equipment recognized in the financial year. The increase in average NOA is largely the result of the build-up of assets in our United States and Germany operating segments. In Germany, this development was largely due to the investments made as part of our integrated network strategy. In the United States, the increase in NOA was not only down to ongoing network build-out, but also to the acquisition of spectrum and spectrum exchange transactions.

We are also extremely well on track with our non-financial key performance indicators. In our United States operating segment, in particular, we again recorded continued strong mobile customer additions, both

in the postpaid and prepay segments. 2016 was the third year in succession in which we won over more than eight million new customers. In our Systems Solutions operating segment, the order volume rose more sharply than expected. This was attributable, on the one hand, to delays with order entries that we had expected in 2015 and, on the other, to two additional major contracts that we signed at the end of 2016.

## RESULTS OF OPERATIONS OF THE GROUP

### NET REVENUE

In the reporting year, we generated net revenue of EUR 73.1 billion, which was well above the prior-year level by EUR 3.9 billion. The business development of our United States operating segment contributed substantially to this positive trend: T-Mobile US' successful Un-carrier initiatives gave a strong boost to the number of new customers and thus also to service revenues. Terminal equipment revenue also continued to rise: Customers increasingly chose to lease high-value terminal equipment in connection with the JUMP! On Demand business model introduced by T-Mobile US in June 2015. In our home market of Germany, revenue decreased by 1.7 percent, primarily due to lower revenue from non-contract mobile devices. In the Europe operating segment, revenue also decreased by 2.1 percent year-on-year, mainly as a result of the spin-off of the energy resale business in Hungary as of January 1, 2016. In addition, revenue continued to come under pressure from decisions by regulatory authorities and persistently intense competition in the telecommunications markets in our national companies, especially in the Netherlands. Despite billing for the completion of the set-up phase of the toll collection system in Belgium in the first quarter of 2016, revenue in our Systems Solutions operating segment decreased 3.5 percent year-on-year. In general, the downward price trend in ICT business had a negative effect on net revenue. In our Group Headquarters & Group Services segment, revenue declined year-on-year, mainly on account of revenue lost in connection with the sale of our online platform t-online.de and our digital marketing company InteractiveMedia in November 2015 as well as the realignment of the Group Innovation<sup>+</sup> unit.

Adjusted for slightly negative net exchange rate effects and negative effects of changes in the composition of the Group of EUR 0.2 billion, revenue increased by EUR 4.1 billion or 6.0 percent.



For details on the revenue trends in our Germany, United States, Europe, and Systems Solutions operating segments as well as at our Group Headquarters & Group Services, please refer to the section "Development of business in the operating segments," page 52 et seq.

### Contribution of the segments to net revenue

millions of €

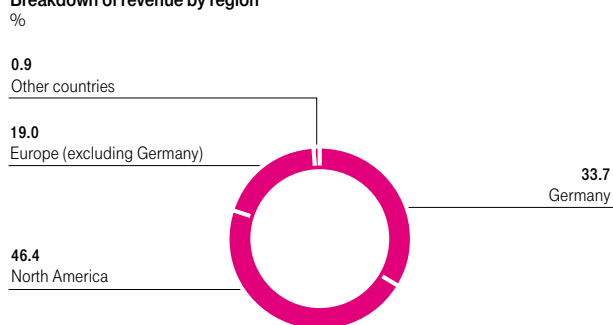
	2016	2015	Change	Change %	2014
<b>NET REVENUE</b>	<b>73,095</b>	<b>69,228</b>	<b>3,867</b>	<b>5.6 %</b>	<b>62,658</b>
Germany	22,041	22,421	(380)	(1.7) %	22,257
United States	33,738	28,925	4,813	16.6 %	22,408
Europe <sup>a</sup>	12,747	13,024	(277)	(2.1) %	13,221
Systems Solutions <sup>a</sup>	7,907	8,194	(287)	(3.5) %	8,252
Group Headquarters & Group Services	2,212	2,275	(63)	(2.8) %	2,516
Intersegment revenue	(5,550)	(5,611)	61	1.1 %	(5,996)

<sup>a</sup> Business customer operations at Magyar Telekom in Hungary, which had previously been organizationally assigned to the Systems Solutions operating segment, have been managed and reported under the Europe operating segment since January 1, 2016. Comparative figures have been adjusted retrospectively.

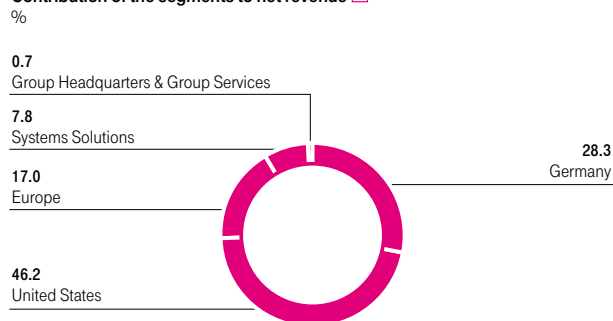
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At 46.2 percent, our United States operating segment again provided the largest contribution to net revenue of the Group. This was an increase of 4.4 percentage points compared with the prior year, due in particular to ongoing strong customer additions. By contrast, the contributions by our other operating segments and the Group Headquarters & Group Services segment decreased. The proportion of net revenue generated internationally continued to increase, from 63.8 percent to 66.3 percent.

**Breakdown of revenue by region**



**Contribution of the segments to net revenue**



**EBITDA, ADJUSTED EBITDA**

Excluding special factors, **adjusted EBITDA** increased year-on-year by EUR 1.5 billion to EUR 21.4 billion in the reporting year. This development was primarily driven by our United States operating segment, which recorded an increase in its adjusted EBITDA contribution of EUR 1.9 billion, mainly as a result of the continued success of the Un-carrier initiatives. The revenue effects from the JUMP! On Demand terminal equipment lease model also contributed to the increase in adjusted EBITDA as the related costs were depreciated over the lease term and thus were excluded from adjusted EBITDA. In 2016, EBITDA adjusted for special factors was stable year-on-year in our Germany operating segment. Efficiency gains across all functions compensated for lower revenue. Adjusted EBITDA declined in our Europe operating segment – primarily as a result of competition and regulation – and in our Systems Solutions operating segment, mainly due to the accounting treatment of risks from individual corporate customer contracts. Our Group Headquarters & Group Services segment’s adjusted EBITDA had benefited in the prior year from a positive non-recurring effect. Exchange rate effects and effects from changes in the composition of the Group had only minimal impact on the development of adjusted EBITDA.

EBITDA increased substantially by EUR 4.2 billion year-on-year to EUR 22.5 billion; this included positive net special factors of EUR 1.1 billion, relating primarily to income of around EUR 2.5 billion from the sale of our stake in the EE joint venture on January 29, 2016. Income of EUR 0.5 billion in total was generated from transactions for the exchange of spectrum licenses between T-Mobile US and two competitors in March and September 2016. The sale of further parts of the share package in Scout24 AG in April and December 2016 generated income of around EUR 0.1 billion. The sale of shares in connection with the IPO of Scout24 AG had already resulted in income of EUR 0.3 billion in the prior year. Expenses incurred in connection with staff-related measures and non-staff-related restructuring expenses totaled EUR 1.7 billion, up slightly year-on-year. Furthermore, expenses of around EUR 0.1 billion from the decommissioning of the MetroPCS CDMA network had an impact. In the prior-year period, these expenses had amounted to EUR 0.4 billion. The special factors affecting the 2015 figures included income from the divestiture of our online platform t-online.de and our digital marketing company InteractiveMedia for a total amount of EUR 0.3 billion.

For more information on net revenue, please refer to Note 31 “Segment reporting” in the notes to the consolidated financial statements, **page 192 et seq.**

For detailed information on the development of EBITDA/adjusted EBITDA in our segments, please refer to the section “Development of business in the operating segments,” **page 52 et seq.** For an overview of the development of special factors, please refer to the table on **page 45.**

### Contribution of the segments to adjusted Group EBITDA

	2016		2015		Change millions of €	Change %	2014 millions of €
	millions of €	Proportion of adjusted Group EBITDA %	millions of €	Proportion of adjusted Group EBITDA %			
<b>EBITDA (ADJUSTED FOR SPECIAL FACTORS) IN THE GROUP</b>	<b>21,420</b>	<b>100.0</b>	<b>19,908</b>	<b>100.0</b>	<b>1,512</b>	<b>7.6 %</b>	<b>17,569</b>
Germany	8,800	41.1	8,790	44.2	10	0.1 %	8,810
United States	8,561	40.0	6,654	33.4	1,907	28.7 %	4,296
Europe	4,094	19.1	4,329	21.7	(235)	(5.4) %	4,471
Systems Solutions	582	2.7	740	3.7	(158)	(21.4) %	797
Group Headquarters & Group Services	(576)	(2.7)	(552)	(2.8)	(24)	(4.3) %	(667)
Reconciliation	(41)	(0.2)	(53)	(0.2)	12	22.6 %	(138)

### EBIT

Group EBIT stood at EUR 9.2 billion, up EUR 2.1 billion against the prior-year period. This increase is mainly due to the effects described under EBITDA. A year-on-year increase in depreciation, amortization and impairment losses of EUR 2.0 billion reduced EBIT. Amortization of intangible assets and depreciation of property, plant and equipment were EUR 1.5 billion higher than in the prior year. These were mainly recognized in connection with the build-out of the 4G/LTE network and the JUMP! On Demand program launched in our United States operating segment in June 2015.



The Europe operating segment recognized impairments of goodwill in the amount of EUR 0.5 billion in the reporting year. The majority of this amount related to the Netherlands cash-generating unit. In addition, impairment losses on property, plant, and equipment totaling EUR 0.2 billion were recognized, which also mainly related to the Europe operating segment. 

### PROFIT (LOSS) BEFORE INCOME TAXES

Despite a substantial increase in EBIT, profit before income taxes decreased by EUR 0.2 billion year-on-year to EUR 4.5 billion, due to the increase of EUR 2.4 billion in our loss from financial activities. The EUR 2.2 billion impairment of our financial stake in BT, which was recognized in profit and loss, was one of the main factors in this increase. This impairment comprises both the share price effect and the exchange rate effect. In the reporting year, we received a final dividend of around

EUR 0.2 billion in connection with the sale of our stake in the former EE joint venture, and further dividend payments also amounting to around EUR 0.2 billion from our financial stake in BT. In 2015 we received dividend payments of EUR 0.4 billion from the EE joint venture. In the financial year, an impairment loss of EUR 50 million was recognized on our associate Ströer SE & Co. KGaA, which is accounted for using the equity method. Contrary effects arose from the subsequent measurement of embedded derivatives at T-Mobile US, which resulted in minus EUR 0.1 billion; however, this was slightly better than the prior-year figure. Finance costs amounted to EUR 2.5 billion, putting the figure at just EUR 0.1 billion under the prior-year level.

### NET PROFIT (LOSS)

Net profit decreased by EUR 0.6 billion to EUR 2.7 billion. The tax expense in 2016 amounted to EUR 1.4 billion, up EUR 0.2 billion year-on-year.  Profit attributable to non-controlling interests increased compared with 2015 by EUR 0.2 billion. In our United States operating segment, the increase in profit attributable to non-controlling interests was driven in particular by the positive business performance. 

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



For further details, please refer to Note 22 "Depreciation, amortization and impairment losses" in the notes to the consolidated financial statements, page 184.



For further information, please refer to Note 26 "Income taxes" in the notes to the consolidated financial statements, page 185 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 183 et seq.

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### Consolidated income statement and effects of special factors

millions of €

	EBITDA 2016	EBIT 2016	EBITDA 2015	EBIT 2015	EBITDA 2014	EBIT 2014
<b>EBITDA/EBIT</b>	<b>22,544</b>	<b>9,164</b>	<b>18,388</b>	<b>7,028</b>	<b>17,821</b>	<b>7,247</b>
<b>GERMANY</b>	<b>(910)</b>	<b>(910)</b>	<b>(545)</b>	<b>(545)</b>	<b>(254)</b>	<b>(254)</b>
Staff-related measures	(854)	(854)	(402)	(402)	(223)	(223)
Non-staff-related restructuring	(38)	(38)	(112)	(112)	(9)	(9)
Effects on earnings from business combinations and other transactions	0	0	0	0	0	0
Other	(18)	(18)	(31)	(31)	(22)	(22)
<b>UNITED STATES</b>	<b>406</b>	<b>406</b>	<b>(425)</b>	<b>(425)</b>	<b>(52)</b>	<b>(52)</b>
Staff-related measures	(11)	(11)	(50)	(50)	(133)	(133)
Non-staff-related restructuring	0	0	0	0	0	0
Effects on earnings from business combinations and other transactions	417	417	(382)	(382)	78	78
Impairment losses	-	0	-	0	-	0
Other	0	0	7	7	3	3
<b>EUROPE</b>	<b>(131)</b>	<b>(730)</b>	<b>(221)</b>	<b>(264)</b>	<b>(131)</b>	<b>(153)</b>
Staff-related measures	(135)	(135)	(177)	(177)	(91)	(91)
Non-staff-related restructuring	(7)	(7)	(14)	(14)	(9)	(9)
Effects on earnings from business combinations and other transactions	24	24	31	31	(5)	(5)
Impairment losses	-	(599)	-	(43)	-	(22)
Other	(13)	(13)	(61)	(61)	(26)	(26)
<b>SYSTEMS SOLUTIONS</b>	<b>(337)</b>	<b>(362)</b>	<b>(647)</b>	<b>(713)</b>	<b>(540)</b>	<b>(549)</b>
Staff-related measures	(204)	(204)	(367)	(367)	(286)	(286)
Non-staff-related restructuring	(9)	(9)	(259)	(263)	(205)	(212)
Effects on earnings from business combinations and other transactions	0	0	(4)	(4)	(23)	(23)
Other	(124)	(149)	(17)	(79)	(26)	(28)
<b>GROUP HEADQUARTERS &amp; GROUP SERVICES</b>	<b>2,098</b>	<b>2,098</b>	<b>319</b>	<b>303</b>	<b>1,229</b>	<b>1,200</b>
Staff-related measures	(434)	(434)	(213)	(213)	(174)	(174)
Non-staff-related restructuring	(27)	(27)	(48)	(48)	(54)	(54)
Effects on earnings from business combinations and other transactions	2,575	2,575	574	574	1,631	1,631
Impairment losses	-	0	-	0	-	(29)
Other	(16)	(16)	6	(10)	(174)	(174)
<b>GROUP RECONCILIATION</b>	<b>(2)</b>	<b>(1)</b>	<b>(1)</b>	<b>(1)</b>	<b>0</b>	<b>0</b>
Staff-related measures	0	0	(1)	(1)	0	0
Non-staff-related restructuring	0	0	0	1	0	0
Effects on earnings from business combinations and other transactions	(1)	0	1	1	0	0
Other	(1)	(1)	(1)	(2)	0	0
<b>TOTAL SPECIAL FACTORS</b>	<b>1,124</b>	<b>501</b>	<b>(1,520)</b>	<b>(1,645)</b>	<b>252</b>	<b>192</b>
<b>EBITDA/EBIT (ADJUSTED FOR SPECIAL FACTORS)</b>	<b>21,420</b>	<b>8,663</b>	<b>19,908</b>	<b>8,673</b>	<b>17,569</b>	<b>7,055</b>
Profit (loss) from financial activities (adjusted for special factors)		(2,323)		(2,233)		(2,784)
<b>PROFIT (LOSS) BEFORE INCOME TAXES (ADJUSTED FOR SPECIAL FACTORS)</b>		<b>6,340</b>		<b>6,440</b>		<b>4,271</b>
Income taxes (adjusted for special factors)		(1,858)		(1,927)		(1,474)
<b>PROFIT (LOSS) (ADJUSTED FOR SPECIAL FACTORS)</b>		<b>4,482</b>		<b>4,513</b>		<b>2,797</b>
<b>PROFIT (LOSS) (ADJUSTED FOR SPECIAL FACTORS) ATTRIBUTABLE TO</b>						
Owners of the parent (net profit (loss)) (adjusted for special factors)		4,114		4,113		2,422
Non-controlling interests (adjusted for special factors)		368		400		375

## FINANCIAL POSITION OF THE GROUP

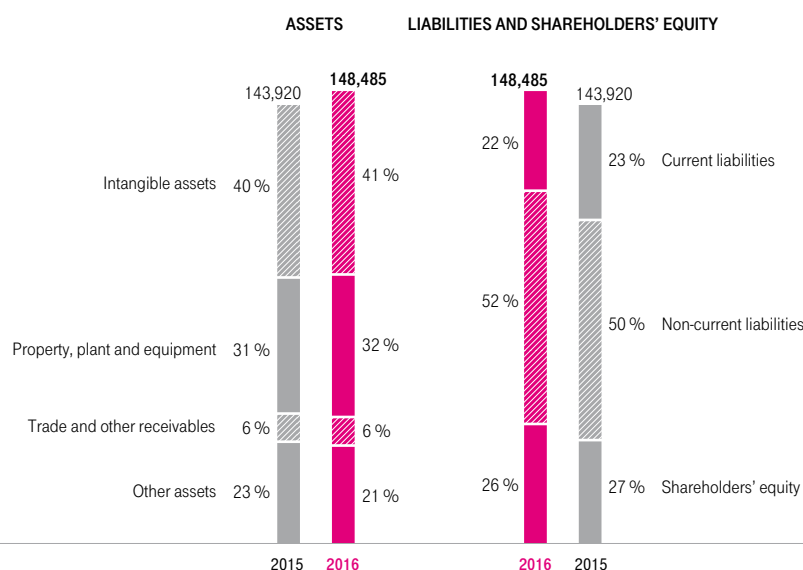
### Condensed consolidated statement of financial position

millions of €

	Dec. 31, 2016	Change	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012
<b>ASSETS</b>						
<b>CURRENT ASSETS</b>	<b>26,638</b>	<b>(5,546)</b>	<b>32,184</b>	<b>29,798</b>	<b>21,963</b>	<b>15,019</b>
Cash and cash equivalents	7,747	850	6,897	7,523	7,970	4,026
Trade and other receivables	9,362	124	9,238	10,454	7,712	6,417
Non-current assets and disposal groups held for sale	372	(6,550)	6,922	5,878	1,033	90
Other current assets	9,157	30	9,127	5,943	5,248	4,486
<b>NON-CURRENT ASSETS</b>	<b>121,847</b>	<b>10,111</b>	<b>111,736</b>	<b>99,562</b>	<b>96,185</b>	<b>92,923</b>
Intangible assets	60,599	3,574	57,025	51,565	45,967	41,847
Property, plant and equipment	46,758	2,121	44,637	39,616	37,427	37,407
Investments accounted for using the equity method	725	(97)	822	617	6,167	6,726
Other non-current assets	13,765	4,513	9,252	7,764	6,624	6,943
<b>TOTAL ASSETS</b>	<b>148,485</b>	<b>4,565</b>	<b>143,920</b>	<b>129,360</b>	<b>118,148</b>	<b>107,942</b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>						
<b>CURRENT LIABILITIES</b>	<b>33,126</b>	<b>(422)</b>	<b>33,548</b>	<b>28,198</b>	<b>22,496</b>	<b>22,995</b>
Financial liabilities	14,422	(17)	14,439	10,558	7,891	9,260
Trade and other payables	10,441	(649)	11,090	9,681	7,259	6,445
Current provisions	3,068	(299)	3,367	3,517	3,120	2,885
Liabilities directly associated with non-current assets and disposal groups held for sale	194	190	4	6	113	9
Other current liabilities	5,001	353	4,648	4,436	4,113	4,396
<b>NON-CURRENT LIABILITIES</b>	<b>76,514</b>	<b>4,292</b>	<b>72,222</b>	<b>67,096</b>	<b>63,589</b>	<b>54,416</b>
Financial liabilities	50,228	2,287	47,941	44,669	43,708	35,354
Non-current provisions	11,771	765	11,006	10,838	9,077	9,169
Other non-current liabilities	14,515	1,240	13,275	11,589	10,804	9,893
<b>SHAREHOLDERS' EQUITY</b>	<b>38,845</b>	<b>695</b>	<b>38,150</b>	<b>34,066</b>	<b>32,063</b>	<b>30,531</b>
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>	<b>148,485</b>	<b>4,565</b>	<b>143,920</b>	<b>129,360</b>	<b>118,148</b>	<b>107,942</b>

### Structure of the consolidated statement of financial position

millions of €



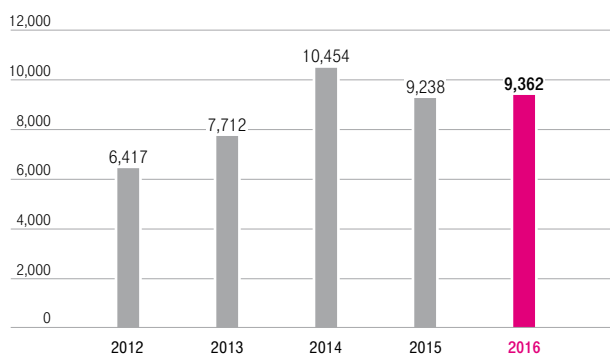


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**Total assets** increased by EUR 4.6 billion compared with December 31, 2015, largely due to higher levels of intangible assets and property, plant and equipment. Additions from spectrum licenses alone contributed EUR 4.1 billion. The asset side was reduced as a result of the EUR 2.2 billion impairment of our financial stake in BT, which was recognized in profit and loss. Total liabilities and shareholders' equity increased in particular on account of non-current financial liabilities.

**Cash and cash equivalents** increased by EUR 0.9 billion year-on-year. ☒

**Trade and other receivables**  
millions of €



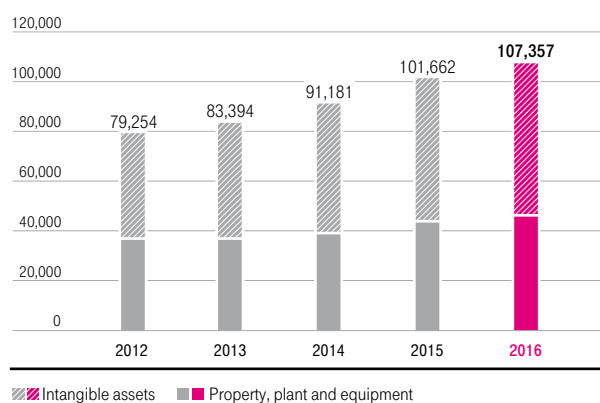
**Trade and other receivables** increased by EUR 0.1 billion to EUR 9.4 billion. The growth in the customer base resulting from T-Mobile US' successful Un-carrier initiatives resulted in an increase in receivables. Exchange rate effects, mainly from the translation of U.S. dollars into euros, also had a positive effect. By contrast, factoring agreements concluded in the reporting period concerning monthly revolving sales of trade receivables due resulted in a reduction in receivables.

The decrease of EUR 6.6 billion in the carrying amount of **assets and disposal groups held for sale** to EUR 0.4 billion mainly resulted from the sale of our stake in the EE joint venture, which was completed on January 29, 2016 and reduced the carrying amount by EUR 5.8 billion. In this context, exchange rate effects totaling EUR 0.2 billion from the translation of pounds sterling to euros also lowered the net carrying amount compared with December 31, 2015. Secondly, the transaction agreed in the third quarter of 2015 for the exchange of spectrum licenses between T-Mobile US and a competitor with the aim of improving the mobile network coverage of T-Mobile US was completed in March 2016. This transaction reduced the net carrying amount by a further EUR 0.6 billion. A transaction agreed between T-Mobile US and a competitor in the third quarter of 2016 for the exchange of spectrum licenses, also aimed at improving the mobile network coverage of T-Mobile US, had an increasing effect of EUR 0.1 billion on the carrying amount. In December 2016, we agreed to sell our hosting service provider Strato to United Internet AG. This transaction increased the carrying amount by EUR 0.1 billion. We expect the transaction to close in the first half of 2017.

As of December 31, 2016, **other current assets** included the following significant effects: The carrying amount of **other current financial assets** decreased slightly by EUR 0.1 billion to EUR 5.7 billion. U.S. government bonds with a volume of EUR 2.8 billion that fell due and were

repaid in the first half of 2016 reduced the carrying amount. By contrast, a refundable cash deposit of around EUR 2.1 billion recorded in the second quarter of 2016 in connection with a potential asset purchase in the United States increased this item. **Inventories** decreased by EUR 0.2 billion to EUR 1.6 billion, primarily due to lower stock levels of terminal equipment (in particular higher-priced smartphones) as of the reporting date.

**Intangible assets and property, plant and equipment**  
millions of €



**Intangible assets and property, plant and equipment** increased by EUR 5.7 billion compared with the end of 2015 to EUR 107.4 billion in total.

**Intangible assets** increased by EUR 3.6 billion to EUR 60.6 billion, mainly due to additions totaling EUR 7.5 billion. This includes additions at T-Mobile US, largely in connection with transactions completed with competitors for the exchange of spectrum licenses totaling EUR 1.4 billion. Furthermore, there were additions from the acquisition of spectrum licenses by T-Mobile US in 2016 for around EUR 1.7 billion in total and by T-Mobile Polska for around EUR 1.0 billion. Positive exchange rate effects, primarily from the translation of U.S. dollars into euros, increased the carrying amount by EUR 1.1 billion. Amortization of EUR 4.1 billion, impairments of goodwill in the amount of EUR 0.5 billion, primarily in the Netherlands, as well as the reclassification of assets worth EUR 0.5 billion to non-current assets and disposal groups held for sale also lowered the carrying amount.

**Property, plant and equipment** increased by EUR 2.1 billion compared to December 31, 2015 to EUR 46.8 billion. Additions of EUR 11.4 billion primarily in the United States and Germany operating segments increased the carrying amount. This also included EUR 1.5 billion for capitalized higher-priced mobile devices. These relate to the business model JUMP! On Demand introduced at T-Mobile US in June 2015 under which customers no longer purchase the device but lease it. Exchange rate effects, primarily from the translation of U.S. dollars into euros, also increased the carrying amount by EUR 0.5 billion. Depreciation and amortization of EUR 8.6 billion and impairment losses of EUR 0.2 billion reduced the carrying amount, as did disposals of EUR 0.9 billion.

**Other non-current financial assets** increased by EUR 4.4 billion to EUR 7.9 billion. In return for our stake in the EE joint venture, we received

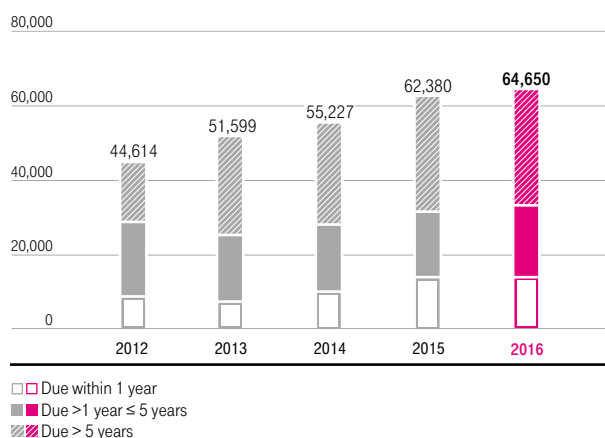


For detailed information on this change, please refer to the consolidated statement of cash flows, **page 132**, and Note 30 "Notes to the consolidated statement of cash flows" in the notes to the consolidated financial statements, **pages 190 and 191**.

a cash payment as well as a financial stake of 12.0 percent in BT. This addition increased the carrying amount by EUR 7.4 billion. As of December 31, 2016, an impairment of EUR 2.2 billion on this exchange-traded financial stake was recognized in profit and loss. The premature cancellation of interest rate derivatives with a fair value of EUR 0.6 billion also reduced the carrying amount. The settlement payment was recognized in net cash from operating activities in the amount of EUR 0.3 billion and in net cash used in financing activities in the amount of EUR 0.3 billion.

#### Financial liabilities

millions of €



Our current and non-current **financial liabilities** increased by EUR 2.3 billion compared with the end of 2015 to EUR 64.7 billion in total.

In March 2016, we placed euro bonds with institutional investors for a total volume of EUR 4.5 billion. These comprised: a 4-year variable-interest bond with a volume of EUR 1.25 billion and a mark-up of 35 basis points above the 3-month EURIBOR; a 7-year fixed-interest bond with a volume of EUR 1.75 billion and a coupon of 0.625 percent; and a 12-year bond with a volume of EUR 1.5 billion and a fixed coupon of 1.5 percent. In April 2016, we placed a 5-year fixed-interest euro bond with a volume of EUR 0.5 billion and a coupon of 0.25 percent. In October 2016, we then issued a 7-year fixed-interest GBP bond with a volume of GBP 300 million and a coupon of 1.25 percent. All bonds were issued under our debt issuance program.

In September 2016, we placed U.S. dollar bonds with a total volume of USD 2.75 billion (around EUR 2.5 billion) with institutional investors. These comprised: a 3-year variable-interest bond with a volume of USD 250 million and a mark-up of 45 basis points above the 3-month USD Libor; a 3-year fixed-interest bond with a volume of USD 750 million and a coupon of 1.5 percent; a 5-year bond with a volume of USD 1.0 billion and a coupon of 1.95 percent; and a 7-year bond with a volume of USD 750 million and a coupon of 2.485 percent.

All bonds were issued by Deutsche Telekom International Finance B.V. with the guarantee of Deutsche Telekom AG. The issuances form part of our general corporate financing.

On April 1, 2016, T-Mobile US issued senior notes with a total volume of USD 1.0 billion (around EUR 0.9 billion). T-Mobile US expects to use the net proceeds from this offering for the purchase of 700 MHz A-block spectrum and other spectrum purchases.

In 2016, two U.S. dollar bonds were repaid in a total amount of USD 2.25 billion (around EUR 2.0 billion), as were euro bonds totaling EUR 0.9 billion, a bond in Swiss francs for CHF 0.4 billion (around EUR 0.4 billion), commercial paper in the amount of EUR 3.7 billion (net), and promissory notes in the amount of EUR 0.4 billion (net). The net decrease in liabilities to banks of EUR 0.1 billion also reduced the carrying amount of the financial liabilities.

In order to optimize the financing terms and conditions for our subsidiary T-Mobile US and thus also those for the Group, we provided T-Mobile US with a 3-year partially secured credit line of USD 2.5 billion and a secured loan of USD 660 million in December 2016. Together with the temporary loan commitments for up to USD 4.0 billion, which were made in March and April 2016 and run until the end of May 2017, Deutsche Telekom AG provided its subsidiary T-Mobile US with a total funding framework of more than USD 7 billion as of the reporting date. This does not increase the Group's net debt. □

**Trade and other payables** decreased by EUR 0.6 billion compared with the end of 2015 to EUR 10.4 billion, primarily attributable to the decrease in liabilities in our United States operating segment. Exchange rate effects from the translation from U.S. dollars into euros had an offsetting effect.

**Provisions** (current and non-current) stood at EUR 14.8 billion, EUR 0.5 billion higher than the prior-year level, of which EUR 8.5 billion (December 31, 2015: EUR 8.0 billion) related to provisions for pensions and other employee benefits. The increase in provisions for pensions and other employee benefits was attributable in part to actuarial losses of EUR 0.7 billion (before taxes) recognized directly in equity and current service costs of EUR 0.2 billion. By contrast, benefits of EUR 0.3 billion paid in the reporting year and the increase of our plan assets by EUR 0.3 billion (allocation under contractual trust agreement) reduced provisions. At EUR 6.4 billion, other provisions were slightly higher than in the prior year.



For further information, please refer to the explanations in Note 10 "Financial liabilities" in the notes to the consolidated financial statements, page 167 et seq.

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**Other non-current liabilities** increased by EUR 1.2 billion compared with the prior year to EUR 14.5 billion and included **deferred tax assets**, which increased by EUR 0.8 billion compared with the end of 2015 to EUR 10.0 billion, due in part to exchange rate effects from the translation of U.S. dollars into euros.

**Shareholders' equity** increased by EUR 0.7 billion compared with December 31, 2015 to EUR 38.8 billion, due to profit after taxes of EUR 3.1 billion, currency translation effects recognized directly in equity of EUR 0.4 billion, and capital increases totaling EUR 0.3 billion carried out in connection with share-based payments. In addition, in connection with the option granted to our shareholders to have their dividend entitlements

converted into shares, a capital increase of EUR 1.0 billion was carried out involving the contribution of the dividend entitlements. Dividend payments for the 2015 financial year to Deutsche Telekom AG shareholders of EUR 2.5 billion and to non-controlling interests of EUR 0.1 billion had an offsetting effect. In addition, as a result of the consummation of the sale of our stake in the former EE joint venture on January 29, 2016, the gains of EUR 0.9 billion from the translation of pounds sterling into euros that had until this date been disclosed in shareholders' equity were reclassified through profit or loss to the consolidated income statement. Actuarial losses (after taxes) of EUR 0.5 billion also had a negative effect.

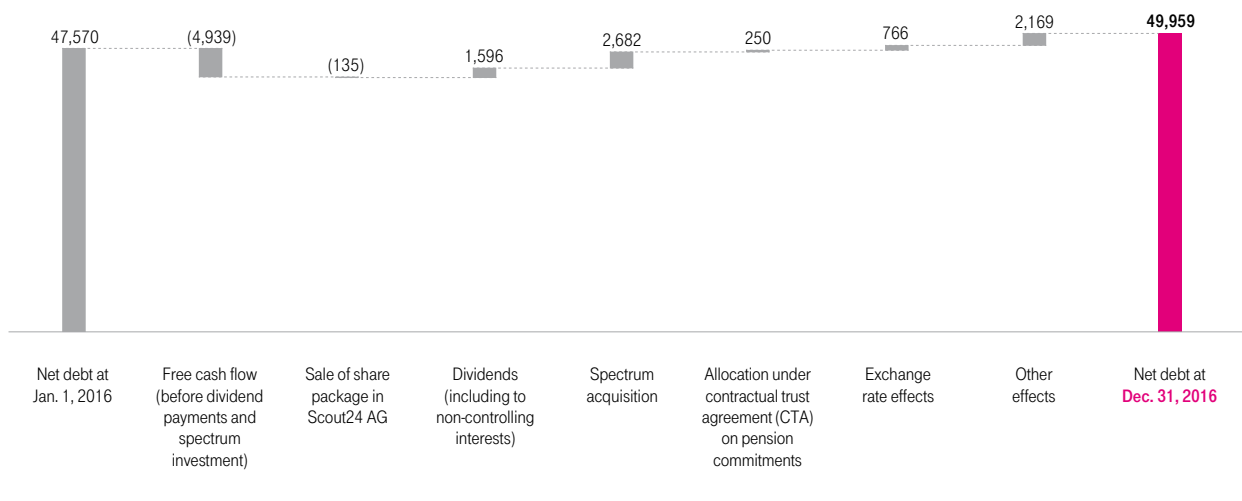
### Net debt

millions of €


	Dec. 31, 2016	Change	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012
Financial liabilities (current)	14,422	(17)	14,439	10,558	7,891	9,260
Financial liabilities (non-current)	50,228	2,287	47,941	44,669	43,708	35,354
<b>FINANCIAL LIABILITIES</b>	<b>64,650</b>	<b>2,270</b>	<b>62,380</b>	<b>55,227</b>	<b>51,599</b>	<b>44,614</b>
Accrued interest	(955)	59	(1,014)	(1,097)	(1,091)	(903)
Other	(1,029)	(172)	(857)	(1,038)	(881)	(754)
<b>GROSS DEBT</b>	<b>62,666</b>	<b>2,157</b>	<b>60,509</b>	<b>53,092</b>	<b>49,627</b>	<b>42,957</b>
Cash and cash equivalents	7,747	850	6,897	7,523	7,970	4,026
Available-for-sale financial assets/ financial assets held for trading	10	(2,867)	2,877	289	310	27
Derivative financial assets	2,379	(307)	2,686	1,343	771	1,287
Other financial assets	2,571	2,092	479	1,437	1,483	757
<b>NET DEBT</b>	<b>49,959</b>	<b>2,389</b>	<b>47,570</b>	<b>42,500</b>	<b>39,093</b>	<b>36,860</b>

### Changes in net debt

millions of €



Our **net debt** increased by EUR 2.4 billion year-on-year to EUR 50.0 billion. The reasons for this are presented in the graphic on the previous page. Other effects of EUR 2.2 billion include, among other items, liabilities for the lease of network equipment classified as a finance lease primarily in our United States operating segment and liabilities for the acquisition of broadcasting rights. In addition, other effects include financing options under which the payments for trade payables become due at a later point in time by involving banks in the process.

**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. 

Off-balance-sheet financial instruments mainly relate to the sale of receivables by means of factoring. Total receivables sold as of December 31, 2016 amounted to EUR 4.9 billion (December 31, 2015: EUR 3.5 billion). This mainly relates to top-ups to existing factoring agreements as well as the conclusion of new 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 (2015: EUR 0.7 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 financing activities. As a result, we show these payables under financial liabilities in the statement of financial position.

In 2016, we leased network equipment for a total of EUR 0.9 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 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
<b>LONG-TERM RATING</b>			
Dec. 31, 2012	BBB+	Baa1	BBB+
Dec. 31, 2013	BBB+	Baa1	BBB+
Dec. 31, 2014	BBB+	Baa1	BBB+
Dec. 31, 2015	BBB+	Baa1	BBB+
<b>Dec. 31, 2016</b>	<b>BBB+</b>	<b>Baa1</b>	<b>BBB+</b>
<b>SHORT-TERM RATING</b>			
	<b>A-2</b>	<b>P-2</b>	<b>F2</b>
<b>OUTLOOK</b>			
	<b>Stable</b>	<b>Stable</b>	<b>Stable</b>

#### Financial flexibility

	2016	2015	2014	2013	2012
<b>RELATIVE DEBT</b>					
$\frac{\text{Net debt}}{\text{EBITDA (adjusted for special factors)}}$	<b>2.3 x</b>	2.4 x	2.4 x	2.2 x	2.1 x
<b>EQUITY RATIO</b> %					
	<b>26.2</b>	26.5	26.3	27.1	28.3

To ensure financial flexibility, we primarily use the KPI **relative debt**. One component of this KPI is net debt, which our Group uses as an important indicator for investors, analysts, and rating agencies.

#### Condensed consolidated statement of cash flows

millions of €

	2016	2015	2014
<b>NET CASH FROM OPERATING ACTIVITIES</b>	<b>15,533</b>	<b>14,997</b>	<b>13,393</b>
Cash outflows for investments in intangible assets (excluding goodwill and before spectrum investment) and property, plant and equipment ( <b>CASH CAPEX</b> )	(10,958)	(10,818)	(9,534)
Proceeds from disposal of intangible assets (excluding goodwill) and property, plant and equipment	364	367	281
<b>FREE CASH FLOW (BEFORE DIVIDEND PAYMENTS AND SPECTRUM INVESTMENT)</b>	<b>4,939</b>	<b>4,546</b>	<b>4,140</b>
<b>NET CASH USED IN INVESTING ACTIVITIES</b>	<b>(13,608)</b>	<b>(15,015)</b>	<b>(10,761)</b>
<b>NET CASH USED IN FINANCING ACTIVITIES</b>	<b>(1,322)</b>	<b>(876)</b>	<b>(3,434)</b>
Effect of exchange rate changes on cash and cash equivalents	250	267	323
Changes in cash and cash equivalents associated with non-current assets and disposal groups held for sale	(3)	1	32
Net increase (decrease) in cash and cash equivalents	850	(626)	(447)
<b>CASH AND CASH EQUIVALENTS</b>	<b>7,747</b>	<b>6,897</b>	<b>7,523</b>

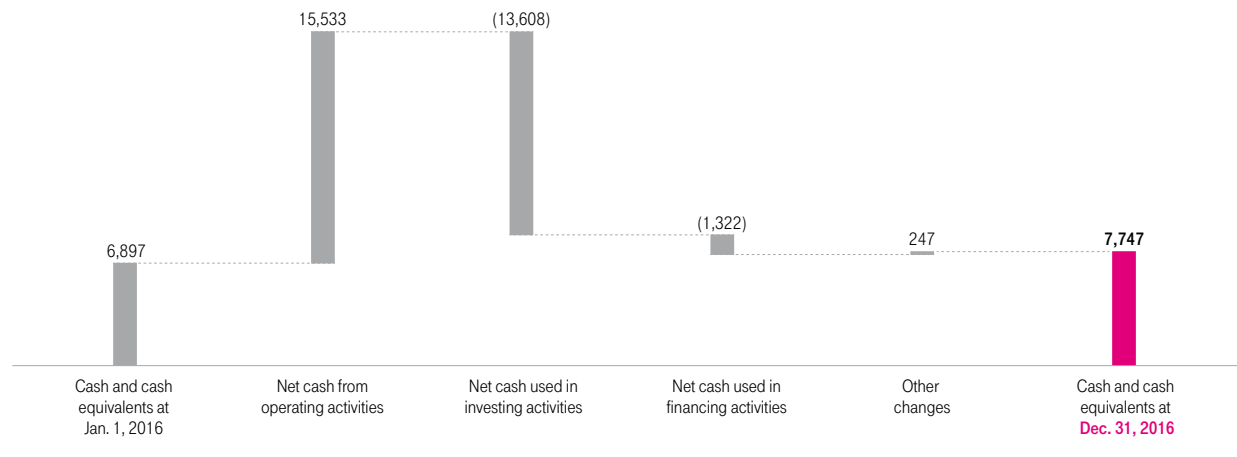


For more information, please refer to the explanations in Note 33 "Leases," page 196 et seq., and Note 34 "Other financial obligations," page 198, in the notes to the consolidated financial statements.

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## Changes in cash and cash equivalents


millions of €



**Free cash flow.** Free cash flow of the Group before dividend payments and spectrum investment grew from EUR 4.5 billion in the prior year to EUR 4.9 billion. Net cash from operating activities increased by EUR 0.5 billion. Cash outflows for investments in intangible assets (excluding goodwill and before spectrum investment) and property, plant and equipment also increased by EUR 0.1 billion.

The increase in **net cash from operating activities** was mainly attributable to the positive business development of our United States operating segment. In the reporting period, factoring agreements were concluded for monthly revolving sales of trade receivables, mainly in the United States and Germany operating segments. Their effect on net cash from operating activities amounted to EUR 0.8 billion and was thus comparable with the prior year. Cash inflows from the cancellation of or changes in the terms of interest rate derivatives had a positive effect

of EUR 0.2 billion compared with the prior-year period. A year-on-year decrease of EUR 0.2 billion in cash outflows for income taxes also had a positive impact. Net cash from operating activities was negatively affected by a EUR 0.2 billion decrease in the dividend payment from the former EE joint venture. The dividend payment received from BT of EUR 0.1 billion was matched in the prior-year period by dividend payments of a corresponding amount received from the Scout24 group. In addition, net interest payments that were EUR 0.1 billion higher year-on-year had a negative impact on net cash from operating activities.

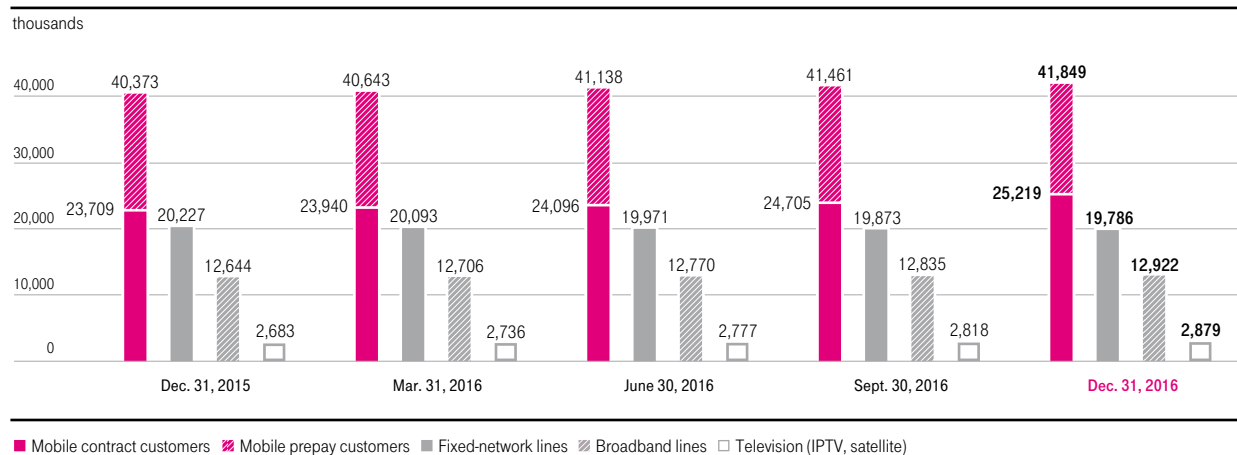
The slight increase in **cash capex** compared with 2015 primarily related to the Germany, Europe, and United States operating segments. In each case, the cash outflows were for investments in network build-out and network modernization. 



For further details, please refer to Note 30 "Notes to the consolidated statement of cash flows" in the notes to the consolidated financial statements, pages 190 and 191.

## DEVELOPMENT OF BUSINESS IN THE OPERATING SEGMENTS

### GERMANY CUSTOMER DEVELOPMENT



thousands

	Dec. 31, 2016	Dec. 31, 2015	Change	Change %	Dec. 31, 2014
<b>TOTAL</b>					
Mobile customers	41,849	40,373	1,476	3.7 %	38,989
Contract customers	25,219	23,709	1,510	6.4 %	22,287
Prepay customers	16,630	16,665	(35)	(0.2)%	16,701
Fixed-network lines	19,786	20,227	(441)	(2.2)%	20,686
Of which: retail IP-based	9,042	6,887	2,155	31.3 %	4,383
Broadband lines	12,922	12,644	278	2.2 %	12,361
Of which: optical fiber	4,250	2,923	1,327	45.4 %	1,799
Television (IPTV, satellite)	2,879	2,683	196	7.3 %	2,442
Unbundled local loop lines (ULLs)	7,195	8,050	(855)	(10.6)%	8,801
Wholesale unbundled lines	4,212	3,015	1,197	39.7 %	2,153
Of which: optical fiber	2,555	1,444	1,111	76.9 %	718
Wholesale bundled lines	165	227	(62)	(27.3)%	305
<b>OF WHICH: CONSUMERS</b>					
Mobile customers	29,225	29,016	209	0.7 %	29,068
Contract customers	18,476	17,297	1,179	6.8 %	16,040
Prepay customers	10,749	11,719	(970)	(8.3)%	13,027
Fixed-network lines	15,550	15,900	(350)	(2.2)%	16,260
Of which: retail IP-based	7,722	6,076	1,646	27.1 %	3,974
Broadband lines	10,438	10,209	229	2.2 %	9,938
Of which: optical fiber	3,657	2,530	1,127	44.5 %	1,547
Television (IPTV, satellite)	2,686	2,492	194	7.8 %	2,254
<b>OF WHICH: BUSINESS CUSTOMERS</b>					
Mobile customers	12,624	11,358	1,266	11.1 %	9,921
Contract customers	6,744	6,412	332	5.2 %	6,247
Prepay customers (M2M)	5,880	4,946	934	18.9 %	3,674
Fixed-network lines	3,255	3,339	(84)	(2.5)%	3,402
Of which: retail IP-based	1,234	773	461	59.6 %	387
Broadband lines	2,101	2,093	8	0.4 %	2,096
Of which: optical fiber	575	385	190	49.4 %	248
Television (IPTV, satellite)	192	190	2	1.1 %	186

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## 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. We offer best customer experience with our broad product portfolio and our multi-award winning network quality: Awards were received for our fixed network in connect magazine's network test, issue 8/2016, and our mobile network in the connect network test, issue 1/2017.

So far, we have won 3 million customers for our integrated product, MagentaEins, comprising fixed-network and mobile components.

In mobile communications, we won another 1.5 million customers in 2016. This growth was driven primarily by contract customers as a result of high demand for mobile rate plans with integrated data volumes.

Our "network of the future" offers state-of-the-art access technology. By the end of 2018, we want to have converted our entire network to IP technology. By the end of the reporting year, we had already migrated 12.9 million retail and wholesale lines to IP, which corresponds to a migration rate of 53 percent. [\[SDG\]](#)

We continue to see strong demand for our fiber-optic products. As of the end of 2016, the number of lines had increased to 6.8 million overall, which means we connected 2.4 million households to our fiber-optic network in Germany over the last 12 months. With the progress in fiber-optic roll-out and innovative vectoring technology, we successfully drove forward the marketing of substantially higher bandwidths – and will continue to do so more and more in the future. With our [contingent model](#), we create incentives for the migration from traditional wholesale products – such as bundled wholesale lines or unbundled local loop lines (ULLs) – to higher-quality fiber-optic wholesale lines.

## Mobile communications

We are generating momentum with our excellent network quality and our broad product portfolio for high-value contract customers. We offer our customers the best possible mobility, with an improved service package and transparent, fair offers. Our new MagentaMobil portfolio offers our customers wide-ranging benefits: more high-speed data volumes, a HotSpot flat rate, and free roaming in other EU countries.

In the reporting year, we won another 1.5 million contract customers. Of these, 563 thousand were branded contract customers under the Telekom and congstar brands, while the customer base at Telekom Deutschland Multibrand GmbH grew by 52 thousand. The contract customer business of resellers (service providers) recorded 896 thousand net contract customer additions. The number of prepay customers decreased slightly by 35 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 focusing on integrated offers and

on TV and fiber-optic lines. As a result, the number of our broadband lines increased by 278 thousand year-on-year. 22.3 percent of our broadband customers are TV customers, with 196 thousand TV customer additions recorded in the reporting year alone. In the traditional fixed network, the number of lines decreased by 441 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, 294 thousand customers have selected this rate plan, primarily those based in rural areas.

We have also connected a total of around 164 thousand apartments to our network through our partnerships in the housing sector.

## Consumers

With 29.2 million customers at the end of 2016, our mobile customer base remained at the prior-year level overall. The number of prepay customers decreased by 970 thousand, primarily as a result of some customers switching to our mobile contracts, for example to our cost-effective congstar rate plans. By contrast, we added 1.2 million mobile contract customers over the course of the year, thanks mainly to our More For More initiative and the Allnet Flat rate plans at congstar. Contract customer business with resellers (service providers) also developed positively.

In the fixed-network market, competition remains intense. In 2016, we migrated 1.6 million customers to IP-based lines in the fixed network. We won 194 thousand new TV customers compared with the end of 2015. In the reporting year, of the 10.4 million broadband lines in total, 3.7 million were fiber-optic lines, representing a year-on-year increase of 1.1 million.

## Business Customers

The positive trend in the Business Customers segment from the prior year continued: Since the beginning of 2016, we have recorded 1.3 million mobile customer additions, 332 thousand of whom were high-value contract customers. In mobile Internet, customers are increasingly opting for plans with more bandwidth, in conjunction with higher-quality terminal equipment. We added 934 thousand new M2M SIM cards in a very aggressively priced market. This growth was due to the increased use of SIM cards, especially in the automotive and logistics industries. The number of customers with fixed-network lines declined by 2.5 percent compared with the end of 2015. The number of broadband lines remained at the prior-year level at 2.1 million, with the number of fiber-optic lines increasing substantially by 49.4 percent.

There was also a positive trend in demand for cloud products, where we recorded revenue growth of 9.3 percent. We also recorded growth in new IP-based products from our DeutschlandLAN product range, such as IP Start and IP Voice/Data.



## Wholesale

At the end of 2016, fiber-optic lines accounted for 22.1 percent of all lines – 9.3 percentage points higher than the prior-year figure. The strong growth in our wholesale unbundled lines by 1.2 million or 39.7 percent compared with 2015 was primarily attributable to the strong demand for our contingent model. By contrast, the number of bundled wholesale lines decreased by 62 thousand. This trend is likely to continue for the next few years due to the fact that our competitors are switching from

bundled to unbundled wholesale products with more bandwidth, or to their own infrastructure. The number of unbundled local loop lines decreased by 855 thousand or 10.6 percent compared with the end of the prior year. This is due first to the move to higher-quality fiber-optic wholesale lines, and second to retail customers switching to cable operators. In addition, wholesale customers have been migrating their retail customers to fiber-optic lines. The total number of lines in the wholesale sector increased slightly compared with 2015 to 11.6 million.

## DEVELOPMENT OF OPERATIONS

millions of €

	2016	2015	Change	Change %	2014
<b>TOTAL REVENUE</b>	22,041	22,421	(380)	(1.7)%	22,257
Consumers	11,739	12,146	(407)	(3.4)%	12,025
Business Customers	5,923	5,942	(19)	(0.3)%	5,898
Wholesale	3,753	3,685	68	1.8%	3,704
Other	626	648	(22)	(3.4)%	630
Profit from operations (EBIT)	4,081	4,490	(409)	(9.1)%	4,663
EBIT margin	% 18.5	20.0			21.0
Depreciation, amortization and impairment losses	(3,809)	(3,755)	(54)	(1.4)%	(3,893)
EBITDA	7,890	8,245	(355)	(4.3)%	8,556
Special factors affecting EBITDA	(910)	(545)	(365)	(67.0)%	(254)
<b>EBITDA (ADJUSTED FOR SPECIAL FACTORS)</b>	8,800	8,790	10	0.1%	8,810
EBITDA margin (adjusted for special factors)	% 39.9	39.2			39.6
<b>CASH CAPEX</b>	(4,161)	(5,609)	1,448	25.8%	(3,807)

The Value-Added Services segment was dissolved as of January 1, 2016, and the revenue allocated to Consumers, Business Customers, and Other. Prior-year figures have been adjusted accordingly.

## Total revenue

Total revenue decreased by 1.7 percent compared with 2015. This development was driven mainly by non-contract terminal equipment revenue in mobile business, which decreased by 3.4 percent. Increased IT and broadband revenues had a positive impact on fixed-network revenue. However, this was not sufficient to completely offset declines in other areas, such that revenue in the fixed-network business decreased by 1.5 percent overall. Wholesale products developed positively, increasing by 2.3 percent year-on-year.

Revenue from **Consumers** declined by 3.4 percent compared with the prior year. Volume-related revenue decreases continued to dominate traditional fixed-network business, which declined by 2.0 percent, mainly due to lower variable charges and voice revenue. By contrast, revenue from broadband business increased by 1.7 percent. Mobile revenues declined by 5.1 percent, driven largely by terminal equipment business. Our mobile service revenues decreased by 0.7 percent compared with the prior-year level; however, the increase in service revenues under the congstar brand almost completely offset the decline in revenues from prepaid business and from branded contract customers.

Revenue from **Business Customers** declined slightly by 0.3 percent. Mobile revenues grew slightly. Service revenues were at around the same level as in the prior year. In the fixed network, a decline was

recorded in traditional voice telephony, due largely to the increasing number of customers moving to flat rate plans. By contrast, IT revenues developed particularly positively, though this was not enough to fully compensate for the loss of revenues from traditional telephony business.

**Wholesale** revenue was up 1.8 percent on the prior-year level, thanks primarily to higher revenues with unbundled lines, in particular as part of our contingent model.

## EBITDA, adjusted EBITDA

EBITDA adjusted for special factors remained stable compared with the prior-year level at EUR 8.8 billion. We were able to compensate for the loss of revenue with efficiency enhancement measures across all functions. Our adjusted EBITDA margin increased significantly to 39.9 percent (prior year: 39.2 percent).

EBITDA amounted to EUR 7.9 billion in the reporting year, a decline of 4.3 percent against the prior year, due mainly to higher special factors for expenses in connection with our staff restructuring. The take-up of the instrument of early retirement for civil servants in particular was substantially higher in the reporting year.



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## EBIT

Profit from operations decreased by 9.1 percent to EUR 4.1 billion year-on-year. This was primarily attributable to higher expenses incurred in connection with staff-related measures and slightly higher depreciation and amortization.

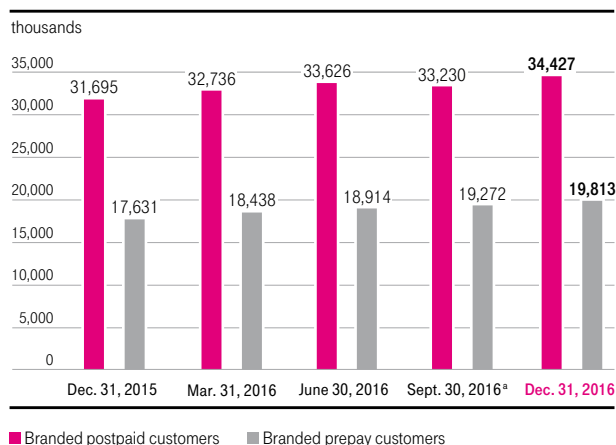
## Cash capex

Cash capex was EUR 1.4 billion lower than in the prior year, due mainly to the spectrum auction in June 2015. Excluding spectrum investment, cash capex was up EUR 0.1 billion year-on-year.

We again made significant investments in the broadband and fiber-optic roll-out, our IP transformation, and our mobile infrastructure as part of our integrated network strategy.

## UNITED STATES

### CUSTOMER DEVELOPMENT



<sup>a</sup> On September 1, 2016 T-Mobile US sold its marketing and distribution rights to certain of T-Mobile US' existing co-branded customers to a current wholesale partner for nominal consideration (the MVNO Transaction). Upon the sale, the MVNO Transaction resulted in a transfer of 1,365 thousand branded postpaid customers and 326 thousand branded prepay customers to wholesale customers. Prospectively from September 1, 2016, net customer additions for these customers are included within wholesale customers. Ending customers as of September 30, 2016 reflect the transfers in connection with the transaction.

thousands

	Dec. 31, 2016	Dec. 31, 2015	Change	Change %	Dec. 31, 2014
<b>UNITED STATES</b>					
Mobile customers	71,455	63,282	8,173	12.9 %	55,018
Branded customers <sup>a</sup>	54,240	49,326	4,914	10.0 %	43,501
Branded postpaid <sup>a</sup>	34,427	31,695	2,732	8.6 %	27,185
Branded prepay <sup>a</sup>	19,813	17,631	2,182	12.4 %	16,316
Wholesale customers <sup>a</sup>	17,215	13,956	3,259	23.4 %	11,517

<sup>a</sup> On September 1, 2016 T-Mobile US sold its marketing and distribution rights to certain of T-Mobile US' existing co-branded customers to a current wholesale partner for nominal consideration (the MVNO Transaction). Upon the sale, the MVNO Transaction resulted in a transfer of 1,365 thousand branded postpaid customers and 326 thousand branded prepay customers to wholesale customers. Prospectively from September 1, 2016, net customer additions for these customers are included within wholesale customers. Ending customers as of September 30, 2016 reflect the transfers in connection with the transaction.

At December 31, 2016, the United States operating segment (T-Mobile US) had 71.5 million customers compared to 63.3 million customers at December 31, 2015. Net customer additions were 8.2 million for the year ended December 31, 2016, compared to 8.3 million net customer additions for the year ended December 31, 2015 due to the factors described below.

**Branded customers.** Excluding the sale of marketing and distribution rights to certain of T-Mobile US' existing co-branded customers to a current wholesale partner (the MVNO Transaction) branded postpaid net customer additions were 4,097 thousand for the year ended December 31, 2016, compared to 4,510 thousand branded postpaid net customer additions for the year ended December 31, 2015. Branded postpaid net customer additions for the year ended December 31, 2016 were lower compared to the year ended December 31, 2015, primarily due to higher deactivations resulting from a growing branded postpaid customer base, partially offset by a lower branded postpaid churn rate as well as an increase in the number of qualified branded prepay customers migrating to branded postpaid plans.

Branded prepay net customer additions were 2,508 thousand (excluding the MVNO Transaction) for the year ended December 31, 2016, compared to 1,315 thousand branded prepay net customer additions for the year ended December 31, 2015. The increase was due primarily to success of the MetroPCS brand, continued growth in new markets and distribution expansion, partially offset by an increase in the number of qualified branded prepay customers migrating to branded postpaid plans.

**Wholesale customers.** Wholesale net customer additions were 1,568 thousand (excluding the MVNO Transaction) for the year ended December 31, 2016, compared to wholesale net customer additions of 2,439 thousand for the year ended December 31, 2015. The decrease was due primarily to higher deactivations from certain MVNO partners.

## DEVELOPMENT OF OPERATIONS

millions of €					
	2016	2015	Change	Change %	2014
<b>TOTAL REVENUE</b>	33,738	28,925	4,813	16.6 %	22,408
Profit from operations (EBIT)	3,685	2,454	1,231	50.2 %	1,405
EBIT margin %	10.9	8.5			6.3
Depreciation, amortization and impairment losses	(5,282)	(3,775)	(1,507)	(39.9) %	(2,839)
EBITDA	8,967	6,229	2,738	44.0 %	4,244
Special factors affecting EBITDA	406	(425)	831	n. a.	(52)
<b>EBITDA (ADJUSTED FOR SPECIAL FACTORS)</b>	8,561	6,654	1,907	28.7 %	4,296
EBITDA margin (adjusted for special factors) %	25.4	23.0			19.2
<b>CASH CAPEX</b>	(5,855)	(6,381)	526	8.2 %	(5,072)

### Total revenue

Total revenue for the United States operating segment of EUR 33.7 billion in 2016 increased by 16.6 percent compared to EUR 28.9 billion in 2015. In U.S. dollars, T-Mobile US' total revenues increased by 16.3 percent year-on-year due primarily to service revenue growth resulting from increases in T-Mobile US' average branded customer base from strong customer response to T-Mobile US' Un-carrier initiatives, success of the MetroPCS brand and continued growth in new markets. Additionally, equipment revenues increased due primarily to higher lease revenues resulting from the launch of the JUMP! On Demand program at the end of the second quarter of 2015. With JUMP! On Demand, revenues associated with leased devices are recognized over the term of the lease rather than when the device is delivered to the customer. An additional factor driving the increase in equipment revenues included an increase in the number of devices sold and a higher average revenue per device sold.

### EBITDA, adjusted EBITDA, adjusted EBITDA margin

Adjusted EBITDA increased by 28.7 percent to EUR 8.6 billion in 2016, compared to EUR 6.7 billion in 2015. In U.S. dollars, adjusted EBITDA increased by 28.7 percent in 2016, compared to 2015. Adjusted EBITDA was positively impacted by increased branded postpaid and prepay service revenues resulting from strong customer response to T-Mobile US' Un-carrier initiatives and the ongoing success of promotional activities; lower losses on equipment due primarily to an increase in lease revenues, which are recognized over the lease term, resulting from the launch of T-Mobile US' JUMP! On Demand program at the end of the second quarter of 2015. Additionally, the costs of leased devices, which are capitalized and depreciated over the lease term, are excluded from adjusted EBITDA. Additionally, focused cost control and synergies realized from the decommissioning of the MetroPCS Code Division Multiple Access (CDMA) network contributed to the adjusted EBITDA increase during 2016. These effects were partially offset by an increase in strategic investments to support T-Mobile US' growing total customer base, including higher employee-related costs, higher commissions

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driven by an increase in T-Mobile US' branded customer additions and higher promotional costs. Adjusted EBITDA margin increased to 25.4 percent in 2016, compared to 23.0 percent in 2015 due to the factors described above.

Adjusted EBITDA in 2016 excludes EUR 0.4 billion special factors primarily related to non-cash gains from spectrum license transactions, partially offset by costs relating to the decommissioning of the MetroPCS CDMA network and stock-based compensation costs. Overall, EBITDA increased to EUR 9.0 billion in 2016, compared to EUR 6.2 billion in 2015 due to the factors described above, including the impact of special factors.

**EBIT**


EBIT increased to EUR 3.7 billion in 2016, compared to EUR 2.5 billion in 2015. This was driven by higher adjusted EBITDA, partially offset by higher depreciation expense related to devices leased under T-Mobile US' JUMP! On Demand program launched at the end of the second quarter of 2015, as well as increases from the continued build-out of T-Mobile US' 4G/LTE network, resulting in increased depreciation expense in 2016.

**Cash capex**

Cash capex decreased to EUR 5.9 billion in 2016, compared to EUR 6.4 billion in 2015, due primarily to EUR 2.2 billion of spectrum licenses acquired primarily through the U.S. FCC auction in January 2015 compared with payments of EUR 1.7 billion for the acquisition of spectrum licenses in 2016 as T-Mobile US continues to invest in network capex for the build-out of the 4G/LTE network.

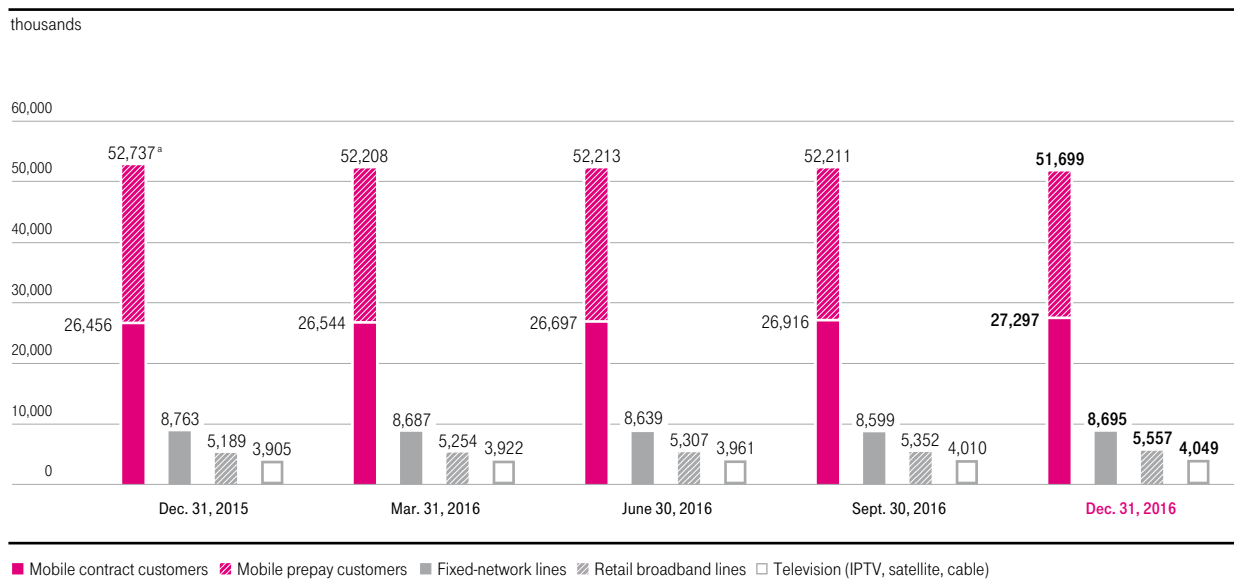
**EUROPE**

**CUSTOMER DEVELOPMENT**

Business customer operations at Magyar Telekom in Hungary, which had previously been organizationally assigned to the Systems Solutions operating segment, have been managed and reported under the Europe operating segment since January 1, 2016. Comparative figures have been adjusted retrospectively. 



For more information, please refer to Note 31 "Segment reporting" in the notes to the consolidated financial statements, page 192 et seq.



\*In the fourth quarter of 2015, the number of mobile customers in Poland decreased by 3,838 thousand in connection with the deactivation of inactive prepaid SIM cards.

thousands

		Dec. 31, 2016	Dec. 31, 2015	Change	Change %	Dec. 31, 2014
<b>EUROPE, TOTAL</b> <sup>a, b</sup>	Mobile customers	51,699	52,737	(1,038)	(2.0)%	56,506
	Fixed-network lines	8,695	8,763	(68)	(0.8)%	9,098
	Of which: IP-based	5,180	4,132	1,048	25.4%	3,503
	Retail broadband lines	5,557	5,189	368	7.1%	5,007
	Television (IPTV, satellite, cable)	4,049	3,905	144	3.7%	3,714
	Unbundled local loop lines (ULLs)/wholesale PSTN	2,259	2,239	20	0.9%	2,325
	Wholesale bundled lines	123	121	2	1.7%	140
	Wholesale unbundled lines	247	199	48	24.1%	144
	<b>GREECE</b>	Mobile customers	7,725	7,399	326	4.4%
Fixed-network lines		2,564	2,586	(22)	(0.9)%	2,624
Broadband lines		1,682	1,531	151	9.9%	1,388
<b>ROMANIA</b>	Mobile customers	5,722	5,992	(270)	(4.5)%	6,047
	Fixed-network lines	1,969	2,091	(122)	(5.8)%	2,239
	Broadband lines	1,194	1,186	8	0.7%	1,199
<b>HUNGARY</b>	Mobile customers	5,332	5,504	(172)	(3.1)%	5,478
	Fixed-network lines	1,629	1,674	(45)	(2.7)%	1,710
	Broadband lines	1,040	1,023	17	1.7%	982
<b>POLAND</b> <sup>a</sup>	Mobile customers	10,634	12,056	(1,422)	(11.8)%	15,702
	Fixed-network lines	20	18	2	11.1%	n.a.
	Broadband lines	16	15	1	6.7%	n.a.
<b>CZECH REPUBLIC</b>	Mobile customers	6,049	6,019	30	0.5%	6,000
	Fixed-network lines	140	154	(14)	(9.1)%	131
	Broadband lines	134	134	-	-	131
<b>CROATIA</b>	Mobile customers	2,234	2,233	1	0.0%	2,252
	Fixed-network lines	1,001	1,004	(3)	(0.3)%	1,076
	Broadband lines	783	741	42	5.7%	725
<b>NETHERLANDS</b> <sup>b</sup>	Mobile customers	3,746	3,677	69	1.9%	3,900
	Fixed-network lines	164	n.a.	164	n.a.	n.a.
	Broadband lines	164	n.a.	164	n.a.	n.a.
<b>SLOVAKIA</b>	Mobile customers	2,225	2,235	(10)	(0.4)%	2,220
	Fixed-network lines	850	855	(5)	(0.6)%	894
	Broadband lines	638	599	39	6.5%	559
<b>AUSTRIA</b>	Mobile customers	4,594	4,323	271	6.3%	4,020
<b>OTHER</b> <sup>c</sup>	Mobile customers	3,438	3,299	139	4.2%	3,607
	Fixed-network lines	358	381	(23)	(6.0)%	423
	Broadband lines	279	285	(6)	(2.1)%	307

<sup>a</sup> In the fourth quarter of 2015, the number of mobile customers in Poland decreased by 3,838 thousand in connection with the deactivation of inactive prepaid SIM cards.

<sup>b</sup> In the fourth quarter of 2016, the number of fixed-network and broadband lines in the Netherlands grew as a result of the acquisition of Vodafone's fixed-network consumer business.

<sup>c</sup> Other: national companies of Albania, the F.Y.R.O. Macedonia, and Montenegro, as well as the lines of the GTS Central Europe group in Romania.

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**Total**

The national companies in our Europe operating segment once again had to face the challenge of a highly competitive market environment in the reporting year. We successfully launched our MagentaOne convergence product portfolio in our markets, and had already won around 1.4 million FMC customers by December 31, 2016 – an increase of 55.5 percent. Our TV business continued to be the revenue growth driver, firstly due to the wide variety of TV services we offer our customers and, secondly, because we are able to deliver high bandwidths using the right combination of technologies.

We are systematically driving forward the roll-out of fast, fiber-optic lines (FTTH, FTTB, and FTTC) in the fixed network. In mobile communications, we can already offer our customers in individual countries transmission rates of up to 450 Mbit/s via LTE Advanced/4G+. Our high speeds combined with a broad portfolio of rate plans including the newest and most powerful smartphones drove up the number of contract customers by 3.2 percent compared with the end of 2015. As part of our pan-European network strategy, we also increased the number of IP lines – primarily thanks to the migration from traditional PSTN lines to IP technology.

We also aim to be the best integrated provider on the market for our customers with regard to the Internet of Things (IoT). In machine-to-machine (M2M) communications, we offer customer-oriented solutions along the entire value chain. Here, we benefit from the solutions and integration expertise of T-Systems, our strong partner network, and the implementation of our Smart Cities initiatives. [SDG](#)

**Mobile communications**

As of the end of 2016, we had a total mobile customer base of 51.7 million – down by 2.0 percent compared with 2015. This decline is in line with our expectations and is attributable to customer losses in the prepay business, which was under pressure due to intense competition. Competition in this segment continues to intensify further following the introduction of a prepay registration requirement by the Polish government at the end of July 2016. We successfully implemented our strategy of focusing on high-value contract customers, recording an increase of 3.2 percent in this customer segment, which corresponds to growth of around 841 thousand customers. The growth in the number of contract customers seen over the past few quarters continued through the fourth quarter of 2016. Virtually all of our national companies, predominantly in Austria, the Netherlands, and Romania, contributed to the positive development in contract customer business. At the end of the reporting year, contract customers accounted for 52.8 percent of the total customer base.

This success is attributable to our high-performance networks. We are positioning ourselves in the relevant markets as a quality provider with the best service – and in many countries also as the provider with the best mobile network. This is borne out by regular independent mobile communications tests, including Best in Test from P3 Communications: In addition to the Netherlands, the F.Y.R.O. Macedonia, and Montenegro, we have now also received this certificate for our companies in Greece,

Slovakia, Albania, and Poland. Part of our network strategy is to systematically build out our mobile networks with 4G/LTE technology to increase transmission rates in all our national companies. Thanks to investments in our 4G/LTE network, our customers enjoy better network coverage with fast mobile broadband. By the end of 2016, we already covered 84 percent of the population in the countries of our operating segment with LTE, thus reaching more than 109 million people in total. This puts us right on schedule to reach our goal of between 75 and 95 percent network coverage by 2018. Not only the high level of data volumes used, but also the sales figures for mobile devices prove that our customers actually use these high bandwidths, with smartphones accounting for an even higher proportion in 2016 – 79 percent – of all devices sold compared with the prior year. [SDG](#)

**Fixed network**

Our TV and entertainment services have developed into a mainstay of our consumer business. That is why we continue to invest in making our entertainment services even better. This entails, on the one hand, a portfolio with an impressive selection of film, sports, and TV content. However, we are also working hard on providing services that our customers can use in high quality – anywhere and on all devices. In Greece, for example, our customers have been benefiting from a new hybrid TV service since April 2016 that combines the advantages of satellite TV and IPTV. And our customers value our innovations: The number of TV customers grew by 3.7 percent to 4.0 million compared with the end of 2015, with the majority of the net customer additions – 144 thousand – at our national companies in Greece, Slovakia, Romania, and Croatia.

As an integrated telecommunications provider, we intend to drive forward the convergence of fixed-network and mobile technology. Our convergence product portfolio, MagentaOne, is available to our customers in all of our integrated countries. As a result, we have already gained more than 1.4 million FMC customers in total, primarily in Greece, Romania, Croatia, and Slovakia. In addition to focusing on the consumer segment, we are now also extending our MagentaOne offering to business customers: In 2016, we began offering MagentaOne Business in Montenegro, Slovakia, Hungary, Romania, the F.Y.R.O. Macedonia, Croatia, and Greece. The technical basis for FMC products is a simplified and standardized network; this requires the national companies with a fixed-network architecture to migrate to IP technology. We continue to implement the IP migration successfully and, by the end of the reporting year, had virtually completed the migration in Hungary. Once finished, Hungary will be the fifth national company to convert its entire fixed-network architecture to IP technology. [SDG](#) As of December 31, 2016, we recorded 5.2 million IP-based lines – up 25.4 percent compared with 2015. At segment level, IP-based lines accounted for around 60 percent of all lines, significantly more than PSTN-based lines. In our Europe operating segment, 8.7 million customers used a fixed-network line as of the end of the reporting year, putting the number of fixed-network lines almost on a par with the prior-year level. In the fourth quarter of 2016, we acquired Vodafone’s fixed-network consumer business in the Netherlands.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



13 CLIMATE ACTION



The number of retail broadband lines continued to grow apace, increasing by 7.1 percent to 5.6 million as of December 31, 2016. The number of DSL lines has grown constantly over the past few quarters. Our decision to ramp up investment in fiber-optic-based lines in the integrated countries in our operating segment is paying off: The percentage of fiber-optic lines recorded double-digit growth compared with the end of 2015, and in 2016 the number of net customer additions

was higher than in DSL business for the first time ever. This growth was driven primarily by our national companies in Romania, Hungary, and Slovakia. We continued to increase our overall fiber-optic coverage, with our national companies reaching 25.6 percent of households as of December 31, 2016. Our goal for our integrated companies is to roll out FTTx with up to 100 Mbit/s to 50 percent of households.

## DEVELOPMENT OF OPERATIONS

millions of €					
	2016	2015	Change	Change %	2014
<b>TOTAL REVENUE</b>	12,747	13,024	(277)	(2.1)%	13,221
Greece	2,883	2,878	5	0.2 %	2,869
Romania	985	984	1	0.1 %	1,002
Hungary	1,673	1,848	(175)	(9.5)%	1,742
Poland	1,488	1,544	(56)	(3.6)%	1,492
Czech Republic	959	958	1	0.1 %	862
Croatia	925	909	16	1.8 %	905
Netherlands	1,331	1,394	(63)	(4.5)%	1,551
Slovakia	766	783	(17)	(2.2)%	768
Austria	855	829	26	3.1 %	815
Other <sup>a</sup>	1,126	1,136	(10)	(0.9)%	1,442
Profit from operations (EBIT)	717	1,476	(759)	(51.4)%	1,729
EBIT margin %	5.6	11.3			13.1
Depreciation, amortization and impairment losses	(3,246)	(2,632)	(614)	(23.3)%	(2,611)
EBITDA	3,963	4,108	(145)	(3.5)%	4,340
Special factors affecting EBITDA	(131)	(221)	90	40.7 %	(131)
<b>EBITDA (ADJUSTED FOR SPECIAL FACTORS)</b>	4,094	4,329	(235)	(5.4)%	4,471
Greece	1,120	1,118	2	0.2 %	1,138
Romania	175	205	(30)	(14.6)%	266
Hungary	540	526	14	2.7 %	485
Poland	482	580	(98)	(16.9)%	579
Czech Republic	399	390	9	2.3 %	362
Croatia	374	367	7	1.9 %	365
Netherlands	358	500	(142)	(28.4)%	630
Slovakia	302	296	6	2.0 %	310
Austria	258	259	(1)	(0.4)%	211
Other <sup>a</sup>	85	88	(3)	(3.4)%	125
EBITDA margin (adjusted for special factors) %	32.1	33.2			33.8
<b>CASH CAPEX</b>	(2,764)	(1,667)	(1,097)	(65.8)%	(2,116)

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.

<sup>a</sup> Other: national companies of Albania, the F.Y.R.O. Macedonia, and Montenegro, as well as ICSS (International Carrier Sales & Solutions), the ICSS/GNF business of the local business units, GNF (Global Network Factory), GTS Central Europe group in Romania, Europe Headquarters, Group Technology, and Pan-Net.

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## Total revenue

Our Europe operating segment generated total revenue of EUR 12.7 billion in 2016, a year-on-year decrease of 2.1 percent. In organic terms, i. e., excluding the spin-off of the energy resale business in Hungary as of January 1, 2016 and assuming constant exchange rates, revenue declined by 0.5 percent putting it more or less on a par with the prior-year level. Excluding the development of business in the Netherlands, organic revenue in the Europe operating segment would be at exactly the prior-year level.

Decisions of the regulatory authorities – such as the imposition of lower roaming charges in many of the countries in our segment and, especially in Hungary, reduced mobile termination rates – also had an impact on our organic revenues in the reporting period. Intense competition on the telecommunications markets of our national companies also had a negative impact.

Our national companies have aligned themselves with the strategic growth areas and recorded a 2.5 percent increase in revenues in this field, partially offsetting the slight decline in revenues at segment level. Thus the growth areas accounted for 31.0 percent of segment revenue. Revenue from mobile data business increased by 5.6 percent year-on-year to EUR 1.8 billion. Most countries of our operating segment made a contribution to this growth, especially Austria, the Czech Republic, Hungary, and Greece. Absolute revenue growth from mobile data business was largely attributable to consumers. Data service usage rates continue to see strong growth, mainly among contract customers, due to the availability of high bandwidths and attractive rate plans in conjunction with a large portfolio of terminal equipment. Thanks to our innovative TV and program management, the TV business continued its upward trend of the past few quarters: In 2016, TV revenue increased by 9.4 percent to EUR 466 million. TV revenue accounted for some 41 percent of the revenue increase in our growth areas and is our second strongest driver of growth, preceded only by mobile data business. Despite the ongoing realignment of our core business with key growth areas, our B2B/ICT business with business customers posted lower revenue.

In addition to the growth areas, we recorded higher visitor revenues (i. e., revenues from third parties for roaming in our home network) and higher terminal equipment revenues. Wholesale business also contributed to the increase in revenue, due primarily to the volume-driven rise in call terminations.

From a country perspective, the decline in business in the Netherlands had the strongest impact on the organic development of revenue in 2016. Reduced charges on account of the roaming regulation and competition-driven price reductions – both in voice telephony and in data business – had a negative impact on revenue development. A substantial rise in net customer additions in the third and fourth quarter of 2016 are starting to have a positive effect. Higher visitor revenues

also made a positive contribution. Our national company in Slovakia also recorded a decline in revenue, primarily in fixed-network business. Revenues from voice telephony and in B2B/ICT business decreased. This was only partially offset by the increase in revenue from TV and mobile business, in particular as a result of a rise in data revenues. The national companies in Austria, Croatia, Greece, and Poland made particularly positive contributions to organic segment revenue, thereby almost completely offsetting the declines.

## EBITDA, adjusted EBITDA

Our Europe operating segment generated adjusted EBITDA of EUR 4.1 billion in 2016, a year-on-year decrease of 5.4 percent. In organic terms, i. e., excluding the spin-off of the energy resale business in Hungary as of January 1, 2016 and assuming constant exchange rates, adjusted EBITDA decreased by 4.9 percent. Excluding the development of business in the Netherlands, organic adjusted EBITDA in our Europe operating segment declined by 1.9 percent. As a result, we did not quite meet our expected adjusted EBITDA target of EUR 4.3 billion: Firstly, due to the fact that the lower level of organic revenues at segment level in general had a negative effect on adjusted EBITDA, and, secondly, due to the impact of higher direct costs resulting from higher interconnection costs, higher market investments, and other factors. Legislative changes such as those affecting taxes and duties, government austerity programs, in Greece for example, and decisions by regulatory authorities also played a part in this context.

From a country perspective, the decline in adjusted EBITDA is attributable mainly to the developments in our national companies in the Netherlands, Poland, and Romania, as well as to mobile business in Greece. By contrast, the adjusted EBITDA generated in particular in the national companies in Hungary, the Czech Republic, Slovakia, and Croatia, as well as in the fixed-network business in Greece, increased.

EBITDA decreased 3.5 percent year-on-year to EUR 4.0 billion due to two main effects: In the prior year, EBITDA had been affected by higher negative special factors, while the decline in adjusted EBITDA in 2016 had the opposite effect.

## Development of operations in selected countries

In view of our aim of becoming the leading European telecommunications provider, the majority of our national companies are pursuing the strategy of developing into integrated all-IP players that provide the best customer experience – regardless of their respective market position. To this end, we are establishing a production model with a pan-European, fully IP-based network infrastructure, the best network access, and optimized processes and customer interfaces. Most of our national companies already operate in both fixed-network and mobile communications in their respective markets. We present the following three national companies by way of example:

**Greece.** In Greece, revenue totaled EUR 2.9 billion in the reporting year, putting it on a par with the prior-year level. The positive revenue trend in the fixed-network business offset the decline in mobile business. The TV business in particular proved to be a steady growth driver once again: Our innovative TV services offering a huge variety of channels resulted in double-digit customer growth. As a result, TV revenue also increased by 31 percent compared with the prior year – despite a tax levied by the government on pay TV. Our FMC product CosmoteOne also contributed to revenue growth. Broadband business also benefited from the increased number of DSL lines. Our B2B/ICT business customer operations remained stable at the prior-year level. Overall, we more than offset the negative effects from the decline in voice telephony.

The continuing strained economic situation, intense competition, and new tax legislation had a negative effect on mobile revenues in the reporting year. The price- and volume-driven decline in revenue from voice telephony in particular impacted negatively on service revenues. This was only partially compensated for by stronger growth in the customer base. Rising revenues from mobile data services, as a result of higher data volumes and higher visitor revenues, among other factors, had a positive effect on service revenues. By contrast, revenue from the sale of mobile terminal equipment declined.

In Greece, adjusted EBITDA remained stable in the reporting year at EUR 1.1 billion. The slight increase in direct costs was more than offset by savings in indirect costs, primarily as a result of lower personnel costs.

**Hungary.** In Hungary, revenue decreased by 9.5 percent year-on-year to EUR 1.7 billion. In organic terms, i. e., excluding the spin-off of the energy resale business in Hungary as of January 1, 2016 and assuming constant exchange rates, segment revenue remained virtually stable.

In mobile communications, significantly higher revenues from sales of mobile terminal equipment completely offset the slight decline in service revenues, which was due to offsetting effects: Lower mobile termination rates and roaming regulation charges contributed to a reduction in voice revenues. This was contrasted by higher revenues from mobile data services, which increased by 7.6 percent compared with 2015. Our high-speed, high-reach mobile data network also had a positive effect on this development. By contrast, the fixed-network business continued to decline due to decreased revenue from our B2B/ICT business with

business customers and from voice services. TV and broadband business developed well and contributed positively to total revenues. The number of broadband lines increased gradually, due in particular to the roll-out of fiber-optic lines. Our TV business also profited from this, attracting customers with its innovative services across all screens and by the variety of channels. The MagentaOne FMC offering in the consumer and business customer segments also contributed to this trend.

Adjusted EBITDA increased by 2.7 percent year-on-year in 2016 to EUR 540 million. Organically, adjusted EBITDA was up 3.6 percent as a result of stable revenues, lower direct costs, and savings in indirect costs.

**Austria.** In Austria, we generated revenue of EUR 855 million in 2016, a year-on-year increase of 3.1 percent. This increase is largely attributable to higher revenue from mobile data business: The rise in contract customer additions increased the usage of data services. Data services accounted for 28 percent of total revenue. Visitor revenues also had a positive effect on revenue development. Overall, these positive revenue effects more than offset the decrease in revenue from text messaging services and the sale of mobile terminal equipment. Voice telephony revenue was on a par with the prior-year level.

At EUR 258 million, adjusted EBITDA in 2016 remained at the prior-year level. Higher revenue offset an increase in direct costs attributable to market investments. Indirect costs were up compared with 2015.

#### **EBIT**

EBIT in our Europe operating segment decreased by 51.4 percent in 2016 to EUR 0.7 billion. This was attributable largely to the EUR 0.6 billion increase in depreciation, amortization and impairment losses – in particular from the impairment of goodwill and property, plant and equipment amounting to EUR 0.6 billion resulting from the year-end impairment tests, primarily in the Netherlands and Romania.

#### **Cash capex**


In 2016, our Europe operating segment reported cash capex of EUR 2.8 billion, an increase of EUR 1.1 billion, mainly due to the acquisition in the reporting year of mobile spectrum in Poland, the Czech Republic, and Montenegro as well as the frequency extension in the Netherlands.

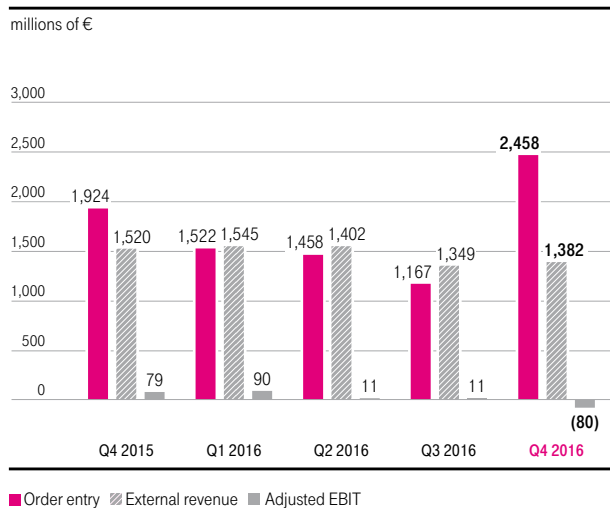


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## SYSTEMS SOLUTIONS

### SELECTED KPIs

Business customer operations at Magyar Telekom in Hungary, which had previously been organizationally assigned to the Systems Solutions operating segment, have been managed and reported under the Europe operating segment since January 1, 2016. Comparative figures have been adjusted retrospectively. 



For more information, please refer to Note 31 "Segment reporting" in the notes to the consolidated financial statements, page 192 et seq.

	Dec. 31, 2016	Dec. 31, 2015	Change	Change %	Dec. 31, 2014
<b>ORDER ENTRY</b> (millions of €)	6,605	5,608	997	17.8 %	7,107
<b>COMPUTING &amp; DESKTOP SERVICES</b>					
Number of servers managed and serviced (units)	74,336	62,590	11,746	18.8 %	61,654
Number of workstations managed and serviced (millions)	1.77	1.71	0.06	3.5 %	1.58
<b>SYSTEMS INTEGRATION</b>					
Hours billed (millions)	7.1	5.3	1.8	34.0 %	6.1
Utilization rate (%)	83.3	82.9		0.4 %p	83.8

### Development of business

In the reporting year, our Systems Solutions operating segment experienced a slight downward trend compared with the prior year, although our Market Unit profited from the completion of the set-up phase of our corporate customer project to build and operate an electronic toll collection system in Belgium. Strengthened by our realignment, we performed particularly well with our standard solutions from the growth area of cloud computing, where we are growing faster than the market in most market segments. Another key component in the expansion of our cloud business is strategic partnerships. This means we offer our partners' services from our data centers in Germany. The aspects of security and high availability play a key role for T-Systems and our customers. [SDG](#)

We successfully secured further new deals in Germany and abroad in 2016. The order volume was higher than expected in the reporting period: While we had indeed forecast an increase, growth was actually stronger than anticipated. This was attributable, on the one hand, to delays with order entries that we had expected in 2015 and, on the other, to two additional major contracts that we signed at the end of 2016 and that were not included in our initial planning. To meet the requirements from the new deals, we are continuously modernizing and consolidating our ICT resources. Thus the number of servers managed and serviced increased by 18.8 percent compared with 2015. At the data centers, technical advances made it possible to set up ever larger and higher-performance units, which had a positive impact on our cost efficiency. The number of workstations managed and serviced increased by 3.5 percent year-on-year.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



## DEVELOPMENT OF OPERATIONS

millions of €

	2016	2015	Change	Change %	2014
<b>TOTAL REVENUE</b>	7,907	8,194	(287)	(3.5)%	8,252
Loss from operations <b>(EBIT)</b>	(330)	(541)	211	39.0 %	(447)
Special factors affecting EBIT	(362)	(713)	351	49.2 %	(549)
EBIT (adjusted for special factors)	32	172	(140)	(81.4)%	102
EBIT margin (adjusted for special factors) %	0.4	2.1			1.2
Depreciation, amortization and impairment losses	(575)	(634)	59	9.3 %	(704)
EBITDA	245	93	152	n. a.	257
Special factors affecting EBITDA	(337)	(647)	310	47.9 %	(540)
<b>EBITDA (ADJUSTED FOR SPECIAL FACTORS)</b>	582	740	(158)	(21.4)%	797
EBITDA margin (adjusted for special factors) %	7.4	9.0			9.7
<b>CASH CAPEX</b>	(1,058)	(1,151)	93	8.1 %	(1,156)

**Total revenue**

Total revenue in our Systems Solutions operating segment in the reporting year amounted to EUR 7.9 billion, a year-on-year decrease of 3.5 percent.

Revenue of our Market Unit, i. e., essentially our business with external customers, was down 2.9 percent compared with 2015 to EUR 6.5 billion. Both national and international revenue in this unit declined, despite the completion of the set-up phase of the toll collection system in Belgium in the first quarter of 2016. The general downward price trend in ICT business and exchange rate effects had a negative impact on the Market Unit's revenue.

In our Telekom IT business unit, which mainly pools our Group's domestic internal IT activities, revenue stood at EUR 1.4 billion, down 6.1 percent. This planned decrease against prior years was attributable to further IT cost savings made by our Group.

**EBITDA, adjusted EBITDA**

In 2016, adjusted EBITDA in our Systems Solutions operating segment was 21.4 percent lower than in 2015. The Market Unit's EBITDA contribution declined by EUR 51 million year-on-year, mainly due to the accounting treatment of risks from individual corporate customer contracts. Measures we introduced to cut costs and enhance efficiency, and the positive billing effect after the completion of the set-up phase of the toll system in Belgium only partially offset this effect. Telekom IT posted adjusted EBITDA of EUR 68 million. This year-on-year decrease of EUR 91 million was mainly due to further IT cost savings made by the Group. The adjusted EBITDA margin of our Systems Solutions operating segment decreased from 9.0 percent in the prior year to 7.4 percent.

EBITDA increased by EUR 152 million compared with the prior year to EUR 245 million, mainly as a result of a EUR 310 million decrease in special factors, primarily due to restructuring programs in the prior year.

**EBIT, adjusted EBIT**

Adjusted EBIT decreased by EUR 140 million compared with 2015 to EUR 32 million, due in particular to the negative one-time effects in the Market Unit described under EBITDA and to lower contributions from Telekom IT. Decreases in depreciation, amortization and impairment losses due to the migration of IT platforms had a slightly offsetting effect on adjusted EBIT. Hence the adjusted EBIT margin decreased from 2.1 percent to 0.4 percent in the reporting year.

**Cash capex**

Cash capex decreased by 8.1 percent year-on-year, due to enhanced efficiency, for example as a result of the standardization of the ICT platforms and the consolidation of data centers. Our level of investment remains high at EUR 1.1 billion and is attributable to the increasing advancement of the digitization of enterprises. For this reason, we are investing in growth areas and in digital innovation areas, such as digital transformation and the Internet of Things, cloud computing, and cyber security.

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## GROUP HEADQUARTERS & GROUP SERVICES

Group Headquarters & Group Services comprises all Group units that cannot be allocated directly to one of our operating segments.

## DEVELOPMENT OF OPERATIONS

millions of €

	2016	2015	Change	Change %	2014
<b>TOTAL REVENUE</b>	2,212	2,275	(63)	(2.8)%	2,516
Profit (loss) from operations (EBIT)	1,001	(860)	1,861	n. a.	(109)
Depreciation, amortization and impairment losses	(521)	(627)	106	16.9 %	(671)
EBITDA	1,522	(233)	1,755	n. a.	562
Special factors affecting EBITDA	2,098	319	1,779	n. a.	1,229
<b>EBITDA (ADJUSTED FOR SPECIAL FACTORS)</b>	(576)	(552)	(24)	(4.3)%	(667)
<b>CASH CAPEX</b>	(268)	(342)	74	21.6 %	(381)

### Total revenue

Total revenue in our Group Headquarters & Group Services segment in 2016 decreased by 2.8 percent year-on-year. This was mainly due to revenues lost as a result of the sale of our online platform t-online.de and our digital marketing company InteractiveMedia in November 2015, as well as the realignment of our Group Innovation<sup>+</sup> unit. In addition, we continued to optimize the use of land and buildings, which resulted in a decline in intragroup revenue. By contrast, we recorded a revenue increase in connection with the structural further development of our Multi-Shared Service Center.

### EBITDA, adjusted EBITDA

Adjusted EBITDA in our Group Headquarters & Group Services segment decreased by EUR 24 million year-on-year in the reporting year, mainly due to income of EUR 175 million recorded in the first quarter of 2015 resulting from an agreement to settle a complaints procedure under anti-trust law. Excluding this one-time effect, adjusted EBITDA was up EUR 151 million compared with the prior year, primarily due to lower personnel costs as a result of the continued staff restructuring at Vivento, as well as lower operating expenses at our Group Services. The reversal of provisions, the realignment of our Group Innovation<sup>+</sup> unit, and higher income from the real estate sales also had a positive effect. The following factors had a negative impact: lower revenues from land and buildings, reduced income from reimbursements in connection with the sale of our EE joint venture to the UK company BT in January 2016, and the loss of contributions as a result of the sale of t-online.de and InteractiveMedia.

Overall, positive special factors of EUR 2.1 billion affected EBITDA in 2016. These factors resulted primarily from the sale of our EE joint venture to the UK company BT, which was completed in January 2016. We generated income of some EUR 2.5 billion from this sale. The sales of shares in Scout24 AG in April and December 2016 also generated income of some EUR 0.1 billion. By contrast, EBITDA was negatively affected by expenses, especially for staff-related measures, of some EUR 0.5 billion in the reporting year. In 2015, the special factors, which totaled some EUR 0.3 billion, consisted primarily of income of around EUR 0.3 billion from the sale of shares in connection with the IPO of Scout24 AG and income of EUR 0.3 billion from the sale of our online platform t-online.de and our digital marketing company InteractiveMedia, offset by a negative effect on EBITDA in 2015 from expenses of some EUR 0.3 billion, especially for staff-related measures.

### EBIT

The increase in EBIT by EUR 1.9 billion compared with 2015 is primarily attributable to income from the disposal of our EE joint venture recorded in 2016. Depreciation, amortization and impairment losses were down EUR 0.1 billion on the prior-year level, due in particular to lower depreciation and impairment losses on land and buildings as a result of our continued efforts to optimize our real estate portfolio.

### Cash capex

Cash capex decreased year-on-year by EUR 74 million, due to the purchase of fewer vehicles and licenses.



For more information on our Group Headquarters & Group Services segment, please refer to the section "Group organization," page 26 et seq., and to Note 31 "Segment reporting" in the notes to the consolidated financial statements, page 192 et seq.

## 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. For example, we were able to offset the decline in non-contract terminal equipment business in our Germany operating segment with efficiency enhancement measures. In our Systems Solutions

operating segment, the accounting treatment of risks from individual corporate customer contracts and the general downward trend in ICT business as well as exchange rate effects had a negative impact on results. The Europe operating segment continued to be affected by competitive and price pressure in 2016.

Deutsche Telekom AG reported income after taxes for the 2016 financial year of EUR 2.0 billion. In addition to the operating business, the development of business in the reporting year was influenced by a number of very different effects (e.g., increased take up of the early retirement program for civil servants, a reversal of a write-down at T-Mobile Global Zwischenholding GmbH, Bonn, and a write-down at T-Mobile Global Holding GmbH, Bonn, on the indirect stake held there in the British BT Group plc), arising from both the company's own business and from income related to subsidiaries, associated and related companies.

## RESULTS OF OPERATIONS OF DEUTSCHE TELEKOM AG

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

millions of €

	2016	2015	Change	Change %	2014
<b>NET REVENUE</b>	<b>3,927</b>	<b>3,313</b>	<b>614</b>	<b>18.5 %</b>	<b>3,677</b>
Other own capitalized costs	4	7	(3)	(42.9) %	18
<b>TOTAL OPERATING PERFORMANCE</b>	<b>3,931</b>	<b>3,320</b>	<b>611</b>	<b>18.4 %</b>	<b>3,695</b>
Other operating income	2,120	4,065	(1,945)	(47.8) %	3,639
Goods and services purchased	(1,151)	(1,165)	14	1.2 %	(1,372)
Personnel costs <sup>a</sup>	(3,516)	(2,949)	(567)	(19.2) %	(2,866)
Depreciation, amortization and write-downs	(338)	(387)	49	12.7 %	(434)
Other operating expenses <sup>a</sup>	(3,570)	(4,186)	616	14.7 %	(3,675)
<b>OPERATING RESULTS</b>	<b>(2,524)</b>	<b>(1,302)</b>	<b>(1,222)</b>	<b>(93.9) %</b>	<b>(1,013)</b>
Financial income (expense), net	4,717	3,492	1,225	35.1 %	5,281
Income taxes	(154)	(282)	128	45.4 %	(243)
<b>INCOME AFTER INCOME TAXES</b>	<b>2,039</b>	<b>1,908</b>	<b>131</b>	<b>6.9 %</b>	<b>4,025</b>
Other taxes	(19)	(19)	-	-	(20)
<b>INCOME AFTER TAXES</b>	<b>2,020</b>	<b>1,889</b>	<b>131</b>	<b>6.9 %</b>	<b>4,005</b>

<sup>a</sup> Pursuant to the provisions of IDW RS HFA 30, as amended, which was adopted in December 2016, the expenses arising from the collateral promise for pensions must be recognized under personnel costs; in previous years, they had been included under other operating expenses. Prior-year figures have been adjusted accordingly.

The negative operating results deteriorated further by approximately EUR 1.2 billion year-on-year, due to a year-on-year decrease in other operating income of EUR 1.2 billion before reclassifications to net revenue, and an increase in personnel costs of EUR 0.6 billion compared with the prior year. A decrease in other operating expenses of EUR 0.6 billion had an offsetting effect.

The year-on-year increase in net revenue is primarily due to changes in presentation on account of the German Accounting Directive Implementation Act (Bilanzrichtlinie-Umsetzungsgesetz – BilRUG). Pursuant to this Act, income of EUR 0.7 billion allocable to units including HR Business Services, Group Legal Services, and Group Innovation<sup>+</sup> had to be recognized as revenue in the reporting year. In the prior year, it had been disclosed under other operating income.

Other operating income declined by EUR 1.9 billion overall year-on-year, with the change in presentation due to the BilRUG accounting for EUR 0.7 billion thereof. The item was also impacted by a year-on-year

decline of EUR 0.3 billion in foreign currency transaction gains and income from derivatives, due largely to realized exchange rate effects from U.S. dollar cross-currency interest rate hedges and U.S. dollar derivatives which fell due as planned in the reporting year. Offsetting effects from hedging are included in other operating expenses. In the prior year, the sale of further shares in Scout24 AG, Munich, and the sale of Digital Media Products GmbH, Cologne (formerly T-Online Beteiligungs GmbH, Darmstadt), to Ströer SE, Cologne, had raised other operating income by EUR 0.3 billion in each case.

Other operating expenses were down by EUR 0.6 billion year-on-year, mainly due to a decrease of EUR 0.5 billion as a result of lower foreign currency transaction losses and decreased expenses arising from derivatives, caused in particular by U.S. dollar cross-currency interest rate hedges and U.S. dollar currency derivatives which fell due as planned in the reporting year. Offsetting effects from hedging are included in other operating income.

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The EUR 0.6 billion increase in personnel costs is mainly attributable to the increase in the use of the early retirement program for civil servants compared with the previous year.

Net financial income increased by EUR 1.2 billion to EUR 4.7 billion. This was largely attributable to EUR 0.9 billion lower write-downs on financial assets.

The reduction of EUR 0.6 billion in the net interest expense compared with the prior year was primarily the result of a decrease of EUR 0.5 billion in the interest cost of pension accruals. The application of the Act on the Implementation of the Mortgage Credit Directive and Amending Commercial Regulations (Gesetz zur Umsetzung der Wohnimmobilienkreditrichtlinie und zur Änderung handelsrechtlicher Vorschriften), which entered into force on March 21, 2016, and the associated discounting of pension accruals at the average market interest rate from the last ten financial years for the first time in the reporting year (previously: seven financial years) resulted in a decrease of EUR 0.5 billion in interest added back to pension accruals.

Income related to subsidiaries, associated and related companies, which declined slightly by EUR 0.3 billion compared with the prior year, was

positively affected again in the reporting year by profits transferred by Telekom Deutschland GmbH, Bonn, and T-Mobile Global Zwischenholding GmbH, Bonn. The transfer of the loss from T-Systems International GmbH, Frankfurt/Main, had an offsetting effect.

The main positive effects on the profits transferred by T-Mobile Global Zwischenholding GmbH, Bonn, in the 2016 financial year were the write-up to T-Mobile Global Holding GmbH, Bonn, and the financial asset indirectly held there, T-Mobile US, Inc., Bellevue. The write-up of T-Mobile US, Inc., Bellevue, is primarily a result of the sustained positive development of business. The write-down at T-Mobile Global Holding GmbH, Bonn, on the investment held indirectly there in the British BT Group plc had a negative effect.

Income after income taxes was particularly impacted by the aforementioned effects and increased by a total of EUR 0.1 billion year-on-year in 2016.

Other tax expense of EUR 19 million combined with the aforementioned factors resulted in income after taxes of EUR 2,020 million in 2016. Taking into account EUR 1,775 million in unappropriated net income carried forward, unappropriated net income totaled EUR 3,795 million.

## FINANCIAL POSITION OF DEUTSCHE TELEKOM AG

### Balance sheet of Deutsche Telekom AG under German GAAP

millions of €

	Dec. 31, 2016	Dec. 31, 2016 %	Dec. 31, 2015	Change	Dec. 31, 2014
<b>ASSETS</b>					
Intangible assets	249	0.3	261	(12)	310
Property, plant and equipment	2,993	2.9	3,295	(302)	3,594
Financial assets	81,240	78.7	84,469	(3,229)	85,705
<b>NONCURRENT ASSETS</b>	<b>84,482</b>	<b>81.9</b>	<b>88,025</b>	<b>(3,543)</b>	<b>89,609</b>
Inventories	1	0.0	1	-	5
Receivables	16,308	15.8	15,795	513	12,655
Other assets	1,629	1.6	1,338	291	1,135
Cash and cash equivalents	208	0.2	221	(13)	387
<b>CURRENT ASSETS</b>	<b>18,146</b>	<b>17.6</b>	<b>17,355</b>	<b>791</b>	<b>14,182</b>
Prepaid expenses and deferred charges	516	0.5	418	98	581
Difference between plan assets and corresponding liabilities	36	0.0	16	20	6
<b>TOTAL ASSETS</b>	<b>103,180</b>	<b>100.0</b>	<b>105,814</b>	<b>(2,634)</b>	<b>104,378</b>
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>					
Capital stock and reserves	51,651	50.0	50,615	1,036	49,497
Unappropriated net income	3,795	3.7	4,299	(504)	4,667
<b>SHAREHOLDERS' EQUITY</b>	<b>55,446</b>	<b>53.7</b>	<b>54,914</b>	<b>532</b>	<b>54,164</b>
Pensions and similar obligations <sup>a</sup>	3,247	3.2	3,512	(265)	3,279
Tax accruals	238	0.2	255	(17)	194
Other accruals <sup>a</sup>	1,642	1.6	1,493	149	1,513
<b>ACCRUALS</b>	<b>5,127</b>	<b>5.0</b>	<b>5,260</b>	<b>(133)</b>	<b>4,986</b>
Debt	5,021	4.9	9,428	(4,407)	5,977
Other liabilities	37,413	36.2	36,019	1,394	39,037
<b>LIABILITIES</b>	<b>42,434</b>	<b>41.1</b>	<b>45,447</b>	<b>(3,013)</b>	<b>45,014</b>
Deferred income	173	0.2	193	(20)	214
<b>TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES</b>	<b>103,180</b>	<b>100.0</b>	<b>105,814</b>	<b>(2,634)</b>	<b>104,378</b>

<sup>a</sup> Pursuant to the provisions of IDW RS HFA 30, as amended, which was adopted in December 2016, the accruals from the collateral promise for pensions must be recognized under pension accruals; in previous years, they had been included under other accruals. Prior-year figures have been adjusted accordingly.

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 Deutsche Telekom AG's financing function for 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 decreased by EUR 2.6 billion year-on-year to EUR 103.2 billion.

The development of total assets was attributable in particular to the decrease of EUR 3.5 billion in noncurrent assets, and the increase of EUR 0.5 billion in receivables, and of EUR 0.3 billion in other assets.

The year-on-year decrease in financial assets of EUR 3.2 billion was mainly due to a capital repayment by Deutsche Telekom IT GmbH (formerly T-Mobile Worldwide Holding GmbH), Bonn, of EUR 2.0 billion. A EUR 1.1 billion decline in loans to subsidiaries compared with the prior year, in particular in loans to Telekom Deutschland GmbH, Bonn, also contributed to the decrease.

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 0.5 billion in receivables from subsidiaries resulted from a EUR 0.6 billion increase in receivables from cash management, mostly from Telekom Deutschland GmbH, Bonn, offset by a EUR 0.1 billion decrease in financial receivables from subsidiaries.

The development of total shareholders' equity and liabilities was mainly influenced by the decrease of EUR 4.4 billion in financial liabilities, and of EUR 0.3 billion in accruals for pensions and similar obligations, offset by the increase of EUR 1.4 billion in other liabilities, and of EUR 0.5 billion in shareholders' equity.

The decrease in financial liabilities was primarily due to a net effect of EUR 3.7 billion from the repayment of commercial paper which exceeded the new issues and to the repayment of loans of EUR 0.7 billion and promissory notes of EUR 0.2 billion. The main offsetting effect was from the new issue of a new long-term loan of EUR 0.5 billion.

The decrease of EUR 0.3 billion in accruals for pensions and similar obligations is primarily attributable to an increase of EUR 0.2 billion in plan assets offset. In addition, the present value of direct pension obligations decreased by EUR 0.1 billion.

The increase of EUR 1.4 billion in other liabilities was in particular the result of net loans of EUR 5.6 billion, mainly from Deutsche Telekom International Finance B.V., Maastricht. It was also attributable to EUR 0.4 billion higher liabilities from early retirement arrangements for civil servants. The decrease in liabilities from cash management of EUR 3.8 billion and in liabilities from collateral of EUR 0.9 billion had an offsetting effect.

The increase in shareholders' equity was mainly due to income after taxes for the financial year of EUR 2.0 billion and its effect on unappropriated net income as well as to the deposits of EUR 1.0 billion reported in capital stock and reserves by shareholders who chose to exchange their dividend entitlement for the 2015 financial year for shares as part of the fulfillment of dividend entitlements. The EUR 2.5 billion dividend payment for the previous year had an offsetting effect.

#### Statement of cash flows of Deutsche Telekom AG under German GAAP

millions of €

	2016	2015	Change	2014
<b>INCOME AFTER TAXES</b>	<b>2,020</b>	<b>1,889</b>	<b>131</b>	<b>4,005</b>
Net cash (used for) provided by operating activities	(1,531)	(134)	(1,397)	1,424
Net cash provided by investing activities	4,156	1,470	2,686	2,905
Net cash used for financing activities	(2,638)	(1,502)	(1,136)	(5,064)
<b>NET CHANGE IN CASH AND CASH EQUIVALENTS</b>	<b>(13)</b>	<b>(166)</b>	<b>153</b>	<b>(735)</b>
Cash and cash equivalents, at the beginning of the year	221	387	(166)	1,122
<b>CASH AND CASH EQUIVALENTS, AT THE END OF THE YEAR</b>	<b>208</b>	<b>221</b>	<b>(13)</b>	<b>387</b>

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Net cash used for operating activities increased year-on-year by EUR 1.4 billion, resulting in net cash used for operating activities of EUR 1.5 billion. After elimination of the non-cash write-downs in the amount of EUR 0.4 billion and the net interest expense of EUR 0.7 billion in income after taxes, this trend results in particular from the net increase of EUR 4.5 billion in receivables from cash management, which was largely attributable to higher profit transfers from subsidiaries as well as the related issue of short-term loans in connection with cash management at the Group. After elimination of the non-cash write-downs in the amount of EUR 1.4 billion and the net interest expense of EUR 1.3 billion with income after taxes of EUR 1.9 billion, the prior-year net cash used for operating activities of EUR 0.1 billion had primarily been affected by the net increase of EUR 4.4 billion in receivables from cash management.

Net cash provided by investing activities in the reporting year included in particular an equity repayment by Deutsche Telekom IT GmbH (formerly T-Mobile Worldwide Holding GmbH), Bonn, in the amount of EUR 2.0 billion, and repayments of medium- and long-term investments of subsidiaries of EUR 2.1 billion. Net cash provided by investing activities also included interest received of EUR 0.6 billion and cash inflows from the disposal of property, plant and equipment of EUR 0.2 billion and from the sale of further shares in Scout24 AG, Munich, of EUR 0.1 billion. Medium- and long-term investments of EUR 0.9 billion at subsidiaries had an offsetting effect. In the prior year, net cash provided by investing activities of EUR 1.5 billion mainly comprised interest received of EUR 0.9 billion, the sale of around half of the investment in Scout24 AG, Munich, for EUR 0.4 billion, the repayment of company funds of Scout24 AG, Munich, of EUR 0.1 billion, cash inflows for cash collateral furnished to hedge derivatives of EUR 0.4 billion, offset by net medium- and long-term investments at subsidiaries of EUR 0.3 billion.

Net cash used for financing activities increased by EUR 1.1 billion year-on-year to EUR 2.6 billion and in the reporting year primarily comprised net repayments of current financial liabilities of EUR 8.7 billion, the payment of the cash dividend for the 2015 financial year of EUR 1.5 billion, and interest paid of EUR 1.3 billion. The issuance of medium- and long-term liabilities of EUR 8.3 billion and cash inflows from the close-out of interest rate and currency derivatives of EUR 0.6 billion had an offsetting effect. In the prior year, net cash used for financing activities of EUR 1.5 billion mainly comprised interest paid of EUR 1.6 billion and the payment of the cash dividend for the 2014 financial year of EUR 1.2 billion, offset by the net issuance of medium- and long-term liabilities of EUR 1.0 billion and the net issuance of current liabilities of EUR 0.3 billion.

Combined, this resulted in cash and cash equivalents of approximately EUR 0.2 billion in the reporting year, which was almost unchanged against the prior 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 continuously monitor the effectiveness of the hedges.

## CORPORATE RESPONSIBILITY

- Deutsche Telekom ranks as climate protection leader
- Major sustainability potential in products and services

There is a growing social expectation for sustainable business practices. The UN specifically includes business enterprises in its appeal for sustainable development with the 17 sustainable development goals (SDG) of its Agenda 2030. We have accepted this responsibility, with the focus placed on our products and services. ICT technologies play a key role in sustainable development. Potential benefits include the ability to reduce greenhouse gas emissions, make sparing use of resources and improve healthcare coverage. We commenced the analysis of our portfolio on the basis of sustainability aspects in 2014. The result for 2016 showed that 39 percent of our revenue was generated with products and services that offer sustainability benefits. [SDG](#)



As a leading European telecommunications provider, our goal is to lead the field in sustainability; we are committed to responsible actions across our entire value chain. Our sustainability engagement is systematically geared to the expectations of our stakeholders – our customers, suppliers, employees and investors. With them, we discuss topical issues and provide regular opportunities for personal exchange. In our ongoing online survey, we identify the aspects of sustainability that are most important to our stakeholders. The survey enables participants not only to weight topics according to their relevance but also to assess our performance in the individual fields. This information is then fed back into our materiality analysis. The analysis helps us organize our sustainability activities and structure relevant reports. [SDG](#)



The following matrix shows some of the key sustainability topics from a corporate and stakeholder perspective.

## SUSTAINABILITY PERFORMANCE: PROGRESS AND FORECAST

We have been using a range of metrics known as ESG KPIs (ESG stands for Environment, Social and Governance; KPI for Key Performance Indicator) to gauge our CR commitment since 2010. These performance metrics help our stakeholders evaluate our sustainability performance. They also provide a transparent basis on which we systematically and continually improve our ESG performance. The key ESG KPIs have been included as components of our annual report since 2011.

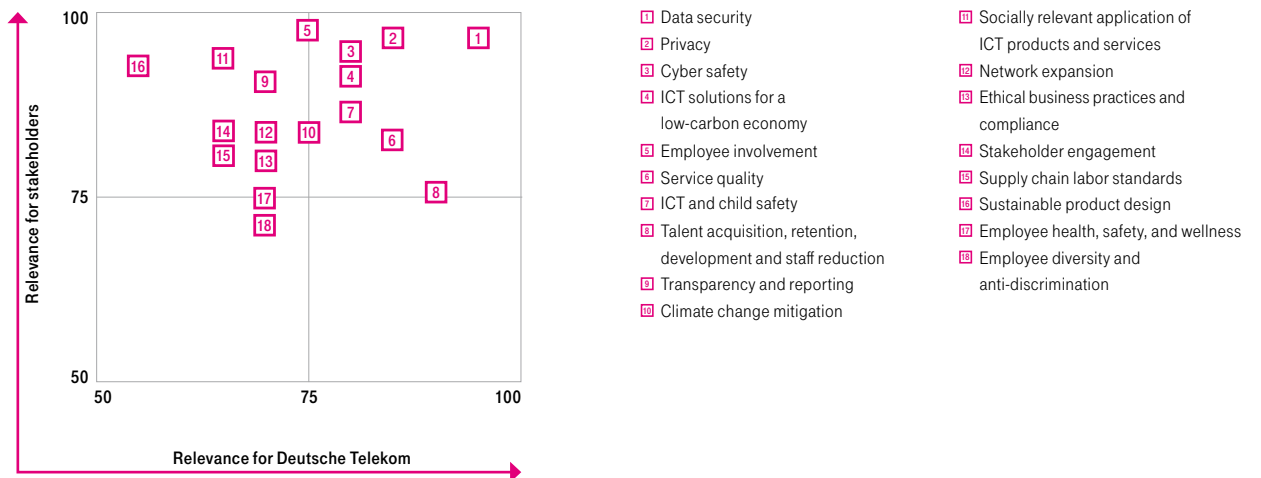
Our 2015 Annual Report forecast trends for the following ESG KPIs in 2016: Energy Consumption, CO<sub>2</sub> Emissions and Sustainable Procurement.

The Energy Consumption ESG KPI is calculated by setting electricity consumption in relation to revenue. The trend for this KPI was positive in 2016. It decreased slightly year-on-year as expected. Despite increasing revenue, energy consumption decreased throughout the Group in the reporting period. Given the unabated rapid growth in data traffic and ongoing network build-out, this result was achieved only through further gains in energy efficiency.

We had assumed there would be a slight decline in the CO<sub>2</sub> Emissions ESG KPI for 2016, i.e., a slight improvement. In fact, CO<sub>2</sub> emissions sank by 5 percent in the reporting period. This positive trend is mainly attributable to falling emissions from electricity consumption and from fuel consumption for our vehicle fleet.

In the case of the Sustainable Procurement ESG KPI, we exceeded the prior-year figure by an even greater margin than forecast. The share of the procurement volume that has been risk-assessed already amounts to 83 percent.

Main topics for 2016 in materiality matrix

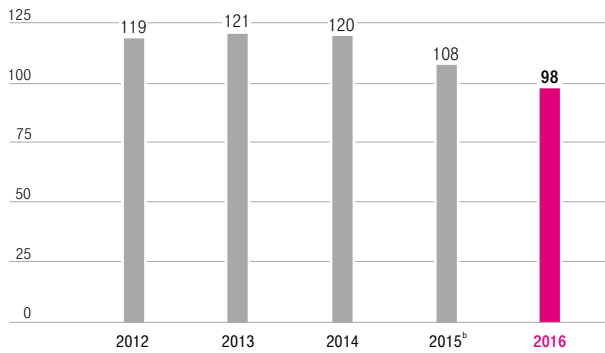




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**Energy Consumption ESG KPI<sup>a</sup>**

Expressed as MPEI: electricity consumption (thousand MWh)/revenue (billions of €)



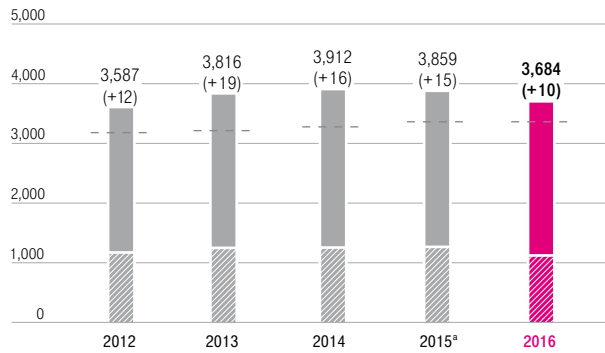
Revenue billions of €	55.7	57.8	61.9	68.6	72.4
Electricity consumption (thousand MWh)	6,624.7	6,992.9	7,424.0	7,401.6	7,107.1

■ Energy Consumption ESG KPI: Ratio of electricity consumption to relevant revenue, calculated as Monetary Power Efficiency Indicator.

<sup>a</sup> Calculated on the basis of appropriate estimates and extrapolations.  
<sup>b</sup> Electricity consumption for 2015 adjusted slightly retrospectively (previous figure: 7,421.5) with no impact on the ESG KPI.

**CO<sub>2</sub> Emissions ESG KPI**

CO<sub>2</sub> emissions in thousands of metric tons  
 (Changes in %, compared against 2008 base year for the climate target)



■ CO<sub>2</sub> emissions (Scopes 1 and 2). Emissions are measured in CO<sub>2</sub>-equivalent values based on energy and fuel consumption employing the emission factors specified by the International Energy Agency and the Greenhouse Gas Protocol.

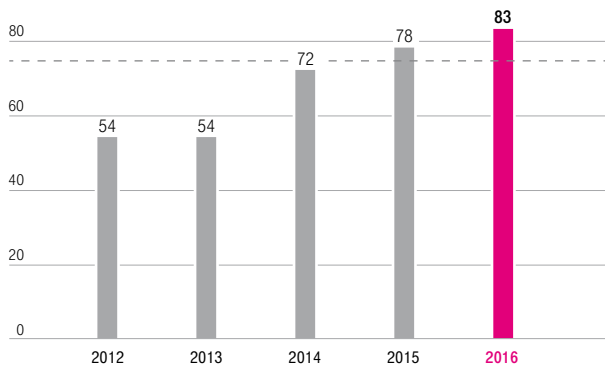
▨ T-Mobile US share

--- Relevant base year for climate target (2008)

<sup>a</sup> CO<sub>2</sub> emissions adjusted slightly retrospectively (previous figure: 3,849) with no impact on the ESG KPI.

**Sustainable Procurement ESG KPI**

%



■ Procurement volume covered by supplier self-assessments and/or audits as a percentage of total sourcing volume.

--- Target value

We anticipate a positive development in our Energy Consumption ESG KPI for the years 2017 and 2018, with a declining trend in 2017 and a further slight decrease in 2018. This development is the result of slight savings in electricity consumption coupled with a slight increase in revenue. We expect to achieve further reductions in electricity consumption above all as we migrate our networks in Germany to IP technology and merge T-Systems data centers in various regions. Most of these savings are likely to be counterbalanced by the expansion of T-Mobile US and the accompanying rise in electricity consumption.

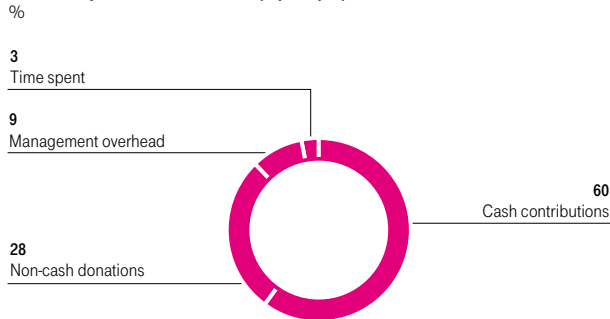
Our electricity consumption is the main driver of our CO<sub>2</sub> emissions. We therefore also expect a slight downward trend in our CO<sub>2</sub> Emissions ESG KPI in the years 2017 and 2018. One of the goals we have set ourselves as part of our integrated climate strategy for the year 2020 is to reduce CO<sub>2</sub> emissions throughout the Group (excluding T-Mobile US) to 20 percent below the figure for the base year 2008. The gradual network changeover to IP will make a substantial contribution here. [SDG](#)



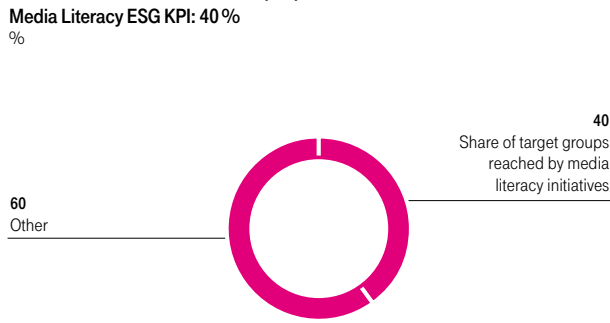
Over the next two years, we expect our Sustainable Procurement ESG KPI to remain stable at a high level.

We measure the impact of our 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. The Beneficiaries ESG KPI measures the huge number of active contributors as well as the broad target group they reach. The Media Literacy ESG KPI highlights the high percentage of projects and activities promoting the competent handling of media. It is highly relevant to us as it correlates closely with our core business.

**Community Investment ESG KPI (Input Split): € 57 million**

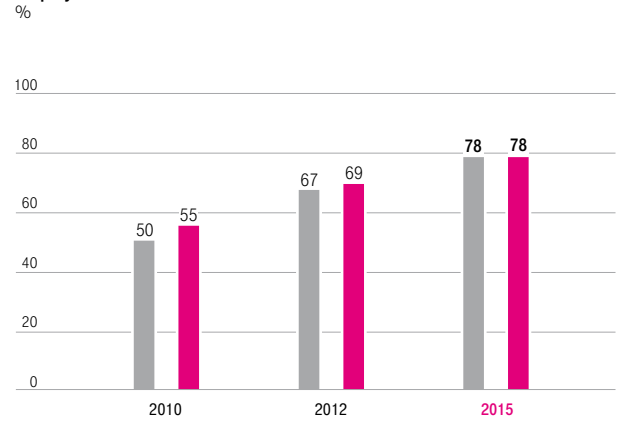


**Beneficiaries ESG KPI: 15 million people**



We use the Employee Identification with CR Commitment ESG KPI to determine the degree to which our staff identify with, or how satisfied they are with, our CR commitment. This is based on the Group employee survey (excluding T-Mobile US), which we conduct every two to three years; the next is scheduled for spring 2017. This ESG KPI will therefore not be reported until the next financial year. The figure for both aspects was 78 percent in 2015.

**Employee identification with CR commitment**



■ Deutsche Telekom makes good on its responsibility toward social and environmental commitment.  
 ■ I can identify with Deutsche Telekom's commitment to social and ecological issues.

Source: Deutsche Telekom employee survey (excluding T-Mobile US)

**EXCELLENT RATINGS AND RANKINGS**

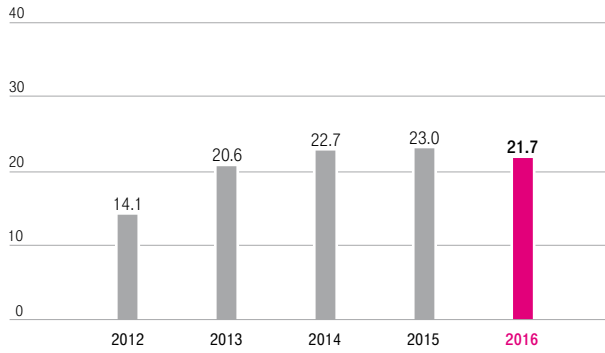
We use the Socially Responsible Investment ESG KPI to determine how the finance markets rate our sustainability activities. This indicator measures the proportion of T-Shares held by investors whose investment strategy is based not only on economic but also on the ecological and social aspects of corporate governance. In spring and fall 2016 we held a number of Socially Responsible Investment (SRI) roadshows, at which we offered to answer critical questions from our investors. In addition, we attended SRI conferences, organized conference calls and web conferences, and answered numerous direct queries from rating agencies, analysts and investors.

Our efforts to achieve greater sustainability are also paying off with investors. At the end of 2016, around 20 percent of T-Shares were owned by investors who take SRI criteria at least partly into account in their investment decisions. Almost 2 percent of T-Shares were held by investors who give priority to SRI aspects when managing their funds.

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**Socially Responsible Investment (SRI) ESG KPI**

%



■ The Socially Responsible Investment (SRI) ESG KPI indicates the proportion of shares in Deutsche Telekom AG held by investors who take, among other criteria, environmental, social, and governance criteria into account for their investment strategy. As the basis of calculation is updated annually, year-on-year comparisons may be of limited value.

Source: Ipreo, based on Deutsche Telekom's shareholder structure as of Sept. 30, 2016

Sustainability ratings play a key role in SRI investment decisions. In line with our corporate responsibility strategy, we concentrate on specific rating agencies that we select on the basis of reputation, relevance and independence. They form the basis of the following sustainability indexes (see table below).

**Listing of the T-Share in sustainability indexes/ratings**

Rating agency	Indexes/ratings/ranking	Successfully listed in index				
		2016	2015	2014	2013	2012
RobecoSAM	DJSI World	✓	✓	✗	✗	✓
	DJSI Europe	✓	✓	✗	✗	✓
CDP	STOXX Global Climate Change Leaders <sup>a</sup>	✓	✓	✓	✓	✗
oekom research AG	"Prime" (Sector Leader <sup>b</sup> )	✓	✓	✓	✓	✓
Sustainalytics	STOXX Global ESG Leaders	✓	✓	✓	✓	✓
	iSTOXX 50 SD KPI	✓	✓	✓	✓	n. a.
	UN Global Compact 100	✓	✓	✓	✓	n. a.
FTSE Financial Times Stock Exchange	FTSE4Good	✓	✓	✓	✓	✓
MSCI	MSCI Global Climate	✗	✗	✗	✗	✗

✓ Successfully listed    ✗ Not listed

<sup>a</sup> Deutsche Telekom is sector leader in the DACH (Germany, Austria, Switzerland) region.

<sup>b</sup> Based on "oekom Industry Report" (2016).

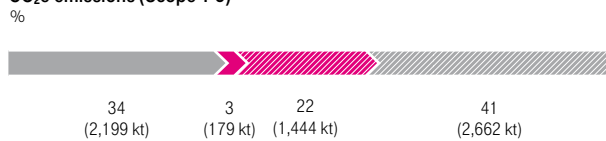
In 2016, the T-Share was again listed on leading sustainability indexes, including RobecoSAM's prominent DJSI World and DJSI Europe. Once more, our share was listed on the FTSE4Good and UN Global Compact 100 indexes. Rating agency "oekom" singled us out as the world's best telecommunications company in terms of ecological and social performance.

#### CLIMATE PROTECTION LEADER: CDP RANKING AWARD

We qualified for the A List of the most significant international climate protection ranking, CDP (previously Carbon Disclosure Project), which lists the companies globally leading in climate protection, for the first time in 2016. CDP commends companies that report their CO<sub>2</sub> emissions extremely transparently and in detail. Within CDP, we have reported not only Scope 1 and Scope 2 emissions but also Scope 3 emissions from our business operations in Germany and virtually all our relevant European subsidiaries since 2014. Scope 3 emissions are all emissions from the upstream and downstream value chains that are generated, for instance, in the supply chain or by customers. In 2016, these Scope 3 emissions in Germany remained stable compared with the prior year and totaled just under 5 million kilotons of CO<sub>2</sub>-equivalent emissions (CO<sub>2</sub>e emissions). The CO<sub>2</sub>e emissions in 2015 were actually about 0.8 million kilotons CO<sub>2</sub> higher than reported last year. This necessary adjustment was primarily made as a result of the fact that we have refined our calculation method. The remeasurement resulted in higher emissions, especially from the purchase of investment goods such as mobile antenna masts and network routers. Detailed information on the Scope 3 emissions can be found in our 2016 CR Report, which is due for publication in April 2017.

The following chart visualizes emissions in the different Scopes from our business activities in Germany; shown as CO<sub>2</sub>-equivalent emissions (CO<sub>2</sub>e emissions).

#### CO<sub>2</sub>e emissions (Scope 1-3)



- 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.

The World Wide Fund For Nature (WWF) and the CDP held us up as an example of good practice for the management of our emissions along the value chain. They commended our comprehensive approach to managing and reducing these emissions in the "Leased assets" category.

#### CLIMATE STRATEGY: CUT CO<sub>2</sub> EMISSIONS AND IMPROVE EFFICIENCY

Our integrated climate strategy is the cornerstone of our climate protection activities. We aim not only to reduce our own CO<sub>2</sub> footprint, but also to help our customers reduce their CO<sub>2</sub> emissions. To do so, we have set ourselves ambitious goals and established measurement systems to monitor them. Last year we again achieved substantial improvements in our climate protection activities. [SDG](#)

Our networks represent the basis for our products and services. Running them consumes vast amounts of energy and generates a large proportion of our CO<sub>2</sub> emissions. One vital element of our climate protection goal is therefore to save electricity by achieving greater energy efficiency in our network operations. For example, the Biere data center (near Magdeburg, Germany), which went into service in 2014, is one of the world's most efficient data centers. Due to the increased demand for cloud services, we are expanding the data center and, at the same time, minimizing its impact on the climate. The new facility will consume almost 30 percent less energy than comparable data centers based on an energy mix featuring a high proportion of renewable energy.

We fully support employee mobility patterns that cause as little harm as possible to the climate and the environment. In 2016 we launched a scheme whereby employees in Germany have the chance to convert part of their salary to purchase a bicycle or e-bike. This not only saves resources but also benefits their health. What is more, it reduces CO<sub>2</sub> emissions during rush hours. The offer has met with a broad response among our staff and over 1,400 employees have already taken advantage of the salary conversion option to obtain bikes.

When procuring company and service vehicles, we opt for efficient, low-consumption drive systems and, where economically viable, alternative drives. We achieved our goal of reducing the average CO<sub>2</sub> emissions generated by all newly procured company cars and service vehicles in Germany to 110 g CO<sub>2</sub>/km by the end of 2015. In 2016 we set ourselves a new goal: 95 g CO<sub>2</sub>/km by 2020.

#### EXPLOITING THE SUSTAINABILITY POTENTIAL OF OUR PRODUCTS

According to the SMARTer2030 study published by GeSI (Global e-Sustainability Initiative), information and communications technology will make it possible to avoid 20 percent of the world's greenhouse gas emissions in the year 2030. To exploit this vast potential is one of the goals of our integrated climate strategy. Take, for instance, Deutsche Telekom's AutoApp. It enables car owners to drive economically and avoid traffic jams – and, in doing so, reduces CO<sub>2</sub> emissions. [SDG](#)

A large number of products and technical services we offer make a major contribution toward an improved healthcare service. We provide applications that communicate patients' vital data to physicians via a secure channel on a regular basis. This makes it possible to check on patients with critical health problems – even when they are miles from a health center – and thus to improve the quality of their lives. In this way, hospitalization can be reduced, freeing up funds for improved



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deployment in the healthcare system. Another example of telemedicine is our smart emergency call system. It allows the elderly to maintain their independence and stay put in their homes for as long as possible. [SDG](#)

Our solutions can also help conserve valuable natural resources. In 2016, T-Systems South Africa developed a smart water meter, which measures how much water is taken from a well or discharged from a water treatment facility. It also monitors and documents consumption within the supply network up to the end user. The consumption data, which is stored in the cloud, can be accessed from anywhere and provides an overview of current water usage. The system also allows potential leaks to be pinpointed and eliminated faster. [SDG](#)

**COMMENDATION FOR COMMITMENT TO A SUSTAINABLE SUPPLY CHAIN**

We collaborate with more than 30,000 suppliers in over 80 countries. Our sustainable procurement strategy ensures that we comply with the principles of socially and environmentally responsible procurement throughout the Group. For example, we take systematic account of sustainability criteria in our selection of suppliers. To do so, we weight sustainability with 10 percent in our tenders.

Our dedicated efforts toward sustainability in the supply chain were commended once again in 2016, when we took first prize for Best Supplier Engagement, awarded by the Ethical Business Corporation. The jury was highly impressed by our supplier development program, in which we collaborate with strategically important suppliers to develop solutions for aspects including environmental protection, working hours regulations and occupational health and safety.

Examples of key successes that we have achieved with our Chinese suppliers: [SDG](#)

- A drastic reduction in working hours was achieved for one of our suppliers – from 68 to 48 hours a week.
- For another supplier, staff fluctuation was reduced. Employees can now submit suggestions for improving their work processes. As a result, productivity increased by 34 percent.
- In one company, absences resulting from accidents at work were cut by 35 percent, while employee satisfaction improved by 4.3 percent.
- One supplier generates 16,902 metric tons less CO<sub>2</sub> per year, equivalent to the CO<sub>2</sub> emissions of 10 fully booked flights from Berlin to New York.

In 2016 we added four new suppliers to our supplier development program; it now comprises a total of eleven suppliers.

**FOCUS ON DATA PROTECTION AND DIGITAL SECURITY**

Our materiality analysis shows that data protection and data security are currently the top CR issues for our Company. We stand for top-quality data protection and invest in the security of our networks on an ongoing basis. Ultimately, growing digitization produces not only innovative applications but also new threats, for instance through hacker attacks. [SDG](#)

We organized the fourth Cyber Security Summit (CSS) together with the Munich Security Conference on September 19 and 20, 2016. The conference was held in Silicon Valley, USA. It was attended by around 100 high-level representatives from science, politics, business and the military. The international event focused on averting cyber attacks, the development of standards and rules in cyber space, the battle against cyber terrorism and the economic significance of cyber security. [SDG](#)

Some other examples of the contribution we made to data protection and IT security in the reporting year are detailed below:

- **“We care” app:** The “We care” app magazine is designed for end users. Three new issues were published in 2016. The issue entitled “Confidential,” for instance, shows the dangers for Internet users in day-to-day usage, and suggests ways to protect themselves. In October 2016, the app took the Econ Award as an innovative format for presenting sustainability issues.
- **Data protection one pager:** Information on data protection is often hard for non-specialists to understand. Our one pager on data protection offers customers condensed information on how their data is collected and processed. Although the document is not a substitute for the linked formal data protection declaration, to which specific legal requirements apply, it helps customers obtain basic, transparent information that is easy to understand and shows how, and how much, of their personal data is used. With this one pager, we have followed an initiative launched by the National IT Summit, supported by the Federal Ministry of Justice and Consumer Protection.
- **Teachtoday:** Our Teachtoday initiative is designed to promote media skills and safe use of the media among children and young people. During the Summit for Kids in November 2016, we discussed aspects of data protection with over 150 children. The “Media sure! But secure.” prize for safe media usage was also awarded at the event. One of the award winners is the partnership project “Das ist unser Netz! – To jest nasza siec!” (The web we want!), in which young Germans and Poles look critically at their own media use. The Teachtoday media magazine Scroller was another medium that covered the issues of data protection and social networks. Here, children learn how to move safely and skillfully through the world of digital media. The scientific association Gesellschaft für Pädagogik und Information (GPI) awarded our Teachtoday initiative the Comenius EduMedia Seal a total of three times in 2016: for the initiative as a whole, the Scroller children’s media magazine and the media obstacle course as a “computer game for the gym.” Teachtoday took gold



#### 4 QUALITY EDUCATION



For further information on data protection at Deutsche Telekom, please refer to our annual Data Privacy Report.

twice during the FOX Awards 2016, in the categories FOX Awards and FOX Visuals. Since August 2016, Scroller has been entitled to bear the seal of recommendation awarded by Stiftung Lesen, the German Reading Foundation. [SDG](#)

#### CRAFTING DIGITAL RESPONSIBILITY TOGETHER

Digitization is changing our lives. Business, society and politics now all face new challenges relating to aspects that include IT security, self-determined data use and technology ethics and to which we have yet to find the answers. We are convinced that digital responsibility can only be shaped in an exchange with others. This is the reason why we continue to drive the social dialog on these issues and participate in various alliances and partnerships:

**Charter of Digital Networking:** The Charter of Digital Networking is an initiative that spans companies, industries and associations, and was founded at the instigation of the National IT Summit. Beside Deutsche Telekom, its initiators include other business enterprises, associations and academic institutions. The charter comprises ten principles regarding the social and economic potential of digital networking and dealings with data, infrastructures and standards. Companies that sign the charter commit themselves to these principles and, in doing so, show that they intend to contribute toward Germany's future-minded digital development. The charter stands for a shared set of values and sense of responsibility. The object is to hold a forward-looking dialog across all social levels and to create a common understanding as we move toward a digital society. Together, topical questions on digital transformation are addressed, answers developed and an exchange of experiences organized on the implementation of corporate digital responsibility. [SDG](#)

**Deutschland sicher im Netz (DsiN):** As the central contact for IT security and data protection, Deutschland sicher im Netz e. V. has been offering useful information and concrete support for consumers and small enterprises for the last ten years. We are members of this association and participate in numerous projects, for example supporting the Digital Neighborhood project. The object is to train volunteers, members and citizens in safe use of the Internet and IT security, and to empower them to pass on their know-how to others.

**Golden Internet Prize:** We consider it vital to support people of all ages in media skills and safe use of the Internet. We therefore partner the Golden Internet Prize, which commends people over 60 years of age who are skilled Internet users and support others who are only just commencing their journey in the online world.

#### ASSUMING SOCIAL RESPONSIBILITY

Our commitment to refugee aid began in 2015. Our focus at the time lay on providing initial support. Measures included supplying Wi-Fi to refugee reception centers, providing accommodation, recruiting civil servants for the Federal Office for Migration and Refugees, and setting up the [refugees.telekom.de](http://refugees.telekom.de) online portal. We continued to develop the portal with partners and re-launched it in January 2017 under the name "Handbook Germany" ([www.handbookgermany.de](http://www.handbookgermany.de)).

We have, in the meantime, realigned our work for refugees. In 2017 it will focus on integration, above all in the labor market. To this end, we cooperated with other companies to found the "Internship PLUS direct entry" initiative in 2016. This basically addresses refugees who have job experience but whose qualifications are not accepted in Germany. We want to help these people improve their career prospects. To start with - and to help them find their way around - they participate in two phases of practical training. We subsequently assign them jobs in our Company for a limited period of two years. During this time, their integration and language courses continue. Many employees have worked in refugee aid on a voluntary basis right from the start, and our Group provides all the possible support. In future, we intend to channel their efforts into supporting new colleagues who are starting work at Deutsche Telekom. [SDG](#)

#### PLAY TO FIGHT FORGETFULNESS: STUDY ON DEMENTIA

The mobile game Sea Hero Quest in our Game for Good initiative paves the way for the world's biggest baseline study in dementia research. The object of the study is to help people recognize signs of dementia at an early stage and to obtain information on the effectiveness of therapies. One of the first effects of dementia is the loss of spatial orientation. Sea Hero Quest therefore collects anonymous data on the orientation patterns of healthy players. This data is expected to improve the understanding of spatial orientation and of how our brain functions. Scientists will then understand what exactly it is that suffers when dementia sets in. The anonymous game data is transmitted twice per second and stored at the high-security T-Systems data center in Germany, where it is made available to scientists. [SDG](#)

So far, over 2.7 million people around the world have played Sea Hero Quest and, in doing so, have made their special contribution to dementia research. 13 of our European subsidiaries flanked the game with communication measures, ads, media and public relations work, and thus helped "Play to fight forgetfulness" on the way to success. Comprehensive standard data on the spatial orientation of healthy people in all age groups is now available for the very first time. This standard data is seen as a key step in the development of new methods that will make timely dementia diagnosis possible.

#### 4 QUALITY EDUCATION



#### 17 PARTNERSHIPS FOR THE GOALS



#### 3 GOOD HEALTH AND WELL-BEING



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## INNOVATION AND PRODUCT DEVELOPMENT

- Group Innovation+ – Innovation you can trust
- T-Labs: Ideas powerhouse

### INNOVATION PROVIDES ANSWERS FOR THE DIGITAL FUTURE

Innovation is a cornerstone of our Group strategy. It is of crucial importance in our core business, where it is vital to assert ourselves in the face of growing competition and position ourselves as a premium provider in the long term. The basis that we use to do so has not changed, namely our high-speed broadband infrastructure for the fixed and mobile networks. We rely on digitization to offer our customers impressive experiences as they use our products and services. [SDG](#)

We want to craft the digital future and, with our innovations, give our consumer and business customers answers today to the issues of the future. As one of the leading providers of telecommunications and information technology, we are working actively to develop and establish the 5th generation mobile standard (5G). During the reporting year, we again improved our innovation capacity and further developed the organization and strategy underlying our innovation and product development activities.

### GROUP INNOVATION+

Group Innovation+ was established as the central innovation unit in our Group in 2015. It orchestrates all innovation activities at Deutsche Telekom and is responsible for creating innovative cross-segment products and services. Group Innovation+ merges innovations wherever we identify synergies for the Group. Innovations occur not only within our innovation unit but also in the units working on our traditional core business and in marketing units in the national companies.

Group Innovation+ drives new areas of innovation with a longer development horizon of three to five years; the challenge it faces lies in backing the key solutions for the not-so-near future today. At the same time, our innovation unit is also directly involved in traditional product development for our operating segments. The development horizon in this case is one to two years. We strive to enrich our product portfolio with more new products and innovative solutions, which is vital if we are to position our operating segments as attractive and competitive elements in our core portfolio.

### INNOVATION YOU CAN TRUST

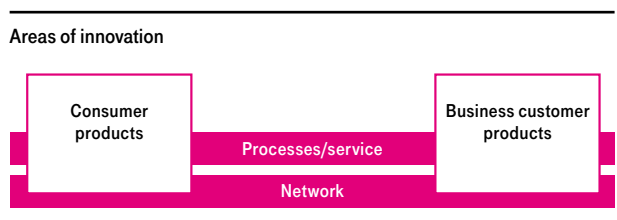
Group Innovation+ has the ambition to deliver “innovation you can trust.” The unit develops innovations that represent the essential brand attributes of our Group, namely trust and reliability. Our products and offers must naturally be safe, but “innovation you can trust” means more than this. Our innovations are designed to work easily, our products to interact seamlessly with the network, service and partner offers. It is only the combination of innovation and core business activities that will ultimately

grow successful innovations for our customers. Group Innovation+, our operating segments and other innovation-oriented areas, such as Deutsche Telekom Capital Partners (DTCP), are closely networked and regularly exchange views so that we can identify our customers’ needs and supply them with innovative products and services.

“Innovation you can trust” is also the guiding theme of our internal collaboration. We can rely on each other and know that we are working on the right ideas. Innovation cannot be prescribed. Innovation is a culture that must be practiced and nurtured. Large enterprises like our Group, especially, need a vibrant corporate culture that fosters innovation. Key elements of this culture include fast decisions and implementation on the basis of lean internal processes, freeing up creative potential, promoting and challenging new ideas, and entrepreneurial initiative.

### INNOVATION FOCUS – FOUR AREAS OF INNOVATION

For innovation work to succeed, innovation activities must be geared to the Group as a whole and follow a holistic concept. We therefore rely – as the following graphic shows – on our four inter-related innovation areas: consumer products, business customer products, network/infrastructure, and processes/service.



Customers are at the focus of all our activities, regardless of whether they are consumers or business customers. We are committed to identifying customer issues, anticipating customer needs and finding innovative solutions in response.

Here, it is essential to network the individual innovation areas, especially since many innovation topics relate to more than one of the four fields, e.g., convergent offers as a key strategic principle for our consumer products. Group Innovation+ is working to integrate more services in this convergence strategy, thus increasing the attraction of offerings such as MagentaEins. In the case of business customers, our aim is to offer a simple, modular product portfolio and, at the same time, to combine our standard products intelligently with products from our partners. Our focus on the network side is on seamless, secure connectivity, above all for business customers - on a global scale and with quality differentiation. In the processes/service innovation area, we want to anticipate and respond to the requests and needs of our customers as specifically as possible and with consistent quality across all contact channels.

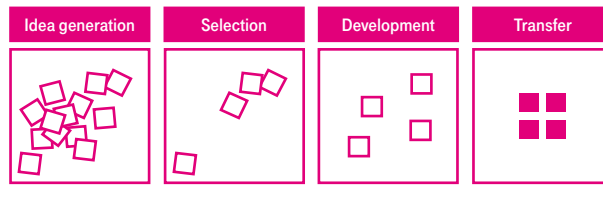
For more information on the subject of innovation, please refer to [www.telekom.com/innovation-en](http://www.telekom.com/innovation-en)



## INNOVATION GOVERNANCE

Clear process structures give ideas the scope they need to grow and transform into innovative products and services. As the following graphic shows, innovation processes in our Company pass through four phases.

### Deutsche Telekom's innovation process



- They all start with an idea – arising from market and trend research, customer feedback, from our staff in the product and innovation units, or from partnerships/collaboration with our partners.
- During the selection phase, we evaluate each idea: How easy is it to implement? How great is its potential? How high is customer interest rated?
- In the development phase, we integrate customer desires and requirements for design and handling into the product or service concept.
- Finally, the product or service is transferred to the market.

In each of the four phases, we naturally verify the extent to which the resources we use are in proportion to the anticipated result. This may well lead to development of a product being abandoned during one of the phases of the innovation process, which is a vital option, since not every good idea has the potential to become a good product or a good service. Every innovation must offer our customers added value.

Our established innovation governance concept manages innovation processes in the Group. It includes the **Portfolio & Innovation Board**, which makes sure we get our priorities right. The board identifies and selects innovation focuses for our Group and decides how they will be executed in order to define and implement an innovative product portfolio that offers maximum chances of success. In order to implement these strategic innovation focuses, we also continuously enhance our internal financing formats. This means that, with an additional innovation

budget, we can equip new innovation projects with resources at short notice and without red tape. Such financing is granted independently of annual planning periods, and therefore intensifies our focus on market and customer requirements. With these resources, we finance both centrally managed innovations, e.g., through Group Innovation<sup>+</sup>, and local innovation developments, e.g., directly from our operating segments. This is subject to the proviso that the product and service ideas in question are in line with our Group's central innovation focuses.

Sustainability is another of our product development drivers. The demand is growing for digital solutions that are secure, environment and climate-friendly, and offer added value for our society. We are therefore working hard not only to improve the security of our services but also focus our development work on more energy-efficient technologies that reduce CO<sub>2</sub> emissions, and durable, reusable products and digital solutions in the fields of e-health and e-mobility. [SDG](#)

## METHODS AND CONCEPTS

**Design thinking.** The design thinking approach is the basis on which we tread new ground and acquire new insights. We have adopted it to ensure we differentiate ourselves from the market by offering outstanding customer experiences. Group Innovation<sup>+</sup> has, for this reason, defined a standard design thinking concept. Alongside the various design thinking methods, it includes a design process which is valid for the entire Group and can be transferred to development processes already in place in our two operating segments, Germany and Europe. Scope for learning, trying out and applying the defined content is offered on our internal training platform, the Design Academy. Design thinking is establishing itself not only as a mindset within the Group but also enriches and improves actual collaboration across all Group units. Design thinking therefore produces design doing.

**Creating scope for ideas.** Our Digital Innovation Arena in Berlin creates the ideal scenario to produce ideas for digital life in the future. It offers first and foremost an optimal working environment, from a state-of-the-art IT infrastructure, modern premises and facilities for lively exchange which are available round the clock, through to creative rooms for relaxation. Here employees from T-Labs, from hub:raum, from the design and partnering areas work together on premises extending over around 8,000 square meters. The creative mix of people from all areas of our innovation business, ranging from entrepreneurs to developers and designers, makes the Digital Innovation Arena the hotspot for ideas in Germany.

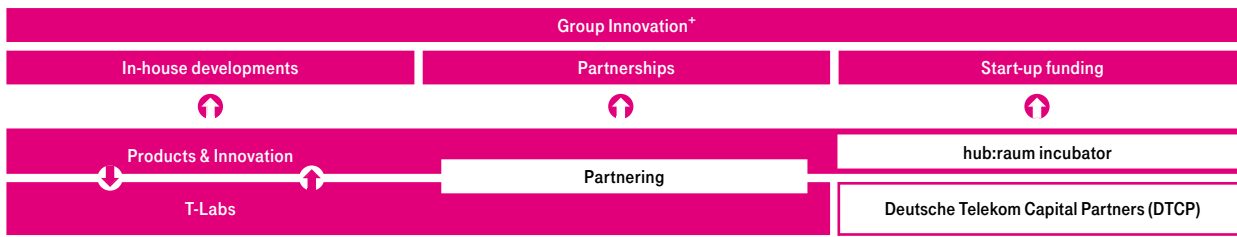


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**THREE-PRONGED INNOVATION STRATEGY**

To generate even greater innovation capacity, we rely not only on our own innovations but also successfully integrate new ideas from outside Deutsche Telekom. Group Innovation+ generates differentiation and growth from innovation in three different ways: from in-house developments, from partnerships and from start-up funding.

**Three-pronged innovation policy**



**IN-HOUSE DEVELOPMENTS**

In 2016, Group Innovation+ played a leading role in the further development and roll-out of various innovative products, some of which are presented below.

- **BMW ConnectedDrive.** As of 2016, users can book a Wi-Fi hotspot via our HotSpot Drive portal. The mobile hotspot makes it possible to connect up to 10 Wi-Fi-enabled devices to the high-speed Internet at the same time, without any need for SIM cards. They can be used to surf the Net worldwide. Depending on their needs, users can choose from among various different data passes and acquire them with ease. In the reporting year, we also began upgrading ConnectedDrive to LTE. An eSIM is being integrated in vehicles for the first time and can be updated over the air when the need arises.
- Our **TelekomCLOUD portal** embraces our total cloud offering for enterprises of all sizes. It offers customers software, platform and infrastructure solutions that can be configured and booked directly online. Our software-as-a-service (SaaS) business application offer ranges from traditional office applications and virus protection solutions to secure online storage and conferencing and collaboration tools from our secure data centers in Germany. The **AppDirect platform** acts as a “power strip” (Steckerleiste) for the entire Group and enables full onboarding for new solutions in fast track mode. The offer is rounded off by qualified consulting and support services provided by our certified cloud experts in the dedicated **Cloud Customer Interaction Center** established by Group Innovation+.

- Our **Voice Encryption Services** guarantee tap-proof communications on the go, while working at home or at distributed company sites. This helps companies protect themselves comprehensively from information loss as a result of eavesdropping.
- Our flexible, modular VPN service known as **Managed VPN Suite** enables rapid, easy integration of remote users, distributed sites and machines.
- Business customers benefit from our secure cloud storage: **Secure Data Drive** is encrypted and operated in compliance with Germany's privacy laws at our certified data center.

**T-Labs.** With our central research unit, Telekom Innovation Laboratories (T-Labs), we operate our own research and development facilities at international locations, including Berlin, Darmstadt and Bonn in Germany, Beer Sheva and Tel Aviv in Israel, and Mountain View in the United States. There, some 500 experts and scientists from a broad range of disciplines develop and test new technologies. They cooperate closely with industrial partners, international universities, and research institutions on the basis of open innovation for our operating segments. At its main Berlin site, T-Labs has been associated with Technische Universität Berlin since 2004 in one of the biggest and best-known public-private partnerships in Europe. In 2016, T-Labs focused on a range of topics including the following:



For more information on our new products, please refer to the section “Highlights in the 2016 financial year,” page 22 et seq.



- **immmr.** immmr is based on a digital carrier concept and is a new service that we launched to carry the traditional telephony and messaging product over into the digital world. Users can communicate from any device via their mobile number. This makes new products and services available, e.g., virtual phone numbers, multiple identities and group video communication. We launched immmr in the Slovak Republic in December 2016, with seven other countries scheduled to follow suit in 2017.
  
- **Access technologies.** T-Labs develops systems and prototypes that make it possible to effectively bundle different access technologies and assign them to the appropriate application, as we did for example in 2016 in the Well-Fi project. In it, we combine the latest Wi-Fi technologies with smart network management. As everything around us gets smarter – smartphones, smart home, smart city – it is also vital to have easy, intelligent access to the Internet at home. The growing number of network devices is making it more difficult to supply a constant high-quality Wi-Fi signal to all areas of our homes. Well-Fi guarantees outstanding Wi-Fi quality in every room; service interruptions and poor signal coverage are now things of the past. In the reporting year we launched a technical field trial with Makedonski Telekom to show how suitable Well-Fi is for day-to-day usage.
  
- **Intelligent cloud robotics.** There is growing demand for flexibility and efficiency in industrial manufacturing (Industry 4.0), with new application areas also emerging in the home and service environments. This presents new challenges for robotics – work performed by and with robots. Thanks to high-speed networking, secure cloud infrastructures and application functions based on artificial intelligence, robots are metamorphosing from high-quality repetitive tools to universal cognitive and collaborative tools. Embedded in the Internet of Things, they can perceive their environment, can cooperate with humans and offer benefits in a broad range of applications. As part of the Low Latency Compute initiative in our Intelligent Cloud Robotics T-Labs project, we cooperate with leading research institutions to address the economic and technical challenges presented by this development, carry out feasibility studies and develop prototypes


for industrial and service robotics. We started building a laboratory with different robot types in mid-2016 and will be making it available to potential business partners in future.

- **Smart farming.** Agricultural engineering has assumed a leading role in digitization. Connected, self-steering machines equipped with a vast number of sensors are now already in standard use. The object of the Smart Farming project, funded by the Federal Ministry for Economic Affairs and Energy as part of its Smart Service World program, is to develop open, standardizable and, at the same time, secure, robust and efficient system architectures for communication between various machines and back-end systems, and to test them in practical application scenarios. The aim is to develop a multi-vendor system concept which gives farmers maximum freedom to compile a machine estate. Farmers can then select the most suitable provider without being tied to any specific manufacturer. [SDG](#)
  
- **Data analytics.** In the area of data analytics, our T-Labs works on use cases, pilot projects and concepts that will enable the suitable use and analysis of big data. One example is our Data Cockpit research project, an innovative Web interface that makes the use of personal data transparent for customers. It reinforces their trust in our Company by granting them full control over their data at all times.

#### **PARTNERSHIPS**

As well as developing in-house solutions, Group Innovation<sup>+</sup> repeatedly chooses to collaborate with partners on innovations, in accordance with our Group strategy. The object is to establish a broader range of innovative products and services that can be offered to customers. In doing so, Deutsche Telekom taps the vast innovative strength of Silicon Valley, Israel, Germany, and other innovation hotspots.

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We would like to present some examples of these successful partnerships below. 

- We collaborate with **Zimperium** to offer companies of all sizes end-to-end protection for their mobile devices. Mobile Protect Pro offers security for mobile applications and protection from attacks over Wi-Fi and other wireless connections as well as from vulnerabilities in mobile operating systems.
- At the end of 2016, T-Mobile Czech Republic joined forces with our partner **Mojjo** to bring a connected car service to market which transforms customers' vehicles into smart cars, giving them an overview of car usage, handling and condition. Since Mojjo is an open platform, customers stand to benefit in future from other practical offers, e.g., help with finding a parking space.
- In collaboration with our partner **FON** and with over 2.5 million access points, we provide one of the largest Wi-Fi networks in Europe. FON enables customers to share their private Wi-Fi access with our other clients. This service was launched in Hungary in 2016.

#### START-UP FUNDING

In May 2012 Deutsche Telekom opened its incubator, a start-up support center, known as **hub:raum** in Berlin. **hub:raum** ([www.hubraum.com](http://www.hubraum.com)) invests in start-ups during the early phase, supports them with co-working space and mentoring, and connects them pragmatically to our Group. **hub:raum** therefore functions as an interface between us and the world of start-ups. It is also part of our future initiative, in which we place increased focus on cooperations. During the reporting year, **hub:raum** supported four start-ups: 

- **Teraki** has developed data-reduction software for the Internet of Things ([www.teraki.com](http://www.teraki.com)). T-Systems used Teraki during a customer proof of concept to reduce big data to such an extent that it can be restored without loss even under difficult transmission conditions.
- **Contiamo** offers small and mid-sized enterprises web-based business intelligence solutions. The software consolidates diverse business information at a central location and makes it easier to analyze for specific purposes. In analyses for our Customer Touchpoint Suite we rely on the cloud-based business intelligence solution from Contiamo.
- **M2Mgo** offers a cloud-based content management system as SaaS which can be used to program and operate web apps ([www.m2mgo.com](http://www.m2mgo.com)). It is a cost- and time-saving toolkit for companies that makes it easy for them to develop individual web portals for the Internet of Things.

- **Flexperto** develops and markets an Internet-based SaaS software solution that goes much further than traditional videoconferencing systems and is set to become the standard software for online consulting. Flexperto combines schedule management, communication, encrypted video consulting, encrypted messaging system/instant messaging, telephone consultation, billing and customer management ([www.flexperto.com](http://www.flexperto.com)).

Beside this, **hub:raum** organized the narrowband IoT prototyping program with over 35 start-ups during the Challenge Up! IoT start-up program (with Intel and Cisco) in 2016.

We have restructured our commitment in the areas of venture capital, private equity and technology innovation with our Deutsche Telekom Capital Partners group (DTCP), which was established at the beginning of 2015, and are extending it considerably. DTCP is Deutsche Telekom's investment management group and is positioned at the center of our redesigned investment concept. DTCP offers growth capital for start-ups with a proven business model, investments in mature companies, and strategic consulting in the technology, media, and telecommunications sectors. Its object is to create value for the Group, investors, portfolio companies and other stakeholders. We plan to invest a total of EUR 450 million over the next five years via DTCP. DTCP's investments have a strong financial drive. The group aims to acquire shares in companies, to see these companies grow, and to sell the shareholdings again at a profit. Choosing the most successful start-ups and collaborating closely with them leads to strategically relevant cooperation options and business relationships with the Group.

DTCP also provides advice to our strategic investment fund Telekom Innovation Pool (TIP) on investments that are primarily strategically motivated. TIP focuses its investment activities not only on external start-ups that are identified as being of major strategic relevance but also supports and implements in-house ventures as spin-offs. In this case, ideas from Deutsche Telekom are spun off as young companies, making greater entrepreneurial freedom and shorter decision paths possible. Additionally, DTCP advises DTVF (Deutsche Telekom Venture Funds GmbH) on its portfolio. The aim is to support the development of the around 55 existing investments (including through follow-up investments) and divest them at a profit.

DTCP was already conducting successful deals in its first full year in business. This involved the profitable sale of the start-ups Nexmo (to Vonage) and Replay (to Intel). DTCP also made six further venture capital investments in 2016, investing in cyber security companies SafeBreach and Fireglass, in the intelligent data traffic management systems NS1 and Aryaka, in big data analytics tool Paxata, and in the evaluate ventures fund.



For more information on our cooperations and partnerships, please refer to the section "Highlights in the 2016 financial year," page 22 et seq.



## PATENTS

Patents are gaining more and more significance in the telecommunications industry. Market players and their areas of activity are changing, with a knock-on effect on our IPR (intellectual property rights) agenda. 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. National and international IPRs are vital for these types of activity. We are strongly dedicated to generating our own property rights. In the reporting year, we filed 275 patent applications, taking the total number of IPRs held by the Group to around 7,900.

We pursue our intense efforts to develop and structure our IPR 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. Additionally, we are represented on various standardization bodies in our industry. We manage our IPRs on the basis of cost/benefit aspects, filing only selected applications subject to a strict schedule.

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 84.1 million in 2016. As the parent company, Deutsche Telekom AG bears part of the Group's research and development expenditure, the amount in this case being EUR 58 million (2015: EUR 86 million). However, this figure may not be viewed independently of the three-pronged innovation strategy referred to above – of in-house developments, innovations from outside the company and start-up funding and investments.

Our Group's investments in internally generated intangible assets to be capitalized were also up year-on-year at EUR 129.5 million compared with EUR 101.3 million for the previous year. These investments predominantly relate to internally developed software, mainly in our Systems Solutions operating segment. About 2,900 employees worked in the Group's R&D areas in 2016 (2015: approx. 2,800).

## 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,

### Expenditure and investment in research and development

millions of €

	2016	2015	2014	2013	2012
Research and development expenditure	84.1	108.1	95.6	97.0	65.9
Investments in internally generated intangible assets to be capitalized	129.5	101.3	93.2	112.0	78.0



For more information, please refer to [www.telekom.com/media/publications](http://www.telekom.com/media/publications)

## EMPLOYEES

- Reorganization of work in the digitized ecosystem
- HR priorities for 2016

### REORGANIZATION OF WORK IN THE DIGITIZED ECOSYSTEM

Work in the digitized ecosystem is being given a complete overhaul. The important thing will be focusing on people. Ultimately, people are pivotal for ensuring a company is moving in the right direction. Digitization creates the perfect platform for innovation. We will see new forms of collaboration and new business models, but also an increase in the automation of tasks that are currently performed by people. It is therefore crucial that our employees build their digital skills, as they are vital to our future success. In addition, we need work environments that are adapted to the respective conditions and standardized technologies that enable us to connect with each other. [SDG](#)

Leadership will also change: In the future, leadership will be more participative and more virtual because managers will not have personal access to every employee. If we want to keep pace with digitization, we must make our organizations more decision-oriented to be able to make decisions faster.

Having consistently set out our HR priorities on this basis in 2015, we continued to pursue them in the year under review:

### HR PRIORITIES

1. Talent strategy and planning
2. Performance management and leadership
3. Work in the digital age
4. Skills management and qualification to meet future needs

Here are some examples of the measures we will use to implement and drive our HR priorities forward.

8 DECENT WORK AND ECONOMIC GROWTH



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## OUR HR WORK BASED ON THE HR PRIORITIES

### 1. TALENT STRATEGY AND PLANNING

**Our talent management team is getting ready for the digital future.**

We want to make work even more global, digital and efficient in future and, to achieve this, attract and recruit the best talents to our Company. This is key if we are to drive digitization forward and safeguard our future success. Throughout the world, our Group is always on the lookout for creative minds and technology-minded people who can help us create the digital future.

**The digital future needs networking.** Our talent management approach encourages young talent to take responsibility for their own careers, using modern (IT) tools and processes. To foster networking, we offer face-to-face networking events and a shared online platform. We support and encourage job rotation, particularly across departments, functions, and countries.

As employers, it is our mission to become ever more attractive and raise our brand profile. In recent years, our attractiveness as an employer has grown thanks to a creative, target group-specific presence in social media and a raft of attention-grabbing initiatives in the talent market. The 2016 Online Talent Communication Study confirmed this by naming our career pages the best employer website in Germany. We want to build on this success internationally, consolidating our leading position as a top employer of choice in mature job markets, while also boosting our reputation in growing markets.

### 2. PERFORMANCE MANAGEMENT AND LEADERSHIP

**Lead to win.** Based on our new leadership principles “Collaborate,” “Innovate,” and “Empower to Perform,” coupled with our Guiding Principles, we rolled out our leadership model “Lead to win” in 2014. By 2016, all executives had been practicing “Lead to win” for two years. The key features of this model are a continuous dialog between executives and their superiors on performance and development issues, a direct link between performance assessment and incentives, and personal development paths. In particular, executives are urged to identify and leverage innovation potential. It is also important to establish a working culture in which everyone continually challenges the status quo and reflects on his or her own conduct, and where no-one is afraid to make mistakes. We foster and demand a culture of personal responsibility, thereby creating lasting value for the Group.

**Embracing diversity.** For over a decade now, we have sustainably and comprehensively supported diversity throughout the Group. We integrate all aspects of diversity, and reinforce them with a host of flagship projects, such as our initiatives for the advancement of women.

Additionally, in 2015 we launched a campaign on unconscious bias which gave new impetus to greater diversity within the Company. This campaign continued in the reporting year, with measures designed to raise employees' awareness, as well as practical workshops on unconscious bias and stereotypes. On June 7, 2016, we hosted the Rhine-Ruhr Diversity Network's 4th German Diversity Day under the motto “Diversity makes the difference – cultural skills for business success” at our company headquarters in Bonn, another example of our commitment to diversity issues. [SDG](#)

Gender equality remains a particular concern of ours, having campaigned relentlessly on this issue for many years. Back in 2010, we introduced a quota of 30 percent of leadership roles worldwide to be filled with women. Our highly successful pilot scheme in 2015 trained women to take on national and international supervisory board mandates, and met with widespread acceptance. The follow-up program, launched in fall 2015, was also open to men, and ended in June of the reporting year. In total, these two programs trained 60 women for a demanding supervisory board role. Tried-and-trusted measures, such as managing the advancement of women throughout the entire talent acquisition strategy, and specifically targeting women, for example with a website exploring opportunities for women, advertisements, and trade fairs designed for women as the target group, remain pivotal to our strategy for advancing women. The percentage of female members of our supervisory boards in Germany also rose from 17.7 percent in 2010 to 34.8 percent in December 2016. The proportion of women representing the shareholders in our international supervisory boards likewise increased from 7.4 percent in 2010 to 23.4 percent at the end of 2016. [SDG](#)

**Work-life balance.** We offer a range of attractive opportunities to help our employees strike a better balance between their work and home lives. Our place in the finals of the German Erfolgsfaktor Familie 2016 company competition, which underlines the importance of the family as a success factor, is indicative of our Company's commitment to a sustainable, family-friendly HR policy. The one-year Family Manager pilot project in Germany ended as planned in mid-2016 and was very positively received by the press and in-house. We will be using the findings from this project to improve our range of offerings to help balance work and home life. The focus in 2016 was on “caring for relatives.” By further enhancing our flexible working conditions, we create additional freedom and scope for our employees. In 2016, the sector-specific collective agreement on mobile working laid the foundations for establishing mobile working as a new format within the company. In early 2016, we also began offering our employees lifetime work accounts from which they can fund a leave of absence or top up a part-time salary.

10 REDUCED INEQUALITIES



5 GENDER EQUALITY



**Employee satisfaction.** Our image as an attractive employer continues to grow, and our employees are scoring us ever more highly (see table below). In the most recent Group-wide employee survey of 2015 (excluding T-Mobile US), our commitment index score, already at a high level, increased to 4.1 (on a scale of 1.0 to 5.0). We also conduct regular pulse surveys to obtain feedback from our employees. The November 2016 pulse survey saw an extraordinarily high level of participation: 73 percent of employees took this opportunity to give us their feedback. And this feedback was positive, with 73 percent of respondents saying they were satisfied with the company. Not content to rest on our laurels, we are continuing with a raft of initiatives to further improve our corporate culture and increase employee satisfaction. We expect the high approval rates to remain stable in the next employee survey in 2017.

#### Employee satisfaction (commitment index)<sup>a</sup>

	2015	2012
<b>GROUP</b> (excluding T-Mobile US)	4.1	4.0
Of which: Germany	4.1	4.0
Of which: international	4.0	3.9

<sup>a</sup> Commitment index according to the most recent employee surveys in 2015 and 2012.

#### 4 QUALITY EDUCATION



#### 3 GOOD HEALTH AND WELL-BEING



**Health.** Our health management strategy is designed to maintain our employees' health and performance. We view occupational health and safety legislation as minimum requirements and encourage our employees to take responsibility for their own health. Our managers play an important role in fostering an appropriate corporate culture. [SDG](#)

### 3. WORK IN THE DIGITAL AGE

The world of work is changing: Demographic change, individual life and career models, together with the digitization of society and industry pose fresh challenges for companies – as well as offering new opportunities. This inspires 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 digitization. Transformation is not an end in itself, but an expression of the relentless demand for adapted, more flexible work forms and operating structures. The robotization of transactional and repetitive activities creates new options for “human” value creation, which in turn brings with it fresh challenges for HR work. The result is a growing proportion of knowledge-based work that can be performed at any time and from any location. The way that solutions are devised and services are delivered is also changing. The escalating complexity of products and business processes demands new problem-solving techniques and approaches. Our Design Thinking – a systematic approach to complex problems – is setting new standards as a technique for innovation and transformation. Our new HR unit Digital & Innovation has held more than 60 workshops, attended by over 2,250 employees, familiarizing them with new techniques such as Design Thinking. Digital & Innovation and Telekom Design also brought together their Design Thinking activities within the Telekom Design Academy in the year under review, to accommodate the growing Group-wide demand for these types of new working techniques and collaborative formats.

In 2016, more Magenta MOOC (Massive Open Online Courses) were made available to all our employees worldwide. Under the motto “Go Digital,” participants were invited to tackle ten real-life digitization challenges, and deepen their understanding of digitization and design thinking. [SDG](#)

**Places:** We realize how important it is to adapt our employees' working environment to accommodate the changes posed by digitization. Our Future Work program is designed to establish flexible working methods, a leadership culture based on trust, and opportunities for mobile working. This is complemented by modern, open office environments and shared work zones. We are committed to the ongoing transformation of our corporate culture from one based on face time to one based on results. In 2016, we forged ahead with the expansion of our Future Work workspaces. By the end of the reporting year, some 9,000 employees in Germany were already working under Future Work principles, and this figure is expected to rise to around 18,000 by the end of 2018.

**Technologies:** Standardizing and simplifying our HR processes, and making them more customer-centric, is a pivotal concern for us and another milestone in our efforts to automate HR work. The roll-out of our HR Suite IT system across the Group is a key element of this plan, enabling us to provide standardized Group-wide HR processes such as recruitment, professional development, and performance management on a single platform.

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We are aware that we must promote virtual collaboration if we are to maximize performance. Our in-house social network, which replaced our intranet and the Telekom Social Network, provides the basis for this. In 2016, our multiple award-winning social network, You and Me (YAM), boasted more than 120,000 users across the Group, heralding a new era in internal communications. As a central, dialog-based communications platform, YAM is the company’s nervous system. We have also upgraded the direct communications channel with Board of Management level via YAM, with many of our Board members and executives using blogs, vlogs, chats and discussion forums to communicate. In addition, most employees worldwide now have access to various options for collaboration between departments and across national borders in the form of video and web conferencing services, live broadcasts and chat/messaging services, and knowledge-sharing via secure data rooms.

In May 2016 we set up the HR Digital & Innovation HR unit, a Group-wide competency and consulting team focusing on the targeted digital transformation of our organization, people and culture. HR Digital & Innovation has developed the digital@work model for our Group’s digital transformation, combining the key cornerstones of leadership, learning, workspaces, methodologies, culture, workplace equipment and organization, together with a raft of dedicated measures. The unit introduced the Digital Guide, an innovative assistant designed to optimize virtual collaboration, into our YAM ecosystem. The digital format Leadership App (LEAP) focuses on topical management development issues such

as innovation and ambidexterity (the ability of an organization to be both efficient and flexible), offering quick, innovative guides to a range of topics in the form of inspirational videos and short digital teaching modules, all with an appealing design.

**4. SKILLS MANAGEMENT AND QUALIFICATION TO MEET FUTURE NEEDS**

Skills management is an increasingly important topic for our Company. In 2016, we agreed with our employee representatives to conduct a strategic Skills Management pilot project at four of our business units in Germany. Alongside retraining, inter-departmental exchange and new hires, it is also important to promptly identify any skills gaps in the workforce, and take action to ensure long-term upskilling, such as university courses, if we are to secure competitiveness and employment.

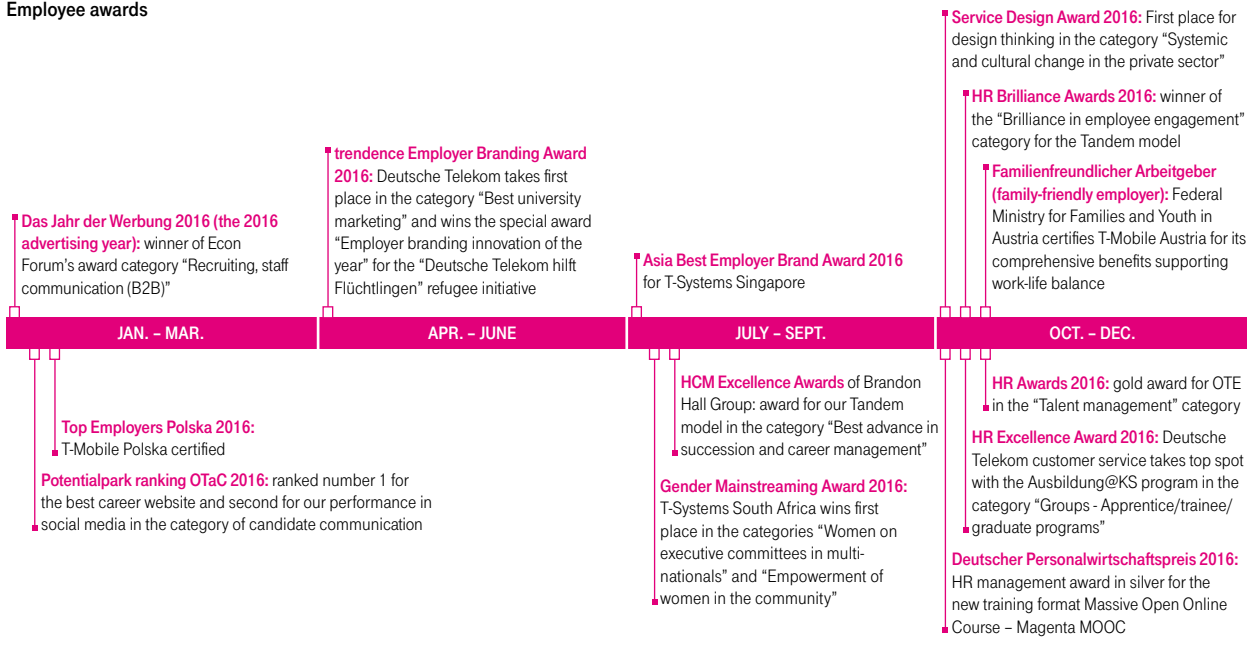
The right training measures are vital in closing the skills gaps. We are extending our use of digital learning formats, which can be accessed at any time and from any location. Modern formats such as simulation exercises, video-based training modules, and learning games have significantly increased the acceptance of digital learning formats. [SDGI](#)

**Awards**

In 2016, we again received multiple awards for our HR work. The following graphic shows a selection of awards and prizes.



**Employee awards**



## HEADCOUNT DEVELOPMENT

The Group's headcount decreased by 3.1 percent compared with the end of 2015. Our segments showed countervailing trends to some extent: Measures to enhance efficiency, a slowdown in recruitment in the operating units, and higher take-up of early retirement for civil servants reduced the headcount in the Germany operating segment. As a result of the concentration of innovation-related activities across the Group, 480 employees of our Systems Solutions operating segment were transferred to our Germany operating segment as of January 1, 2016. Overall, the number of employees in our Germany operating segment decreased by 3.6 percent. The total number of employees in the United States operating segment increased by 1.3 percent at December 31, 2016 compared to December 31, 2015, due to an increase in network, backoffice and

administrative, and customer support employees to support the growing T-Mobile US customer base. In our Europe operating segment, staff levels decreased by 4.4 percent compared with December 31, 2015, mainly as a result of efficiency enhancement measures in the operating segment, especially in Hungary, Romania, Croatia, Macedonia and Poland. In our Systems Solutions operating segment, the headcount decreased by 1.8 percent. This was mainly due to staff restructuring measures in Germany and abroad, and the aforementioned transfer of 480 employees to the Germany operating segment. The number of employees in the Group Headquarters & Group Services segment was down by 11.8 percent compared with the end of 2015, mainly due to the continued staff restructuring.

## WORKFORCE STATISTICS

### Headcount development

FTEs in the Group	Dec. 31, 2016	Dec. 31, 2015 <sup>a</sup>	Dec. 31, 2014 <sup>a</sup>	Dec. 31, 2013	Dec. 31, 2012
<b>TOTAL</b>	<b>218,341</b>	<b>225,243</b>	<b>227,811</b>	<b>228,596</b>	<b>229,686</b>
Of which: Deutsche Telekom AG	22,571	26,205	28,569	29,577	30,637
Of which: civil servants (in Germany, with an active service relationship)	15,999	18,483	19,881	20,523	21,958
Germany operating segment	66,142	68,638	68,754	66,725	67,497
United States operating segment	44,820	44,229	39,683	37,071	30,288
Europe operating segment <sup>a</sup>	48,883	51,125	53,499	53,265	57,937
Systems Solutions operating segment <sup>a</sup>	43,724	44,504	46,244	49,540	52,106
Group Headquarters & Group Services	14,772	16,747	19,631	21,995	21,858
<b>BREAKDOWN BY GEOGRAPHIC AREA</b>					
Germany	104,662	110,354	114,749	116,643	118,840
International	113,679	114,888	113,061	111,953	110,846
Of which: other EU member states	59,456	60,710	63,032	63,939	63,244
Of which: rest of Europe	2,581	2,945	3,127	3,238	9,422
Of which: North America	45,364	44,803	40,346	37,856	31,037
Of which: rest of world	6,278	6,431	6,556	6,920	7,143
<b>NATURAL ATTRITION</b> %	<b>4.0</b>	<b>4.4</b>	<b>4.2</b>	<b>4.2</b>	-
Of which: Germany %	1.4	1.3	1.4	1.8	2.0
Of which: international %	8.1	9.3	8.6	7.6	-
<b>PRODUCTIVITY TREND<sup>b</sup></b>					
Net revenue per employee thousands of €	331	306	275	262	250

<sup>a</sup> Business customer operations at Magyar Telekom in Hungary, which had previously been organizationally assigned to the Systems Solutions operating segment, have been managed and reported under the Europe operating segment since January 1, 2016. Comparative figures have been adjusted retrospectively.

<sup>b</sup> Based on average number of employees.



For more information, please refer to Note 31 "Segment reporting" in the notes to the consolidated financial statements, page 192 et seq.



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## Personnel costs

billions of €

	2016	2015	2014	2013	2012
Personnel costs in the Group	16.4	15.8	14.7	15.1	14.7
Of which: Germany	9.8	9.4	9.1	9.4	9.2
Of which: international	6.6	6.4	5.6	5.7	5.5
Special factors <sup>a</sup>	1.6	1.2	0.9	1.4	1.2
Personnel costs in the Group (adjusted for special factors)	14.8	14.6	13.8	13.7	13.5
Net revenue	73.1	69.2	62.7	60.1	58.2
<b>ADJUSTED PERSONNEL COST RATIO</b> %	<b>20.3</b>	<b>21.2</b>	<b>22.0</b>	<b>22.7</b>	<b>23.2</b>
<b>PERSONNEL COSTS AT DEUTSCHE TELEKOM AG UNDER GERMAN GAAP</b>	<b>3.5</b>	<b>2.9</b>	<b>2.8</b>	<b>3.1</b>	<b>3.3</b>

<sup>a</sup> Expenses for staff-related measures.

## SIGNIFICANT EVENTS AFTER THE REPORTING PERIOD

For information on events after the reporting period, please refer to Note 42 "Events after the reporting period" in the notes to the consolidated financial statements, pages 216 and 217, and to the notes to the annual financial statements of Deutsche Telekom AG as of December 2016.

For 2017, 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 in 2017.
- **Adjusted EBITDA** is expected to reach some EUR 22.2 billion in 2017, up from EUR 21.4 billion in the reporting period.
- **Free cash flow** should increase from EUR 4.9 billion in 2016 to around EUR 5.5 billion.

## FORECAST<sup>1</sup>

### STATEMENT BY THE BOARD OF MANAGEMENT ON THE EXPECTED DEVELOPMENT OF THE GROUP

We will remain on a course of successful growth and already differentiate ourselves from the competition by having the most modern and best networks. Going forward, we want to continue meeting our customers' expectations with more integrated offerings. This strategic focus confirms our target of being the "leading telecommunications provider in Europe" and matches our financial targets up to 2018. As communicated at our Capital Markets Day in February 2015, for the period from 2014 through 2018, we are aiming for the following compound annual growth rates (CAGR):

- **Revenue:** 1 to 2 percent
- **Adjusted EBITDA:** 2 to 4 percent
- **Free cash flow:** approx. 10 percent

In order to safeguard our success in the long term, we combined our Group-wide technology and innovation activities in a new Board department (Technology and Innovation) as of January 1, 2017. We also established Group Development, a new operating segment that will actively manage, and enhance the value of, selected equity investments of the Group.  The planning for the coming years, and thus the statements made in the following forecast, already take this new Group structure into account.



For further details of changes in the structure of the Group as of January 1, 2017, please refer to the section "Group organization," page 26 et seq.

## ECONOMIC OUTLOOK

According to its economic forecast dated January 2017, the International Monetary Fund (IMF) expects to see global economic growth of 3.4 percent in 2017 and 3.6 percent in 2018. This faster growth rate will be fueled by the economic upswing in emerging and developing economies as well as in the United States. We continue to expect a stable economic trend in our core markets. The economies in Germany, the United States, and most of the countries of our Europe operating segment are enjoying positive growth rates; even the United Kingdom will see moderate growth if the exit from the European Union proceeds in an orderly fashion. These growth rates will be driven by buoyant private consumer spending and rising investment spending. This positive economic trend will also lead to a moderate recovery in employment markets.

### Forecast on the development of GDP and the unemployment rates in our core markets for 2017 and 2018

%

	GDP for 2017 compared with 2016	GDP for 2018 compared with 2017	Unemployment rate in 2017	Unemployment rate in 2018
Germany	1.4	1.5	6.1	6.2
United States	2.2	2.3	4.7	4.6
Greece	1.3	2.0	22.5	21.6
Romania	3.5	3.3	4.7	4.6
Hungary	2.6	2.7	5.0	4.8
Poland	3.0	3.2	8.2	7.7
Czech Republic	2.5	2.6	5.4	5.4
Croatia	2.5	2.5	13.9	13.5
Netherlands	1.6	1.6	6.9	6.9
Slovakia	3.3	3.1	9.4	9.1
Austria	1.3	1.5	6.0	5.7
United Kingdom	1.2	1.3	5.1	5.2

Source: Bloomberg Consensus, Consensus Economics, Oxford Economics; January 2017.

## MARKET EXPECTATIONS

### GERMANY

Although the market for telecommunications services in Germany recorded a slight decline of 0.4 percent in 2016 (source: Bitkom), EITO (European Information Technology Observatory) expects it to stabilize in 2017. This anticipated trend is attributable to increasing demand for mobile data volumes and higher speeds as well as to demand from business customers for high-bit-rate connectivity, both of which will potentially compensate for declining revenue from traditional fixed-network telephony. In terms of a broader-based ICT market that includes IT services as well as telecommunications, EITO expects to see growth of 1.5 percent in 2017. This will be mainly attributable to growth of 2.7 percent in the IT market, especially due to strong demand for services for business customers (e.g., outsourcing, project business, consulting) as well as in software (virtualization and Software as a Service).

Innovative integrated products and attractive supplementary services – such as TV and music options, and smart home – 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, and the mobile data volumes we include 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 to ensure that the majority of the population has access to high-speed mobile Internet. The fixed-network broadband market is a different matter: It is characterized by a large number of competitors – from national to regional providers – with differing infrastructures. We are assuming not only that the number of cable network operators will continue to rise, but that the number of providers of DSL and fiber-optic networks will increase, too.

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## UNITED STATES

The U.S. mobile market continues to be characterized by intense competition among the major mobile carriers. Competitive factors within the U.S. mobile market include dynamic changes in pricing, voice market saturation, service and product offerings, customer experience, network quality, development and deployment of technologies, availability of spectrum licenses, and regulatory changes. The mobile postpaid market in the United States is embracing device financing options, such as T-Mobile US' equipment installment plans and device leasing through JUMP! On Demand, allowing customers to subscribe for wireless services separately without the purchase of or payment for a bundled device. Additionally, data services continue to be a growth driver despite the high level of competition, supporting further network investment by the major mobile carriers in the US mobile market.

## EUROPE

The next two years are expected to see a slight contraction in traditional telecommunications business in our European markets. Analysys Mason, an industry analyst, forecasts declines of 1.1 percent in 2017 and 0.9 percent in 2018. Persistent competitive and price pressure – in particular from new providers, such as Digi in Hungary and SWAN in Slovakia, who pursue an aggressive pricing policy – will have a negative impact on the markets of our Europe operating segment. As far as fixed-network business is concerned, the expected ongoing upward trend in the broadband and pay-TV markets will only partially make up for the declines in voice telephony. Competition between the traditional telecommunications industry and alternative broadband providers, e.g., cable network operators, will likely intensify, especially due to further mergers with mobile network operators. We also expect to see further substitution of traditional telecommunication services such as text messaging and voice telephony by Internet-based service providers (OTT players), along with a corresponding increase in data volumes.

The trend toward integrated business models, i.e., the convergence of fixed-network and mobile offerings (FMC), will probably continue in Europe. As a result, the markets for fixed- or mobile-only network operators look set to shrink. At the same time, we expect to see growing pressure – especially on mobile-only providers – to expand their infrastructures to include the access technologies that are currently absent, whether through the establishment of their own networks or via partnerships and/or mergers.

The economic parameters in our European markets will possibly continue to improve during the forecast period. Oxford Economics, an industry analyst, expects all the countries in this operating segment to post GDP growth and lower unemployment rates over the next few years. Fiscal interventions like those in Greece will have negative effects on telecommunications markets. Decisions taken by national regulators and the European Union will be another negative factor impacting markets, and our revenue streams, in the coming year. Depending on what form it ultimately takes, the EU Roaming Regulation, in particular, could have considerable negative consequences when it comes into force in June 2017.

## SYSTEMS SOLUTIONS

The ICT market is expected to see renewed growth in the next two years in line with the recovery of the global economy. Persistent cost pressure and intense competition will remain features of the ICT market. 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.

We estimate that the ICT markets will develop along divergent paths in the telecommunications and IT services market segments.

- Telecommunications: The highly competitive telecommunications market remains challenging. Innovative change, intense competition, ongoing price erosion, and the interventions of national regulators are all likely to diminish total market revenues, even though both mobile data services business and the Internet of Things will continue to grow in the coming years.
- IT services: After strong growth in the reporting period, we expect the market for IT services to continue growing steadily in 2017 and 2018. At the same time, the market is undergoing a radical transformation, e.g., due to ongoing standardization, demand for smart services, and the changes being wrought by cloud services in the outsourcing segment. Further challenges have arisen in the shape of ongoing digitization, the growing importance of ICT security, big data, and increasing mobility. Traditional ICT business is likely to decline due to price competition, while cloud services, mobility, and cyber-security should record double-digit growth. Against this backdrop, we intend to continue increasing our investment spending in growth markets such as digitization, cloud services, cyber-security, and intelligent network solutions for the healthcare sector or the automotive industry.

## GROUP DEVELOPMENT

The Group Development operating segment we established on January 1, 2017 covers a number of different markets, mainly those in which our companies T-Mobile Netherlands and Deutsche Funkturm (DFMG) are active.

- The mobile communications market in the Netherlands has been marked by high price and competitive pressure for quite some time, and these conditions look set to continue. One of the main trends contributing toward this is the growing convergence of fixed-network and mobile products (FMC). The merger of Vodafone and Ziggo, for instance, has created another strong and ambitious nationwide FMC provider alongside incumbent KPN. In particular, the trend toward convergence products should also keep up the pressure on mobile-product prices that has been around for some time. What is more, both the strong discount segment, comprising mobile providers' secondary brands, and MVNOs should continue to make for lively competition.

- With some 27,000 locations, DFMG is the biggest provider of passive wireless infrastructure for mobile communications and broadcasting in Germany. Mobile communications are by far the company's largest business area. Over the next two years, we anticipate that demand for additional network capacities will rise, which in turn should increase demand from mobile network operators for extensions to existing mobile sites or for the construction of new ones. This positive trend is likely to be partially offset by the ongoing consolidation of our customer Telefónica's network, shrinking VHF demand from broadcasters, and gradual decommissioning of the public authorities' analog network.

### EXPECTATIONS FOR THE GROUP

**Expectations up to 2018.** We expect to continue achieving profitable growth in the coming years. Revenue and adjusted EBITDA should increase at Group level in 2017. That will provide us with a good basis to achieve our financial ambitions by 2018 – as communicated at our Capital Markets Day in February 2015.

We expect our **financial performance indicators** to develop as follows in 2017 and 2018:

- **Revenue** should rise year-on-year in both 2017 and 2018. This growth will be attributable in particular to systematic implementation of the Un-carrier strategy in our United States operating segment and the associated ongoing increase in customer numbers over the next two years.
- **Adjusted EBITDA** is expected to come in at around EUR 22.2 billion in 2017 and to rise in 2018 due to the expected upward revenue trend over the same two-year period.
- **EBITDA** is expected to decline year-on-year in 2017, as is **EBIT**. This is due to a special factor: The proceeds from the sale of our stake in the UK mobile joint venture EE had enhanced the corresponding 2016 figure. We expect EBITDA to edge up in the course of 2018, primarily a result of the expected positive trend in adjusted EBITDA. A stable development in EBIT is expected in 2018 compared with the prior year.
- **Return on capital employed (ROCE)** is expected to decrease strongly in 2017 because ROCE in 2016 had benefited from the sale of our stake in the UK mobile joint venture EE and because new spectrum in the United States will increase the asset base in 2017. ROCE is unlikely to change in 2018 and is expected to be on a par with our predicted weighted average cost of capital (WACC).
- Our investments – in terms of **cash capex** (before spectrum investments) – are expected to amount to around EUR 12.0 billion in 2017. 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. In 2018, capital expenditure is expected to decrease slightly.

- **Free cash flow** (before dividend payments and spectrum investment) is expected to reach around EUR 5.5 billion in 2017 and rise sharply again in 2018. It will thus make a crucial contribution toward keeping our relative debt – measured as the ratio of net debt to adjusted EBITDA – within the target corridor of 2 to 2.5 in 2017 and 2018.

- At the end of 2016, the **rating agencies** Standard & Poor's, Fitch, and Moody's gave us ratings of BBB+, BBB+, and Baa1 respectively, thus placing us in the group of solid investment grade companies. The outlook from all three rating agencies was "stable." Maintaining a solid 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.

The purpose of our Debt Issuance Program is to put us in a position to place issues on the international capital markets at any time and at short notice. In addition, our Commercial Paper Program enables the issue of 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.

Repayments of bonds and loans in the amount of EUR 3.3 billion and EUR 2.6 billion will fall due in 2017 and 2018, respectively. In order to refinance our maturities and maintain the liquidity reserve, we plan to issue new bonds in various currencies. A large part of the refinancing necessary for 2017 has already been executed in January 2017. The exact manner of these potential transactions depends on developments in the international finance 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, to make major acquisitions or expand 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** and ambitions for 2018 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 pro-forma figures for 2016 and the expectations for the Group and/or the operating segments for 2017 and 2018 are based on the Group structure applicable as of January 1, 2017. The expectations expressed here may change if the economic situation deteriorates or there is any unforeseen government or regulatory intervention. All trends denote year-on-year changes. To indicate the intensity and trends of our forecasts, we refer to the following assessment matrix: strong decrease, decrease, slight decrease, stable trend, slight increase, increase, strong increase.

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## Financial performance indicators

		Results in 2016	Pro forma for 2016 <sup>a</sup>	Expectations for 2017 <sup>b, c</sup>	Expectations for 2018 <sup>b, c, d, e</sup>	Ambition up to 2018 <sup>b, d</sup>
<b>NET REVENUE</b>						
Group	billions of €	73.1	73.2	increase	increase	CAGR 1–2 % <sup>i</sup>
Germany	billions of €	22.0	21.8	stable trend	slight increase	
United States (in local currency)	billions of USD	37.3	37.3	strong increase	increase	
Europe	billions of €	12.7	11.5	slight decrease	stable trend	
Systems Solutions	billions of €	7.9	7.0	stable trend	increase	
Group Development	billions of €	–	2.4	stable trend	stable trend	
<b>PROFIT (LOSS) FROM OPERATIONS (EBIT)</b>						
	billions of €	9.2	9.2	decrease	stable trend	
<b>EBITDA</b>						
	billions of €	22.5	22.5	decrease	slight increase	
<b>EBITDA (ADJUSTED FOR SPECIAL FACTORS)</b>						
Group	billions of €	21.4	21.4	22.2	increase	CAGR 2–4 % <sup>i</sup>
Germany	billions of €	8.8	8.2	8.4	slight increase	
United States (in local currency)	billions of USD	9.5	9.5	10.2	increase	
Europe	billions of €	4.1	3.8	3.7	slight increase	
Systems Solutions	billions of €	0.6	0.5	0.5	increase	
Group Development	billions of €	–	0.9	0.9	stable trend	
<b>ROCE</b>						
	%	5.7		strong decrease	stable trend	ROCE > WACC <sup>j</sup>
<b>CASH CAPEX<sup>f</sup></b>						
Group	billions of €	11.0	11.0	12.0	slight decrease	CAGR 1–2 % <sup>i</sup>
Germany	billions of €	4.2	4.0	increase	slight decrease	
United States (in local currency)	billions of USD	4.7	4.7	increase	stable trend	
Europe	billions of €	1.7	1.6	stable trend	stable trend	
Systems Solutions	billions of €	1.1	0.4	increase	increase	
Group Development	billions of €	–	0.3	increase	decrease	
<b>FREE CASH FLOW (BEFORE DIVIDEND PAYMENTS AND SPECTRUM INVESTMENT)</b>						
	billions of €	4.9	4.9	5.5	strong increase	CAGR ≈ 10 % <sup>i</sup>
<b>RATING</b>						
Standard & Poor's, Fitch		BBB+		from A- to BBB	from A- to BBB	from A- to BBB
Moody's		Baa1		from A3 to Baa2	from A3 to Baa2	from A3 to Baa2
<b>OTHER</b>						
Dividend per share <sup>g, h</sup>	€	0.60		Dividend based on free cash flow growth Minimum € 0.50	Dividend based on free cash flow growth Minimum € 0.50	Dividend based on free cash flow growth Minimum € 0.50
EPS (adjusted for special factors)	€	0.89		decrease	strong increase	≈ 1
Equity ratio	%	26.2		25 to 35	25 to 35	25 to 35
Relative debt		2.3 x		2 to 2.5 x	2 to 2.5 x	2 to 2.5 x

<sup>a</sup> 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.

<sup>b</sup> On a comparable basis.

<sup>c</sup> Strato and tolnio are included in the expected figures.

<sup>d</sup> Forecasts for 2018 were made on the basis of the International Financial Reporting Standards (IFRSs) currently applicable, i. e., without taking account of the changes in IFRS 9, IFRS 15, and IFRS 16, in particular. 

<sup>e</sup> Based on an unchanged business model.

<sup>f</sup> Before spectrum investment.

<sup>g</sup> The indicated expectation regarding the dividend per share refers to the respective financial year indicated.

<sup>h</sup> Subject to approval by the relevant bodies and the fulfillment of other legal requirements.

<sup>i</sup> Average annual growth rates in the period between 2014 and 2018.

<sup>j</sup> Weighted average cost of capital.



For information on standards, interpretations, and amendments issued, but not yet to be applied, please refer to the section "Summary of accounting policies" in the notes to the consolidated financial statements, page 133 et seq.

## Non-financial performance indicators

		Results in 2016	Pro forma for 2016 <sup>a</sup>	Expectations for 2017	Expectations for 2018
<b>GROUP</b>					
Customer satisfaction (TRI*M index)		70.2		slight increase	slight increase
Employment satisfaction (commitment index) <sup>b</sup>		4.1		stable trend	stable trend
<b>FIXED-NETWORK AND MOBILE CUSTOMERS</b>					
<b>GERMANY</b>					
Mobile customers	millions	41.8	41.8	increase	strong increase
Fixed-network lines	millions	19.8	19.8	slight decrease	slight decrease
Of which: retail IP-based	millions	9.0	9.0	strong increase	strong increase
Broadband lines	millions	12.9	12.9	increase	increase
Television (IPTV, satellite)	millions	2.9	2.9	strong increase	strong increase
<b>UNITED STATES</b>					
Branded postpaid	millions	34.4	34.4	strong increase	increase
Branded prepaid	millions	19.8	19.8	increase	increase
<b>EUROPE</b>					
Mobile customers	millions	51.7	48.0	slight decrease	increase
Fixed-network lines	millions	8.7	8.5	stable trend	decrease
Of which: IP-based	millions	5.2	5.0	strong increase	strong increase
Retail broadband lines	millions	5.6	5.4	increase	increase
Television (IPTV, satellite, cable)	millions	4.0	4.0	increase	increase
<b>SYSTEMS SOLUTIONS</b>					
Order entry	billions of €	6.6	7.1	increase	increase
<b>ESG KPIS</b>					
CO <sub>2</sub> Emissions ESG KPI	thousands of metric tons	3,684		slight decrease	slight decrease
Energy Consumption ESG KPI <sup>c, d</sup>	MPEI	98		decrease	slight decrease
Sustainable Procurement ESG KPI	%	83		stable trend	stable trend

<sup>a</sup> 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.


<sup>b</sup> Commitment index as per the 2015 employee survey.

<sup>c</sup> Calculated using fact-based estimates and/or extrapolations.

<sup>d</sup> MPEI describes electricity consumption in thousands of MWh/revenue in billions of euros.

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.

In both 2017 and 2018, 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 2015 employee survey, and in view of the results of the pulse surveys conducted in 2016, we expect the positive response of our employees regarding our Company to remain stable in the next employee survey, which is scheduled for 2017. 

Our planning is based on the exchange rates in the following table.

### Exchange rates

Pound sterling	GBP	0.82/€
Croatian kuna	HRK	7.53/€
Polish zloty	PLN	4.36/€
Czech koruna	CZK	27.03/€
Hungarian forint	HUF	311.39/€
U.S. dollar	USD	1.11/€



For detailed information on our ESG KPIS and our expectations, please refer to the section "Corporate responsibility," page 70 et seq.

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The following table contains a summary of our model calculations and analyses of the key potential external factors.

**Factors that may affect results**

Premises	Current trend	Impact on results
<b>ECONOMY:</b>		
Macroeconomic trends in Europe (incl. Germany)	steady	○
Macroeconomic trends in the United States	improving	○
Inflation in Europe (incl. Germany)	improving	○
Inflation in the United States	improving	○
Development of USD exchange rate	improving	+
Development of exchange rates of European currencies	steady	○
<b>REGULATORY/STATE INTERVENTION:</b>		
Regulation of mobile communications in Europe (incl. Germany)	steady	○
Regulation of the fixed network in Europe (incl. Germany)	steady	○
Additional taxes (in Europe/the United States)	steady	○
<b>MARKET DEVELOPMENT:</b>		
Intensity of competition in telecommunications sector in Europe (incl. Germany) and the United States	steady	○
Intensity of competition in telecommunications sector in the United States	steady	○
ICT market	improving	○
Data traffic	improving	○

+ 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.

Based on the aforementioned expectations for our operating segments and the resulting effects, and taking existing retained earnings into account, Deutsche Telekom AG also expects to distribute a dividend of at least EUR 0.50 per dividend-bearing share for the financial years 2017 to 2018, subject to approval by the relevant bodies and the fulfillment of other legal requirements. Relative growth of free cash flow is also to be taken into account when measuring the amount of the dividend for the specified financial years.

In relation to the dividend for the 2016 financial year, we are considering once again offering our shareholders the choice of converting their dividend into Deutsche Telekom AG shares instead of having it paid out in cash.

**EXPECTATIONS FOR THE OPERATING SEGMENTS**

**GERMANY**

We are currently implementing a comprehensive transformation program for our Germany operating segment and our aim is to largely conclude this program by the end of 2018. Our goal is to secure our position as the leading integrated telecommunications provider in the German market by providing innovative and competitive products and services.

The organizational structure of the Germany operating segment changed as of January 1, 2017, with control of DFMG (Deutsche Funkturm) passing from that operating segment to the newly established Group Development operating segment.

In the fixed network, we want to offer the best customer experience with fiber-optic 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, in the future, we can offer our customers competitive high-speed lines, e.g., by migrating our VDSL network to vectoring technology. In addition, we are investing heavily to offer greater coverage and even higher speeds in rural areas as well. We are also using innovative products for this purpose – like our hybrid router, which combines the transmission bandwidths of fixed-network and mobile communications, thus enabling much higher transmission speeds. SDG

In 2014, we were the first provider in Germany to market an integrated fixed-network/mobile (FMC) product: MagentaEins. We have gradually added new products to this range, such as an FMC offering specifically for our business customers. When designing our products, we pay particular attention to high quality and a simple rate plan structure. In addition, our multiple-brand strategy in mobile communications allows us to address the entire customer spectrum – from smart shoppers through to premium customers.

We want to secure an ever larger share of the growing TV market. To this end, we are investing in our IPTV platform and winning new customers with attractive content and services. As part of our IPTV strategy, we offer appropriate TV services to our wholesale partners and the housing sector.

In both mobile communications and the fixed network, we want to remain the market leader in Germany in terms of revenue. As our customers' demand for bandwidth is constantly growing, we intend to continue investing extensively in broadband networks, innovative products, and customer service. Our success in this area has proven us right: Our broadband revenues are constantly growing and customer satisfaction levels, too, are on a positive trajectory. We now want to cement these two positive trends. "Progress through digitization" will be one of the drivers of this development.



Overall, revenue in our Germany operating segment should stabilize in 2017 – despite the strong impact of regulation on our core business. We also expect to see a substantial increase in both broadband and TV revenues, and IP offerings as well as growth in business customer operations. The positive trend in IT and cloud business is expected to continue, making up for the ongoing negative trend in fixed-network telephony and text messaging. 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, e.g., in the housing sector. Further, we want to provide new services for our customers in collaboration with partners.

We expect to see a slight year-on-year increase in revenue in 2018. We want to continue consolidating our position as market leader in the mobile and broadband area. Thanks to the outstanding quality of our network and the progress being made in fiber-optic roll-out, we anticipate greater demand for mobile and broadband products as well as substantial growth in the number of broadband, TV, IP, high-speed, and hybrid lines. We would like to continue offering best customer experience with integrated services (e.g., MagentaEins), and with digital products and service experiences. Our IT and technical service revenues should help feed this trend. In addition, we want to make advances with the smart home business and offer further M2M and security services. We expect growth in cloud services to continue. Wholesale business revenue should stabilize thanks to strong demand for our contingent model.

We expect adjusted EBITDA in our Germany operating segment to increase slightly in 2017 and again in 2018, accompanied by a steady improvement in margins. Growing revenues as well as savings in indirect costs – especially from a reduction in shared functions and from increased productivity – will be the main factors in this trend. On the basis of the new Group structure as of January 1, 2017, we are forecasting an adjusted EBITDA margin of around 39 percent in each of the next two years.

Our course is set for innovation and growth: While we will continue to promote investments in new technologies with even greater 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., FTTC, super vectoring, FTTH, 4 x 4 MIMO, 5G). At the same time, we want to roll out our fiber-optic network, also in areas near local exchanges, e.g., on the back of the “More broadband for Germany” initiative. We intend to participate in funding programs – such as the German government’s program for broadband expansion – and continue the efficient migration to IP and BNG. Hence we expect cash capex to increase in 2017 and then to decline slightly in 2018. The progress made in our investment program should lead to lower capital expenditure in subsequent years.

## UNITED STATES

In 2017, 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 through a strong mid-band spectrum position supplemented by low-band spectrum in key metropolitan areas and a nationwide fourth-generation LTE 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.

T-Mobile US expects continued strong increases in branded postpaid customers in 2017 and a further increase in 2018. In branded prepay customers we expect a continued increase in 2017 and 2018. 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 a strong increase in total revenues in U.S. dollars in 2017 and a further increase in 2018. Revenue is expected to be positively impacted by continued customer growth momentum.

For 2017 and 2018, T-Mobile US expects an increase – in U.S. dollars – in adjusted EBITDA. As a result of the significant growth in customers over the past year, revenue growth is expected to outpace increases in expense. Additionally, T-Mobile US expects continued focus on cost saving initiatives.

However, continued investment in the network and increased spending for marketing of the T-Mobile US brand will likely impact adjusted EBITDA. Competitive pressures may also significantly affect expected revenues and adjusted EBITDA in U.S. dollars. Exchange rate fluctuations may significantly affect revenues and adjusted EBITDA in euros in 2017 and 2018.

Excluding expenditures relating to spectrum, T-Mobile US expects higher cash capex in U.S. dollars in 2017 and beyond as it continues to expand its 4G/LTE network.



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**EUROPE**

The organizational structure of the Europe operating segment changed as of January 1, 2017. Operational management of the Netherlands subsidiary was transferred to the Group Development operating segment, while the new Board department Technology and Innovation, which will be reported on in the Group Headquarters & Group Services segment, assumed responsibility for the GNF (Global Network Factory) and Group Technology units, and the Pan-Net companies.

In some footprint countries of our Europe operating segment, the situation on the market remains difficult. We nevertheless want to defend our strong market position and expand it where possible. In the case of our integrated companies, our approach depends on the position of the respective company in its market: We are thus working to consolidate our market leadership in the fixed network and in mobile communications, or using our strong position in the fixed network to strengthen our mobile business with convergent products. We want to systematically transform our mobile-centric companies into integrated enterprises.

On our way to becoming Europe's leading telecommunications provider, we will continue to rely on our technology leadership over the next two years. With its pan-European all-IP network (Pan-Net), Deutsche Telekom has created a simplified, standardized network for the centralized and efficient production of innovative services for all the countries in the region. This network requires all our subsidiaries to migrate to IP and, at the end of 2016, Hungary became the fifth national company in our Europe operating segment to all but complete this process. [SDG](#)

We want our customers to benefit, too, from shorter times to market for new and innovative services. Pan-Net went live at the end of the reporting period. It will put us in a position to create a digital product portfolio, including applications for simple, seamless connectivity – whether users are at home or on the move. We are also enhancing our communications services with new and innovative elements, e.g., state-of-the-art messaging, voice, and video services.

Revenue from our TV and entertainment services continued to grow steadily in the 2016 financial year. A successful content and product campaign is in place to secure our strong market position in Greece despite the economically challenging situation there. Over the next two years as well, we expect our subsidiaries to post further revenue growth in the TV segment. An important measure implemented in 2016 to enhance future efficiency and growth was the establishment of a stronger, centralized content and product team. Our international team

will negotiate, for example, key international media rights in the future. In addition, we intend to combine our product development activities so as to be able to implement new and additional functions in our TV markets faster and more cost-effectively. There will also be a stronger focus on factoring existing customer wishes into product development. That includes, for instance, the enhanced presentation of our content via a new, more intuitive user interface as well as easy access to all relevant TV content regardless of location, time of day, or device.

One aim of our integrated network strategy is to make further advances in the fiber-optic roll-out in our fixed network. Our strategy in Greece has been to focus on rolling out optical fiber up to the street cabinets, complemented by vectoring technology as from 2017. In the other integrated companies, we have been investing in the FTTH roll-out for a number of years now, and plan to continue doing so in combination with FTTC and vectoring. Our target is for the integrated national companies to provide 50 percent of households with FTTx at speeds of up to 100 Mbit/s.

We also want to fulfill our customers' desire for more mobile bandwidth, which is why we plan to take part in further spectrum auctions in the years ahead. Our investments in mobile communications are focused on two areas: expanding LTE reach and implementing LTE Advanced technology in order to increase network capacity. This will make transmission rates of over 300 Mbit/s possible. In 2016, we succeeded in covering 84 percent of the population in the countries of our Europe operating segment with LTE and are thus well on track to achieve our goal. By 2018, we also want to achieve network coverage of between 75 and 95 percent in further countries. 5G, the next mobile standard, is within reach. Initial tests with 5G-precursor LTE Advanced pro (4.5G) have been successfully completed in Austria, Croatia, Greece, and Poland.

We have continued expanding our portfolio for business customers, adding high-performance ICT and cloud services. Our MagentaOne Business brand, in particular, was positioned in the European subsidiaries and marketed with considerable success. In the future, too, we will remain focused on this portfolio of convergent products, which unite the fixed network, mobile communications, and cloud applications. This offers additional customer benefit in the area of security and intelligent collaboration, especially when assisting small and medium-sized enterprises with the digital transformation. We also intend to intensify our efforts to position ICT and M2M/IoT networking, which got off to successful start in the reporting period. This will increasingly target and support Smart Cities initiatives in municipalities in Central and (South-) Eastern Europe. [SDG](#)



In the next two years, we expect to acquire more customers in our Europe operating segment, with the successful launch of the MagentaOne convergence brand contributing toward this growth. As a consequence, we expect the number of TV and broadband lines to rise in 2017 and 2018. The number of mobile customers is likely to decline slightly year-on-year in 2017. This is primarily attributable to the prepay registration regulations the regulatory authority in Romania plans to introduce in 2017 – without these new regulations, the number of mobile customers would likely remain stable year-on-year in 2017. The number of mobile customers should rise again in 2018. Voice telephony in the fixed network is likely to be replaced more and more by mobile communications, a trend that should again have a negative impact on fixed-network business in the next two years. We consequently expect the number of fixed lines to remain stable in 2017 and to decline in 2018.

Changes in legislation, for example regarding taxes and duties, and national austerity programs may have a negative impact on our revenue and earnings in the next two years. As was the case in the prior year, developments in the fiscal situation in Greece could have an adverse effect on our revenue, earnings, and our ability to invest in this national company. Changes in exchange rates could also affect our earnings on a euro basis.

On the basis of these assumptions and parameters, we expect revenue in our Europe operating segment to decline slightly in 2017 – on a like-for-like basis, i. e., based on the pro-forma figures for 2016. This presupposes constant exchange rates, certain assumptions as regards regulation, market players and spectrum auctions, and an unchanged organizational structure. We expect revenues to stabilize in 2018. As mentioned, we plan to maintain our high level of investment in our integrated networks through 2017 and 2018 – which will keep the development of cash capex stable.

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 enhance our productivity and cut our indirect costs. We expect to post adjusted EBITDA of around EUR 3.7 billion in 2017, i. e., slightly below the prior-year level, and to see a slight increase in 2018.

## SYSTEMS SOLUTIONS

In line with our Group strategy, we want to “lead in business.” As part of our transformation program of recent years, we divided our operational organization into three divisions: the IT Division and the TC Division, which are responsible for traditional IT and telecommunications services, and the Digital Division, which is clearly focused on new growth areas like the digital transformation and the Internet of Things. We also finished setting up the Telekom Security unit in 2016. Our aspiration with this unit, which began operating on January 1, 2017, is to become the market leader for cyber-security. Even though we have largely completed the restructuring initiated by our transformation program, we are still in the transformation phase.

We are among the top providers in the European IT market. Our very high levels of customer satisfaction are a key element in maintaining this position in the long term and in taking us a step closer to our goal of becoming the No. 1 in cloud computing by 2018.

Although cost pressure remains high, our aim is to achieve profitable growth with traditional IT services, systems integration, and outsourcing. On top of that, we are successfully differentiating ourselves from our competitors in more and more business areas. We are building on our lead in the digital economy and also relying increasingly on platform business and scalability. Partnerships are the core element of our growth strategy. By building out our networks, we can offer international, integrated connectivity and shape the digital transformation of key industries with new business models – as new cloud services and our comprehensive cloud portfolio underscore. Together with our partners we have created a cloud ecosystem, which brings together state-of-the-art technical products from global market leaders and specialist providers on our platforms. We have also expanded our portfolio of dynamic services: Customers can book infrastructure, SAP applications and much more as needed and pay only for what they use. We already have 50 partner companies that market their products together with us. The corresponding services are made available from our high-security data centers, such as the one in Magdeburg/Biere. Magdeburg/Biere is one of the few data centers in the world from which competing cloud providers offer their services – and that gives us a clear competitive edge.

We want to expand our international telecommunications business with business customers. On our way to becoming Europe's leading telecommunications provider, we are concentrating on customers in Germany, Switzerland, Austria, Spain, Scandinavia, the United Kingdom, the Netherlands, and Belgium. Our TC Division is expanding its sales in these countries and extending our range to include innovative services such as Managed LAN, Unified Communications, and IP VPN. We also want to win over customers internationally with consistent offerings, new products, and competitive prices – and all-IP migration and cloud services offer the best opportunities to achieve this.

As of January 1, 2017, we changed the structure of our Group. The main reason for the change was the transfer of Telekom IT from our Systems Solutions operating segment to the Group Headquarters & Group Services segment. On a like-for-like basis, i. e., based on pro-forma figures for 2016, we expect revenue and adjusted EBITDA (around EUR 0.5 billion) for our Systems Solutions operating segment to remain stable in 2017 and order entry to grow, due to the ongoing transformation. In 2018, we expect order entry and revenue to increase at segment level, and we expect adjusted EBITDA to rise as a result of increased profitability, in both cases compared with the prior year.

## GROUP DEVELOPMENT

The Group Development operating segment was established on January 1, 2017. We expect to see a stable revenue trend in this operating segment in 2017 and 2018. Adjusted EBITDA is anticipated to remain stable in 2017, coming in at around EUR 0.9 billion. We expect the stable development in adjusted EBITDA to continue in 2018. The competitive situation in the Netherlands remains challenging. Here we are pursuing a new strategy to stabilize the downward EBITDA trend, which continued in 2016. The key elements of this strategy are a repositioning of the core brand T-Mobile and more efficient management of costs. Further, we completed the acquisition of Vodafone's fixed-network business in the Netherlands in December 2016. While this will enable us to enter the market for fixed-network and convergence products, it will also entail a considerable amount of integration work.

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An increase in capital expenditure for networks is likely to support implementation of the strategy for T-Mobile Netherlands in 2017. In the coming years, we also expect capital expenditure to increase at DFMG, primarily due to the ongoing build-out of Telekom Deutschland's mobile network. After the high levels of capital expenditure in the Netherlands in 2017, the corresponding figure in 2018 should be lower.

## GROUP HEADQUARTERS & GROUP SERVICES

In 2017 and 2018, we plan to continue our cost-cutting measures and further optimize our processes and structures in the Group Headquarters & Group Services segment. The resulting savings will enable us not only to offer services to the other segments in a more cost-effective manner, but also to make a contribution toward improving earnings. Following establishment of the Board department Technology and Innovation on January 1, 2017, which unites our cross-segment network, innovation and IT activities of the units Global Network Factory, Group Technology, and Pan-Net (from our Europe operating segment) and Telekom IT (from our Systems Solutions operating segment) are being transferred to the Group Headquarters & Group Services segment. In 2017 and 2018, the Board department Technology and Innovation is likely to post ongoing IT development expenses in Germany as well as additional expenses and further capital expenditure for the development of innovative business ideas. In addition, there will be costs for the ongoing establishment of centralized production platforms as part of our Europe-wide Pan-Net project. Part of these expenses will be offset by synergies from the creation of the new Board departments and by positive effects of the restructuring on earnings.

<sup>1</sup> 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, adjusted EBITDA, ROCE, cash capex, and free cash flow. 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 97 et seq. of the combined management report, and the "Disclaimer," page 232 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.

## RISK AND OPPORTUNITY MANAGEMENT

- Risk early warning system
- Identification of opportunities

### 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 2016 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 new market opportunities.

### RISK AND OPPORTUNITY MANAGEMENT SYSTEM

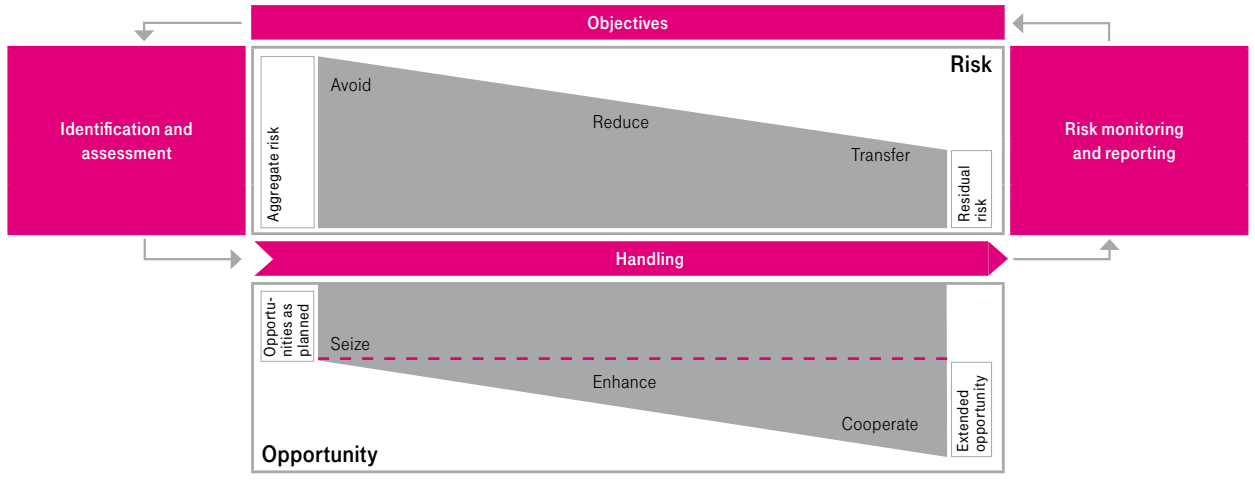
As one of the world's leading providers in the telecommunications and information technology industry, we are subject to all kinds of uncertainties and change. In order to operate successfully in this ongoing volatile environment, we need to anticipate any developments at an early stage and systematically identify, assess, and manage the resulting risks. It is equally important to recognize and exploit opportunities. We therefore consider a functioning risk and opportunity management system to be a central element of value-oriented corporate governance.

The need for a risk management system arises not only from business management requirements, but also from regulations and law, 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 all 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 action to be taken, e.g., reducing risks or seizing 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.

The 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 the necessary transparency during the investment process and the consistency of investment planning and decisions in our Group and operating segments. They also provide decision-making support for the Board of Management and the Board of Management Assets Committee. This process additionally includes the systematic identification of strategic risks and opportunities.

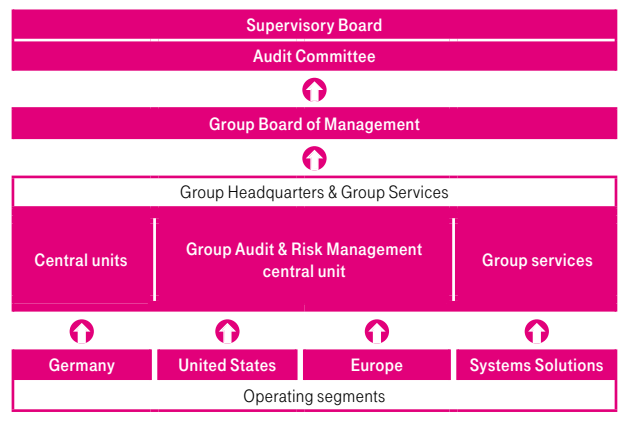
**ORGANIZATION OF RISK MANAGEMENT**

The Group Risk Management unit provides methods for the risk management system applied Group-wide and the associated reporting system. Our Germany, United States, Europe, and Systems Solutions operating segments are connected to the central risk management system via their own risk management systems. The relevant risk owners in the operating segments and central Group units are responsible for managing and reducing risks.

As of January 1, 2017, our organizational structure changed: We created a new Technology and Innovation Board of Management department. Going forward, we will report on this department in our Group Headquarters & Group Services segment. We will also report on our new Group Development operating segment as of the start of 2017.

For more information, please refer to the section “Group organization,” page 26 et seq.

**Risk management**



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**RISK IDENTIFICATION AND REPORTING**

Each operating segment produces a quarterly risk report in accordance with the standards laid down by the central Risk Management unit 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 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.

In addition to the quarterly risk report, we use additional tools for monitoring and analyzing risks, in which we collect a large number of early-warning and economic indicators, e.g., on macroeconomic, political, and legal developments in our markets.

**IDENTIFICATION OF OPPORTUNITIES THROUGH THE ANNUAL PLANNING PROCESS**

In addition to the systematic management of risks, the Company's long-term success must be secured through integrated **opportunities management**. The identification of opportunities and their strategic and financial assessment play a major role in our annual planning process.

The short-term monitoring of results and the medium-term planning process help our operating segments and Group Headquarters to 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. We distinguish between two types of opportunities:

- Opportunities with external causes over which we have no influence, for example, the revocation of additional taxes in Europe.
- Opportunities created internally, for example by focusing our organizational structure on innovation and growth areas and products, or through business partnerships and collaborations from which we expect synergies.

We have continuously increased the efficiency of our planning process so as to give us greater scope. 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 on a daily basis, 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 phase. This daily "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**

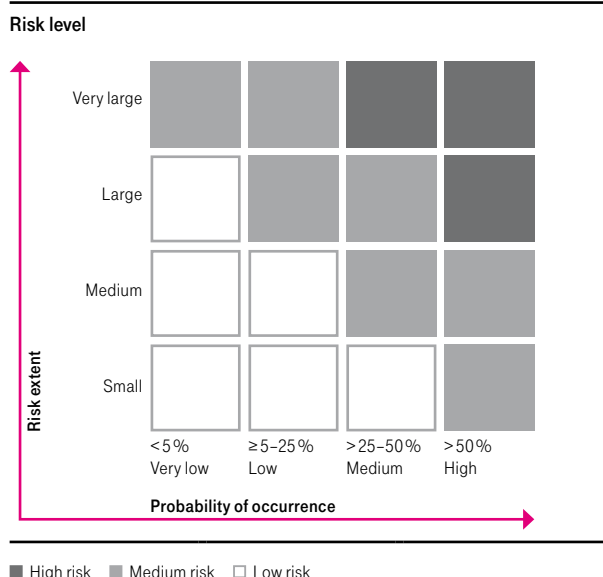
**ASSESSMENT METHOD**

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 graphic below.



We report all risks classified as "high" and "medium." Exceptions are possible in specific cases: For the sake of reporting continuity, for example, we also report risks from prior years that are classified as low for the current reporting period.

It should be noted that risks with an extent currently assessed as being small may in the future acquire a larger extent than risks that are 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 that cannot be assessed at present 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

**Risk management and insurance.** To the extent possible and economically viable, we take out adequate Group-wide insurance cover for insurable risks. DeTeAssekuranz GmbH – a wholly owned subsidiary of Deutsche Telekom AG – acts as an insurance broker for our Group Risk Management unit and supports insurance risk management. The company 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 (i. e., the possible risk extent reaches a volume "relevant for the Group") or for risks to be bundled and managed at Group level to protect the Group's interests (opportune reasons/cost optimization/risk reduction).

**Business Continuity Management (BCM).** BCM is a support process within operational risk management that protects business processes from the consequences of damaging incidents and disruptions, and 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 therefore to identify potential threats at an early stage and to reduce 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.

For this, BCM identifies critical business processes and business processes needing protection including any supporting processes, process steps, and assets (people, technology, infrastructure, supply and service relationships, and information). 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 contain 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 large number of measures for dealing with operational risks: For example, we improve our networks through continuous operational and infrastructural measures. We continuously enhance our quality management, the related controls, and quality assurance. We 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 endeavor to minimize risks in connection with legal proceedings by ensuring suitable support for proceedings and 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 overcoming or avoiding tax risks.

### RISKS AND OPPORTUNITIES

In the following section, we present all risks and opportunities that have been identified as significant for the Group and, 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 subsequently presented.

In order to make it easier to understand and explain their effects better, we have allocated the individually assessed risks to the following categories:

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## Corporate risks

	Probability of occurrence	Risk extent	Risk level	Change against prior year
<b>INDUSTRY, COMPETITION, AND STRATEGY</b>				
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	medium	small	low	↻
Risks relating to the market and environment, United States	low	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	medium	medium	↻
<b>REGULATION</b>	see pages 103 and 104			
<b>OPERATIONAL RISKS</b>				
Personnel, Germany and Systems Solutions	medium	small	low	↻
Risks relating to IT/NT network operations, Germany	very low	large	medium	↻
Risks relating to IT/NT network operations, United States	very low	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	↻
<b>BRAND, COMMUNICATION, AND REPUTATION</b>				
Brand and reputation (reporting in the media)	low	small	low	↻
Sustainability risks	very low	small	low	↻
Health and environment	low	medium	low	↻
<b>LITIGATION AND ANTI-TRUST PROCEEDINGS</b>				
	see page 108 et seq.			
<b>FINANCIAL RISKS</b>				
Liquidity, credit, currency, interest rate risks	low	small	low	↻
Tax risks	see page 111			
Other financial risks	see page 111			

↻ improved   ↻ unchanged   ↻ deteriorated

## RISKS AND OPPORTUNITIES FROM INDUSTRY, COMPETITION, AND STRATEGY

Risks and opportunities relating to the macroeconomic environment. It is clear from the economic and political developments of the last few months that uncertainties have grown as regards global economic growth and the economies of our footprint countries. Current forecasts of future economic development vary widely in both bandwidth and volatility. In many countries, the benefits of international economic integration have failed to reach parts of the population or, at least, they are not aware these benefits exist. Upcoming elections in Europe could result in further countries wanting to leave the European Union. Nor can we rule out an increase in protectionism, with potential long-term negative effects on world trade. What is more, geopolitical crises, resulting for example from the increased terror threat or large numbers of refugees, may have an adverse effect on the economies of the countries in which we operate. While the political situation in Greece has essentially stabilized, risk factors remain, including the slim parliamentary majority of the governing coalition and

potentially growing resistance to austerity policies. Against this backdrop, a renewed escalation toward a political crisis cannot be entirely ruled out.

Risks to economic development could manifest themselves in different ways in some of our countries. Consumers and business customers could rein in their consumption if the economy slows sharply again and uncertainty continues to rise. Government austerity measures could also have negative effects on demand for telecommunications services, if public-sector demand declines or disposable incomes in the private sector diminish.

**Risks relating to the market and environment.** The main market risks we face include the steadily falling price levels 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 intensive competition in the telecommunications industry, cannibalization effects due to new products and services, and technological progress.

Competitive pressure is expected to continue, especially in the fixed network in Germany and Europe. In the broadband market, we are observing above-average growth in the market shares of regional network operators, particularly in Germany, and an increase in their market coverage through the build-out of proprietary infrastructure. In certain regions, our competitors are extending their own fiber-optic network to the home so that they are independent of our network in the local loop, too. There is also strong competition to gain new customers by cutting prices and offering introductory discounts.


We also expect prices for mobile voice telephony and mobile data services to decrease further, which could adversely affect our mobile services revenue. Among the main reasons for the decrease in prices are providers that are pursuing aggressive pricing policies (MVNOs) and expanding in Germany and other European markets. Pure eSIM smartphone offerings could put even more pressure on prices for mobile voice telephony and mobile data services. In addition, the risk remains that smaller competitors will take unforeseen, aggressive pricing measures.

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. We continue to be exposed to the risk of a further loss of market share and falling margins and of increasingly losing direct customer contact.

T-Mobile US operates in a very competitive wireless industry where customer attrition may increase as the wireless industry shifts away from service contracts and market saturation leads to increased competition for customers. The growing appetite for data services will increase demand on its network capacity. Furthermore, industries are converging as video, mobile, and broadband companies compete to deliver content. Joint ventures, mergers, acquisitions and strategic alliances are resulting in larger competitors who could enter into exclusive handset, device, or content arrangements or refuse to provide us with roaming services on reasonable terms. This may adversely affect T-Mobile US' competitive position and ability to grow. The scarcity and cost of additional wireless spectrum, and regulations relating to spectrum use, may also affect its business strategy, including plans to improve its network.


Our Systems Solutions operating segment also faces challenges. After all, the information and communications technology market is impacted by continued strong competition, persistent price erosion, long sales cycles and restraint in the awarding of projects. This creates a potential risk of revenue losses and declining margins at T-Systems.

**New consumer credit regulations in the Netherlands.** The Supreme Court of the Netherlands (Hoge Raad der Nederlanden) found in the final instance that mobile contracts that are bundled with a free or discounted device such that the price of the device is not apparent for the customer, are to be treated as consumer credit or installment purchases. Accordingly, such contracts are subject to Dutch consumer credit law. As a consequence, contracts that do not comply with these specific consumer credit provisions can be rescinded. T-Mobile Netherlands is currently examining the consequences of this decision. At present the full financial impact of this cannot be assessed with sufficient certainty. To ensure it complies with the legal situation in future, T-Mobile Netherlands applied for a license for 2017 to issue consumer credit. The license it received is valid with effect from January 1, 2017.

**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 risks and opportunities that we believe will allow us to achieve market growth and that could be significant for 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 help shape the digital future and provide consumers and business customers with our own innovations – thus answering the questions of tomorrow today. 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. 

**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 risks. In other words, the benefit of the measures could be less than originally estimated, or the measures could take effect later than expected, or not at all. Each of these factors, on their own or combined with others, could have a negative impact on our business situation, financial position, and results of operations.



See the section "Forecast," page 87 et seq.



For more information on our innovation activities, please refer to the section "Innovation and product development," page 77 et seq.



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## RISKS AND OPPORTUNITIES RELATING TO REGULATION

In the following section, we describe our main regulatory risks and opportunities which, as things currently stand, could affect our results of operations and financial position, and our reputation. These risks and opportunities comprise changes in regulatory policy and legislation, in the awarding of the spectrum we require for current and future services, and in regulatory decisions regarding specific products or prices.

Our German and international companies remain subject to sector-specific market regulation. The national regulatory authorities have extensive powers to intervene in our product design and pricing, with significant effects on our operations. We can only to a limited extent anticipate such regulatory interventions, which may additionally increase existing price and competitive pressure. There are concerns that regulation in Germany and other European countries may continue to impact medium- to long-term growth in revenue and earnings.

### Changes in regulatory policy and legislation

**EU legal framework for telecommunications.** On September 14, 2016, the European Commission published legislative proposals for revising the EU legal framework for telecommunications, which were passed on to the European Parliament and Council for further discussion. The legal framework comprises the central EU rules for the telecommunications sector, in particular price and access regulation, the spectrum policy, sector-specific consumer protection rules, the provisions on universal service, and the institutional framework. We expect the new rules to be passed in the first half of 2018. The corresponding provisions will then have to be transposed into national law, a process that will take at least a year. It is currently difficult to predict the outcome of this extensive legislative process; overall, we expect it to result in both opportunities and risks.

On October 27, 2015, the European Parliament and the European Council passed the **EU Regulation concerning the single market for electronic communications**. It contains provisions on international roaming, net neutrality, and obligations to provide information.

■ **International roaming.** Under the EU Regulation concerning the single market for electronic communications, surcharges for roaming services within the EU are to be eliminated entirely (Roam like at Home) as of June 15, 2017, following an initial reduction in rates that has been in force since April 30, 2016. While exceptions are possible under the Fair Use Policy, the rules of that policy – published by the European Commission on December 15, 2016 – limit surcharges to only very few cases. The introduction of Roam like at Home will give rise to corresponding revenue losses as well as substantial implementation costs. Furthermore, the European Council and the European Parliament are revising the Roaming Regulation and plan to lower very significantly the regulated price caps for wholesale roaming charges. These reductions will give rise to revenue risks for us and our subsidiaries, also because the international roaming mechanism may be misused in order to circumvent national terms and conditions. We expect the definitive regulation to be published in the first half of 2017.

■ **Net neutrality.** On August 30, 2016, the Body of European Regulators for Electronic Communications (BEREC) published guidelines for implementing the EU Regulation on net neutrality (Telecoms Single Market Regulation). As expected, BEREC's interpretation of the regulation was very narrow. It remains to be seen how the national regulatory authorities apply these guidelines in practice.

■ **Information requirements.** In addition to the provisions on net neutrality, the BEREC guidelines also include far-reaching provisions on obligations to provide information that significantly constrict the legal framework of the EU regulation. Under these provisions, all customers are to be able to access all information on bandwidths; the information would also have to be made available to all existing customers retrospectively. Both of these measures entail corresponding revenue risks. As the guidelines are without legal force, we have to wait and see how they are translated into national law.

At the national level, on December 1, 2016 the lower house of the German national parliament, Bundestag, enacted its **Transparency Regulation**, the main objective of which is to enhance transparency and cost control with telecommunications services. The regulation will come into force as of June 1, 2017. In this context, the Federal Network Agency launched a measuring system that enables consumers to measure the bandwidths available on their fixed-network and mobile lines. The access bandwidths achieved across Germany were published in June 2016 for the first time and further publications are to follow.

### Awarding of spectrum

Risks could arise from the fact that inappropriate auction rules and frequency usage requirements, excessive reserve prices, and disproportionately high annual spectrum fees could jeopardize the acquisition of our respective target 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 spectrum in the 0.8 GHz and 0.9 GHz ranges, as well as to 1.8 GHz, 3.5 GHz, and 3.7 GHz. Allocations of spectrum are currently in preparation in Albania, Greece, the F.Y.R.O Macedonia, Austria, the Czech Republic and Slovakia, with most taking place before mid-2017. A decision on the extension of the rights of use for T-Mobile Czech Republic's existing 0.9/1.8 GHz spectrum is expected in the first half of 2017. In addition, preparations are in progress there for the award of 3.7 GHz spectrum, which is expected to take place in spring 2017. Within the same time frame, the regional allocations of 3.7 GHz spectrum in Slovakia should be concluded and a new allocation of 1.8 GHz spectrum take place. The Federal Communications Commission (FCC), the national regulatory authority in the United States, began auctioning spectrum in the 0.6 GHz range on May 31, 2016. This Incentive Auction will redistribute existing broadcast spectrum to mobile use in a multistage process of individual reverse and forward auctions. The latest stage, in which 70 MHz of a total of 84 MHz of former broadcast spectrum is up for auction, is still ongoing. The Incentive Auction is due to conclude in the first half of 2017. ☐



For information on spectrum auctions that were completed in 2016 or are still ongoing, please refer to the section "The economic environment," page 35 et seq.



For more information on the administrative court processes, please refer to the section "Litigation," pages 108 and 109.

### Regulatory decisions on products and charges

**Retrospective new ruling on rate approvals.** In addition to the general regulatory risks already mentioned, the fact that administrative courts may overturn the Federal Network Agency's rate rulings is a source of further uncertainty in Germany. In such cases, the regulatory authority then has to decide again on the rates for past periods. It is generally not clear at all whether, to what extent, and in which direction rates will be revised. The settlement agreements concluded in 2015 with plaintiffs concerning the ULL one-time charges, in which the originally approved charges were agreed and the contractual parties undertook to withdraw pending claims, were implemented in full by April 2016. On this basis, we submitted corresponding rate applications to the Federal Network Agency on September 23, 2015 and November 30, 2015, which it approved on November 5, 2015 and February 1, 2016, respectively. As a result, the ULL one-time charges that were originally approved are now legally binding for almost the entire market.

### OPERATIONAL RISKS AND OPPORTUNITIES

**Personnel.** In 2016, we once again used socially responsible measures to restructure the workforce in the Group, mainly by means of severance payments, partial and early retirement, and employment opportunities for civil servants and employees offered by Vivento/Telekom Placement Services, especially in the public sector. 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 around 1,854 civil servants are entitled to return to Deutsche Telekom in this way (as of December 31, 2016).



For information on major litigation in connection with personnel, please refer to the section "Litigation," pages 108 and 109.

**Risks relating to IT/NT network operations.** 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.

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 Entertain. In order to avoid the risk of failures, e.g., arising from natural disasters or fire, 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 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 Group-wide insurance cover for insurable risks.

**Opportunities relating to IT/NT network operations.** 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. On the one hand, this will enable efficiency gains, e.g., by reducing the complexity of maintenance and operation, switching off service-specific legacy platforms, and saving energy. On the other hand, all IP will generate growth potential in the short to medium term by improving existing services (e.g., better voice quality, more customer self-service, more 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 telecommunication 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 a whole array of challenges facing telecommunication networks. These include purely technical requirements, such as achieving a substantial increase in capacity, bandwidth, availability, and lower latency, as well as fundamental issues, such as fixed-mobile convergence (FMC), machine-to-machine communication on a large scale in the Internet of Things (IoT), and the growing need for reliability, security, and guaranteed resource allocation (quality of service) in industrial applications. 5G thus offers not only the immediate opportunity of cost-effectively managing fast growing demands in existing business models going forward, but also opportunities for additional business models by marketing "network capabilities" (e.g., network access, security, identity, storage location, temporary storage, real-time processing, etc.) to relevant partners.

Our T-Systems operating segment covers innovative business areas in the digital transformation of business processes, such as the Internet of Things. These business areas could develop faster than expected. As a pioneer of the digital transformation, we have an opportunity to play a

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crucial role in setting the market trend – and not simply participating in it – with flagship projects. 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 participating in different projects and contributing our core competencies in data communication, big data, cloud computing, and security. In a number of market areas of the Internet of Things, such as predictive maintenance, we can also boast initial excellent references with international applications.

The Federal Republic has made maximum use of its renewal options for operation of the toll collection system for trucks in Germany. As the existing technology and development partner, we are in a strong position in the new tender process to submit a competitive offer to continue operation of the system thanks to our detailed knowledge and expertise. What is more, we have earned valuable references that will help to give us an edge over our competitors thanks to our participation in other European toll collection projects in Belgium and Switzerland and our involvement in the planned launch of a Europe-wide toll system (EETS).

#### 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 its services and, in some cases, to protect its customers' and its own information. Failure of T-Mobile US' or others' systems, networks and infrastructure may prevent T-Mobile US from providing reliable service, or may allow for the unauthorized use of or interference with its networks and other systems. T-Mobile US' reputation and financial condition could be materially adversely affected by such system failures, business disruptions, and unauthorized use of or interference with its network and other systems. Remediation costs could include liability for information loss as well as repairing infrastructure and systems.

**Future viability of the IT architecture in the United States.** In order to grow and remain competitive with new and evolving technologies in its industry, T-Mobile US will need to adapt to future changes in technology, continually invest in T-Mobile US' network, enhance its 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 T-Mobile US may experience a decline in demand for its services or face challenges in implementing or evolving its business strategy. T-Mobile US is in the process of implementing a new billing system, which will support a portion of our subscribers, while maintaining its legacy billing system. The implementation may cause major system or business disruptions or T-Mobile US may fail to implement the new billing system in a timely or effective manner.

#### Opportunities relating to the IT architecture in the United States.

T-Mobile US is making significant investments in its IT infrastructure. If this results in a significant improvement in processes, then the savings made could be higher than previously assumed.

**Procurement.** As a service provider and an operator and provider of telecommunications and IT products, we cooperate with a variety of suppliers of technical components, such as software, hardware, transmission systems, switching systems, outside plant, and terminal equipment.

Supply risks cannot be entirely ruled out. Delivery bottlenecks, price increases, changes in the prevailing economic conditions, or suppliers' product strategies may have a negative impact on our business processes and our results. Risks may result from the dependence on individual suppliers or from individual vendors defaulting. We employ organizational, contractual, and procurement strategy measures to counteract such risks.


**Data privacy and data security.** The passage of the General Data Protection Regulation (GDPR) in April 2016 established a directly applicable and uniform code of data protection legislation across the EU. 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. Thus our fundamental demands have been met. Additionally, the new data protection legislation closes a major regulatory gap when it comes to service providers outside of the EU. The impact of the GDPR on the competition situation with non-European market players (e.g., Google, Facebook or Apple) in particular remains to be seen. Now it has been adopted, the member states must transpose the Regulation into national law. However, there is a risk that the national governments will fully exploit the scope for special regulations offered by the GDPR. The draft bill presented to harmonize data protection law in Germany with the GDPR is a clear signal that we need to act. National idiosyncrasies must not be allowed to undermine the level of harmonization achieved across a broad range of diverse regulations. As far as sector-specific telecommunications regulation is concerned, the review process for the E-Privacy Directive began, as expected, in mid-2016. With this process we are seeking to create a level playing field that incorporates over-the-top providers in the regulatory framework; in addition, we also hope to reduce sector-specific regulation to the largest possible extent. The announcement that the directive would be translated into a legally binding regulation and its scope widened to include additional providers (such as WhatsApp) showed that at least the first of our demands has already been met. The important thing now is to ensure that the new regulations are harmonized as far as possible with the GDPR.

Our products and services are subject to risks in relation to data privacy and data security, especially in connection with unauthorized access to customer, partner, or employee data. The security and privacy of this data are always our top priority. This also applies to the growing cloud computing business, which is subject to the same rigorous requirements for security and data privacy as all our other products. In order to maintain these high standards and largely exclude risks, we welcome the European General Data Protection Regulation. It has laid the foundation to ensure that the same rules apply for all companies offering their services on the European market. Thus consumers have the same rights and there is a level playing field all over Europe. With regard to IT security, we are faced with numerous new challenges.

In recent years, the focus has shifted from prevention to analysis. This is where our early warning system comes in: It detects new sources and types of cyber-attack, 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 weaknesses 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 enable new attack patterns to be detected and new protection systems to be developed.

Cyber-crime and industrial espionage are becoming more and more widespread. Global cyber-attacks like the one launched on the routers of Deutsche Telekom's customers in late November are evidence of the sheer scale of the threat from the Internet. According to the 2016 Security Report: Decision-Makers, 93 percent of large and medium-sized enterprises in Germany have already fallen victim to IT attacks aimed at gaining confidential data or causing damage. We are addressing these risks with comprehensive security concepts. We will continue to engage in partnerships, e.g., with public and private organizations, in order to create greater transparency, and thus be in a stronger position to tackle the threats. With the Security by Design principle we have established security as a fixed component in our development processes for new products and information systems. In addition, we conduct intensive mandatory digital security tests and regularly submit to external appraisals – in the shape of security and data-protection audits – in accordance with internationally recognized norms and standards.

We plan to accelerate our growth using IT security solutions. That is why we established the Telekom Security business unit, which unites all of the Company's security services units under the aegis of T-Systems. Some 1,200 experts are working to develop integrated security concepts for customers and to offer the security solutions required for this from a single source: From secure cloud and secure e-mail, through to Cyber Defense as a Service, for which our experts and situation center are available 24/7.

We plan to win market shares in the growth area of security with our end-to-end security portfolio MagentaSecurity and to drive forward the megatrends of Internet of Things and Industry 4.0 with new security concepts. We are also continuing to expand our partner ecosystem in the area of IT security. 



See section  
"Corporate  
responsibility,"  
page 70 et seq.



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](http://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 more quickly and extensively than they could just a few years ago. 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 challenges and opportunities.** For us, comprehensive risk and opportunities management also means considering the opportunities 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, Bitkom, Econsense, and BAGSO; stakeholder dialog formats organized by us, such as the CR Forum and Dialog Days on sustainability in procurement; and our various publications, such as the press review and newsletter.

We have identified the following as our main sustainability management issues:

- **Reputation.** 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 protection, or work standards in the supply chain 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.

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■ **Climate protection.** 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. ICT products and services offer the potential to save up to ten times as much in CO<sub>2</sub> 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<sub>2</sub> emissions in 2030, and to maintain worldwide emissions at the level of 2015 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 roll-out in Germany has the potential to save an aggregate amount of 19 million metric tons of CO<sub>2</sub> 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. ■

Among the risks that climate change harbors, meteorological extremes are one we are already experiencing. This is having a direct effect on our stakeholders, e.g., our customers, suppliers, and employees. We can take preventive action in this area by reducing our own CO<sub>2</sub> 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<sub>2</sub> 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. Beyond that, in 2015 four of our subsidiaries (Magyar Telekom in Hungary, OTE S. A. in Greece, T-Mobile Austria, and T-Mobile Netherlands) covered 100 percent of their electricity requirements with renewables, thus actively reducing climate risks.

■ **Suppliers.** We see more sustainability in our supply chain as an opportunity – for our reputation and our business success. Thus through a development program, we help strategic suppliers to introduce business practices that are socially and ecologically acceptable and economically efficient. The program showed measurable successes again in the reporting year. Better working conditions at our suppliers reduce the number of work-related accidents and the turnover rate. This increases productivity, while at the same time lowering costs for recruitment and training. Thus not only do we strengthen CR performance at our suppliers, we also significantly reduce identified risks. 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, the conscious acceptance of environmental damage or inadequate local working and safety conditions. However, the reporting of NGOs or media can give rise

to risks to the Company's reputation, but also to supply risks. We reduce these risks by systematically reviewing our suppliers. ■ In the renowned RobecoSAM sustainability rating we scored 98 out of 100 points for our supply chain management in the reporting year, five points higher than in the prior year. Our partnerships with suppliers that comply with international sustainability standards ensure a high level of product quality and reliable procurement.

**Health and environment.** 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 handsets. In mobile communications, this affects projects like the build-out of the mobile communications infrastructure and the use of mobile handsets. In the fixed network, it affects sales of traditional 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 labeling requirements 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 maintain our close and successful dialog with local authorities, over and above the statutory requirements. This also applies since our longstanding collaboration with municipalities to build out the mobile network was enshrined in law in 2013; previously, this collaboration was based on voluntary self-commitments by the network operators.



See section  
"Corporate  
responsibility,"  
page 70 et seq.



For more information  
on this topic, please  
refer to our 2016 CR  
Report, which will  
be published in April  
2017.

## 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.

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### Major ongoing legal proceedings

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Toll Collect arbitration proceedings

Prospectus liability proceedings

Claims by partnering publishers of telephone directories

Claims relating to charges for the shared use of cable ducts

Monthly charges for the unbundled local loop

Claim for damages in Malaysia despite an earlier, contrary, legally binding arbitration ruling

Patents and licenses

Reduction of the Company's contribution to the civil-service pension of the former Deutsche Bundespost

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■ **Toll Collect arbitration proceedings.** The principal members of the Toll Collect consortium are Daimler Financial Services AG and Deutsche Telekom AG. In the arbitration proceedings between these principal shareholders and the consortium company Toll Collect GbR on one side and the Federal Republic of Germany on the other concerning disputes in connection with the truck toll collection system, Deutsche Telekom received the Federal Republic of Germany's statement of claim on August 2, 2005. The Federal Republic is claiming some EUR 3.33 billion in lost toll revenues plus interest due to the delayed commencement of operations as well as contractual penalties in the amount of around EUR 1.65 billion plus interest. The Federal Republic's main claims – including contractual penalty claims – thus total about EUR 4.98 billion plus interest. After the hearings in spring 2014, we reassessed the proceedings, updated Deutsche Telekom's share of the amount at risk, and recognized adequate provisions for the risk in the statement of financial position. Further hearings took place in 2015 and 2016. There is no reason to adjust the provisions for risk recognized in 2014 in the statement of financial position.

■ **Prospectus liability proceedings.** There are around 2,600 ongoing actions filed by around 16,000 alleged buyers of T-Shares sold on the basis of the prospectuses published on May 28, 1999 (second public offering, or DT2) and May 26, 2000 (third public offering, or DT3). The plaintiffs assert that individual figures given in these prospectuses were inaccurate or incomplete. The amount in dispute totals approximately EUR 80 million. 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 has 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. In the model proceedings (Musterverfahren) on the second public offering (DT2) on July 3, 2013, the Frankfurt/

Main Higher Regional Court issued a decision and ruled that the disputed stock exchange prospectus did not contain any errors. In a decision dated November 22, 2016, the Federal Court of Justice confirmed the ruling of the Frankfurt/Main Higher Regional Court in all its key points. This brings the DT2 model proceedings to an end.


On May 16, 2012, the Frankfurt/Main Higher Regional Court had ruled in the model proceedings (Musterverfahren) on the third public offering (DT3) that there were also no 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 DeTeMedien GmbH, a wholly owned subsidiary of Deutsche Telekom AG, 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 refunds from DeTeMedien GmbH and, to a certain extent, from Deutsche Telekom AG as joint and several debtor alongside DeTeMedien 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, 15 actions are still pending for a remaining amount in dispute of around EUR 104 million plus interest. 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.

■ **Claims relating to charges for the shared use of cable ducts.** In 2012, Kabel Deutschland Vertrieb und Service GmbH (KDG) – now Vodafone Kabel Deutschland GmbH – 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, KDG's claims amounted to around EUR 407 million along with another around EUR 34 million for the alleged benefit from additional interest, plus interest in each case. 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

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Frankfurt/Main Higher Regional Court for further consideration. In similar proceedings, Unitymedia Hessen GmbH & Co. KG, Unitymedia NRW GmbH and Kabel BW GmbH demanded in January 2013 that Telekom Deutschland GmbH cease charging the plaintiffs more than a specific and precisely stated amount for the shared use of cable ducts. For charges allegedly paid in excess between 2009 and 2012, the plaintiffs are claiming a refund for a total amount of around EUR 189 million plus interest. The claim was dismissed in the first instance by the Cologne Regional Court on October 11, 2016. The plaintiffs have appealed against this decision. At present the financial impact of both these proceedings cannot be assessed with sufficient certainty.

- **Monthly charges for the unbundled local loop (ULL).** In light of the new rulings issued and the withdrawal of claims following the implementation of settlement agreements with (former) plaintiffs,  we deem the remaining risk from the proceedings concerning the ULL monthly and one-time charges to be low. In the future, therefore, we will not report any further about the proceedings still pending.

Furthermore, several competitor companies have requested the revocation of decisions made by the Federal Network Agency in favor of Deutsche Telekom or Telekom Deutschland GmbH. If these applications were to be successful, they would normally require a new decision by the Federal Network Agency.

- **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 first-instance proceedings in this matter are scheduled to start spring/summer 2017. At present, we cannot assess their 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.
- **Reduction of the Company's contribution to the civil-service pension of the former Deutsche Bundespost.** Deutsche Telekom

complies with its obligation to pay contributions to the Civil Service Pension Fund in accordance with the German Act on the Legal Provisions for the Former Deutsche Bundespost Staff (Postperson-alrechtsgesetz). The Act on the Legal Provisions for the Former Deutsche Bundespost Staff states that the obligation to contribute to the Civil Service Pension Fund may be reduced to a level that is in line with the market and a peer company if a former Deutsche Bundespost company bound by such payment obligations can provide evidence to the German government that the payment would constitute an unreasonable burden on its competitiveness. Deutsche Telekom previously filed an application with the responsible Federal Ministry of Finance to have its contribution obligations reduced. After this application was rejected, Deutsche Telekom filed an appeal with the responsible administrative court seeking reimbursement of a portion of the paid contributions and a reduction of the contributions to be paid in future. In the ruling dated October 2, 2015, the competent administrative court dismissed the claim of Deutsche Telekom for a reduction in the payment obligation. Deutsche Telekom filed an appeal against this ruling in November 2015.

Further, Deutsche Telekom intends to defend itself and/or pursue its claims resolutely in each of these court, conciliatory, and arbitration proceedings.

#### Proceedings concluded

- **Claims for damages concerning the charges for the provision of subscriber data.** In 2005, Deutsche Telekom AG received a claim for damages of approximately EUR 86 million plus interest from telegate AG. telegate AG alleged that Deutsche Telekom AG charged excessive prices for the provision of subscriber data between 1997 and 1999. Also in 2005, Deutsche Telekom AG received a claim for damages from Dr. Harisch, the founder of telegate AG. This claim amounted to around EUR 612 million plus interest. Both claims have since been dismissed conclusively. On April 12, 2016, the Federal Court of Justice dismissed the complaint against non-allowance of appeal filed by telegate AG, thus concluding these proceedings.
- **Claim for compensation against OTE.** In May 2009, Lannet Communications S. A. filed an action against OTE claiming damages of around EUR 176 million plus interest arising from the allegedly unlawful termination of services by OTE – mainly interconnection services, unbundling of local loops, and leasing of dedicated lines. On April 8, 2016, the relevant court in Athens ruled in favor of OTE and obligated the plaintiff to withdraw its claim. The decision has now become final and legally binding, the proceedings have thus been terminated.



See the section "Risks and opportunities relating to regulation," pages 103 and 104.

## ANTI-TRUST PROCEEDINGS

Like all companies, our Group is subject to the regulations of anti-trust law. Given this, we have in recent years significantly expanded our compliance activities in this area too. In 2015, independent auditors certified our anti-trust compliance management system as being effective in accordance with IDW AuS 980. 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 the resulting claims for damages.



For the evaluation, please refer to the table on page 101.

**Claims for damages against Slovak Telekom following the European Commission's 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. The fines 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. Following the decision of the European Commission, Orange Slovensko, SWAN, and Slovanet filed damage actions against Slovak Telekom with the civil court in Bratislava in 2015, claiming compensation for damages of EUR 247 million, EUR 53 million and EUR 62 million respectively, plus interest. These claims seek compensation for alleged damages due to Slovak Telekom's abuse of a dominant market position, as determined by the European Commission. Whereas Slovanet's claim has not yet been served on Slovak Telekom, the latter has submitted a detailed defense as regards Orange Slovensko and SWAN, rejecting in full the claims for damages in both cases. In parallel, Slovak Telekom is conducting negotiations with Orange Slovensko with a view to reaching an out-of-court settlement. We have recognized adequate provisions for this risk in the statement of financial position. At present we cannot assess the financial impact of the other proceedings with sufficient certainty.

## FINANCIAL RISKS

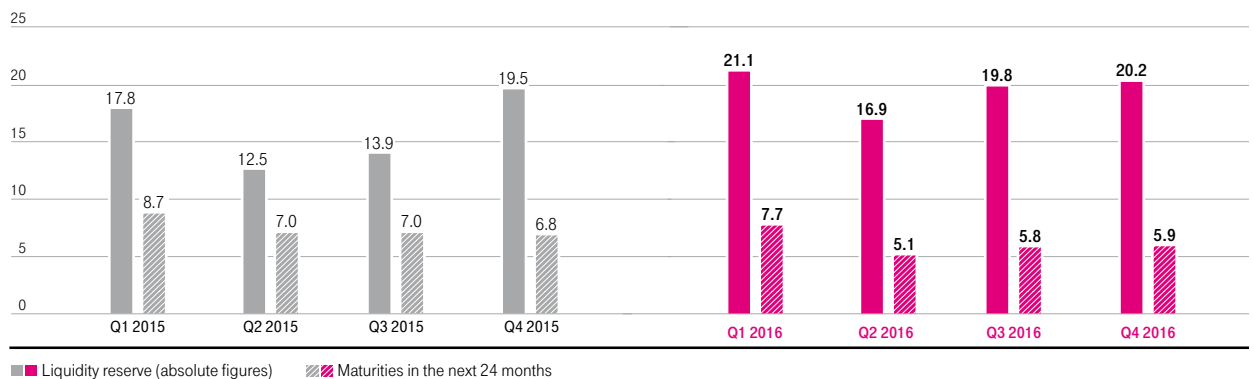
### Liquidity, credit, currency, interest rate risks

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 and interest rates. Our financial risk management aims to contain these risks through ongoing operational and finance activities. To contain the risks, we use selected derivative and non-derivative hedging instruments (hedges), depending on the risk assessment. However, we hedge only those risks that affect our Group's cash flow. We use derivatives exclusively as hedging instruments, i. e., not for trading or other speculative purposes. The following risk areas – liquidity, credit, currency, and interest rate risks – are evaluated after implementation of risk containment measures.

**Liquidity risk.** To ensure the Group's and Deutsche Telekom AG's solvency and financial flexibility at all times, we maintain a liquidity reserve in the form of credit lines and cash as part of our liquidity management. This liquidity reserve is to cover the maturities of the next 24 months at any time. 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 graphic below shows the development of the liquidity reserve in relation to maturity dates. As of the end of 2016 and also in the preceding quarters, we clearly met our targets for the liquidity reserve to cover maturities due in the respective coming 24 months.

**Liquidity reserve and maturities in 2016 compared with 2015**  
billions of €






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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 at December 31, 2016. None of these lines of credit had been utilized as of December 31, 2016. 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.

**Credit risk.** 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. As a rule, we only conclude transactions with regard to financing activities with counterparties that have at least a credit rating of BBB+/Baa1; this is connected with an operational credit management system. We continuously monitor accounts receivable in operations in a decentralized manner, i. e., at the individual units. Our business with corporate customers, especially international carriers, is subject to special solvency monitoring.

For derivative transactions, we agreed with counterparties as part of collateral agreements that, in the event of insolvency, all existing contracts will be netted and only a receivable or liability in the amount of the balance will remain. We reduce the credit risk arising from derivative transactions further by exchanging collateral. For receivables balances for existing collateral agreements, we receive security from the counterparty in the form of readily available cash; in the event of payables balances, we provide such security in return.

**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 (i. e., if the cash flow is not denominated in the functional currency of the respective Group company). 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. We may nevertheless also hedge this foreign-currency risk under certain circumstances.

**Interest rate risks.** Our interest rate risks mainly result from interest-bearing liabilities, primarily in the eurozone and the United States. The interest risks in euros are managed as part of our interest rate management activities, in the course of which the maximum permissible negative deviation from the planned finance costs is determined: the risk budget. To ensure compliance with the risk budget, we manage the composition of the liabilities portfolio (ratio of fixed- to variable-interest debt instruments and average fixed-interest period) by issuing primary (non-derivative) financial instruments and, where necessary, also deploying derivative financial instruments. This consistently resulted in a fixed-income net position in the United States. Regular reports are submitted to the Board of Management and Supervisory Board. 

### 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. As a result, these risks can impact 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, 2016, Deutsche Telekom's credit rating with Moody's was Baa 1, while Fitch and Standard & Poor's rated us BBB+. All three agencies gave us a "stable" outlook. A lower rating would result in interest rate rises for some of the bonds issued by us.

**Sales of shares by the Federal Republic or KfW Bankengruppe.** As of December 31, 2016, the Federal Republic and KfW Bankengruppe jointly held approximately 32.0 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 Deutsche Telekom AG shares by the Federal Republic or KfW, or any speculation to this effect, could have a negative impact on the price of the T-Share.

**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 a detailed explanation, please refer to the section "Summary of accounting policies – Judgments and estimates" in the notes to the consolidated financial statements, pages 147 and 148.



For additional explanations, please refer to Note 36 "Financial instruments and risk management" in the notes to the consolidated financial statements, page 200 et seq.

## 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. In addition, the external auditors conduct a risk-oriented audit to verify the effectiveness of those parts of the ICS that are relevant to financial reporting.

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 § 315a (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, for measuring 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 data 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.

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## OTHER DISCLOSURES

### CORPORATE GOVERNANCE STATEMENT IN ACCORDANCE WITH § 289a AND § 315 (5) HGB


The Corporate Governance Statement in accordance with § 289a and § 315 (5) HGB forms part of the combined management report. 

### CLOSING STATEMENT BY THE BOARD OF MANAGEMENT ON THE DEPENDENT COMPANY REPORT

Since the Federal Republic of Germany, as minority shareholder of Deutsche Telekom AG, has represented a solid majority at most shareholders' meetings in the past due to its level of attendance, Deutsche Telekom is a dependent company of the Federal Republic of Germany in accordance with § 17 (1) AktG.

Deutsche Telekom is not subject to any control or profit and loss transfer agreement with the Federal Republic of Germany. Under § 312 AktG, the Board of Management of Deutsche Telekom AG has therefore prepared a dependent company report describing relations between the controlling entity and dependent companies. The Board of Management issued the following statement at the end of the report: "The Board of Management hereby declares that, under the circumstances known to the Board of Management at the time the corporate transactions were performed, the Company received appropriate remuneration for such transactions. The Company did not perform or omit any actions in the interests of, or on the instructions of, the controlling company or any affiliated companies of the Federal Republic."

### LEGAL STRUCTURE OF THE DEUTSCHE TELEKOM 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, 2016: around 20 million in total).

**Capital increase.** The resolution on the dividend of EUR 0.55 per share for the 2015 financial year gave shareholders the choice between payment in cash or having their dividend entitlement converted into Deutsche Telekom AG shares. Dividend entitlements of Deutsche Telekom AG shareholders amounting to EUR 1.0 billion for shares from authorized capital (2013 authorized capital) were contributed in June 2016 and thus did not have an impact on cash flows. Deutsche Telekom AG carried out an increase in issued capital of EUR 0.2 billion against contribution of dividend entitlements for this purpose in June 2016. This increased capital reserves by EUR 852 million, and under IFRS, EUR 839 million. The number of shares increased by 70,250,163.

**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 § 71 d and § 71 e 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, and additional 140 thousand were transferred in the 2015 financial year.



The statement can be found on the Deutsche Telekom website [www.telekom.com](http://www.telekom.com) under Investor Relations in the Management & Corporate Governance section.



For information on the composition of capital stock in accordance with § 289 (4) HGB and direct and indirect equity investments, please refer to Note 15 "Shareholders' equity" in the notes to the consolidated financial statements, page 180 et seq.

In addition, a total of 232 thousand shares were reallocated in January, February, March, April, May, June, September, November and December 2016 and transferred to the custody accounts of eligible participants of the Share Matching Plan. 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 are transferred at fair value to the respective Group company starting with the reporting period.

As of December 31, 2016, sales of treasury shares resulting from the transfers in the reporting period accounted for less than 0.01 percent, or EUR 594 thousand, of share capital. Retained earnings thus increased by EUR 2,597 thousand. In the reporting year, 71 thousand treasury shares with a fair value of EUR 1,111 thousand were charged on to other Group companies, thus increasing the capital reserve by EUR 251 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 fully expired 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 corresponds to 0.4 percent, or EUR 48 million, of Deutsche Telekom AG'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.

**Authorized capital and contingent capital.** The shareholders' meeting on May 16, 2013 authorized the Board of Management to increase the share capital with the approval of the Supervisory Board by up to EUR 2,176,000,000 by issuing up to 850,000,000 no par value registered shares against cash and/or non-cash contributions in the period ending May 15, 2018. The 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. 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 (**2013 authorized capital**). Following the increases in share capital against contribution of dividend entitlements in the 2014, 2015, and 2016 financial years, the 2013 authorized capital amounts to EUR 1,598,139,059.20. The remaining 2013 authorized capital was entered in the commercial register on June 22, 2016.

As of December 31, 2016, the share capital was contingently increased by up to EUR 1,100,000,000, comprising up to 429,687,500 no par value shares (**2014 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 14, 2019, on the basis of the authorization resolution granted by the shareholders' meeting on May 15, 2014, 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 14, 2019, on the basis of the authorization resolution granted by the shareholders' meeting on May 15, 2014, fulfill their option or conversion obligations

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.

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## MAIN AGREEMENTS INCLUDING A CHANGE OF CONTROL CLAUSE


The main agreements entered into by Deutsche Telekom AG, which 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.

In addition, the other members of the Toll Collect consortium (Daimler Financial Services AG and Cofiroute S. A.) have a call option in the event that the ownership structure of Deutsche Telekom AG changes such that over 50 percent of its share capital or voting rights are held by a new shareholder and this change was not approved by the other members of the consortium.

In the event that Deutsche Telekom AG is taken over by another company that is not a telecommunications company based in the European Union or the United States of a similar size and stature to Deutsche Telekom AG, the Hellenic Republic has the right either to directly purchase all of Deutsche Telekom AG's shares in the Hellenic Telecommunications Organization S. A., Athens, Greece (OTE), from Deutsche Telekom AG, or to demand that they be transferred to a state body or state-owned authority named by it. For this purpose, a change of control over Deutsche Telekom shall be deemed to have taken place if one or several entities, with the exception of the Federal Republic of Germany, directly or indirectly acquire 35 percent of the voting rights in Deutsche Telekom AG.

In the master agreement establishing the procurement joint venture BuyIn in Belgium, Deutsche Telekom AG and France Télécom S. A./ Atlas Services Belgium S. A. (a subsidiary of France Télécom S. A.) agreed that if Deutsche Telekom or France Télécom comes under the controlling influence of a third party or if a third party that is not wholly owned by the France Télécom group of companies acquires shares in Atlas Services Belgium S. A., the respective other party (France Télécom and Atlas Services Belgium only jointly) can terminate the master agreement with immediate effect.

## CHANGES IN THE CONSOLIDATED GROUP

61 German and 188 foreign subsidiaries are fully consolidated in Deutsche Telekom's consolidated financial statements (December 31, 2015: 64 and 190). 13 associates (December 31, 2015: 14) and 7 joint ventures (December 31, 2015: 8) are also included using the equity method. 

## BUSINESS COMBINATIONS

Deutsche Telekom did not affect any material business combinations in the 2016 financial year.

## 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.** The Supervisory Board resolved on December 16, 2015 to extend Claudia Nemat's term of office on the Board of Management effective October 1, 2016. Dr. Thomas Kremer was reappointed as member of the Board of Management responsible for Data Privacy, Legal Affairs and Compliance effective June 1, 2017 as per the Supervisory Board's resolution of August 30, 2016. As of December 14, 2016, the Supervisory Board renewed Reinhard Clemens' term of office on the Board of Management effective December 1, 2017. On January 1, 2017, the Deutsche Telekom AG Board of Management was expanded to include the additional Board department Technology and Innovation, headed by Claudia Nemat. Srinu Gopalan joined the Board of Management as of January 1, 2017 as the member responsible for Europe, in line with the Supervisory Board's resolution of June 30, 2016.

## 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 new 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.

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. 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.

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.



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," page 152.

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.

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.

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; in the event of an uninterrupted period of absence due to illness of more than one month, claims to variable remuneration are reduced pro rata in line with the uninterrupted period of absence. 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.

#### Variable performance-based remuneration

The variable remuneration of the members of the Board of Management is 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. 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.

**Variable I.** 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 revenue, unadjusted 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 (30 percent) and value adherence (adherence to Guiding Principles), which 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 rewarded on a straight-line basis, capped at 150 percent of the award amount. Any higher levels of target achievement will not be taken into consideration. To further 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.

**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), adjusted earnings per share, customer satisfaction, and employee satisfaction). Each parameter determines a quarter of the award amount. Levels of target achievement exceeding 100 percent are rewarded on a straight-line basis, 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.

In the 2016 financial year, the following absolute nominal amounts were pledged to the Board of Management members in the event of 100-percent target achievement.

€	2016 tranche	2015 tranche
Reinhard Clemens	650,000	650,000
Niek Jan van Damme	644,000	644,000
Thomas Dannenfeldt	670,000	550,000
Timotheus Höttges	1,342,000	1,342,000
Dr. Christian P. Illek	550,000	515,625
Dr. Thomas Kremer	550,000	550,000
Claudia Nemat	675,000	675,000

**Information on the Share Matching Plan.** In the 2016 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. Deutsche Telekom AG will grant one additional share for every share acquired as part of this 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 2016 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 2016. 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 2016 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 2016 financial year may be higher or lower than the amounts estimated here.

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The total share-based payment expense for entitlements to matching shares from 2010 to 2016 to be recognized for the financial years 2015 and 2016 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 2016	Number of shares transferred in 2016 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 2016 for matching shares for the years 2012 through 2016 €	Cumulative total share-based payment expense in 2015 for matching shares for the years 2011 through 2015 €
Reinhard Clemens	144,144	14,344	24,125	185,899	184,443	161,823
Niek Jan van Damme	134,918	14,212	22,239	184,183	188,132	155,728
Thomas Dannenfeldt	27,649	14,785	0	191,619	120,267	69,482
Timotheus Höttges	203,389	29,615	35,417	383,809	353,485	235,655
Dr. Christian P. Illek	11,121	12,137	0	157,299	60,164	24,409
Dr. Thomas Kremer	58,410	12,137	0	157,299	143,105	86,360
Claudia Nemat	89,389	14,896	7,011	193,049	193,228	136,066

By December 31, 2016, 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 2016, matching shares were again transferred to individual members of the Board of Management. A total of 88,792 shares were transferred to Board of Management members in 2016 (2015: 64,955).

**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.

#### Company pension plan

**Company pension plan (existing entitlement).** The members of the Board of Management are entitled to a company pension. 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, however. 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 will be attained.

The pension payments to be made increase dynamically, at a rate of 1 percent. In addition, the pension agreements include arrangements for pensions for surviving dependents in the form of entitlements for widows and orphans. In specifically provided exceptional cases, entitlement to a widow'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 respective period of service through the scheduled end of the current period of appointment serves as the basis for the period of service eligible for calculating the pension.

**Company pension plan (new entitlement).** A plan with a contribution-based promise in the form of a one-time capital payment upon retirement is set up for all Board of Management members with a new entitlement to a company pension. 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.

In addition, the pension agreements include arrangements for pensions for surviving dependents in the form of entitlements for widows and orphans. In the event of a permanent incapacity for work (invalidity), the beneficiary is also entitled to the pension fund.

Service cost and defined benefit obligations for each member of the Board of Management are shown in the following table:

€	Service cost 2016	Defined benefit obligation (DBO) Dec. 31, 2016	Service cost 2015	Defined benefit obligation (DBO) Dec. 31, 2015
Reinhard Clemens	737,710	7,132,977	779,940	5,829,077
Niek Jan van Damme	303,289	2,874,190	312,100	2,445,816
Thomas Dannenfeldt	276,804	903,460	288,525	573,411
Timotheus Höttges	1,030,510	11,203,561	1,096,569	9,138,086
Dr. Christian P. Illek	269,168	496,574	204,741	204,741
Dr. Thomas Kremer	250,534	1,253,693	254,966	965,594
Claudia Nemat	213,170	1,756,131	296,866	1,344,197

An annual contribution of EUR 290,000 was allocated to Niek Jan van Damme in accordance with the provisions of the new company pension plan. The contributions for Thomas Dannenfeldt, Dr. Christian P. Illek, Dr. Thomas Kremer and Claudia Nemat amount to EUR 250,000 each for each year of service rendered.

The pension expense resulting from the company pension plan is shown as service cost.

**Board of Management compensation for the 2016 financial year.** In reliance on legal requirements and other guidelines, a total of EUR 16.7 million (2015: EUR 17.6 million) is reported in the following

table as total compensation for the 2016 financial year for the members of the Board of Management. The Board of Management compensation comprises the fixed annual remuneration as well as other 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.

The fixed annual remuneration and other remuneration are totally unrelated to performance.



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**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)	
Reinhard Clemens	2016	840,000	25,221	733,850	468,000	185,899	2,252,970
	2015	840,000	17,914	780,650	578,500	190,015	2,407,079
Niek Jan van Damme	2016	850,000	28,913	781,172	396,000	184,183	2,240,268
	2015	850,000	30,333	791,476	489,500	188,309	2,349,618
Thomas Dannenfeldt	2016	860,000	26,711	858,270	-	191,619	1,936,600
	2015	700,000	25,040	693,550	-	160,823	1,579,413
Timotheus Höttges	2016	1,450,000	156,742	1,760,704	547,560	383,809	4,298,815
	2015	1,450,000	67,166	1,753,994	578,500	392,408	4,242,068
Dr. Christian P. Illek	2016	700,000	37,585	674,850	-	157,299	1,569,734
	2015	525,000	1,226,828	495,413	-	121,621	2,368,862
Dr. Thomas Kremer	2016	700,000	65,910	666,600	396,000	157,299	1,985,809
	2015	700,000	62,854	665,500	438,510	160,823	2,027,687
Claudia Nemat	2016	900,000	75,616	807,975	486,000	193,049	2,462,640
	2015	900,000	69,704	810,675	600,750	197,373	2,578,502
	2016	6,300,000	416,698	6,283,421	2,293,560	1,453,157	16,746,836
	2015	5,965,000	1,499,839	5,991,258	2,685,760	1,411,372	17,553,229

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 2013 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 7.2 million (2015: EUR 7.1 million) was granted 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 201.6 million (December 31, 2015: EUR 188.1 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			
	2015	2016	2016 (min.)	2016 (max.)
Fixed remuneration	1,450,000	1,450,000	1,450,000	1,450,000
Fringe benefits	67,166	156,742	156,742	156,742
<b>Total fixed annual remuneration</b>	<b>1,517,166</b>	<b>1,606,742</b>	<b>1,606,742</b>	<b>1,606,742</b>
One-year variable remuneration	1,342,000	1,342,000	0	2,013,000
<b>Multi-year variable remuneration</b>	<b>1,734,408</b>	<b>1,725,809</b>	<b>0</b>	<b>4,026,000</b>
Of which: 2015 Variable II (4-year term)	1,342,000			
Of which: 2016 Variable II (4-year term)		1,342,000	0	2,013,000
Of which: 2015 Share Matching Plan (4-year term)	392,408			
Of which: 2016 Share Matching Plan (4-year term)		383,809	0	2,013,000
<b>Total</b>	<b>4,593,574</b>	<b>4,674,551</b>	<b>1,606,742</b>	<b>7,645,742</b>
Service cost	1,096,569	1,030,510	1,030,510	1,030,510
<b>TOTAL COMPENSATION</b>	<b>5,690,143</b>	<b>5,705,061</b>	<b>2,637,252</b>	<b>8,676,252</b>

	Dr. Christian P. Illek			
	Function: Human Resources since Apr. 1, 2015			
	2015	2016	2016 (min.)	2016 (max.)
Fixed remuneration	525,000	700,000	700,000	700,000
Fringe benefits	1,226,828	37,585	37,585	37,585
<b>Total fixed annual remuneration</b>	<b>1,751,828</b>	<b>737,585</b>	<b>737,585</b>	<b>737,585</b>
One-year variable remuneration	412,500	550,000	0	825,000
<b>Multi-year variable remuneration</b>	<b>637,246</b>	<b>707,299</b>	<b>0</b>	<b>1,650,000</b>
Of which: 2015 Variable II (4-year term)	515,625			
Of which: 2016 Variable II (4-year term)		550,000	0	825,000
Of which: 2015 Share Matching Plan (4-year term)	121,621			
Of which: 2016 Share Matching Plan (4-year term)		157,299	0	825,000
<b>Total</b>	<b>2,801,574</b>	<b>1,994,884</b>	<b>737,585</b>	<b>3,212,585</b>
Service cost	204,741	269,168	269,168	269,168
<b>TOTAL COMPENSATION</b>	<b>3,006,315</b>	<b>2,264,052</b>	<b>1,006,753</b>	<b>3,481,753</b>

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66	Development of business at Deutsche Telekom AG	113	Other disclosures

Reinhard Clemens				Niek Jan van Damme				Thomas Dannenfeldt			
Function: T-Systems since Dec. 1, 2007				Function: Germany since Mar. 1, 2009				Function: Finance (CFO) since Jan. 1, 2014			
2015	2016	2016 (min.)	2016 (max.)	2015	2016	2016 (min.)	2016 (max.)	2015	2016	2016 (min.)	2016 (max.)
840,000	840,000	840,000	840,000	850,000	850,000	850,000	850,000	700,000	860,000	860,000	860,000
17,914	25,221	25,221	25,221	30,333	28,913	28,913	28,913	25,040	26,711	26,711	26,711
<b>857,914</b>	<b>865,221</b>	<b>865,221</b>	<b>865,221</b>	<b>880,333</b>	<b>878,913</b>	<b>878,913</b>	<b>878,913</b>	<b>725,040</b>	<b>886,711</b>	<b>886,711</b>	<b>886,711</b>
650,000	650,000	0	975,000	644,000	644,000	0	966,000	550,000	670,000	0	1,005,000
<b>840,015</b>	<b>835,899</b>	<b>0</b>	<b>1,950,000</b>	<b>832,309</b>	<b>828,183</b>	<b>0</b>	<b>1,932,000</b>	<b>710,823</b>	<b>861,619</b>	<b>0</b>	<b>2,010,000</b>
650,000				644,000				550,000			
	650,000	0	975,000		644,000	0	966,000		670,000	0	1,005,000
190,015				188,309				160,823			
	185,899	0	975,000		184,183	0	966,000		191,619	0	1,005,000
<b>2,347,929</b>	<b>2,351,120</b>	<b>865,221</b>	<b>3,790,221</b>	<b>2,356,642</b>	<b>2,351,096</b>	<b>878,913</b>	<b>3,776,913</b>	<b>1,985,863</b>	<b>2,418,330</b>	<b>886,711</b>	<b>3,901,711</b>
779,940	737,710	737,710	737,710	312,100	303,289	303,289	303,289	288,525	276,804	276,804	276,804
<b>3,127,869</b>	<b>3,088,830</b>	<b>1,602,931</b>	<b>4,527,931</b>	<b>2,668,742</b>	<b>2,654,385</b>	<b>1,182,202</b>	<b>4,080,202</b>	<b>2,274,388</b>	<b>2,695,134</b>	<b>1,163,515</b>	<b>4,178,515</b>

Dr. Thomas Kremer				Claudia Nemat			
Function: Data Privacy, Legal Affairs and Compliance since June 1, 2012				Function: Europe and Technology since Oct. 1, 2011			
2015	2016	2016 (min.)	2016 (max.)	2015	2016	2016 (min.)	2016 (max.)
700,000	700,000	700,000	700,000	900,000	900,000	900,000	900,000
62,854	65,910	65,910	65,910	69,704	75,616	75,616	75,616
<b>762,854</b>	<b>765,910</b>	<b>765,910</b>	<b>765,910</b>	<b>969,704</b>	<b>975,616</b>	<b>975,616</b>	<b>975,616</b>
550,000	550,000	0	825,000	675,000	675,000	0	1,012,500
<b>710,823</b>	<b>707,299</b>	<b>0</b>	<b>1,650,000</b>	<b>872,373</b>	<b>868,049</b>	<b>0</b>	<b>2,025,000</b>
550,000				675,000			
	550,000	0	825,000		675,000	0	1,012,500
160,823				197,373			
	157,299	0	825,000		193,049	0	1,012,500
<b>2,023,677</b>	<b>2,023,209</b>	<b>765,910</b>	<b>3,240,910</b>	<b>2,517,077</b>	<b>2,518,665</b>	<b>975,616</b>	<b>4,013,116</b>
254,966	250,534	250,534	250,534	296,866	213,170	213,170	213,170
<b>2,278,643</b>	<b>2,273,743</b>	<b>1,016,444</b>	<b>3,491,444</b>	<b>2,813,943</b>	<b>2,731,835</b>	<b>1,188,786</b>	<b>4,226,286</b>

### 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 2016. 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		Reinhard Clemens		Niek Jan van Damme	
	Function: Chairman of the Board of Management (CEO) since Jan. 1, 2014		Function: T-Systems since Dec. 1, 2007		Function: Germany since Mar. 1, 2009	
	2015	2016	2015	2016	2015	2016
Fixed remuneration	1,450,000	1,450,000	840,000	840,000	850,000	850,000
Fringe benefits	67,166	156,742	17,914	25,221	30,333	28,913
<b>Total fixed annual remuneration</b>	<b>1,517,166</b>	<b>1,606,742</b>	<b>857,914</b>	<b>865,221</b>	<b>880,333</b>	<b>878,913</b>
One-year variable remuneration	1,753,994	1,760,704	780,650	733,850	791,476	781,172
<b>Multi-year variable remuneration</b>	<b>965,664</b>	<b>1,099,526</b>	<b>917,069</b>	<b>839,525</b>	<b>763,439</b>	<b>749,066</b>
Of which: Variable II (4-year term) <sup>a</sup>	578,500	547,560	578,500	468,000	489,500	396,000
Of which: Share Matching Plan (4-year term) <sup>b</sup>	387,164	551,966	338,569	371,525	273,939	353,066
Other	0	0	0	0	0	0
<b>Total</b>	<b>4,236,824</b>	<b>4,466,972</b>	<b>2,555,633</b>	<b>2,438,596</b>	<b>2,435,248</b>	<b>2,409,151</b>
Service cost	1,096,569	1,030,510	779,940	737,710	312,100	303,289
<b>TOTAL COMPENSATION</b>	<b>5,333,393</b>	<b>5,497,482</b>	<b>3,335,573</b>	<b>3,176,306</b>	<b>2,747,348</b>	<b>2,712,440</b>

	Thomas Dannenfeldt		Dr. Christian P. Illek		Dr. Thomas Kremer		Claudia Nemat	
	Function: Finance (CFO) since Jan. 1, 2014		Function: Human Resources since Apr. 1, 2015		Function: Data Privacy, Legal Affairs and Compliance since June 1, 2012		Function: Europe and Technology since Oct. 1, 2011	
	2015	2016	2015	2016	2015	2016	2015	2016
Fixed remuneration	700,000	860,000	525,000	700,000	700,000	700,000	900,000	900,000
Fringe benefits	25,040	26,711	1,226,828	37,585	62,854	65,910	69,704	75,616
<b>Total fixed annual remuneration</b>	<b>725,040</b>	<b>886,711</b>	<b>1,751,828</b>	<b>737,585</b>	<b>762,854</b>	<b>765,910</b>	<b>969,704</b>	<b>975,616</b>
One-year variable remuneration	693,550	858,270	495,413	674,850	665,500	666,600	810,675	807,975
<b>Multi-year variable remuneration</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>438,510</b>	<b>396,000</b>	<b>600,750</b>	<b>596,283</b>
Of which: Variable II (4-year term) <sup>a</sup>	0	0	0	0	438,510	396,000	600,750	486,000
Of which: Share Matching Plan (4-year term) <sup>b</sup>	0	0	0	0	0	0	0	110,283
Other	0	0	0	0	0	0	0	0
<b>Total</b>	<b>1,418,590</b>	<b>1,744,981</b>	<b>2,247,241</b>	<b>1,412,435</b>	<b>1,866,864</b>	<b>1,828,510</b>	<b>2,381,129</b>	<b>2,379,874</b>
Service cost	288,525	276,804	204,741	269,168	254,966	250,534	296,866	213,170
<b>TOTAL COMPENSATION</b>	<b>1,707,115</b>	<b>2,021,785</b>	<b>2,451,982</b>	<b>1,681,603</b>	<b>2,121,830</b>	<b>2,079,044</b>	<b>2,677,995</b>	<b>2,593,044</b>

<sup>a</sup> Variable II as shown in the column for 2016 relates to the payment of the 2013 tranche; the figure in the column for 2015 relates to the payment of the 2012 tranche.

<sup>b</sup> 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 2011 or 2012.

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## 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 2016 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:

- The Chairman of the Audit Committee receives EUR 80,000.00, ordinary members of the Audit Committee EUR 40,000.00.
- The Chairman of the General Committee receives EUR 70,000.00, ordinary members of the General Committee EUR 30,000.00.
- The Chairman of the Nomination Committee receives EUR 25,000.00, ordinary members of the Nomination Committee EUR 12,500.00.
- 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 2016 amounted to EUR 2,858,916.68 (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 2016 is as follows:

Member of the Supervisory Board	Fixed remuneration	Meeting attendance fee	Total
Baldauf, Sari	95,000.00	8,000.00	103,000.00
Bednarski, Josef	165,000.00	25,000.00	190,000.00
Dr. Bernotat, Wulf H.	120,000.00	10,000.00	130,000.00
Brandl, Monika	95,000.00	10,000.00	105,000.00
Geismann, Johannes	152,500.00	24,000.00	176,500.00
Dr. von Grünberg, Hubertus (until May 25, 2016)	45,833.34	3,000.00	48,833.34
Hanas, Klaus-Dieter	95,000.00	9,000.00	104,000.00
Hauke, Sylvia <sup>a</sup>	120,000.00	9,000.00	129,000.00
Hinrichs, Lars	95,000.00	9,000.00	104,000.00
Dr. Jung, Helga (since May 25, 2016)	46,666.67	5,000.00	51,666.67
Kallmeier, Hans-Jürgen <sup>b</sup>	135,000.00	15,000.00	150,000.00
Prof. Dr. Kaschke, Michael	110,000.00	11,000.00	121,000.00
Koch, Nicole <sup>c</sup> (since January 1, 2016)	70,000.00	7,000.00	77,000.00
Kollmann, Dagmar P.	187,500.00	16,000.00	203,500.00
Kreusel, Petra Steffi <sup>d</sup>	110,000.00	14,000.00	124,000.00
Prof. Dr. Lehner, Ulrich (Chairman)	300,000.00	21,000.00	321,000.00
Schröder, Lothar <sup>e</sup> (Deputy Chairman)	233,750.00	20,000.00	253,750.00
Dr. Schröder, Ulrich	135,000.00	7,000.00	142,000.00
Sommer, Michael	95,000.00	6,000.00	101,000.00
Spoo, Sibylle	95,000.00	7,000.00	102,000.00
Streibich, Karl-Heinz	111,666.67	10,000.00	121,666.67
	<b>2,612,916.68</b>	<b>246,000.00</b>	<b>2,858,916.68</b>

<sup>a</sup> In addition to remuneration for her activities as a member of the Supervisory Board of Deutsche Telekom AG, Sylvia Hauke also received other remuneration amounting to EUR 15,000.00 (including meeting attendance fees) in the 2016 financial year (for her mandate as member of the supervisory board of Telekom Deutschland GmbH).

<sup>b</sup> In addition to remuneration for his activities as a member of the Supervisory Board of Deutsche Telekom AG, Hans-Jürgen Kallmeier also received other remuneration amounting to EUR 16,000.00 (including meeting attendance fees) in the 2016 financial year (for his mandate as member of the supervisory board of T-Systems International GmbH).

<sup>c</sup> 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 2016 financial year (for her mandate as member of the supervisory board of Telekom Shop Vertriebsgesellschaft mbH).

<sup>d</sup> 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 14,500.00 (including meeting attendance fees) in the 2016 financial year (for her mandate as member of the supervisory board of T-Systems International GmbH).

<sup>e</sup> 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 38,500.00 (including meeting attendance fees) in the 2016 financial year (EUR 20,000.00 for his mandate as member of the supervisory board of Telekom Deutschland GmbH, EUR 6,500.00 for his mandate as a member of the supervisory board of Deutsche Telekom Services Europe GmbH, and EUR 12,000.00 as Chairman of the Data Privacy Advisory Council).



## THE CONSOLIDATED FINANCIAL STATEMENTS

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# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

millions of €

	Note	Dec. 31, 2016	Dec. 31, 2015
<b>ASSETS</b>			
<b>CURRENT ASSETS</b>			
Cash and cash equivalents	1	7,747	6,897
Trade and other receivables	2	9,362	9,238
Current recoverable income taxes	26	218	129
Other financial assets	8	5,713	5,805
Inventories	3	1,629	1,847
Other assets	9	1,597	1,346
Non-current assets and disposal groups held for sale	4	372	6,922
		<b>121,847</b>	<b>111,736</b>
<b>NON-CURRENT ASSETS</b>			
Intangible assets	5	60,599	57,025
Property, plant and equipment	6	46,758	44,637
Investments accounted for using the equity method	7	725	822
Other financial assets	8	7,886	3,530
Deferred tax assets	26	5,210	5,248
Other assets	9	669	474
<b>TOTAL ASSETS</b>		<b>148,485</b>	<b>143,920</b>



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millions of €

	Note	Dec. 31, 2016	Dec. 31, 2015
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>			
<b>CURRENT LIABILITIES</b>			
Financial liabilities	10	14,422	14,439
Trade and other payables	11	10,441	11,090
Income tax liabilities	26	222	197
Other provisions	13	3,068	3,367
Other liabilities	14	4,779	4,451
Liabilities directly associated with non-current assets and disposal groups held for sale	4	194	4
		<b>76,514</b>	<b>72,222</b>
<b>NON-CURRENT LIABILITIES</b>			
Financial liabilities	10	50,228	47,941
Provisions for pensions and other employee benefits	12	8,451	8,028
Other provisions	13	3,320	2,978
Deferred tax liabilities	26	10,007	9,205
Other liabilities	14	4,508	4,070
		<b>109,640</b>	<b>105,770</b>
<b>LIABILITIES</b>			
		<b>38,845</b>	<b>38,150</b>
<b>SHAREHOLDERS' EQUITY</b>			
Issued capital		11,973	11,793
Treasury shares		(50)	(51)
		<b>11,923</b>	<b>11,742</b>
Capital reserves		53,356	52,412
Retained earnings including carryforwards		(38,727)	(38,969)
Total other comprehensive income		78	(178)
Total other comprehensive income directly associated with non-current assets and disposal groups held for sale		-	1,139
Net profit (loss)		2,675	3,254
<b>ISSUED CAPITAL AND RESERVES ATTRIBUTABLE TO OWNERS OF THE PARENT</b>			
Non-controlling interests		9,540	8,750
		<b>148,485</b>	<b>143,920</b>
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>			

# CONSOLIDATED INCOME STATEMENT

millions of €				
	Note	2016	2015	2014
<b>NET REVENUE</b>	<b>16</b>	<b>73,095</b>	<b>69,228</b>	<b>62,658</b>
Other operating income	17	4,180	2,008	3,231
Changes in inventories		(12)	(11)	1
Own capitalized costs	18	2,112	2,041	1,944
Goods and services purchased	19	(37,084)	(35,706)	(32,048)
Personnel costs	20	(16,463)	(15,856)	(14,683)
Other operating expenses	21	(3,284)	(3,316)	(3,282)
Depreciation, amortization and impairment losses	22	(13,380)	(11,360)	(10,574)
<b>PROFIT FROM OPERATIONS (EBIT)</b>		<b>9,164</b>	<b>7,028</b>	<b>7,247</b>
Finance costs	23	(2,492)	(2,363)	(2,340)
Interest income		223	246	325
Interest expense		(2,715)	(2,609)	(2,665)
Share of profit (loss) of associates and joint ventures accounted for using the equity method	24	(53)	24	(198)
Other financial income (expense)	25	(2,072)	89	(359)
<b>PROFIT (LOSS) FROM FINANCIAL ACTIVITIES</b>		<b>(4,617)</b>	<b>(2,250)</b>	<b>(2,897)</b>
<b>PROFIT BEFORE INCOME TAXES</b>		<b>4,547</b>	<b>4,778</b>	<b>4,350</b>
Income taxes	26	(1,443)	(1,276)	(1,106)
<b>PROFIT (LOSS)</b>		<b>3,104</b>	<b>3,502</b>	<b>3,244</b>
<b>PROFIT (LOSS) ATTRIBUTABLE TO</b>				
Owners of the parent (net profit (loss))		2,675	3,254	2,924
Non-controlling interests	27	429	248	320
<b>EARNINGS PER SHARE</b>	<b>28</b>			
Basic	€	0.58	0.71	0.65
Diluted	€	0.58	0.71	0.65

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# CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

millions of €

	2016	2015	2014
<b>PROFIT (LOSS)</b>	<b>3,104</b>	<b>3,502</b>	<b>3,244</b>
<b>Items not reclassified to the income statement retrospectively</b>			
Gain (loss) from the remeasurement of defined benefit plans	(660)	230	(1,581)
Share of profit (loss) of investments accounted for using the equity method	0	0	(29)
Income taxes relating to components of other comprehensive income	205	(60)	477
	<b>(455)</b>	<b>170</b>	<b>(1,133)</b>
<b>Items reclassified to the income statement retrospectively, if certain reasons are given</b>			
<b>Exchange differences on translating foreign operations</b>			
Recognition of other comprehensive income in income statement	(948)	4	(4)
Change in other comprehensive income (not recognized in income statement)	395	2,000	1,849
<b>Available-for-sale financial assets</b>			
Recognition of other comprehensive income in income statement	2,282	0	(1)
Change in other comprehensive income (not recognized in income statement)	(2,323)	31	41
<b>Gains (losses) from hedging instruments</b>			
Recognition of other comprehensive income in income statement	328	(255)	(267)
Change in other comprehensive income (not recognized in income statement)	(457)	653	265
<b>Share of profit (loss) of investments accounted for using the equity method</b>			
Recognition of other comprehensive income in income statement	7	0	0
Change in other comprehensive income (not recognized in income statement)	1	25	0
Income taxes relating to components of other comprehensive income	39	(127)	3
	<b>(676)</b>	<b>2,331</b>	<b>1,886</b>
<b>OTHER COMPREHENSIVE INCOME</b>	<b>(1,131)</b>	<b>2,501</b>	<b>753</b>
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>1,973</b>	<b>6,003</b>	<b>3,997</b>
<b>TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO</b>			
Owners of the parent	1,306	5,221	3,184
Non-controlling interests	667	782	813

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

millions of €

	Issued capital and reserves attributable to owners of the parent					
	Number of shares	Equity contributed			Consolidated shareholders' equity generated	
		thousands	Issued capital	Treasury shares	Capital reserves	Retained earnings including carryforwards
<b>BALANCE AT JANUARY 1, 2014</b>	<b>4,451,175</b>	<b>11,395</b>	<b>(54)</b>	<b>51,428</b>	<b>(37,437)</b>	<b>930</b>
Changes in the composition of the Group						
Transactions with owners				(527)		
Unappropriated profit (loss) carried forward					930	(930)
Dividends					(2,215)	
Capital increase at Deutsche Telekom AG	84,396	216		807		
Capital increase from share-based payment				70		
Share buy-back/shares held in a trust deposit			1		1	
Profit (loss)						2,924
Other comprehensive income					(1,085)	
<b>TOTAL COMPREHENSIVE INCOME</b>						
Transfer to retained earnings					23	
<b>BALANCE AT DECEMBER 31, 2014</b>	<b>4,535,571</b>	<b>11,611</b>	<b>(53)</b>	<b>51,778</b>	<b>(39,783)</b>	<b>2,924</b>
<b>BALANCE AT JANUARY 1, 2015</b>	<b>4,535,571</b>	<b>11,611</b>	<b>(53)</b>	<b>51,778</b>	<b>(39,783)</b>	<b>2,924</b>
Changes in the composition of the Group						
Transactions with owners				(425)		
Unappropriated profit (loss) carried forward					2,924	(2,924)
Dividends					(2,257)	
Capital increase at Deutsche Telekom AG	71,081	182		906		
Capital increase from share-based payment				127		
Share buy-back/shares held in a trust deposit			2	26	(11)	
Profit (loss)						3,254
Other comprehensive income					160	
<b>TOTAL COMPREHENSIVE INCOME</b>						
Transfer to retained earnings					(2)	
<b>BALANCE AT DECEMBER 31, 2015</b>	<b>4,606,652</b>	<b>11,793</b>	<b>(51)</b>	<b>52,412</b>	<b>(38,969)</b>	<b>3,254</b>
<b>BALANCE AT JANUARY 1, 2016</b>	<b>4,606,652</b>	<b>11,793</b>	<b>(51)</b>	<b>52,412</b>	<b>(38,969)</b>	<b>3,254</b>
Changes in the composition of the Group						
Transactions with owners				(87)		
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/sale of shares/shares held in a trust deposit			1		3	
Profit (loss)						2,675
Other comprehensive income					(454)	
<b>TOTAL COMPREHENSIVE INCOME</b>						
Transfer to retained earnings					(38)	
<b>BALANCE AT DECEMBER 31, 2016</b>	<b>4,676,902</b>	<b>11,973</b>	<b>(50)</b>	<b>53,356</b>	<b>(38,727)</b>	<b>2,675</b>

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Issued capital and reserves attributable to owners of the parent							Total	Non-controlling interests	Total shareholders' equity
Total other comprehensive income									
Translation of foreign operations	Revaluation surplus	Available-for-sale financial assets	Hedging instruments	Investments accounted for using the equity method	Taxes				
(2,603)	(39)	38	343	(12)	(110)	23,879	8,184	32,063	
						-	1	1	
21						(506)	(324)	(830)	
						0	-	0	
						(2,215)	(81)	(2,296)	
						1,023	2	1,025	
						70	34	104	
						2	-	2	
						2,924	320	3,244	
1,335		41	(3)	(30)	2	260	493	753	
						<b>3,184</b>	<b>813</b>	<b>3,997</b>	
						0	-	0	
(1,247)	(23)	79	340	(42)	(108)	25,437	8,629	34,066	
(1,247)	(62)	79	340	(42)	(108)	25,437	8,629	34,066	
						-	-	-	
194	(2)					(233)	(619)	(852)	
						0	-	0	
						(2,257)	(106)	(2,363)	
						1,088	-	1,088	
						127	64	191	
						17	-	17	
						3,254	248	3,502	
1,480		31	398	25	(127)	1,967	534	2,501	
						<b>5,221</b>	<b>782</b>	<b>6,003</b>	
						0	-	0	
427	(62)	110	738	(17)	(235)	29,400	8,750	38,150	
427	(62)	110	738	(17)	(235)	29,400	8,750	38,150	
						-	-	-	
(6)						(93)	117	24	
						0	-	0	
						(2,523)	(97)	(2,620)	
						1,019	-	1,019	
						192	103	295	
						4	-	4	
						2,675	429	3,104	
(792)		(41)	(129)	8	39	(1,369)	238	(1,131)	
						<b>1,306</b>	<b>667</b>	<b>1,973</b>	
						0	-	0	
(371)	(60)	69	609	27	(196)	29,305	9,540	38,845	

# CONSOLIDATED STATEMENT OF CASH FLOWS

millions of €				
	Note	2016	2015	2014
	30			
<b>PROFIT BEFORE INCOME TAXES</b>		<b>4,547</b>	<b>4,778</b>	<b>4,350</b>
Depreciation, amortization and impairment losses		13,380	11,360	10,574
(Profit) loss from financial activities		4,617	2,250	2,897
(Profit) loss on the disposal of fully consolidated subsidiaries		(7)	(583)	(1,674)
(Income) loss from the sale of stakes accounted for using the equity method		(2,591)	-	-
Other non-cash transactions		316	243	166
(Gain) loss from the disposal of intangible assets and property, plant and equipment		(495)	(87)	(436)
Change in assets carried as working capital		(1,000)	(1,438)	(2,275)
Change in provisions		(234)	112	382
Change in other liabilities carried as working capital		(510)	878	2,207
Income taxes received (paid)		(527)	(695)	(679)
Dividends received		331	578	344
Net payments from entering into, canceling or changing the terms and conditions of interest rate derivatives		289	100	55
<b>CASH GENERATED FROM OPERATIONS</b>		<b>18,116</b>	<b>17,496</b>	<b>15,911</b>
Interest paid		(3,488)	(3,464)	(3,390)
Interest received		905	965	872
<b>NET CASH FROM OPERATING ACTIVITIES</b>		<b>15,533</b>	<b>14,997</b>	<b>13,393</b>
Cash outflows for investments in				
Intangible assets		(5,603)	(6,446)	(4,658)
Property, plant and equipment		(8,037)	(8,167)	(7,186)
Non-current financial assets		(483)	(493)	(806)
Payments to acquire control of subsidiaries and associates		(2)	(28)	(606)
Proceeds from disposal of				
Intangible assets		1	4	16
Property, plant and equipment		363	363	265
Non-current financial assets		335	446	74
Proceeds from the loss of control of subsidiaries and associates		4	(58)	1,540
Net change in short-term investments and marketable securities and receivables		(186)	(638)	591
Other		-	2	9
<b>NET CASH USED IN INVESTING ACTIVITIES</b>		<b>(13,608)</b>	<b>(15,015)</b>	<b>(10,761)</b>
Proceeds from issue of current financial liabilities		26,187	33,490	12,785
Repayment of current financial liabilities		(34,951)	(36,944)	(17,089)
Proceeds from issue of non-current financial liabilities		9,520	5,247	4,275
Repayment of non-current financial liabilities		(20)	(207)	(1,042)
Dividends (including to non-controlling interests)		(1,596)	(1,256)	(1,290)
Repayment of lease liabilities		(374)	(224)	(164)
Deutsche Telekom AG share buy-back		-	(15)	-
Sale of Deutsche Telekom AG treasury shares		-	31	-
Cash inflows from transactions with non-controlling entities		26	43	43
Cash outflows from transactions with non-controlling entities		(114)	(1,041)	(950)
Other		-	-	(2)
<b>NET CASH USED IN FINANCING ACTIVITIES</b>		<b>(1,322)</b>	<b>(876)</b>	<b>(3,434)</b>
Effect of exchange rate changes on cash and cash equivalents		250	267	323
Changes in cash and cash equivalents associated with non-current assets and disposal groups held for sale		(3)	1	32
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>		<b>850</b>	<b>(626)</b>	<b>(447)</b>
<b>CASH AND CASH EQUIVALENTS, AT THE BEGINNING OF THE YEAR</b>		<b>6,897</b>	<b>7,523</b>	<b>7,970</b>
<b>CASH AND CASH EQUIVALENTS, AT THE END OF THE YEAR</b>		<b>7,747</b>	<b>6,897</b>	<b>7,523</b>

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# 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 four operating segments Germany, United States, Europe, and Systems Solutions, as well as on the Group Headquarters & Group Services segment.

The Company was entered as Deutsche Telekom AG in the commercial register of the Bonn District Court (Amtsgericht – HRB 6794) 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) was released and made available to shareholders. The Declaration of Conformity can be found on the Deutsche Telekom website ([www.telekom.com](http://www.telekom.com)) via the following path: Investor Relations/Corporate Governance/Declaration of Conformity.

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 AG as well as the consolidated financial statements of Deutsche Telekom AG, which have an unqualified audit opinion from PricewaterhouseCoopers Aktiengesellschaft 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](http://www.telekom.com)) via the following path: Investor Relations/Annual Report 2016.

The consolidated financial statements of Deutsche Telekom for the 2016 financial year were released for publication by the Board of Management on February 14, 2017.

### 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 § 315a (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 TO STANDARDS AND INTERPRETATIONS IN THE FINANCIAL YEAR

In the 2016 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
Amendments to IAS 1	Disclosure Initiative	January 1, 2016	The amendments will allow disclosures in the financial statements to be simplified, with a focus on materiality.	No material impact.
Amendments to IAS 16 and IAS 38	Clarification of Acceptable Methods of Depreciation and Amortization	January 1, 2016	A revenue-based depreciation method for property, plant and equipment is not permissible, whereas for intangible assets there is only a rebuttable assumption that such a method is not appropriate.	No material impact.
Amendments to IAS 16 and IAS 41	Bearer Plants	January 1, 2016	The amendments to the standard relate to bearer plants.	No relevance for Deutsche Telekom.
Amendments to IAS 19	Defined Benefit Plans – Employee Contributions	January 1, 2016	By revising IAS 19, the IASB aims to simplify the accounting for contributions from employees or third parties to a defined benefit plan. The simplified accounting permits such contributions to be recognized as a reduction in the current service cost in the period in which the related service is rendered if the amounts of the contributions are independent of the number of years of service.	No material impact.
Amendments to IAS 27	Equity Method in Separate Financial Statements	January 1, 2016	The standard is relevant for IFRS separate financial statements.	No relevance for Deutsche Telekom.
Amendments to IFRS 10, IFRS 12, and IAS 28	Investment Entities: Applying the Consolidation Exception	January 1, 2016	Investment entities are not covered by IFRS 10 and are therefore exempt from the provisions on consolidation in this standard. The consolidation exception was substantiated in four points.	No material impact.
Amendments to IFRS 11	Accounting for Acquisitions of Interests in Joint Operations	January 1, 2016	When an interest in a joint operation in which the activity constitutes a business as defined in IFRS 3, is acquired, all of the principles on business combinations accounting in IFRS 3 and other IFRSs are to be applied, except for those principles that conflict with the guidance in IFRS 11.	Since the amendments concern only future transactions, it is not possible to make a general statement on their impact on the presentation of Deutsche Telekom's results of operations or financial position.
Annual Improvements Project	Annual Improvements to IFRSs 2010–2012 Cycle	January 1, 2016	Clarification of many published standards.	No material impact.
Annual Improvements Project	Annual Improvements to IFRSs 2012–2014 Cycle	January 1, 2016	Clarification of many published standards.	No material impact.



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## 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
<b>IFRSs ENDORSED BY THE EU</b>				
IFRS 9	Financial Instruments	January 1, 2018	IFRS 9 introduces new classification and measurement requirements for financial instruments and replaces IAS 39.	Although Deutsche Telekom has not yet finalized the detailed analysis of IFRS 9, the first-time adoption of this standard is not expected to have a material impact on the financial statements. In some cases, the new provisions on the classification of financial assets depending on the business model existing for these assets will give rise to changes in measurement and presentation. The allocation of debt instruments, especially government bonds held, to the "at fair value through other comprehensive income" measurement category will have minor effects. The allocation of equity instruments held to the "at fair value through other comprehensive income" measurement category without reclassification of the cumulative gains and losses on disposal (OCI option) will reduce volatility in the income statement. The new provisions on accounting for impairment losses will lead to expected losses having to be expensed earlier in certain cases. The probable use of the simplified approach, also for financial assets that contain a significant financing component, is expected to lead to a minor increase in impairment losses. In hedge accounting, it will be possible to include more components in the hedged risk in some cases, which will slightly increase the effectiveness of the hedge. The new concept for hedging commodity price risk will marginally reduce the volatility in the income statement. The possibility to add a new risk exposure without this adversely affecting an existing hedging relationship (aggregated exposure) will further reduce the already low level of ineffectiveness. This especially concerns the hedging of interest rate risks for highly probable future issues of debt instruments in a specific currency where the hedged item will be considered to have occurred if the issue has been performed synthetically, i. e., in a different currency from the one originally planned and in a foreign currency derivative.
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 the existing standards IAS 18 "Revenue" and IAS 11 "Construction Contracts." 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 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 arising from IFRS 15 are detailed in the explanations following this table.

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
<b>IFRSs NOT YET ENDORSED BY THE EU <sup>a</sup></b>				
Amendments to IFRS 10 and IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	Postponed indefinitely	The amendments affect transactions between an investor and its associate or joint venture and provide for full gain or loss recognition on the loss of control of a business and partial recognition of the gain or loss resulting from the sale or contribution of assets that do not constitute a business, regardless of whether that business is housed in a subsidiary or not.	As the effective date has been postponed indefinitely, the amendments to IFRS 10 and IAS 28 are not relevant at present.
IFRS 14	Regulatory Deferral Accounts	January 1, 2016	This standard is applicable to first-time adopters of IFRSs only.	No relevance for Deutsche Telekom. In addition, the European Commission has decided not to endorse IFRS 14.
Amendments to IAS 7	Disclosure Initiative	January 1, 2017	This pronouncement requires that entities provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities.	No material impact.
Amendments to IAS 12	Recognition of Deferred Tax Assets for Unrealized Losses	January 1, 2017	Clarification of the accounting for deferred tax assets for unrealized losses on debt instruments that are classified as available-for-sale financial assets.	No material impact.
Annual Improvements Project	Annual Improvements to IFRSs 2014–2016 Cycle	January 1, 2017 (IFRS 12) January 1, 2018 (IFRS 1 and IAS 28)	Clarification of many published standards.	No material impact.
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. Other entities falling within the scope of IFRS 4 may recognize, in other comprehensive income instead of in profit and loss, some of the income or expenses arising from designated financial assets.	No material impact.
Amendments to IFRS 15	Clarifications to IFRS 15	January 1, 2018	Clarifications address the following topics relating to the transition 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 case of services provided by third parties; Clarification of the conditions for the timing of the recognition of revenue arising from the licensing of the intellectual property. Further simplifications for the transition to IFRS 15 were also added.	The effects of IFRS 15 are detailed in the explanations following this table.
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.

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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
IFRS 16	Leases	January 1, 2019	IFRS 16 principally requires lessees to recognize assets and liabilities for all leases and to present 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 directly attributable expenditure. 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.

<sup>a</sup> 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 May 2014, the IASB issued IFRS 15 "Revenue from Contracts with Customers." The standard 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 affect the following issues in particular:

- In the case of multiple-element arrangements (e.g., mobile contract plus handset) with subsidized products delivered in advance, a larger portion of the total remuneration is attributable to the component delivered in advance (mobile handset), requiring earlier recognition of revenue in future. 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.
- At the same time, this leads to higher revenue from the sale of goods and merchandise and to 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 in the Germany operating segment the sale of subsidized handsets in connection with the conclusion of service contracts in the retail business is still common, in the United States operating segment and to some extent in the Europe operating segment handsets are not sold at a discount at all or only to a limited extent; payment-by-installment models or leased models are offered to customers instead.
- Future capitalization and recognition of the expenses for sales commissions (customer acquisition costs) over the estimated customer retention period.
- Increase in total assets on first-time adoption due to the capitalization of contract assets and customer acquisition costs.
- Deferral, i. e., later recognition of revenue in cases where "material rights" are granted, such as offering additional discounts for future purchases of further products.
- 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), it is unlikely that there will be any material changes.

Deutsche Telekom will utilize the option for simplified initial application, i. e., contracts that are not completed by January 1, 2018 will be accounted for as if they had been recognized in accordance with IFRS 15 from the very beginning. The cumulative effect arising from the transition will be recognized as an adjustment to the opening balance of equity in the year of initial application. Prior-year comparatives will not be restated; instead, Deutsche Telekom will provide 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.

The effects will be analyzed as part of a Group-wide project for implementing the new standard, though a reliable estimate of the quantitative effects will only be possible once the project has been completed, probably in mid-2017.

In January 2016, the IASB issued IFRS 16 "Leases," which 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 affect the following issues in particular:

- Whereas previously there was a requirement to disclose payment obligations for operating leases in the notes to the financial statements, from now on, the resulting rights and payment obligations must be recognized as rights of use and lease liabilities in the statement of financial position.
- Deutsche Telekom anticipates a significant increase in total assets on first-time adoption on account of the increase in lease liabilities as well as a similarly high increase in non-current assets due to the right-of-use assets to be capitalized. The increase in lease liabilities leads to a corresponding increase in net debt.
- Going forward, depreciation charges and interest expense will be reported in the income statement instead of lease expense. This will give rise to a significant improvement in EBITDA and to an increase in the net cash from operating activities reported in the statement of cash flows.
- For Deutsche Telekom as a lessor, the new definition of a lease may reduce the number of items to be accounted for as leases.

The overall effects will be analyzed as part of a Group-wide project for implementing IFRS 16, though a reliable estimate of the quantitative effects is not possible at the present time due to the variety of business models and volumes of the transactions.

#### CHANGES IN ACCOUNTING POLICIES AND CHANGES IN THE REPORTING STRUCTURE

To harmonize Deutsche Telekom's internal management structure and to allow comparisons with other companies in the industry, the presentation of the consolidated income statement was changed from the cost-of-sales method to the performance-related total cost method as of January 1, 2016. The change to the total cost method is a voluntary change in accounting policy within the meaning of IAS 8.14b. To ensure comparability with prior-year periods, the corresponding figures were adjusted retrospectively.

Business customer operations at Magyar Telekom in Hungary, which had previously been organizationally assigned to the Systems Solutions operating segment, have been managed and reported under the Europe operating segment since January 1, 2016. Magyar Telekom's business customer operations consist of a unit in Hungary that mainly provides ICT services for business and corporate customers. 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
<b>ASSETS</b>	
<b>CURRENT ASSETS</b>	
Cash and cash equivalents	Amortized cost
Trade and other receivables	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	
Other non-derivative financial assets	
Held-to-maturity investments	Amortized cost
Available-for-sale financial assets	Fair value or at cost
Originated loans and receivables	Amortized cost
Derivative financial assets	Fair value
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)
<b>NON-CURRENT ASSETS</b>	
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
Investments accounted for using the equity method	Pro-rata value of the investment's equity carried forward or lower recoverable amount
Other financial assets	
Other non-derivative financial assets	
Held-to-maturity investments	Amortized cost
Available-for-sale financial assets	Fair value or at cost
Originated loans and receivables	Amortized cost
Derivative financial assets	Fair value
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

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Items in the statement of financial position	Measurement principle
<b>LIABILITIES</b>	
<b>CURRENT LIABILITIES</b>	
Financial liabilities	
Non-derivative interest-bearing and non-interest-bearing liabilities	Amortized cost
Derivative financial liabilities	Fair value
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
<b>NON-CURRENT LIABILITIES</b>	
Financial liabilities	
Non-derivative interest-bearing and non-interest-bearing liabilities	Amortized cost
Derivative financial liabilities	Fair value
Provisions for pensions and other employee benefits	Actuarial projected unit credit method
Other provisions	Present value of the settlement amount
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 84.1 million (2015: EUR 108.1 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 "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 selling price in the ordinary course of business less the estimated costs of completion and the necessary estimated selling expenses. Deutsche Telekom sells handsets in connection with service contracts, and separately. In the former case, Deutsche Telekom sometimes also sells such devices at a price below cost, as the handset subsidy is part of the Company's strategy for acquiring new customers. In these cases, the loss on the sale of handsets is recognized at the time of the sale as the difference between cost and the lower revenue generated.

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## 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 **partial 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 partial 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 partial 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

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Financial assets include, in particular, cash and cash equivalents, trade receivables and other originated loans and receivables, held-to-maturity investments, and derivative and non-derivative financial assets held for trading. Financial liabilities generally substantiate claims for repayment in cash or another financial asset. In particular, this includes bonds and other securitized liabilities, trade payables, liabilities to banks, finance lease payables, liabilities to non-banks from promissory notes, and derivative financial liabilities. 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 (purchase or sale of a financial asset under a contract whose terms require delivery of the asset within the timeframe established generally by regulation or convention in the marketplace concerned), 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 set off the recognized amounts and intends to settle on a net basis. To the extent that contracts to buy or sell non-financial assets fall within the scope of IAS 39, they are accounted for in accordance with this standard.

**Financial assets** are measured at fair value on initial recognition. For all financial assets not subsequently remeasured at fair value through profit or loss, the transaction costs directly attributable to the acquisition are taken into account. The fair values recognized in the statement of financial position are generally based on the market prices of the financial assets. If these are not available, they must be calculated using standard valuation models on the basis of current market parameters. For this calculation, the cash flows already fixed or determined by way of forward rates using the current yield curve are discounted at the measurement date using the discount factors calculated from the yield curve applicable at the reporting date. Middle rates are used.

**Trade and other current receivables** are measured at the carrying amount at which the item is initially recognized less any impairment losses, and, provided the receivables are due after one year or more, using the effective interest rate method. Impairments, which take the form of allowances, make adequate provision for the expected credit risk; concrete cases of default lead to the derecognition of the respective receivables. For allowances, financial assets with a potential need for a write-down are grouped together on the basis of similar credit risk characteristics, tested collectively for impairment, and written down, if necessary. The expected future cash flows of the portfolios are being calculated based on contractually agreed cash flows, taking previous cases of default into consideration. The cash flows are discounted on the basis of the weighted average of the original effective interest rates of the financial assets contained 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.



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**Cash and cash equivalents**, which include cash accounts and short-term cash deposits at banks, have maturities of up to three months when initially recognized and are measured at amortized cost.

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.

**Other non-current receivables** are measured at amortized cost using the effective interest method.

**Financial assets held for trading** are measured at fair value. These mainly include derivatives that are not part of an effective hedging relationship as set out in IAS 39 and therefore shall be classified as held for trading. Any gains or losses arising from subsequent measurement are recognized in the income statement.

Certain types of investments are intended and expected to be **held to maturity** with reasonable economic certainty. These financial assets are measured at amortized cost using the effective interest method.

Non-derivative financial assets that do not fulfill the definition of another category of financial instruments are classified as **available for sale** and generally measured at fair value. The gains and losses arising from fair value measurement are recognized directly in equity, unless the impairment is permanent or significant, or the changes in the fair value of debt instruments resulting from currency fluctuations are recognized in profit or loss. The cumulative gains and losses arising from fair value measurement, which have been recognized in equity, are only recognized in profit or loss on disposal of the related financial assets. If the fair value of unquoted equity instruments cannot be measured with sufficient reliability, these instruments are measured at cost (less any impairment losses, if applicable).

Deutsche Telekom has not yet made use of the option of designating financial assets upon initial recognition as **financial assets at fair value through profit or loss**.

The carrying amounts of the financial assets that are not measured at fair value through profit or loss are tested at each reporting date to determine whether there is objective, material evidence of **impairment** (e.g., a debtor is facing serious financial difficulties, it is highly probable that insolvency proceedings will be initiated against the debtor, an active market for the financial asset disappears, there is a substantial change in the technological, economic or legal environment, or the market environment of the issuer, or there is a continuous decline in the fair value of the financial asset to a level below amortized cost). When available-for-sale financial assets are being tested for impairment, the overall circumstances of the individual case are always taken into account. In addition to the factors specific to

the issuer, the market environment and the macroeconomic and legal conditions are considered. Where listed companies are involved, the extent and permanency of price declines and the price volatility are also especially relevant. Any impairment losses caused by the fair value being lower than the carrying amount are recognized in profit or loss. Where changes in the fair value of available-for-sale financial assets were recognized directly in equity (other comprehensive income) in the past, these must now be reclassified from other comprehensive income in the amount of the impairment determined to the income statement. If, in a subsequent period, the fair value of the financial asset increases and this increase can be related objectively to events occurring after the impairment was recognized, the impairment loss is reversed in the appropriate amount. In the case of debt instruments, these reversed impairment losses are recognized in profit or loss. Impairment losses on unquoted equity instruments that are classified as available for sale and carried at cost may not be reversed. In case of held-to-maturity securities and loans and receivables measured at amortized cost, the fair value to be determined for impairment testing corresponds to the present value of the estimated future cash flows, discounted using the original effective interest rate. The fair value of unquoted equity instruments measured at cost is calculated as the present value of the expected future cash flows, discounted using the current interest rate that corresponds to the investment's special risk position.

**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 recognized.

If the agreed credit period 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 the effects on the consolidated statement of cash flows, please refer to Note 30 "Notes to the consolidated statement of cash flows," pages 190 and 191.

Trade payables and other non-derivative financial liabilities are measured at amortized cost using the effective interest method.

Deutsche Telekom has not yet made use of the option to designate financial liabilities upon initial recognition as **financial liabilities at fair value through profit or loss**.

**Derivatives** that are not part of an effective hedging relationship as set out in IAS 39 must be classified as held for trading and measured at fair value through profit or loss. If the fair values are negative, the derivatives are recognized as financial liabilities.

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. The fair values are also relevant for subsequent measurement. The fair value of traded derivatives is equal to their market value, which can be positive or negative. If there is no market value available, the fair value is determined using standard financial valuation models.

The fair value of derivatives is the value 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 contracting parties' relevant exchange rates and interest rates at the reporting date. Calculations are made using middle 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.

Recording the changes in the fair values – in either the income statement or directly in equity – depends on whether or not the derivative is part of an effective hedging relationship as set out in IAS 39. If **hedge accounting** pursuant to IAS 39 is not employed, the changes in the fair values of the derivatives must be recognized in profit or loss. If, on the other hand, an effective hedging relationship as set out in IAS 39 exists, the hedge will be recognized as such.

Deutsche Telekom applies hedge accounting to hedge 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.

**Fair value hedges** are used to hedge the fair values of assets recognized in the statement of financial position, liabilities recognized in the statement of financial position, or firm commitments not yet recognized in the statement of financial position. Any change in the fair value of the derivative designated as the hedging instrument is recognized in profit or loss; the carrying amount of the hedged item is adjusted by the profit or loss to the extent of the hedged risk (basis adjustment). The adjustments to the carrying amount are not amortized until the hedging relationship has been discontinued.

**Cash flow hedges** are used to hedge against fluctuations in future cash flows from assets and liabilities recognized in the statement of financial position, from firm commitments (in the case of currency risks), or from highly probable forecast transactions. 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. If a cash flow hedge is employed, the effective

portion of the change in the fair value of the hedging instrument is recognized in equity (hedging reserve) until the gain or loss on the hedged item is realized; the ineffective portion of the hedging instrument is recognized in profit or loss. If a hedge of a forecast transaction subsequently results in the recognition of a financial or non-financial asset or liability, the associated cumulative gains and losses that were recognized directly in equity are reclassified into profit or loss in the same periods during which the financial asset acquired or the financial liability assumed affects profit or loss for the period. In doing so, Deutsche Telekom has decided not to make use of the basis adjustment option for hedging forecast transactions when non-financial items in the statement of financial position arise.

If **hedges of a net investment in a foreign operation** are employed, all gains or losses on the effective portion of the hedging instrument, together with any gains or losses on the foreign-currency translation of the hedged investment, are taken directly to equity. Any gains or losses on the ineffective portion are recognized immediately in profit or loss. The cumulative remeasurement of gains and losses on the hedging instrument that had previously been recognized directly in equity and the gains and losses on the currency translation of the hedged item are recognized in profit or loss only on disposal of the investment.

IAS 39 sets out strict requirements on the use of hedge accounting. These are fulfilled at Deutsche Telekom 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 aim and strategy of the hedge. This involves concretely assigning the hedging instruments to the corresponding assets or liabilities or (firmly agreed/expected) future transactions and also estimating the degree of effectiveness of the hedging instruments employed. The effectiveness of existing hedge accounting is monitored on an ongoing basis; ineffective hedges are discontinued immediately.

Deutsche Telekom does not use hedge accounting in accordance with IAS 39 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,

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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

Revenues include all revenues from the ordinary business activities of Deutsche Telekom. 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 services based on the realization principle. Customer activation fees are deferred and recognized as revenue over the estimated average period of customer retention, unless they are part of a multiple-element arrangement, in which case they are a component of the arrangement consideration to be paid by the customer.

For **multiple-element arrangements**, revenue recognition for each of the units of accounting (elements) identified must be determined separately. Arrangements involving the delivery or provision of multiple separable products or services must be separated into individual elements, each with its own separate revenue contribution. 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. Total arrangement consideration relating to the bundled contract is allocated among the different elements 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 bundled deliverables. The relative standalone selling price of an individual element and thus the revenue recognized for this unit of accounting, however, is limited by 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 is ultimately limited by this subsidized price. The contingent revenue cap does not apply for lease assets, such as leased devices.

**Payments to customers, including payments to dealers and agents** (discounts, commissions) are generally recognized as a decrease in revenue. If the consideration provides a benefit in its own right and can be reliably measured, the payments are recognized as expenses.

Revenue recognition at Deutsche Telekom is as follows:

Revenue generated by the **mobile communications business** of the operating segments Germany, United States, and Europe includes revenues from the provision of mobile services, customer activation fees, and sales or lease of mobile handsets and accessories. Mobile service revenue includes monthly service charges, charges for special features, call charges, and roaming charges billed to Deutsche Telekom customers, as well as other mobile operators. Mobile service revenue is recognized based upon minutes of use or other agreed rate plans (e.g., monthly flat rates) less credits and adjustments for discounts. The revenue and related expenses associated with the sale of mobile handsets and accessories are recognized when the products are delivered and accepted by the customer. Revenue from the non-sales-type lease of mobile handsets is recognized on a straight-line basis over the lease term.

The **fixed-network business** in the operating segments Germany and Europe provides narrow and broadband access to the fixed network as well as the Internet. Revenue generated from these types of access for the use of voice and data communications as well as television via Internet is recognized upon rendering of the service. The services rendered relate to use by customers (e.g., call minutes), availability over time (e.g., monthly service charges), or other agreed rate plans. Telecommunications equipment is also sold, leased, and serviced. 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 telecommunications equipment is recognized monthly as the entitlement to the fees accrues. Revenues from customer activation fees are deferred over the average customer retention period. Revenues also result from charges for advertising and e-commerce. Advertising revenues are recognized in the period in which the advertisements are exhibited. Transaction revenues are recognized upon notification from the customer that qualifying transactions have occurred and collection of the resulting receivable is reasonably assured.

In the **Systems Solutions** operating segment, revenue is recognized when persuasive evidence of a sales arrangement exists, products are delivered or services are rendered, the selling price or fee is fixed or determinable, and collectability of the fees is reasonably assured.

Revenues from Computing & Desktop Services are recognized in accordance with the provision of services. Revenue is recognized ratably over the contractual service period for fixed-price contracts and on an output or consumption basis for all other service contracts. 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.

Telecommunications services include network services and hosting & ASP services. Contracts for network services, which consist of the installation and operation of communication networks for customers, have an average duration of approximately three years. Customer activation fees and related costs are deferred and amortized over the estimated average period of customer retention. Revenues for voice and data services are recognized under such contracts when used by the customer. When an arrangement contains a lease, the lease is accounted for separately in accordance with IFRIC 4 and IAS 17. Revenues from hosting & ASP services are recognized as the services are provided.

Revenue from construction contracts and construction-type service contracts (or elements of service contracts) (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 already 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 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. A deferred tax liability is not recognized either 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.

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## 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 developments

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 as well as 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.

When **available-for-sale** financial assets are being tested for impairment, the overall circumstances of the individual case are always taken into account. In addition to the factors specific to the issuer, the market environment and the macroeconomic and legal conditions are considered. Where listed companies are involved, the extent and permanency of price declines and the price volatility are also especially relevant.

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 5 to 10 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.

## REVENUE RECOGNITION

**Customer activation fees that are not part of a multiple-element arrangement** are deferred and recognized as revenue over the estimated average period of customer retention. The estimation of the expected average duration of the relationship is based on historical customer turnover. If management's estimates are revised, material differences may result in the amount and timing of revenue for any period.

The fair values of individual products or services that are part of **multi-element arrangements** are complex to determine, because some of the elements are price-sensitive and, thus, volatile in a competitive marketplace. Revisions to the estimates of these relative fair values may significantly affect the allocation of total arrangement consideration among the different units of accounting, affecting future results of operations.

## 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 an operating segment or the Group considers them 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.

Income and expenses of a subsidiary are included in the consolidated financial statements from the acquisition date. Income and expenses of a subsidiary remain included in the consolidated financial statements until the date on which the parent 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 the (i) 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.

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## 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 arrangements (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 the (i) 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 2016 financial year, Deutsche Telekom conducted the following transactions, which had 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.

### Sale of the EE joint venture

After the British Competition and Markets Authority (CMA) had approved the sale of the EE joint venture to the UK company BT unconditionally and without remedies in January 2016, Deutsche Telekom AG and the French telecommunications provider Orange consummated the transaction on January 29, 2016 at a purchase price of GBP 13.2 billion. In return for its stake in the EE joint venture, Deutsche Telekom AG received a financial stake of 12.0 percent in BT and a cash payment of GBP 15.7 million. The sale generated income of approximately EUR 2.5 billion. Around EUR 0.9 billion of this amount resulted from effects recognized directly in equity in prior years. In addition, on January 25, 2016, the shareholders received a final dividend totaling GBP 0.3 billion from the former EE joint venture, in which Deutsche Telekom AG participated with its capital share at that date of 50 percent. The financial stake in BT received in connection with this transaction is disclosed as available-for-sale financial assets under other financial assets. The financial stake is generally measured at fair

value directly in equity. For more information – for example on the recognition of the impairment loss on the financial stake in BT in profit or loss – please refer to Note 36 “Financial instruments and risk management,” page 200 et seq.

#### Acquisition of Vodafone’s consumer fixed-network business in the Netherlands

On November 4, 2016, T-Mobile Netherlands signed an agreement with Vodafone Libertel B.V. to acquire Vodafone Thuis. The transaction was completed on December 16, 2016. As a result of this transaction, T-Mobile Netherlands has become an integrated fixed-mobile provider whose new fixed-network business covering the whole of the Netherlands will be marketed under the T-Mobile Thuis brand from the first quarter of 2017. The consideration paid at the acquisition date amounted to EUR 1.6 million in cash and was determined by means of a public auction. The final purchase price has not yet been determined because the fair values as of the reporting date have not yet been finalized. The acquisition is not expected to have any significant impact on the net assets of the Deutsche Telekom Group. The purchase price allocation and the measurement of the assets and liabilities have not yet been concluded at December 31, 2016.

#### Voluntary presentation of the quantitative effects on the composition of the Group

Deutsche Telekom acquired and disposed of entities in the current and prior financial years. This imposes certain limits on the comparability of the consolidated financial statements and the disclosures under segment reporting.

The presented effects in the Europe operating segment resulted from the spin-off of the energy resale business in Hungary as of January 1, 2016 and from the aforementioned acquisition of Vodafone’s consumer fixed-network business in the Netherlands.

The presented effects in the Group Headquarters & Group Services segment resulted from the sale of the online platform t-online.de and the digital marketing company InteractiveMedia in the fourth quarter of 2015. The sale of t-online.de and InteractiveMedia resulted in the disposal of assets and liabilities, each in the amount of EUR 0.1 billion.

The following table shows the effects of changes in the composition of the Group on the consolidated income statement and segment reporting.

millions of €

	Total 2016	2015							Organic change 2016
		Total	Germany	United States	Europe	Systems Solutions	Group Headquarters & Group Services	Reconciliation	
Net revenue	73,095	69,228			(159)		(83)	68,986	4,109
Other operating income	4,180	2,008			0		(285)	1,723	2,457
Changes in inventories	(12)	(11)			0		0	(11)	(1)
Own capitalized costs	2,112	2,041			0		(2)	2,039	73
Goods and services purchased	(37,084)	(35,706)			155		6	(35,545)	(1,539)
Personnel costs	(16,463)	(15,856)			1		36	(15,819)	(644)
Other operating expenses	(3,284)	(3,316)			1		23	(3,292)	8
Depreciation, amortization and impairment losses	(13,380)	(11,360)			0		3	(11,357)	(2,023)
<b>PROFIT (LOSS) FROM OPERATIONS (EBIT)</b>	<b>9,164</b>	<b>7,028</b>	<b>0</b>	<b>0</b>	<b>(2)</b>	<b>0</b>	<b>(302)</b>	<b>6,724</b>	<b>2,440</b>
Finance costs	(2,492)	(2,363)			0		0	(2,363)	(129)
Share of profit (loss) of associates and joint ventures accounted for using the equity method	(53)	24			0		0	24	(77)
Other financial income (expense)	(2,072)	89			0		0	89	(2,161)
<b>PROFIT (LOSS) FROM FINANCIAL ACTIVITIES</b>	<b>(4,617)</b>	<b>(2,250)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>(2,250)</b>	<b>(2,367)</b>
<b>PROFIT (LOSS) BEFORE INCOME TAXES</b>	<b>4,547</b>	<b>4,778</b>	<b>0</b>	<b>0</b>	<b>(2)</b>	<b>0</b>	<b>(302)</b>	<b>4,474</b>	<b>73</b>
Income taxes	(1,443)	(1,276)			0		0	(1,276)	(167)
<b>PROFIT (LOSS)</b>	<b>3,104</b>	<b>3,502</b>	<b>0</b>	<b>0</b>	<b>(2)</b>	<b>0</b>	<b>(302)</b>	<b>3,198</b>	<b>(94)</b>

<sup>a</sup> Based on the composition of the Group in the current reporting period.



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### Changes in the composition of the Group

The composition of the Deutsche Telekom Group changed as follows in the 2016 financial year:

	Domestic	International	Total
<b>CONSOLIDATED SUBSIDIARIES</b>			
January 1, 2016	64	190	254
Additions	4	7	11
Disposals (including mergers)	7	9	16
<b>DECEMBER 31, 2016</b>	<b>61</b>	<b>188</b>	<b>249</b>
<b>ASSOCIATES ACCOUNTED FOR USING THE EQUITY METHOD</b>			
January 1, 2016	6	8	14
Additions	-	-	-
Disposals	-	1	1
<b>DECEMBER 31, 2016</b>	<b>6</b>	<b>7</b>	<b>13</b>
<b>JOINT VENTURES ACCOUNTED FOR USING THE EQUITY METHOD</b>			
January 1, 2016	3	5	8
Additions	-	-	-
Disposals	-	1	1
<b>DECEMBER 31, 2016</b>	<b>3</b>	<b>4</b>	<b>7</b>
<b>TOTAL</b>			
January 1, 2016	73	203	276
Additions	4	7	11
Disposals (including mergers)	7	11	18
<b>DECEMBER 31, 2016</b>	<b>70</b>	<b>199</b>	<b>269</b>

### Other transactions that had no effect on the composition of the Group

In April 2016, approximately 2.6 million shares in Scout24 AG were placed at a price of EUR 30.00 per share. In another book-building process in December 2016, 1.8 million shares were brought to market at a price of EUR 32.00 per share, with gross proceeds of EUR 0.1 billion in total. Following completion of this transaction, Deutsche Telekom directly holds some 9.3 percent and indirectly via Scout Lux Management Equity Co S.à.r.l. another around 0.9 percent of the shares in Scout24 AG and is represented by two seats on the company's supervisory

board. In addition, Deutsche Telekom provides one of the four members on both the general committee and the audit committee of Scout24 AG's supervisory board. Due to its membership in the supervisory board and its two central committees, Deutsche Telekom has a significant influence on the financial and operating policies of Scout24 AG. Consequently, Deutsche Telekom continues to include the investment in its consolidated financial statements as an associate using the equity method.

## PRINCIPAL SUBSIDIARIES

The Group's principal subsidiaries are presented in the following table:

Name and registered office		Deutsche Telekom share %	Net revenue <sup>c</sup> millions of €	Profit (loss) from operations <sup>c</sup> millions of €	Shareholders' equity <sup>c</sup> millions of €	Average number of employees	Segment allocation
Telekom Deutschland GmbH, Bonn, Germany	<b>Dec. 31, 2016/2016</b>	100.00	21,429	4,483	4,484	12,118	Germany
	Dec. 31, 2015/2015	100.00	21,891	4,633	4,345	12,568	
T-Mobile US, Inc., Bellevue, Washington, United States <sup>a, b</sup>	<b>Dec. 31, 2016/2016</b>	64.78	33,738	3,685	18,558	43,699	United States
	Dec. 31, 2015/2015	65.41	28,925	2,454	16,447	41,669	
T-Systems International GmbH, Frankfurt/Main, Germany	<b>Dec. 31, 2016/2016</b>	100.00	6,009	(662)	122	18,261	Systems Solutions
	Dec. 31, 2015/2015	100.00	6,367	(663)	1,133	20,091	
Hellenic Telecommunications Organization S.A. (OTE), Athens, Greece <sup>a</sup>	<b>Dec. 31, 2016/2016</b>	40.00	3,908	60	3,255	20,713	Europe
	Dec. 31, 2015/2015	40.00	3,903	226	3,497	21,216	
Magyar Telekom Public Limited Company, Budapest, Hungary <sup>a, b</sup>	<b>Dec. 31, 2016/2016</b>	59.23	1,935	246	2,307	9,492	Europe
	Dec. 31, 2015/2015	59.23	2,110	195	2,234	10,611	
T-Mobile Netherlands Holding B.V., The Hague, Netherlands <sup>a, b</sup>	<b>Dec. 31, 2016/2016</b>	100.00	1,331	(307)	2,359	1,380	Europe
	Dec. 31, 2015/2015	100.00	1,394	278	2,705	1,430	
T-Mobile Polska S.A., Warsaw, Poland <sup>b</sup>	<b>Dec. 31, 2016/2016</b>	100.00	1,488	201	2,729	4,079	Europe
	Dec. 31, 2015/2015	100.00	1,544	350	2,681	4,527	
T-Mobile Czech Republic a.s., Prague, Czech Republic <sup>a, b</sup>	<b>Dec. 31, 2016/2016</b>	100.00	959	226	1,757	3,286	Europe
	Dec. 31, 2015/2015	100.00	958	207	1,746	3,442	
Hrvatski Telekom d.d., Zagreb, Croatia <sup>a, b</sup>	<b>Dec. 31, 2016/2016</b>	51.00	925	155	2,107	4,499	Europe
	Dec. 31, 2015/2015	51.00	909	148	2,037	4,793	
T-Mobile Austria Holding GmbH, Vienna, Austria <sup>a, b</sup>	<b>Dec. 31, 2016/2016</b>	100.00	855	132	1,422	1,138	Europe
	Dec. 31, 2015/2015	100.00	829	96	1,062	1,064	
Slovak Telekom a.s., Bratislava, Slovakia <sup>a, b</sup>	<b>Dec. 31, 2016/2016</b>	100.00	766	92	1,423	3,327	Europe
	Dec. 31, 2015/2015	100.00	783	71	1,427	3,551	

<sup>a</sup> Consolidated subgroup.

<sup>b</sup> Indirect shareholding of Deutsche Telekom AG.

<sup>c</sup> 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](http://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 <sup>c</sup> millions of €	Dividends paid out to non-controlling interests millions of €
T-Mobile US, Inc., Bellevue, Washington, United States <sup>a, b</sup>	<b>Dec. 31, 2016/2016</b>	35.22	35.22	6,274	-
	Dec. 31, 2015/2015	34.59	34.59	5,435	-
Hellenic Telecommunications Organization S.A. (OTE), Athens, Greece <sup>a</sup>	<b>Dec. 31, 2016/2016</b>	60.00	50.00	1,740	29
	Dec. 31, 2015/2015	60.00	50.00	1,893	24
Magyar Telekom Public Limited Company, Budapest, Hungary <sup>a, b</sup>	<b>Dec. 31, 2016/2016</b>	40.77	40.77	690	29
	Dec. 31, 2015/2015	40.77	40.77	636	22
Hrvatski Telekom d.d., Zagreb, Croatia <sup>a, b</sup>	<b>Dec. 31, 2016/2016</b>	49.00	49.00	815	32
	Dec. 31, 2015/2015	49.00	49.00	784	37

<sup>a</sup> Consolidated subgroup.

<sup>b</sup> Indirect shareholding of Deutsche Telekom AG.

<sup>c</sup> IFRS figures at the level of the consolidated financial statements of Deutsche Telekom.

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Deutsche Telekom held 40 percent plus one vote of the shares in the OTE group as of the reporting date. In accordance with shareholder agreements between Deutsche Telekom and the Hellenic Republic, Deutsche Telekom has taken control of 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 <sup>c</sup>	Non-current assets <sup>c</sup>	Current liabilities <sup>c</sup>	Non-current liabilities <sup>c</sup>	Profit (loss) <sup>c</sup>	Total comprehensive income <sup>c</sup>
T-Mobile US, Inc., Bellevue, Washington, United States <sup>a, b</sup>	<b>Dec. 31, 2016/2016</b>	15,317	53,032	14,296	35,495	751	1,392
	Dec. 31, 2015/2015	15,018	47,516	9,224	36,863	354	1,149
Hellenic Telecommunications Organization S. A. (OTE), Athens, Greece <sup>a</sup>	<b>Dec. 31, 2016/2016</b>	2,734	5,585	2,443	2,621	(202)	(198)
	Dec. 31, 2015/2015	2,414	6,118	2,484	2,552	(79)	(74)
Magyar Telekom Public Limited Company, Budapest, Hungary <sup>a, b</sup>	<b>Dec. 31, 2016/2016</b>	654	3,577	892	1,032	95	120
	Dec. 31, 2015/2015	716	3,612	1,118	1,005	51	48
Hrvatski Telekom d.d., Zagreb, Croatia <sup>a, b</sup>	<b>Dec. 31, 2016/2016</b>	751	1,686	249	82	114	128
	Dec. 31, 2015/2015	748	1,625	252	84	139	144

<sup>a</sup> Consolidated subgroup.

<sup>b</sup> Indirect shareholding of Deutsche Telekom AG.

<sup>c</sup> IFRS figures of the respective subgroup.

millions of €

Name and registered office		Net cash from operating activities <sup>c</sup>	Net cash (used in) from investing activities <sup>c</sup>	Net cash (used in) from financing activities <sup>c</sup>
T-Mobile US, Inc., Bellevue, Washington, United States <sup>a, b</sup>	<b>2016</b>	5,586	(5,174)	354
	2015	5,327	(8,624)	2,935
Hellenic Telecommunications Organization S. A. (OTE), Athens, Greece <sup>a</sup>	<b>2016</b>	1,003	(479)	(260)
	2015	1,056	(419)	(674)
Magyar Telekom Public Limited Company, Budapest, Hungary <sup>a, b</sup>	<b>2016</b>	496	(285)	(315)
	2015	517	315	(235)
Hrvatski Telekom d.d., Zagreb, Croatia <sup>a, b</sup>	<b>2016</b>	278	(358)	(111)
	2015	330	(82)	(112)

<sup>a</sup> Consolidated subgroup.

<sup>b</sup> Indirect shareholding of Deutsche Telekom AG.

<sup>c</sup> IFRS figures of the respective subgroup.

## STRUCTURED ENTITIES

Deutsche Telekom processes factoring transactions by means of structured entities (see Note 36 "Financial instruments and risk management," page 200 et seq.).

Since 2014, Deutsche Telekom has consolidated four structured leasing SPEs for real estate as well as operating and office equipment at two sites for the operation of data centers in Germany. The two 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 7 "Investments accounted for using the equity method," page 163 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	
	2016	2015	2014	Dec. 31, 2016	Dec. 31, 2015
100 Czech korunas (CZK)	3.69912	3.66596	3.63124	3.70104	3.70066
1 Pound sterling (GBP)	1.22003	1.37760	1.24035	1.16939	1.36181
100 Croatian kuna (HRK)	13.27380	13.13380	13.09950	13.23480	13.08730
1,000 Hungarian forints (HUF)	3.21138	3.22570	3.23940	3.22612	3.17145
100 Macedonian denars (MKD)	1.62360	1.62569	1.62380	1.62421	1.62408
100 Polish zlotys (PLN)	22.91960	23.89210	23.89430	22.65680	23.44620
1 U.S. dollar (USD)	0.90365	0.90117	0.75241	0.94872	0.91819

## 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 829 million (December 31, 2015: EUR 1,740 million) on the basis of collateral contracts as surety for potential credit risks arising from derivative transactions.

In the reporting period, cash and cash equivalents increased by EUR 0.9 billion to EUR 7.7 billion. For further details, please refer to the notes to the consolidated statement of cash flows in Note 30 "Notes to the consolidated statement of cash flows," pages 190 and 191.

As of December 31, 2016, Deutsche Telekom reported cash and cash equivalents of EUR 23 million held by subsidiaries in the F.Y.R.O. Macedonia (December 31, 2015: EUR 36 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

	Dec. 31, 2016	Dec. 31, 2015
Trade receivables	9,179	8,756
Other receivables	183	482
	<b>9,362</b>	<b>9,238</b>

Of the total of trade and other receivables, EUR 7,861 million (December 31, 2015: EUR 8,085 million) is due within one year.

The increase in trade receivables is primarily due to the larger customer base as a result of T-Mobile US' successful Un-carrier initiatives as well as exchange rate effects. Factoring agreements concluded or extended in the reporting period had an offsetting effect and reduced receivables (please also refer to Note 36 "Financial instruments and risk management," page 200 et seq.).

In the prior year, other receivables included receivables of EUR 0.3 billion from the construction contract in connection with the set-up of an electronic toll collection system in Belgium. The set-up phase was completed in the first quarter of the reporting year. For further information on the toll collection system in Belgium, please refer to "Service concession arrangements" in the section "Other disclosures," page 214.

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The following table shows the maturity structure of the trade receivables that are not impaired at the reporting date:

millions of €

Trade receivables	Of which: neither impaired nor past due on the reporting date	Of which: not impaired on the reporting date and past due in the following periods					
		Less than 30 days	Between 30 and 60 days	Between 61 and 90 days	Between 91 and 180 days	Between 181 and 360 days	More than 360 days
<b>As of Dec. 31, 2016</b>	<b>3,074</b>	<b>631</b>	<b>74</b>	<b>58</b>	<b>62</b>	<b>44</b>	<b>46</b>
As of Dec. 31, 2015	3,163	628	86	60	71	43	27

With respect to the trade receivables that are neither impaired nor past due, there were no indications as of the reporting date that the debtors will not meet their payment obligations.

The allowances on trade receivables developed as follows:

millions of €

	2016	2015
<b>ALLOWANCES AS OF JANUARY 1</b>	<b>1,502</b>	<b>1,368</b>
Currency translation adjustments	10	1
Additions (allowances recognized as expense)	757	805
Use	(596)	(553)
Reversal	(106)	(119)
<b>ALLOWANCES AS OF DECEMBER 31</b>	<b>1,567</b>	<b>1,502</b>

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 €

	2016	2015	2014
Expenses for full write-off of receivables	126	375	352
Income from recoveries on receivables written off	67	329	254

### 3 INVENTORIES

millions of €

	Dec. 31, 2016	Dec. 31, 2015
Raw materials and supplies	71	62
Work in process	18	23
Finished goods and merchandise	1,540	1,762
	<b>1,629</b>	<b>1,847</b>

The carrying amount of inventories decreased by EUR 0.2 billion compared to December 31, 2015 to EUR 1.6 billion. This was due in particular to lower stock levels of terminal equipment (above all higher-priced smartphones) at the reporting date.

Write-downs of EUR 46 million (2015: EUR 121 million, 2014: EUR 57 million) on the net realizable value were recognized in 2016 and are shown in profit or loss.

The carrying amount of inventories expensed during the reporting period amounted to EUR 13,295 million (2015: EUR 12,367 million, 2014: EUR 8,237 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.

#### 4 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, 2016, current assets recognized in the consolidated statement of financial position included EUR 0.4 billion in non-current assets and disposal groups held for sale. Current liabilities in the consolidated statement of financial position included EUR 0.2 billion as liabilities directly associated with non-current assets and disposal groups held for sale. The decrease of EUR 6.6 billion in non-current assets and disposal groups held for sale compared with December 31, 2015 results primarily from the following effects:

After the British Competition and Markets Authority (CMA) had approved the sale of the EE joint venture to the UK company BT unconditionally and without remedies in January 2016, Deutsche Telekom AG and the French telecommunications provider Orange consummated the transaction on January 29, 2016, which reduced the carrying amount by EUR 5.8 billion. In this context, exchange rate effects totaling EUR 0.2 billion from the translation of pounds sterling to euros also lowered the net carrying amount compared with December 31, 2015. In the prior-year period, non-current assets and disposal groups held for sale had included in particular the reclassified stake in the EE joint venture. Secondly, the

transaction agreed in the third quarter of 2015 for the exchange of spectrum licenses between T-Mobile US and a competitor with the aim of improving the mobile network coverage of T-Mobile US was completed in March 2016. This transaction reduced the net carrying amount by a further EUR 0.6 billion.

A transaction agreed between T-Mobile US and a competitor in the third quarter of 2016 for the exchange of spectrum licenses, also aimed at improving the mobile network coverage of T-Mobile US, had an increasing effect of EUR 0.1 billion on the carrying amount. In December 2016, Deutsche Telekom reached an agreement with United Internet AG on the sale of hosting service provider Strato (which belonged to the Group Headquarters & Group Services segment). The transaction is expected to be closed in the first half of 2017. Payment of most of the purchase price is to be made immediately after closing. The sale of Strato is in line with the strategy of selling off or finding partners for business areas that cannot be developed adequately within the Deutsche Telekom Group and, in doing so, potentially increasing their value.

Reversals of impairments of the carrying amounts of the non-current assets and disposal groups held for sale were not material.

millions of €

	Dec. 31, 2016					Total	Dec. 31, 2015				
	Deutsche Telekom AG	Strato	T-Mobile US	DeTeMedien	Other		EE	T-Mobile US	Deutsche Telekom AG	Other	Total
<b>NON-CURRENT ASSETS AND DISPOSAL GROUPS HELD FOR SALE</b>											
Other current assets	-	10	-	25	-	35	-	-	-	4	4
Intangible assets	14	53	96	-	-	163	-	629	-	4	633
Property, plant and equipment	115	36	-	2	5	158	-	-	180	32	212
Investments accounted for using the equity method	-	-	-	3	-	3	6,073	-	-	-	6,073
Deferred tax assets	8	-	-	5	-	13	-	-	-	-	-
Other non-current assets	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>137</b>	<b>99</b>	<b>96</b>	<b>35</b>	<b>5</b>	<b>372</b>	<b>6,073</b>	<b>629</b>	<b>180</b>	<b>40</b>	<b>6,922</b>

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millions of €

	Dec. 31, 2016						Dec. 31, 2015				
	Deutsche Telekom AG	Strato	T-Mobile US	DeTeMedien	Other	Total	EE	T-Mobile US	Deutsche Telekom AG	Other	Total
<b>LIABILITIES DIRECTLY ASSOCIATED WITH NON-CURRENT ASSETS AND DISPOSAL GROUPS HELD FOR SALE</b>											
Financial liabilities	50	-	-	-	-	50	-	-	-	-	-
Trade and other payables	-	7	-	5	-	12	-	-	-	2	2
Income tax liabilities	-	-	-	30	-	30	-	-	-	-	-
Other current provisions	-	13	-	3	-	16	-	-	-	-	-
Other current liabilities	-	28	-	17	-	45	-	-	-	-	-
Provisions and similar obligations	-	-	-	23	-	23	-	-	-	-	-
Other non-current provisions	-	2	-	-	-	2	-	-	-	-	-
Deferred tax liabilities	16	-	-	-	-	16	-	-	-	-	-
Other non-current liabilities	-	-	-	-	-	-	-	-	-	2	2
<b>TOTAL</b>	<b>66</b>	<b>50</b>	<b>-</b>	<b>78</b>	<b>-</b>	<b>194</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4</b>	<b>4</b>

In accordance with IFRS 5, the following assets and disposal groups were no longer recognized at their carrying amounts, but at their fair value less costs of disposal as of December 31, 2016.

millions of €

	Dec. 31, 2016				Dec. 31, 2015			
	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	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
<b>NON-CURRENT ASSETS AND DISPOSAL GROUPS HELD FOR SALE</b>								
Deutsche Telekom AG real estate	-	-	84	84	-	-	105	105

Deutsche Telekom AG's real estate held for sale relates to sites no longer considered to be necessary for operations. 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. The expected costs of disposal (currently usually around 10 percent of the fair value) are subtracted. Real estate held for sale is recognized in the statement of financial position at the lower of carrying amount and fair value less costs of disposal. The real estate was written down by EUR 29.5 million to the fair value less costs of disposal. The expense was recognized under depreciation, amortization and impairment losses.

## 5 INTANGIBLE ASSETS

millions of €

	Internally generated intangible assets	Acquired intangible assets		
		Total	Acquired concessions, industrial and similar rights and assets	LTE licenses
<b>COST</b>				
<b>AT DECEMBER 31, 2014</b>	<b>4,785</b>	<b>58,824</b>	<b>1,138</b>	<b>3,668</b>
Currency translation	290	3,716	31	2
Changes in the composition of the Group	0	6	3	0
Additions	101	4,997	27	1,266
Disposals	504	1,710	42	0
Change from non-current assets and disposal groups held for sale	(12)	(1,012)	0	0
Reclassifications	756	1,318	20	165
<b>AT DECEMBER 31, 2015</b>	<b>5,416</b>	<b>66,139</b>	<b>1,177</b>	<b>5,101</b>
Currency translation	102	1,306	5	3
Changes in the composition of the Group	(14)	(20)	(10)	16
Additions	130	4,918	103	964
Disposals	493	1,592	27	0
Change from non-current assets and disposal groups held for sale	(20)	(640)	(24)	0
Reclassifications	813	1,233	(153)	19
<b>AT DECEMBER 31, 2016</b>	<b>5,934</b>	<b>71,344</b>	<b>1,071</b>	<b>6,103</b>
<b>ACCUMULATED AMORTIZATION AND IMPAIRMENT LOSSES</b>				
<b>AT DECEMBER 31, 2014</b>	<b>3,093</b>	<b>25,316</b>	<b>619</b>	<b>542</b>
Currency translation	221	1,057	7	0
Changes in the composition of the Group	0	(7)	0	0
Additions (amortization)	938	3,110	113	251
Additions (impairment)	1	17	7	0
Disposals	494	1,698	39	0
Change from non-current assets and disposal groups held for sale	(4)	(211)	0	0
Reclassifications	(28)	29	10	(1)
Reversal of impairment losses	0	0	0	0
<b>AT DECEMBER 31, 2015</b>	<b>3,727</b>	<b>27,613</b>	<b>717</b>	<b>792</b>
Currency translation	79	285	1	1
Changes in the composition of the Group	(8)	(38)	(11)	1
Additions (amortization)	955	3,175	120	318
Additions (impairment)	0	1	0	0
Disposals	491	1,572	21	0
Change from non-current assets and disposal groups held for sale	(11)	(198)	(10)	0
Reclassifications	(36)	36	(157)	0
Reversal of impairment losses	0	0	0	0
<b>AT DECEMBER 31, 2016</b>	<b>4,215</b>	<b>29,302</b>	<b>639</b>	<b>1,112</b>
<b>NET CARRYING AMOUNTS</b>				
At December 31, 2015	1,689	38,526	460	4,309
<b>AT DECEMBER 31, 2016</b>	<b>1,719</b>	<b>42,042</b>	<b>432</b>	<b>4,991</b>



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	Acquired intangible assets				Goodwill	Advance payments and intangible assets under development	Total
	UMTS licenses	GSM licenses	FCC licenses (T-Mobile US)	Other acquired intangible assets			
	9,929	1,291	27,253	15,545	28,986	1,688	94,283
	4	4	3,115	560	1,340	40	5,386
	0	0	0	3	1	0	7
	0	556	2,642	506	0	2,406	7,504
	0	301	0	1,367	35	33	2,282
	0	0	(997)	(15)	(2)	(7)	(1,033)
	0	(2)	0	1,135	0	(2,057)	17
	9,933	1,548	32,013	16,367	30,290	2,037	103,882
	(7)	(6)	1,194	117	396	40	1,844
	0	0	0	(26)	1	(1)	(34)
	0	0	3,108	743	0	2,491	7,539
	0	0	21	1,544	0	26	2,111
	0	0	(522)	(94)	0	(4)	(664)
	24	2	0	1,341	0	(2,009)	37
	9,950	1,544	35,772	16,904	30,687	2,528	110,493
	6,342	924	5,868	11,021	14,309	0	42,718
	2	3	674	371	1,196	0	2,474
	0	0	0	(7)	0	0	(7)
	581	66	0	2,099	0	0	4,048
	0	0	0	10	43	0	61
	0	301	0	1,358	31	0	2,223
	0	0	(199)	(12)	0	0	(215)
	0	0	0	20	0	0	1
	0	0	0	0	0	0	0
	6,925	692	6,343	12,144	15,517	0	46,857
	(4)	(4)	205	86	389	0	753
	0	0	0	(28)	0	0	(46)
	585	46	0	2,106	0	0	4,130
	0	0	0	1	471	0	472
	0	0	10	1,541	0	0	2,063
	0	0	(95)	(93)	0	0	(209)
	0	0	0	193	0	0	0
	0	0	0	0	0	0	0
	7,506	734	6,443	12,868	16,377	0	49,894
	3,008	856	25,670	4,223	14,773	2,037	57,025
	2,444	810	29,329	4,036	14,310	2,528	60,599

Deutsche Telekom had commitments for the acquisition of intangible assets in the amount of EUR 0.5 billion (December 31, 2015: EUR 1.1 billion) as of the reporting date. The decrease is mainly due to obligations recognized in the prior year for the purchase of spectrum licenses at T-Mobile US.

In the 2016 financial year, the main changes in the carrying amounts of goodwill at cash-generating units were as follows:

**United States.** The increase of EUR 38 million in goodwill compared with December 31, 2015 was the result of exchange rate effects.

**Europe and Systems Solutions.** Business customer operations at Magyar Telekom in Hungary, which had previously been organizationally assigned to the Systems Solutions operating segment, have been bundled and reported under the Europe operating segment since January 1, 2016. The allocation of goodwill to the corresponding segments was adjusted, thus reducing goodwill of the Systems Solutions operating segment by EUR 101 million compared with the prior year. Goodwill of the Hungary cash-generating unit in the Europe operating segment increased by the same amount. In addition, exchange rate effects contributed to the year-on-year increase in goodwill.

**Disclosures on annual impairment tests.** Deutsche Telekom performed its annual impairment tests for the goodwill assigned to the cash-generating units as of December 31, 2016. A need for impairment totaling EUR 471 million on a pro rata basis was identified in the Europe operating segment at the cash-generating units Netherlands, Romania – Mobile communications, and Montenegro as of December 31, 2016 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. The impairment test as of December 31, 2015 resulted in a need for impairment of EUR 43 million at the Hungary cash-generating unit in the Europe operating segment.

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 to the right.

The recoverable amounts (prior to the deduction of net debt) for Romania – Mobile communications and Montenegro were EUR 422 million and EUR 169 million, respectively, as of December 31, 2016. The values were calculated according to IFRS 13 using Level 3 input parameters (i. e., unobservable input parameters). The recoverable amount (prior to the deduction of net debt) for the Netherlands was EUR 2,402 million as of December 31, 2016. It was calculated on the basis of the value in use. The recoverable amount (prior to the deduction of net debt) for Hungary was EUR 3,004 million as of December 31, 2015. The value was calculated according to IFRS 13 using Level 3 input parameters (i. e., unobservable input parameters).

The recoverable amount at the Netherlands, Croatia, Montenegro, and F.Y.R.O. Macedonia cash-generating units was determined on the basis of the value in use, since, in these cases, it is higher than the fair value. 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.

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		Goodwill carrying amount millions of €	Impairment millions of €	Detailed planning period years	Discount rates <sup>a</sup> %	Sustainable growth rate p. a. Ø in %	Level allocation of input parameters <sup>b</sup>
<b>GERMANY</b>	2016	3,978		10	4.89	0.0	Level 3
	2015	3,978		10	5.34	0.0	Level 3
<b>UNITED STATES</b>	2016	1,185		n. a.	n. a.	n. a.	Level 1
	2015	1,147		n. a.	n. a.	n. a.	Level 1
<b>EUROPE</b>							
Poland	2016	1,530		10	6.45	2.0	Level 3
	2015	1,584		10	6.96	2.0	Level 3
Netherlands	2016	897	415	10	4.99	0.50	Value in use
	2015	1,312		10	5.51	0.25	Value in use
Hungary	2016	1,069		10	7.83	2.0	Level 3
	2015	949	43	10	7.88	2.0	Level 3
Czech Republic	2016	739		10	5.33	2.0	Level 3
	2015	739		10	5.58	2.0	Level 3
Croatia	2016	500		10	6.74	2.0	Value in use
	2015	494		10	7.13	2.0	Value in use
Slovakia	2016	428		10	5.61	2.0	Level 3
	2015	428		10	5.34	2.0	Level 3
Greece – Mobile communications	2016	422		10	7.91	2.0	Level 3
	2015	422		10	7.81	2.0	Level 3
Austria	2016	324		10	5.24	2.0	Level 3
	2015	324		10	5.66	2.0	Level 3
Romania – Mobile communications	2016	76	44	10	7.96	2.0	Level 3
	2015	121		10	8.47	2.0	Level 3
International Carrier Sales & Solutions	2016	101		10	4.64	2.0	Level 3
	2015	101		10	5.15	2.0	Level 3
Other <sup>c</sup>	2016	87	12	10	8.06–9.93	2.0	Level 3 and values in use
	2015	99		10	8.44–10.47	2.0	Level 3 and values in use
<b>SYSTEMS SOLUTIONS</b>	2016	2,974		10	6.15	1.5	Level 3
	2015	3,075		10	6.49	1.5	Level 3
	2016	<b>14,310</b>	<b>471</b>				
	2015	<b>14,773</b>	<b>43</b>				

<sup>a</sup> Discount rate consistently after taxes. The discount rate before taxes for the calculation of the value in use amounts to 5.81 percent for the Netherlands, 8.31 percent for Croatia, and 8.73 to 8.99 percent for "Other."

<sup>b</sup> Level of input parameters in the case of fair value less costs of disposal.

<sup>c</sup> The impairments under "Other" exclusively relate to the Montenegro cash-generating unit.

### Sensitivity analysis of the impairment losses

millions of €<sup>a</sup>

	Increase (decrease) in impairment losses in 2016					
	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
<b>EUROPE</b>						
Poland		85 (101/ 100%/97.28%)	109 (101/ 2.0%/1.77%)	226 (101/ 6.45%/6.59%)		
Netherlands	-262 (-415/ 4.99%/4.22%)	120 (-415/ 100%/117.30%)	128 (-415/ 0.50%/1.6%)	214 (-415/ 4.99%/4.22%)	-120 (-415/ 100%/117.30%)	-160 (-415/ 0.50%/1.6%)
Romania – Mobile communications	-12 (-124/ 7.96%/6.45%)	7 (-124/ 100%/129.48%)	5 (-124/ 2.0%/4.25%)	10 (-124/ 7.96%/6.45%)	-7 (-124/ 100%/129.48%)	-6 (-124/ 2.0%/4.25%)
F.Y.R.O. Macedonia		7 (5/ 100%/98.50%)	6 (5/ 2.0%/1.85%)	13 (5/ 8.06%/8.15%)		
Montenegro	-8 (-20/ 8.07%/7.34%)	5 (-20/ 100%/112.03%)	4 (-20/ 2.0%/3.18%)	7 (-20/ 8.07%/7.34%)	-5 (-20/ 100%/112.03%)	-4 (-20/ 2.0%/3.18%)
	<b>(282)</b>	<b>224</b>	<b>252</b>	<b>470</b>	<b>(132)</b>	<b>(170)</b>

<sup>a</sup> 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, which makes the recoverable amount of the cash-generating unit equal to the unit's carrying amount.

The sensitivity analysis of impairment charges 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.

## 6 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
<b>COST</b>					
<b>AT DECEMBER 31, 2014</b>	<b>18,644</b>	<b>109,043</b>	<b>8,332</b>	<b>3,004</b>	<b>139,023</b>
Currency translation	220	2,247	176	151	2,794
Changes in the composition of the Group	(1)	(29)	(5)	(1)	(36)
Additions	164	5,945	503	5,251	11,863
Disposals	296	5,099	854	89	6,338
Change from non-current assets and disposal groups held for sale	(571)	(113)	(3)	(8)	(695)
Reclassifications	356	4,019	448	(4,840)	(17)
<b>AT DECEMBER 31, 2015</b>	<b>18,516</b>	<b>116,013</b>	<b>8,597</b>	<b>3,468</b>	<b>146,594</b>
Currency translation	80	928	47	38	1,093
Changes in the composition of the Group	0	15	(2)	2	15
Additions	133	5,357	482	5,384	11,356
Disposals	157	4,786	1,240	82	6,265
Change from non-current assets and disposal groups held for sale	(200)	(9)	(106)	(8)	(323)
Reclassifications	168	4,196	636	(5,037)	(37)
<b>AT DECEMBER 31, 2016</b>	<b>18,540</b>	<b>121,714</b>	<b>8,414</b>	<b>3,765</b>	<b>152,433</b>
<b>ACCUMULATED DEPRECIATION AND IMPAIRMENT LOSSES</b>					
<b>AT DECEMBER 31, 2014</b>	<b>10,694</b>	<b>82,675</b>	<b>6,011</b>	<b>27</b>	<b>99,407</b>
Currency translation	152	1,341	126	0	1,619
Changes in the composition of the Group	(1)	(30)	(4)	0	(35)
Additions (depreciation)	723	5,713	714	0	7,150
Additions (impairment)	70	23	2	3	98
Disposals	201	4,825	797	1	5,824
Change from non-current assets and disposal groups held for sale	(385)	(60)	(2)	(3)	(450)
Reclassifications	37	(52)	13	1	(1)
Reversal of impairment losses	(7)	0	0	0	(7)
<b>AT DECEMBER 31, 2015</b>	<b>11,082</b>	<b>84,785</b>	<b>6,063</b>	<b>27</b>	<b>101,957</b>
Currency translation	51	503	23	(2)	575
Changes in the composition of the Group	0	5	(3)	0	2
Additions (depreciation)	684	7,148	724	1	8,557
Additions (impairment)	63	138	11	8	220
Disposals	163	4,165	1,046	24	5,398
Change from non-current assets and disposal groups held for sale	(139)	(8)	(73)	(8)	(228)
Reclassifications	(41)	(68)	110	(1)	0
Reversal of impairment losses	(8)	(2)	0	0	(10)
<b>AT DECEMBER 31, 2016</b>	<b>11,529</b>	<b>88,336</b>	<b>5,809</b>	<b>1</b>	<b>105,675</b>
<b>NET CARRYING AMOUNTS</b>					
At December 31, 2015	7,434	31,228	2,534	3,441	44,637
<b>AT DECEMBER 31, 2016</b>	<b>7,011</b>	<b>33,378</b>	<b>2,605</b>	<b>3,764</b>	<b>46,758</b>

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For further details on depreciation, amortization and impairment losses, please refer to Note 22 "Depreciation, amortization and impairment losses," page 184, and Note 5 "Intangible assets," page 158 et seq.

The additions include EUR 1.5 billion in capitalized higher-priced mobile devices. These relate to the business model JUMP! On Demand introduced at T-Mobile US in June 2015 under which customers no longer purchase the device but lease it.

Restoration obligations of EUR 0.4 billion were recognized as of December 31, 2016 (December 31, 2015: EUR 0.3 billion). This includes restoration obligations of EUR 0.3 billion at T-Mobile US and EUR 0.1 billion at the Germany operating segment.

Deutsche Telekom had commitments for the acquisition of property, plant and equipment in the amount of EUR 2.3 billion (December 31, 2015: EUR 1.9 billion) as of the reporting date.

For the Romania – Fixed network cash-generating unit in the Europe operating segment, an ad hoc impairment test triggered by the more pessimistic outlook for the business taken into account in the annual planning process, resulted in an impairment loss being recognized on the assets. As of the reporting date, no goodwill was recognized in the Romania – Fixed network cash-generating unit.

As in the prior year, the measurement of the cash-generating unit was founded on a projection 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 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 (2015: 2.0 percent) was set for the cash-generating unit Romania – Fixed network and is based on the real growth and inflation expected in the long term for Romania. 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 7.79 percent (2015: 8.35 percent).

The recoverable amount, calculated internally on the basis of the stated assumptions according to IFRS 13 using Level 3 input parameters (i. e., unobservable input parameters), was EUR 510 million (after deduction of net debt). The resulting need for impairment of EUR 185 million had to be allocated to non-current assets. An external expert opinion was obtained on account of the lower value limits to be observed (fair value less costs of disposal of the relevant assets). Based on the recoverable amount derived from this expert opinion of EUR 567 million, an impairment loss of EUR 128 million was recognized, EUR 100 million of which related to non-controlling interests. The impairment loss primarily related to technical infrastructure in property, plant and equipment. The need for impairment was primarily attributable to intensified competition and a difficult overall market situation.

## 7 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:

Name and registered office	Deutsche Telekom share		Percentage of voting rights		Assigned to segment	Fair value of the investment, if a listed market price is available	
	Dec. 31, 2016 %	Dec. 31, 2015 %	Dec. 31, 2016 %	Dec. 31, 2015 %		Dec. 31, 2016 millions of €	Dec. 31, 2015 millions of €
Hrvatske telekomunikacije d.d. Mostar, Mostar, Bosnia-Herzegovina <sup>a</sup>	39.10	39.10	39.10	39.10	Europe	31	44
Scout24 AG, Munich, Germany	9.26	13.37	9.26	13.37	Group Headquarters & Group Services	337	474
Ströer SE & Co. KGaA, Cologne, Germany	11.60	11.60	11.60	11.60	Group Headquarters & Group Services	267	361
T-Mobile USA Tower LLC, Wilmington, United States <sup>b</sup>	100.00	100.00	100.00	100.00	United States	-	-
T-Mobile West Tower LLC, Wilmington, United States <sup>b</sup>	100.00	100.00	100.00	100.00	United States	-	-
Toll Collect GmbH, Berlin, Germany	45.00	45.00	45.00	45.00	Systems Solutions	-	-

<sup>a</sup> Indirect shareholding via Hrvatski Telekom d.d., Croatia (Deutsche Telekom AG's share: 51.00 percent).

<sup>b</sup> Indirect shareholding via T-Mobile US, Inc., United States (Deutsche Telekom AG's share: 64.78 percent).

### 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-Herzegovina.

Scout24 AG operates leading digital advertising platforms in Germany and other selected European countries. The core business under the Scout24 umbrella brand consists of the digital marketplaces ImmobilienScout24 and AutoScout24. For more information on the basis for including the investment in the consolidated financial statements of Deutsche Telekom, please refer to the section "Summary of accounting policies" under "Changes in the composition of the Group and other transactions," page 149 et seq.

Ströer SE & Co. KGaA is a leading digital multi-channel media house that offers advertisers customized, fully integrated premium communications solutions. Deutsche Telekom holds 11.6 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 supervisory board membership 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 USA 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 sites, 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.

Toll Collect GmbH operates the highway toll system in Germany.

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 significant joint ventures accounted for using the equity method

millions of €	HT Mostar d.d.		Toll Collect GmbH	
	Dec. 31, 2016/2016	Dec. 31, 2015/2015	Dec. 31, 2016/2016	Dec. 31, 2015/2015
Current assets	44	40	770	528
Of which: cash and cash equivalents	13	3	18	63
Non-current assets	163	172	150	180
Current liabilities	34	34	836	745
Of which: financial liabilities	0	0	0	0
Non-current liabilities	3	5	151	91
Of which: financial liabilities	1	1	150	90
Net revenue	42	45	530	472
Interest income	0	0	14	5
Interest expense	0	0	(6)	(3)
Income taxes	0	0	(31)	(37)
Profit (loss)	(2)	1	61	(15)
Other comprehensive income	0	0	1	0
Total comprehensive income	(2)	1	62	(15)
Depreciation and amortization	(12)	(12)	(1)	(2)
Dividends paid to Deutsche Telekom	0	0	0	0

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### Summarized financial information on significant associates accounted for using the equity method

millions of €

	Scout24 AG <sup>a</sup>		Ströer SE & Co. KGaA <sup>b</sup>		T-Mobile USA Tower LLC		T-Mobile West Tower LLC	
	Dec. 31, 2016/2016	Dec. 31, 2015/2015	Dec. 31, 2016/2016	Dec. 31, 2015/2015	Dec. 31, 2016/2016	Dec. 31, 2015/2015	31.12.2016/2016	Dec. 31, 2015/2015
Current assets	101	123	293	178	0	0	0	0
Non-current assets	2,047	2,061	1,416	799	68	66	104	101
Current liabilities	111	108	438	276	0	0	0	0
Non-current liabilities	1,063	1,380	642	415	0	0	0	0
Net revenue	326	288	766	509	0	0	0	0
Profit (loss)	49	49	40	25	0	0	0	0
Other comprehensive income	0	1	(6)	(19)	0	0	0	0
Total comprehensive income	49	50	34	7	0	0	0	0
Dividends paid to Deutsche Telekom	0	124	4	0	0	0	0	0

<sup>a</sup> As financial data of Scout24 AG as of December 31, 2016 was not publicly available in its entirety to Deutsche Telekom at the date of preparation, the quarterly statement of Scout24 AG as of September 30, 2016 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.

<sup>b</sup> As financial data of Ströer SE & Co. KGaA as of December 31, 2016 was not publicly available to Deutsche Telekom at the date of preparation, the quarterly financial report of Ströer SE & Co. KGaA as of September 30, 2016 was used as a basis for the summarized financial information.

### Reconciliation to the carrying amount included in the consolidated statement of financial position

millions of €

	HT Mostar d.d.		Toll Collect GmbH	
	2016	2015	2016	2015
<b>NET ASSETS AS OF JANUARY 1</b>	<b>173</b>	<b>172</b>	<b>(128)</b>	<b>(114)</b>
Profit (loss)	(2)	1	61	(14)
Other comprehensive income	0	0	1	0
Dividends paid	0	0	0	0
Exchange rate effects	(1)	0	0	0
<b>NET ASSETS AS OF DECEMBER 31</b>	<b>170</b>	<b>173</b>	<b>(67)</b>	<b>(128)</b>
<b>SHARE OF NET ASSETS ATTRIBUTABLE TO DEUTSCHE TELEKOM AS OF DECEMBER 31</b>	<b>66</b>	<b>68</b>	<b>(34)</b>	<b>(64)</b>
Adjustment of carrying amount	0	0	34	64
Other reconciliation effects	(16)	(15)	0	0
<b>CARRYING AMOUNT AS OF DECEMBER 31</b>	<b>50</b>	<b>53</b>	<b>0</b>	<b>0</b>

millions of €

	Scout24 AG <sup>a</sup>		Ströer SE & Co. KGaA <sup>b</sup>		T-Mobile USA Tower LLC		T-Mobile West Tower LLC	
	2016	2015	2016	2015	2016	2015	2016	2015
<b>NET ASSETS AS OF JANUARY 1</b>	<b>696</b>	<b>1,059</b>	<b>286</b>	<b>300</b>	<b>66</b>	<b>60</b>	<b>101</b>	<b>91</b>
Profit (loss)	58	49	73	25	0	0	0	0
Other comprehensive income	0	1	1	(19)	0	0	0	0
Dividends paid	0	(421)	(39)	(20)	0	0	0	0
Capital increase <sup>c</sup>	220	8	380	0	0	0	0	0
Obligation to acquire own equity instruments	0	0	(72)	0	0	0	0	0
Exchange rate effects	0	0	0	0	2	6	3	10
<b>NET ASSETS AS OF DECEMBER 31<sup>d</sup></b>	<b>974</b>	<b>696</b>	<b>629</b>	<b>286</b>	<b>68</b>	<b>66</b>	<b>104</b>	<b>101</b>
<b>SHARE OF NET ASSETS ATTRIBUTABLE TO DEUTSCHE TELEKOM AS OF DECEMBER 31<sup>d</sup></b>	<b>90</b>	<b>93</b>	<b>73</b>	<b>33</b>	<b>68</b>	<b>66</b>	<b>104</b>	<b>101</b>
Adjustment of carrying amount	0	0	0	0	0	0	0	0
Impairment	0	0	(50)	0	0	0	0	0
Other reconciliation effects	1	31	248	298	0	0	0	0
<b>CARRYING AMOUNT AS OF DECEMBER 31</b>	<b>91</b>	<b>124</b>	<b>271</b>	<b>331</b>	<b>68</b>	<b>66</b>	<b>104</b>	<b>101</b>

<sup>a</sup> As financial data of Scout24 AG as of December 31, 2016 was not publicly available in its entirety to Deutsche Telekom at the date of preparation, the quarterly statement of Scout24 AG as of September 30, 2016 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, 2016 were estimated and are included under other reconciliation effects. In addition, profit/loss after income taxes in 2016 also includes profit/loss after income taxes of the prior-year fourth quarter on a pro rata basis.

<sup>b</sup> As financial data of Ströer SE & Co. KGaA as of December 31, 2016 was not publicly available in its entirety to Deutsche Telekom at the date of preparation, the quarterly statement of Ströer SE & Co. KGaA as of September 30, 2016 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, 2016 were estimated and are included under other reconciliation effects. In addition, profit/loss after income taxes in 2016 also includes profit/loss after income taxes of the prior-year fourth quarter on a pro rata basis.

<sup>c</sup> The presentation of the development of the carrying amount of the stake in Scout24 AG as of December 31, 2016 included, among other factors, the capital increase carried out in connection with the IPO on October 1, 2015, as this information had not been available when Deutsche Telekom's consolidated financial statements as of December 31, 2015 were published.

<sup>d</sup> The figures for net assets and the share of the net assets of Scout24 AG and Ströer SE & Co. KGaA relate to September 30, 2016 and September 30, 2015.

Deutsche Telekom did not recognize losses in connection with investments included in the consolidated financial statements using the equity method of EUR 34 million (2015: EUR 64 million) because it has no obligation to offset these losses.

#### Summarized aggregate financial information on non-significant investments accounted for using the equity method

The figures relate to the interests attributable to Deutsche Telekom.

millions of €

	Joint ventures		Associates	
	Dec. 31, 2016/ 2016	Dec. 31, 2015/ 2015	Dec. 31, 2016/ 2016	Dec. 31, 2015/ 2015
Total carrying amounts	17	5	124	142
Total interests				
Profit (loss)	0	(1)	0	(3)
Other comprehensive income	0	0	0	0
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>-</b>	<b>(1)</b>	<b>-</b>	<b>(3)</b>

#### 8 OTHER FINANCIAL ASSETS

millions of €

	Dec. 31, 2016		Dec. 31, 2015	
	Total	Of which: current	Total	Of which: current
Originated loans and receivables	5,664	5,104	3,283	2,694
Available-for-sale financial assets	5,548	13	3,354	2,801
Derivative financial assets	2,379	594	2,686	306
Held-to-maturity investments	8	2	12	4
	<b>13,599</b>	<b>5,713</b>	<b>9,335</b>	<b>5,805</b>



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millions of €

Originated loans and receivables	Of which: neither impaired nor past due on the reporting date	Of which: not impaired on the reporting date and past due in the following periods					
		Less than 30 days	Between 30 and 60 days	Between 61 and 90 days	Between 91 and 180 days	Between 181 and 360 days	More than 360 days
<b>As of Dec. 31, 2016</b>							
Due within one year	4,620	63	87	8	1	3	2
Due after more than one year	404	-	-	-	-	-	-
<b>As of Dec. 31, 2015</b>							
Due within one year	2,005	38	12	0	4	0	1
Due after more than one year	325	-	-	-	-	-	-

The increase of EUR 2.4 billion in short-term originated loans and receivables is mainly related to a refundable cash deposit of EUR 2.1 billion recorded in the second quarter of 2016 in connection with a potential asset purchase in the United States.

With respect to the originated loans and receivables that are neither impaired nor past due, there are no indications as of the reporting date that the debtors will not meet their payment obligations.

Receivables of EUR 235 million (December 31, 2015: EUR 98 million) were used in connection with collateral agreements as surety for potential credit risks arising from derivative transactions.

Available-for-sale financial assets in the amount of EUR 126 million were recognized at cost as of December 31, 2016, (December 31, 2015: EUR 156 million). No plans existed as of the reporting date to sell these instruments.

## 9 OTHER ASSETS

Other assets mainly include deferred expenses of EUR 1.2 billion (December 31, 2015: EUR 1.0 billion).

## 10 FINANCIAL LIABILITIES

millions of €

	Dec. 31, 2016				Dec. 31, 2015			
	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	50,090	8,175	15,216	26,699	47,766	7,583	14,410	25,773
Liabilities to banks	4,097	1,293	2,071	733	4,190	1,864	945	1,381
Of which: promissory notes	191	-	61	130	383	193	-	190
Of which: loans from the European Investment Bank	2,359	243	1,616	500	2,688	829	809	1,050
Of which: other loans	1,547	1,050	394	103	1,119	842	136	141
	<b>54,187</b>	<b>9,468</b>	<b>17,287</b>	<b>27,432</b>	<b>51,956</b>	<b>9,447</b>	<b>15,355</b>	<b>27,154</b>
Finance lease liabilities	2,547	585	1,275	687	1,927	311	878	738
Liabilities to non-banks from promissory notes	535	35	204	296	934	413	239	282
Liabilities with the right of creditors to priority repayment in the event of default	1,866	19	76	1,771	1,822	18	73	1,731
Other interest-bearing liabilities	1,823	1,268	381	174	3,009	2,399	465	145
Other non-interest-bearing liabilities	1,958	1,769	186	3	1,798	1,667	129	2
Derivative financial liabilities	1,734	1,278	315	141	934	184	413	337
	<b>10,463</b>	<b>4,954</b>	<b>2,437</b>	<b>3,072</b>	<b>10,424</b>	<b>4,992</b>	<b>2,197</b>	<b>3,235</b>
<b>FINANCIAL LIABILITIES</b>	<b>64,650</b>	<b>14,422</b>	<b>19,724</b>	<b>30,504</b>	<b>62,380</b>	<b>14,439</b>	<b>17,552</b>	<b>30,389</b>

Financial liabilities increased year-on-year by EUR 2.3 billion to a total of EUR 64.7 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 at December 31, 2016. None of these lines of credit had been utilized as of December 31, 2016. 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. In March 2016, Deutsche Telekom International Finance B.V. placed a euro bond of EUR 4.5 billion in three tranches under a debt issuance program. An additional 5-year euro bond of EUR 0.5 billion was issued in April under the same debt issuance program. Also in April 2016, T-Mobile US issued senior notes with a total volume of USD 1.0 billion (EUR 0.9 billion). T-Mobile US expects to use

the net proceeds from this offering for the purchase of 700 MHz A-block spectrum and other spectrum purchases. Further, in July 2016, a loan in the amount of EUR 0.5 billion and with a term of six years was taken out with the European Investment Bank. In addition, Deutsche Telekom International Finance B.V. issued a U.S. dollar bond of USD 2.75 billion (around EUR 2.5 billion) in four tranches in September 2016. In early October, Deutsche Telekom International Finance B.V. issued a fixed-income 7-year GBP bond with a volume of GBP 0.3 billion (around EUR 0.3 billion) as part of the aforementioned debt issuance program. All bonds issued by Deutsche Telekom International Finance B.V. are guaranteed by Deutsche Telekom AG.

In 2016, two U.S. dollar bonds were repaid in a total amount of USD 2.25 billion (around EUR 2.0 billion), as were euro bonds totaling EUR 0.9 billion, a bond in Swiss francs for CHF 0.4 billion (around EUR 0.4 billion), commercial paper in the amount of EUR 3.7 billion (net), and promissory notes in the amount of EUR 0.4 billion (net). The net decrease in liabilities to banks of EUR 0.1 billion also reduced the carrying amount of the financial liabilities.

The liabilities with the right of creditors to priority repayment in the event of default relate to liabilities issued by T-Mobile US with a nominal volume of USD 2.0 billion, a term running to 2022, and bearing variable-rate interest based on USD Libor. In the event of default by or insolvency of T-Mobile US, the creditors of these liabilities

millions of €

	Carrying amounts Dec. 31, 2016	Cash flows in 2017			Cash flows in 2018		
		Fixed interest rate	Variable interest rate	Repayment	Fixed interest rate	Variable interest rate	Repayment
<b>NON-DERIVATIVE FINANCIAL LIABILITIES</b>							
Bonds, other securitized liabilities, liabilities to banks and liabilities to non-banks from promissory notes and similar liabilities	(54,722)	(2,371)	(22)	(7,588)	(2,013)	(16)	(2,742)
Finance lease liabilities	(2,547)	(125)		(585)	(104)		(477)
Liabilities with the right of creditors to priority repayment in the event of default	(1,866)		(62)	(19)		(62)	(19)
Other interest-bearing liabilities	(1,823)	(17)		(1,268)	(16)		(200)
Other non-interest-bearing liabilities	(1,958)			(1,769)			(171)
<b>DERIVATIVE FINANCIAL LIABILITIES AND ASSETS</b>							
Derivative financial liabilities:							
Currency derivatives without a hedging relationship	(249)			(266)			
Currency derivatives in connection with cash flow hedges	(36)			(38)			
Currency derivatives in connection with net investment hedges	0						
Other derivatives without a hedging relationship	(5)			(3)			(3)
Interest rate derivatives without a hedging relationship	(516)	(146)	(46)	(27)	(19)	(40)	(177)
Interest rate derivatives in connection with fair value hedges	(79)	75	(86)	(15)	75	(83)	0
Interest rate derivatives in connection with cash flow hedges	(12)	3	0	0	3	0	0
Derivative financial assets:							
Currency derivatives without a hedging relationship	131			134			
Currency derivatives in connection with cash flow hedges	25			13			
Other derivatives without a hedging relationship	3			0			0
Interest rate derivatives without a hedging relationship	832	(152)	215	207	(185)	207	185
Interest rate derivatives in connection with fair value hedges	230	226	(174)	0	226	(162)	0
Interest rate derivatives in connection with cash flow hedges	243	61	0	0	61	0	
Derivative financial liabilities directly associated with non-current assets and disposal groups held for sale (without a hedging relationship) <sup>a</sup>	(50)						
<b>FINANCIAL GUARANTEES AND LOAN COMMITMENTS<sup>b</sup></b>	(1)			(75)			

<sup>a</sup> There will be no payment for this item of EUR 50 million, since this relates to a purchase option granted to a third party for shares in a subsidiary of Deutsche Telekom (please also refer to Note 36 "Financial instruments and risk management," page 200 et seq.).

<sup>b</sup> For more detailed information, please refer to Note 36 "Financial instruments and risk management," page 200 et seq. In each case, the maximum payment at the earliest possible date of utilization is shown.



millions of €	Carrying amounts Dec. 31, 2015	Cash flows in				
		2016	2017	2018–2020	2021–2025	2026 and thereafter
<b>NON-DERIVATIVE FINANCIAL LIABILITIES</b>						
Bonds, other securitized liabilities, liabilities to banks and liabilities to non-banks from promissory notes and similar liabilities	(52,890)	(11,760)	(5,794)	(17,039)	(22,524)	(12,739)
Finance lease liabilities	(1,927)	(421)	(405)	(795)	(638)	(413)
Liabilities with the right of creditors to priority repayment in the event of default	(1,822)	(82)	(81)	(241)	(1,858)	
Other interest-bearing liabilities	(3,009)	(2,416)	(338)	(197)	(130)	(87)
Other non-interest-bearing liabilities	(1,798)	(1,667)	(101)	(28)	(2)	
<b>DERIVATIVE FINANCIAL LIABILITIES AND ASSETS</b>						
Derivative financial liabilities:						
Currency derivatives without a hedging relationship	(147)	(158)				
Currency derivatives in connection with cash flow hedges	(33)	(34)				
Currency derivatives in connection with net investment hedges	0					
Other derivatives without a hedging relationship	(58)	(9)	(7)	(6)		
Interest rate derivatives without a hedging relationship	(314)	(108)	(144)	(40)	(50)	87
Interest rate derivatives in connection with fair value hedges	(10)	5	(12)			
Interest rate derivatives in connection with cash flow hedges	(74)	(37)	(37)			
Derivative financial assets:						
Currency derivatives without a hedging relationship	29	28				
Currency derivatives in connection with cash flow hedges	7	8				
Other derivatives without a hedging relationship	1					
Interest rate derivatives without a hedging relationship	1,106	260	236	383	141	553
Interest rate derivatives in connection with fair value hedges	290	105	103	260	355	580
Interest rate derivatives in connection with cash flow hedges	863	157	80	301	519	683
<b>FINANCIAL GUARANTEES AND LOAN COMMITMENTS <sup>a</sup></b>	(2)	(459)	(136)			

<sup>a</sup>For more detailed information, please refer to Note 36 "Financial instruments and risk management," page 200 et seq. In each case, the maximum payment at the earliest possible date of utilization is shown.

All instruments held at December 31, 2016 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, 2016. 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, 2016, this figure was a nominal EUR 1.6 billion (December 31, 2015: EUR 2.1 billion). The Mandatory Convertible Preferred Stock issued by T-Mobile US in December 2014 (nominal volume of USD 1.0 billion, interest rate of 5.5 percent, term until 2017) is not included in the table above since T-Mobile US has the contractually agreed right to pay all interest in the form of shares. The repayment in the form of shares is mandatory.

## 11 TRADE AND OTHER PAYABLES

millions of €	Dec. 31, 2016	Dec. 31, 2015
Trade payables	10,388	11,037
Other liabilities	53	53
	<b>10,441</b>	<b>11,090</b>

Of the total of trade and other payables, EUR 10,441 million (December 31, 2015: EUR 11,089 million) is due within one year. The year-on-year decline in trade payables is mainly due to the reduction in liabilities at T-Mobile US. Exchange rate effects from the translation from U.S. dollars into euros have an offsetting effect.

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## 12 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. In addition, there were further obligations in Germany under Article 131 of the Basic Law (Grundgesetz – GG), which ceased in the 2016 financial year.

Deutsche Telekom's pension obligations are as follows:

millions of €	Dec. 31, 2016	Dec. 31, 2015
<b>DEFINED BENEFIT LIABILITY</b>	<b>8,451</b>	<b>8,028</b>
Defined benefit asset	(14)	(14)
<b>NET DEFINED BENEFIT LIABILITY (ASSET)</b>	<b>8,437</b>	<b>8,014</b>
Of which: provisions for direct commitments	7,944	7,568
Of which: provisions for indirect commitments	493	445
Of which: provisions for obligations in accordance with Article 131 GG	–	1

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.

### Calculation of net defined benefit liabilities/assets:

millions of €	Dec. 31, 2016	Dec. 31, 2015
Present value of the obligations fully or partially funded by plan assets	8,175	7,749
Plan assets at fair value	(2,990)	(2,744)
<b>DEFINED BENEFIT OBLIGATIONS IN EXCESS OF PLAN ASSETS</b>	<b>5,185</b>	<b>5,005</b>
Present value of the unfunded obligations	3,252	3,004
<b>DEFINED BENEFIT LIABILITY (ASSET) ACCORDING TO IAS 19.63</b>	<b>8,437</b>	<b>8,009</b>
Effect of asset ceiling (according to IAS 19.64)	0	5
<b>NET DEFINED BENEFIT LIABILITY (ASSET)</b>	<b>8,437</b>	<b>8,014</b>

millions of €

	2016	2015
<b>NET DEFINED BENEFIT LIABILITY (ASSET) AS OF JANUARY 1</b>	<b>8,014</b>	<b>8,447</b>
Service cost	230	285
Net interest expense (income) on the net defined benefit liability (asset)	166	157
Remeasurement effects	660	(230)
Pension benefits paid directly by the employer	(343)	(355)
Employer contributions to plan assets	(264)	(276)
Changes attributable to business combinations/transfers of operation/acquisitions and disposals	(25)	(19)
Administration costs actually incurred (paid from plan assets)	0	0
Exchange rate fluctuations for plans in foreign currency	(1)	5
<b>NET DEFINED BENEFIT LIABILITY (ASSET) AS OF DECEMBER 31</b>	<b>8,437</b>	<b>8,014</b>

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 following table 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.

From 2014, the following figures for the plans in Switzerland relate to T-Systems Schweiz AG and T-Systems Data Migration Consulting AG (previously only T-Systems Schweiz AG).

### Assumptions for the measurement of defined benefit obligations as of December 31:

		2016	2015	2014
%				
Discount rate	Germany	1.62	2.11	1.89
	Switzerland	0.62	0.83	1.14
	Greece (OTE S.A.)	1.62 <sup>a</sup> /0.92 <sup>b</sup>	2.13 <sup>a</sup> /1.39 <sup>b</sup>	1.83 <sup>a</sup> /1.09 <sup>b</sup>
Salary increase rate	Germany	2.40	2.50	2.50
	Switzerland	1.00	1.25	1.25
	Greece (OTE S.A.)	1.00 <sup>c</sup>	1.00 <sup>d</sup>	1.00 <sup>e</sup>
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	0.30
	Greece (OTE S.A.)	n. a.	n. a.	n. a.

<sup>a</sup> The discount rate relates to the plans for staff retirement indemnities and, until 2015, for phone credits (see the plan description, page 174 et seq.).

<sup>b</sup> The discount rate relates to the plan for youth accounts (see the plan description, page 174 et seq.).

<sup>c</sup> 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.

<sup>d</sup> The following assumptions were made in 2015 concerning the development of salaries in subsequent years: 2016: 0.00 percent, 2017: 0.00 percent, 2018: 5.50 percent. An increase of 1.00 percent is assumed for the years from 2019 onward.

<sup>e</sup> The following assumptions were made in 2014 concerning the development of salaries in subsequent years: 2015: -1.00 percent, 2016: 0.00 percent, 2017: 0.00 percent, 2018: 11.00 percent. An increase of 1.00 percent was assumed for the years from 2019 onward.

		Dec. 31, 2016	Dec. 31, 2015
years			
Duration	Germany	14.0	13.9
	Switzerland	16.8 <sup>a</sup>	17.1
	Greece (OTE S.A.)	14.4 <sup>b</sup> /6.4 <sup>c</sup>	14.1 <sup>b</sup> /6.4 <sup>c</sup>

<sup>a</sup> Although the discount rate has declined since 2015, the duration of the Swiss obligations has decreased by approximately 0.3 years; this is attributable, among other things, to changes in the conversion rates (see plan description, page 174 et seq.).

<sup>b</sup> The duration relates to the plans for staff retirement indemnities and, until 2015, for phone credits (see the plan description, page 174 et seq.).

<sup>c</sup> The duration relates to the plan for youth accounts (see the plan description, page 174 et seq.).

The following biometric assumptions were essential for the measurement of pension obligations:

Germany: Heubeck 2005G, Switzerland: BVG 2015 Generational, Greece (OTE S.A.): EVK2000.

The aforementioned discount rates were used as of December 31, 2016 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. 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.

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### Development of defined benefit obligations in the reporting year:

millions of €

	2016	2015
<b>DEFINED BENEFIT OBLIGATIONS AS OF JANUARY 1</b>	<b>10,753</b>	<b>10,940</b>
Current service cost	259	287
Interest cost	223	207
Remeasurement effects	698	(312)
Of which: experience-based adjustments	(15)	3
Of which: adjusted financial assumptions	721	(310)
Of which: adjusted demographic assumptions	(8)	(5)
Total benefits actually paid	(375)	(386)
Contributions by plan participants	5	5
Changes attributable to business combinations/ transfers of operation/acquisitions and disposals	(25)	(19)
Past service cost (due to plan amendments)	(27)	(3)
Past service cost (due to curtailments)	(4)	(3)
Settlements <sup>a</sup>	(56)	4
Taxes to be paid as part of pensions	-	-
Exchange rate fluctuations for plans in foreign currency	(24)	33
<b>DEFINED BENEFIT OBLIGATIONS AS OF DECEMBER 31</b>	<b>11,427</b>	<b>10,753</b>
Of which: active plan participants	5,245	4,969
Of which: plan participants with vested pension rights who left the Group	2,144	1,939
Of which: benefit recipients	4,038	3,845

<sup>a</sup> The settlements are mainly attributable to the closing of a plan in the Netherlands.

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, 2016 and December 31, 2015:

millions of €

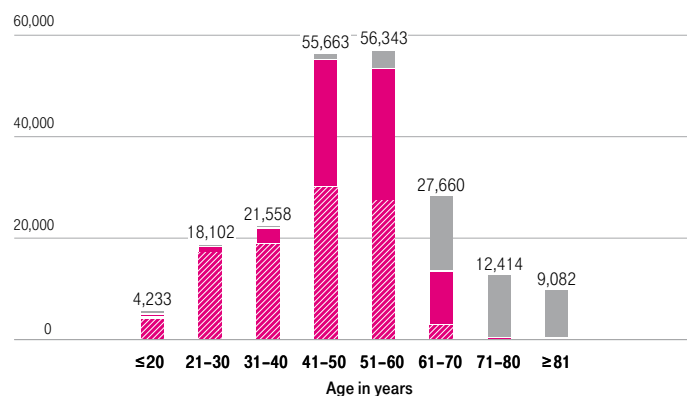
	Dec. 31, 2016				Dec. 31, 2015			
	Germany	Switzerland	Greece (OTE S. A.)	Other plans	Germany	Switzerland	Greece (OTE S. A.)	Other plans
Defined benefit obligations	10,608	251	248	320	9,901	256	254	342
Plan assets at fair value	(2,576)	(205)	-	(209)	(2,287)	(194)	-	(263)
Effect of asset ceiling	-	-	-	-	-	-	-	5
<b>NET DEFINED BENEFIT LIABILITY (ASSET)</b>	<b>8,032</b>	<b>46</b>	<b>248</b>	<b>111</b>	<b>7,614</b>	<b>62</b>	<b>254</b>	<b>84</b>

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<sup>a</sup>



■ Benefit recipients

■ Plan participants with vested pension rights who left the Group

▨ Active plan participants

<sup>a</sup>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, 2016. 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, 2016 as follows:

millions of €

	Increase (decrease) of the defined benefit obligations as of Dec. 31, 2016		
	Germany	Switzerland	Greece (OTE S. A.)
Increase of discount rate by 100 basis points	(1,251)	(29)	(27)
Decrease of discount rate by 100 basis points	1,536	47	32
Increase of salary increase rate by 50 basis points	7	3	16
Decrease of salary increase rate by 50 basis points	(6)	(4)	(15)
Increase of pension increase rate by 25 basis points	6	6	0
Decrease of pension increase rate by 25 basis points	(5)	(2)	0
Life expectancy increase by 1 year	275	7	0
Life expectancy decrease by 1 year	(276)	(7)	0

millions of €

	Increase (decrease) of the defined benefit obligations as of Dec. 31, 2015		
	Germany	Switzerland	Greece (OTE S. A.)
Increase of discount rate by 100 basis points	(1,163)	(30)	(27)
Decrease of discount rate by 100 basis points	1,427	36	32
Increase of salary increase rate by 50 basis points	7	4	16
Decrease of salary increase rate by 50 basis points	(6)	(4)	(14)
Increase of pension increase rate by 25 basis points	6	6	0
Decrease of pension increase rate by 25 basis points	(5)	(2)	0
Life expectancy increase by 1 year	246	7	0
Life expectancy decrease by 1 year	(251)	(7)	(1)

Separate sensitivity analyses were carried out 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 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.



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The worldwide obligations and the existing plan assets at fair value are regularly tested for risk-reducing measures, for example by executing asset liability studies and regular benefit audits.

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 and a company special pension fund (Unterstützungskasse).

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 Dependents' 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 (2016: 1.25 percent, 2017: 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 employee 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. The pension fund of T-Systems Schweiz AG announced that it would lower its conversion rates as of 2017. This will reduce the future annual retirement pensions and thus result in lower pension provisions (past service cost due to plan amendments).

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 as 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 is capped at a maximum of twelve monthly salaries. The company also makes a voluntary top-up payment.

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. Employees and retirees were also entitled to phone credits until 2015. OTE S. A.'s payment obligation depends on the price of the telephone unit and the level of credit utilization by those entitled to them. The volume of the obligation (credit) is capped. Measured against the total amount of pension benefits paid by OTE S. A., the scope of these obligations is relatively small. OTE S. A. closed the phone credits plan at the start of 2016 and no longer grants any phone credits.

### Development of plan assets at fair value in the respective reporting year:

millions of €	2016	2015
<b>PLAN ASSETS AT FAIR VALUE AS OF JANUARY 1</b>	<b>2,744</b>	<b>2,498</b>
Changes attributable to business combinations/transfers of operation/acquisitions and disposals	0	0
Interest income on plan assets (calculated using the discount rate)	57	50
Amount by which the actual return exceeds (falls short of) the interest income on plan assets (remeasurement)	33	(82)
Contributions by employer	264	276
Contributions by plan participants	5	5
Benefits actually paid from plan assets	(32)	(31)
Settlements <sup>a</sup>	(58)	-
Administration costs	0	0
Tax payments	-	-
Exchange rate fluctuations for plans in foreign currency	(23)	28
<b>PLAN ASSETS AT FAIR VALUE AS OF DECEMBER 31</b>	<b>2,990</b>	<b>2,744</b>

<sup>a</sup> The settlements are mainly attributable to the closing of a plan in the Netherlands.

Contributions by employer as of December 31, 2016 include a payment of EUR 250 million (December 31, 2015: EUR 250 million) to a corporate CTA in Germany. Actual income from plan assets at fair value was substantially higher compared with the prior year.

### Breakdown of plan assets at fair value by investment category:

millions of €	Dec. 31, 2016	Of which: price in an active market	Of which: price without an active market
Equity securities	795	795	0
Debt securities	1,870	1,870	0
Real estate	56	56	0
Derivatives	1	1	0
Investment funds	0	0	0
Asset-backed securities	0	0	0
Structured debt instruments	0	0	0
Cash and cash equivalents	135	135	0
Other	133	96	37
<b>PLAN ASSETS AT FAIR VALUE</b>	<b>2,990</b>	<b>2,953</b>	<b>37</b>

millions of €	Dec. 31, 2015	Of which: price in an active market	Of which: price without an active market
Equity securities	609	609	0
Debt securities	1,825	1,825	0
Real estate	54	54	0
Derivatives	0	0	0
Investment funds	0	0	0
Asset-backed securities	0	0	0
Structured debt instruments	0	0	0
Cash and cash equivalents	200	200	0
Other	56	14	42
<b>PLAN ASSETS AT FAIR VALUE</b>	<b>2,744</b>	<b>2,702</b>	<b>42</b>

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 (ALM) 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 philosophy 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. The investment strategy is derived from this with direct reference to the characteristics of the underlying pension obligations. This liability-driven investment (LDI) strategy 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 included shares issued by Deutsche Telekom AG amounting to EUR 1,364 thousand (December 31, 2015: shares totaling EUR 1,116 thousand). No other own financial instruments were included in the years shown.

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### Development of the effect of the asset ceiling:

millions of €

	2016	2015
<b>EFFECT OF ASSET CEILING AS OF JANUARY 1</b>	<b>5</b>	<b>5</b>
Interest expense on asset ceiling (recognized in the income statement)	0	0
Changes in asset ceiling ((gains) losses recognized in equity)	(5)	0
Currency gain (loss)	0	0
<b>EFFECT OF ASSET CEILING AS OF DECEMBER 31</b>	<b>0</b>	<b>5</b>

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	2016	2015	2014
Current service cost	Personnel costs	259	287	228
Past service cost (due to plan amendments)	Personnel costs	(27)	(3)	(3)
Past service cost (due to curtailments)	Personnel costs	(4)	(3)	(8)
Settlements	Personnel costs	2	4	3
<b>SERVICE COST</b>		<b>230</b>	<b>285</b>	<b>220</b>
Interest cost	Other financial income (expense)	223	207	290
Interest income on plan assets (calculated using the discount rate)	Other financial income (expense)	(57)	(50)	(65)
Interest expense on the effect of the asset ceiling	Other financial income (expense)	0	0	0
<b>NET INTEREST EXPENSE (INCOME) ON NET DEFINED BENEFIT LIABILITY (ASSET)</b>		<b>166</b>	<b>157</b>	<b>225</b>
<b>DEFINED BENEFIT COST</b>		<b>396</b>	<b>442</b>	<b>445</b>
Administration costs actually incurred (paid from plan assets)	Personnel costs	0	0	0
<b>TOTAL AMOUNTS RECOGNIZED IN PROFIT OR LOSS</b>		<b>396</b>	<b>442</b>	<b>445</b>

The consolidated statement of comprehensive income contains the following amounts:

millions of €

	2016	2015	2014
<b>REMEASUREMENT ((GAIN) LOSS RECOGNIZED IN OTHER COMPREHENSIVE INCOME IN THE FINANCIAL YEAR)</b>	<b>660</b>	<b>(230)</b>	<b>1,581</b>
Of which: remeasurement due to a change in defined benefit obligations	698	(312)	1,783
Of which: remeasurement due to a change in plan assets	(33)	82	(207)
Of which: remeasurement due to changes in the effect of asset ceiling (according to IAS 19.64)	(5)	0	5

Total benefit payments expected:

millions of €

	2017	2018	2019	2020	2021
Benefits paid from pension provisions	330	348	393	421	439
Benefits paid from plan assets	31	32	33	34	38
<b>TOTAL BENEFITS EXPECTED</b>	<b>361</b>	<b>380</b>	<b>426</b>	<b>455</b>	<b>477</b>

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. Such reimbursements are currently not yet made as this would have a detrimental effect on the build-up of assets within the CTA in its first years.

To build up the plan assets over the long term, Deutsche Telekom expects an allocation under the CTA of at least EUR 250 million in Germany in 2017. Deutsche Telekom expects a Group-wide allocation of at least EUR 262 million in 2017.

**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, 2016	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2013	Dec. 31, 2012
Defined benefit obligations	11,427	10,753	10,940	8,965	8,973
Plan assets at fair value	(2,990)	(2,744)	(2,498)	(1,973)	(1,680)
<b>DEFINED BENEFIT OBLIGATIONS IN EXCESS OF PLAN ASSETS</b>	<b>8,437</b>	<b>8,009</b>	<b>8,442</b>	<b>6,992</b>	<b>7,293</b>

%					
Adjustments	2016	2015	2014	2013	2012
Experience-based increase (decrease) of defined benefit obligations	(0.1)	0.0	(0.1)	0.3	(0.2)
Experience-based increase (decrease) of plan assets	1.1	(3.0)	8.3	0.7	2.6

#### DEFINED CONTRIBUTION PLANS

The employer's contribution paid to the statutory pension scheme (Deutsche Rentenversicherung) in Germany in the 2016 financial year totaled EUR 0.3 billion (2015: EUR 0.3 billion, 2014: EUR 0.4 billion). Group-wide, EUR 109 million (2015: EUR 94 million, 2014: EUR 88 million) from current contributions for additional defined contribution plans was recognized in the consolidated income statement in 2016.

#### CIVIL-SERVANT RETIREMENT ARRANGEMENTS AT DEUTSCHE TELEKOM

An expense of EUR 516 million was recognized in the 2016 financial year (2015: EUR 538 million, 2014: EUR 552 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 3.6 billion at the reporting date (December 31, 2015: EUR 4.2 billion, December 31, 2014: EUR 5.1 billion) and is shown under other financial obligations (please refer to Note 34 "Other financial obligations," page 198).

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### 13 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
<b>AT DECEMBER 31, 2014</b>	<b>183</b>	<b>2,112</b>	<b>1,378</b>	<b>415</b>	<b>422</b>	<b>1,380</b>	<b>5,890</b>
Of which: current	181	1,467	175	408	422	864	3,517
Changes in the composition of the Group	0	1	0	0	0	0	1
Currency translation adjustments	0	43	35	2	15	47	142
Addition	70	1,884	365	93	384	902	3,698
Use	(62)	(1,728)	(186)	(122)	(344)	(639)	(3,081)
Reversal	(6)	(89)	(55)	(67)	(17)	(104)	(338)
Interest effect	0	97	8	0	0	0	105
Other changes	1	(57)	1	(7)	0	(10)	(72)
<b>AT DECEMBER 31, 2015</b>	<b>186</b>	<b>2,263</b>	<b>1,546</b>	<b>314</b>	<b>460</b>	<b>1,576</b>	<b>6,345</b>
Of which: current	183	1,452	66	307	460	899	3,367
Changes in the composition of the Group	(4)	0	0	0	0	(1)	(5)
Currency translation adjustments	0	21	16	1	4	6	48
Addition	62	1,892	327	64	470	417	3,232
Use	(45)	(1,595)	(187)	(26)	(489)	(446)	(2,788)
Reversal	(3)	(117)	(80)	(23)	(30)	(243)	(496)
Interest effect	0	107	31	0	0	11	149
Other changes	1	(17)	(1)	(2)	8	(86)	(97)
<b>AT DECEMBER 31, 2016</b>	<b>197</b>	<b>2,554</b>	<b>1,652</b>	<b>328</b>	<b>423</b>	<b>1,234</b>	<b>6,388</b>
Of which: current	178	1,472	51	318	423	626	3,068

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 2016, the discount rates ranged from 0.00 to 3.38 percent (2015: from 0.01 to 4.00 percent) in the euro currency area and from 1.72 to 5.56 percent (2015: from 1.86 to 5.92 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 107.7 million (December 31, 2015: EUR 96.9 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 114.1 million (December 31, 2015: EUR 103.1 million).

Provisions for termination benefits and other personnel provisions include provisions for staff restructuring. These provisions developed as follows in the financial year:

millions of €

	Jan. 1, 2016	Addition	Use	Reversal	Other changes	Dec. 31, 2016
Severance and voluntary redundancy models	186	62	(45)	(3)	(3)	197
Partial retirement	285	400	(246)	0	(19)	420
	<b>471</b>	<b>462</b>	<b>(291)</b>	<b>(3)</b>	<b>(22)</b>	<b>617</b>
Of which: current	286					311

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. In the prior year, EUR 0.2 billion of the additions was attributable to the remeasurement of existing restoration obligations of T-Mobile US. New knowledge relating to the decommissioning of MetroPCS's CDMA mobile network prompted T-Mobile US to review the assumptions for the existing restoration obligations.

The provisions for litigation risks primarily relate to possible settlements attributable to pending lawsuits. In the Toll Collect arbitration proceedings, appropriate provisions for risks have been recognized in the statement of financial position since 2014. For further information, please refer to the explanations in Note 32 "Contingencies," page 194 et seq.

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.

## 14 OTHER LIABILITIES

millions of €

	Dec. 31, 2016	Of which: current	Dec. 31, 2015	Of which: current
Early retirement	1,856	573	1,451	512
Deferred revenue	2,665	2,080	2,493	1,868
Liabilities from straight-line leases	2,334	-	2,132	-
Liabilities from other taxes	1,092	1,092	1,055	1,055
Other deferred revenue	565	401	554	329
Liabilities from severance payments	96	96	193	190
Miscellaneous other liabilities	679	537	643	497
	<b>9,287</b>	<b>4,779</b>	<b>8,521</b>	<b>4,451</b>

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. Civil servants working at Deutsche Telekom who have reached the age of 55 and fulfill all the criteria set out in the Act on the Staff Structure at the Residual Special Asset of the Federal Railways and the Successor Companies of the Former Deutsche Bundespost enacted in 1993 as amended on November 21, 2012 can apply for early retirement. Deutsche Telekom offsets the resulting reduced retirement pension payments for civil servants by advance payments on account to the Civil Service Pension Fund as well as other expenses. The Act on the Reorganization of the Civil Service Pension Fund (Gesetz zur Neuordnung der Postbeamtenversorgungskasse) extended the provisions for early retirement for civil servants until December 31, 2016. On January 5, 2016, the Board of Management resolved to cover the additional financial burden to a limited extent through exercise of the early retirement provision for the 2016 financial year.

## 15 SHAREHOLDERS' EQUITY

### ISSUED CAPITAL

As of December 31, 2016, the share capital of Deutsche Telekom totaled EUR 11,973 million. The share capital is divided into 4,676,902,033 no par value registered shares.

	2016		2015	
	thousands	%	thousands	%
Federal Republic of Germany – Berlin, Germany	676,971	14.5	660,480	14.3
KfW Bankengruppe – Frankfurt/Main, Germany	818,992	17.5	803,937	17.5
Free float	3,180,939	68.0	3,142,235	68.2
Of which: BlackRock, Inc., Wilmington, DE, United States <sup>a</sup>	214,174		234,799	
	<b>4,676,902</b>	<b>100.0</b>	<b>4,606,652</b>	<b>100.0</b>

<sup>a</sup> According to the last notification from BlackRock published on June 3, 2016, the reporting threshold of 3 percent of the voting rights was thus exceeded. The stake in Deutsche Telekom was thus 4.65 percent of the voting rights on May 27, 2016.

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**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 addition, a total of 232 thousand shares were reallocated in January, February, March, April, May, June, September, November and December 2016 and transferred to the custody accounts of eligible participants of the Share Matching Plan. 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 are transferred at fair value to the respective Group company starting with the reporting period.

As of December 31, 2016, disposals of treasury shares resulting from the transfers in the reporting period accounted for less than 0.01 percent, or EUR 594 thousand, of share capital. Retained earnings thus increased by EUR 2,597 thousand. In the reporting year, 71 thousand treasury shares with a fair value of EUR 1,111 thousand were charged on to other Group companies, thus increasing capital reserve by EUR 251 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 fully expired 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 (1) a 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.

**Voting rights.** Each share entitles the holder to one vote. These voting rights are restricted, however, in relation to treasury shares (at December 31, 2016: around 20 million in total).

**Authorized capital and contingent capital.** Authorized capital and contingent capital comprised the following components as of December 31, 2016:

	Amount millions of €	No par value shares thousands	Purpose
2013 Authorized capital <sup>a</sup>	1,598	624,273	Capital increase against cash contribution/ contribution in kind (until May 15, 2018)
2014 Contingent capital	1,100	429,688	Servicing convertible bonds and/or bonds with warrants issued on or before May 14, 2019

<sup>a</sup>The Supervisory Board's approval is required.

**Capital increase in connection with the dividend in kind.** The resolution on the dividend payout of EUR 0.55 per share for the 2015 financial year gave shareholders the choice between payment in cash or having their dividend entitlement converted into Deutsche Telekom AG shares. Dividend entitlements of Deutsche Telekom AG shareholders amounting to EUR 1.0 billion for shares from authorized capital (2013 authorized capital) were contributed in June 2016 and thus did not have an impact on cash flows. Deutsche Telekom AG carried out an increase in issued capital of EUR 0.2 billion against contribution of dividend entitlements for this purpose in June 2016. This increased capital reserves by EUR 839 million. The number of shares increased by 70.3 million.

### TRANSACTIONS WITH OWNERS

The amounts shown under transactions with owners primarily result from the acquisition of the remaining shares in Slovak Telekom in 2015. The following table shows the most significant effects included in Deutsche Telekom's consolidated statement of changes in equity (see pages 130 and 131) as of December 31, 2016 and December 31, 2015.

millions of €

	2016			2015		
	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
<b>Changes in the composition of the Group</b>	-	-	-	-	-	-
Other effects	-	-	-	-	-	-
<b>Transactions with owners</b>	<b>(93)</b>	<b>117</b>	<b>24</b>	<b>(233)</b>	<b>(619)</b>	<b>(852)</b>
Acquisition of the remaining shares in Slovak Telekom	-	-	-	(128)	(772)	(900)
Other effects	(93)	117	24	(105)	153	48

For further information, please refer to the section "Changes in the composition of the Group and other transactions," page 149 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 0.6 billion (December 31, 2015: EUR 0.7 billion) and currency translation effects of EUR 0.4 billion (December 31, 2015: EUR 0.1 billion).



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## NOTES TO THE CONSOLIDATED INCOME STATEMENT

For detailed information on special factors, please refer to the combined management report in the section "Development of business in the Group," page 40 et seq.

### 16 NET REVENUE

Net revenue breaks down into the following revenue categories:

millions of €	2016	2015	2014
Revenue from the rendering of services	61,362	59,033	53,523
Revenue from the sale of goods and merchandise	9,901	9,460	8,726
Revenue from the use of entity assets by others	1,832	735	409
	<b>73,095</b>	<b>69,228</b>	<b>62,658</b>

For details of changes in net revenue, please refer to the section "Development of business in the Group" in the combined management report, page 40 et seq.

### 17 OTHER OPERATING INCOME

millions of €	2016	2015	2014
Income from the disposal of non-current assets	650	290	567
Income from insurance compensation	88	66	79
Income from reimbursements	223	272	451
Income from ancillary services	36	49	0
Income from the reversal of impairment losses on non-current assets	17	14	24
Of which: IFRS 5	8	6	2
Miscellaneous other operating income	3,166	1,317	2,110
Of which: income from divestitures and from the sale of stakes accounted for using the equity method	2,598	585	1,716
	<b>4,180</b>	<b>2,008</b>	<b>3,231</b>

Other operating income increased by EUR 2.2 billion year-on-year. Income from the disposal of non-current assets increased by EUR 0.4 billion. The increase in other operating income was attributable, in particular, to income of EUR 0.5 billion from transactions for the exchange of spectrum licenses between T-Mobile US and two competitors. Miscellaneous other operating income increased year-on-year by EUR 1.8 billion to a total of EUR 3.2 billion. One of the main items driving this increase was income from divestitures and from the sale of stakes accounted for using the equity method of EUR 2.5 billion resulting from the sale of the stake in the EE joint venture. Around EUR 0.9 billion of this amount resulted from effects recognized directly in equity in previous years. Income of around EUR 0.1 billion from the sale of further parts of the share package in Scout24 AG in April and December 2016 also increased this item. In the prior year, the sale of shares completed in connection with the IPO of Scout24 AG in early October 2015 had resulted in income of EUR 0.3 billion. In addition, the sale of the online platform t-online.de and of the digital content marketing company InteractiveMedia in November 2015 generated income from divestitures of EUR 0.3 billion. Also in the prior year, miscellaneous other operating income had included income

of EUR 175 million from an agreement to settle a complaints procedure under anti-trust law. A large number of smaller items are also included in miscellaneous other operating income.

### 18 OWN CAPITALIZED COSTS

Own capitalized costs amounted to EUR 2.1 billion in the reporting year (2015: EUR 2.0 billion; 2014: EUR 1.9 billion) and mainly relate to investments in network build-out and the development of platforms for cell sites.

### 19 GOODS AND SERVICES PURCHASED

millions of €	2016	2015	2014
Expenses for raw materials and supplies	2,397	2,308	1,465
Expenses for merchandise	13,516	12,479	11,588
Expenses for services purchased	21,171	20,919	18,995
	<b>37,084</b>	<b>35,706</b>	<b>32,048</b>

### 20 AVERAGE NUMBER OF EMPLOYEES AND PERSONNEL COSTS

	2016	2015	2014
<b>GROUP (TOTAL)</b>	<b>220,582</b>	<b>226,332</b>	<b>228,248</b>
Domestic	107,793	113,277	116,067
International	112,790	113,055	112,181
Non-civil servants	203,110	207,153	207,855
Civil servants (domestic, active service relationship)	17,472	19,179	20,393
Trainees and students on cooperative degree courses	7,510	7,942	8,098
<b>PERSONNEL COSTS</b> millions of €	<b>16,463</b>	<b>15,856</b>	<b>14,683</b>

The average headcount decreased by 2.5 percent compared with the prior year. This trend is largely attributable to a lower average domestic headcount, which was down by 4.8 percent. Staff restructuring measures in the Germany operating segment and the Group Headquarters & Group Services segment in particular contributed to this trend.

The average international headcount decreased by 0.2 percent, due in particular to the decline in the average headcount in the Europe operating segment as a consequence of efficiency enhancement measures in some countries. By contrast, staff levels in the United States operating segment increased as a result of the enhanced customer base.

Personnel costs increased by 3.8 percent year-on-year, more than half of which is attributable to increased restructuring expenses, especially in connection with greater take-up of early retirement arrangements for civil servants. The increase in the average salaries of employees also pushed up personnel costs, offset by the lower average headcount as described above.

## 21 OTHER OPERATING EXPENSES

millions of €	2016	2015	2014
Legal and audit fees	212	230	236
Losses from asset disposals	157	187	138
Expenses from measurement of receivables	819	905	154
Other taxes	407	373	273
Miscellaneous other operating expenses	1,689	1,621	2,481
	<b>3,284</b>	<b>3,316</b>	<b>3,282</b>

Other operating expenses remained stable year-on-year. Miscellaneous other operating expenses primarily include regulatory levies of EUR 470 million (2015: EUR 377 million) for funding the telecommunications infrastructure in the United States. The item also comprises cash and guarantee transaction costs of EUR 305 million (2015: EUR 261 million), insurance expenses of EUR 92 million (2015: EUR 88 million), and other administrative expenses and fees of EUR 189 million (2015: EUR 240 million).

## 22 DEPRECIATION, AMORTIZATION AND IMPAIRMENT LOSSES

The following table provides a breakdown of depreciation, amortization and impairment losses:

millions of €	2016	2015	2014
<b>AMORTIZATION AND IMPAIRMENT OF INTANGIBLE ASSETS</b>	<b>4,602</b>	<b>4,109</b>	<b>3,863</b>
Of which: Goodwill impairment losses	471	43	51
Amortization of mobile licenses	949	898	889
Impairment losses on mobile licenses	-	-	10
<b>DEPRECIATION AND IMPAIRMENT OF PROPERTY, PLANT AND EQUIPMENT</b>	<b>8,778</b>	<b>7,251</b>	<b>6,711</b>
Of which: Impairment losses recognized on property, plant and equipment	221	101	78
	<b>13,380</b>	<b>11,360</b>	<b>10,574</b>

Impairment losses break down as follows:

millions of €	2016	2015	2014
<b>INTANGIBLE ASSETS</b>	<b>472</b>	<b>61</b>	<b>65</b>
Of which: Goodwill from the year-end impairment test	471	43	51
FCC licenses	-	-	10
<b>PROPERTY, PLANT AND EQUIPMENT</b>	<b>221</b>	<b>101</b>	<b>78</b>
Of which: From the year-end impairment test	128	-	-
	<b>693</b>	<b>162</b>	<b>143</b>

Depreciation, amortization and impairment losses increased by EUR 2.0 billion year-on-year. This development was mainly attributable to the increase in depreciation and amortization recorded in the United States operating segment primarily as a result of the roll-out of 4G/LTE and the launch of the JUMP! On Demand terminal equipment lease model in June 2015 in the United States operating segment, under which customers no longer purchase the device but lease it.

In the reporting year, impairment losses were recognized on goodwill in the amount of EUR 0.5 billion and on property, plant and equipment in the amount of EUR 0.2 billion following scheduled and ad hoc impairment testing at the cash-generating units. Impairment losses on property, plant and equipment related mainly to the asset class of technical equipment and machinery. For further details, please refer to Note 5 "Intangible assets," page 158 et seq., and Note 6 "Property, plant and equipment," pages 162 and 163.

## 23 FINANCE COSTS

millions of €	2016	2015	2014
Interest income	223	246	325
Interest expense	(2,715)	(2,609)	(2,665)
	<b>(2,492)</b>	<b>(2,363)</b>	<b>(2,340)</b>
Of which: from financial instruments relating to categories in accordance with IAS 39			
Loans and receivables (LaR)	25	34	16
Held-to-maturity investments (HtM)	-	-	-
Available-for-sale financial assets (AFS)	12	7	6
Financial liabilities measured at amortized cost (FLAC) <sup>a</sup>	(2,383)	(2,288)	(2,290)

<sup>a</sup> Interest expense calculated according to the effective interest method and adjusted for accrued interest from derivatives recognized in the reporting period 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 period for hedge accounting in accordance with IAS 39 (2016: interest income of EUR 175 million and interest expense of EUR 109 million, 2015: interest income of EUR 182 million and interest expense of EUR 89 million, 2014: interest income of EUR 263 million and interest expense of EUR 107 million).

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The year-on-year increase in finance costs is mainly attributable to the increase in external funding of T-Mobile US.

EUR 164 million (2015: EUR 217 million, 2014: EUR 95 million) was capitalized as part of acquisition costs in the financial year. The amount was calculated on the basis of an interest rate in the average range between 3.5 percent at the start of the year and 4.4 percent at the end of the year (2015: between 4.7 and 3.5 percent) applied across the Group.

Interest payments (including capitalized interest) of EUR 3.6 billion (2015: EUR 3.7 billion, 2014: EUR 3.5 billion) were made in the financial year.

Accrued interest payments from derivatives (interest rate swaps) that were designated as hedging instruments in a fair value hedge in accordance with IAS 39 are netted per swap contract and recognized as interest income or interest expense depending on the net amount. Finance costs are assigned to the categories on the basis of the hedged item; only financial liabilities were hedged in the reporting period.

## 24 SHARE OF PROFIT/LOSS OF ASSOCIATES AND JOINT VENTURES ACCOUNTED FOR USING THE EQUITY METHOD

millions of €

	2016	2015	2014
Share of profit (loss) of joint ventures	(5)	(1)	(152)
Share of profit (loss) of associates	(48)	25	(46)
	<b>(53)</b>	<b>24</b>	<b>(198)</b>

The share of profit/loss of associates and joint ventures included in the consolidated financial statements using the equity method decreased by EUR 0.1 billion compared with the prior year. The main factor in this was an impairment of EUR 50 million recognized in 2016 on the carrying amount of Ströer SE & Co. KGaA.

## 25 OTHER FINANCIAL INCOME/EXPENSE

millions of €

	2016	2015	2014
Income from investments	346	436	1
Gains (losses) from financial instruments	(2,136)	(75)	(14)
Interest component from measurement of provisions and liabilities	(282)	(272)	(346)
	<b>(2,072)</b>	<b>89</b>	<b>(359)</b>

All income/expense components including interest income and expense from financial instruments classified as held for trading in accordance with IAS 39 are reported under other financial income/expense.

Income from investments includes the dividends of around EUR 0.2 billion received from the financial stake in BT. It also includes a final dividend of around EUR 0.2 billion received in connection with the sale of our stake in the joint venture EE. The dividend payments recognized in profit or loss related to the reclassification (to non-current assets and disposal groups held for sale) of the stake held in the joint venture; this reclassification was effected prior to sale.

Gains/losses from financial instruments comprise currency translation effects, including gains/losses of EUR 45 million (2015: EUR –295 million, 2014: EUR –387 million) from derivatives used as hedges in foreign-currency hedge accounting and gains/losses from other derivatives as well as measurements of equity investments totaling EUR –2,181 million (2015: EUR 220 million, 2014: EUR 373 million). Of the gains/losses from the measurement of equity investments recognized in the financial year, the amount of EUR 2.2 billion was attributable to the impairment of the financial stake in BT recognized in profit or loss. This impairment comprises both the share price effect and the exchange rate effect. For further information, please refer to the explanations in Note 36 “Financial instruments and risk management” in the notes to the consolidated financial statements, page 200 et seq.

## 26 INCOME TAXES

### INCOME TAXES IN THE CONSOLIDATED INCOME STATEMENT

In the 2016 financial year, a tax expense of EUR 1.4 billion was recorded giving rise to an effective tax rate of 32 percent. A tax expense of EUR 0.2 billion from the non-deductibility of certain financing costs in the United States was offset by deferred tax income in a similar amount from the recognition of loss carry-forwards in Europe, based on an updated assessment of their utilization. Tax-free income from the sale of the stake in the former EE joint venture compensated for the impairment of the stake in BT, which could not be used for tax purposes. In the prior year, the tax expense and effective tax rate were somewhat lower at EUR 1.3 billion and 27 percent respectively, due to the recognition of tax-free income from investments.

The following table provides a breakdown of income taxes in Germany and internationally:

millions of €

	2016	2015	2014
<b>CURRENT TAXES</b>	<b>468</b>	<b>249</b>	<b>599</b>
Germany	161	(16)	234
International	307	265	365
<b>DEFERRED TAXES</b>	<b>975</b>	<b>1,027</b>	<b>507</b>
Germany	91	831	587
International	884	196	(80)
	<b>1,443</b>	<b>1,276</b>	<b>1,106</b>

Deutsche Telekom's combined income tax rate for 2016 amounts to 31.1 percent (2015: 31.1 percent, 2014: 30.7 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 436 percent (2015: 436 percent, 2014: 425 percent).

**Reconciliation of the effective tax rate.** Income taxes of EUR –1,443 million (as expense) in the reporting year, 2015: EUR –1,276 million (as expense), 2014: EUR –1,106 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 €

	2016	2015	2014
<b>PROFIT BEFORE INCOME TAXES</b>	<b>4,547</b>	<b>4,778</b>	<b>4,350</b>
Expected income tax expense (benefit) (income tax rate applicable to Deutsche Telekom AG: 2016: 31.1 %, 2015: 31.1 %, 2014: 30.7 %)	1,414	1,486	1,335
<b>ADJUSTMENTS TO EXPECTED TAX EXPENSE (BENEFIT)</b>			
Effect of changes in statutory tax rates	(49)	(3)	1
Tax effects from prior years	(58)	(112)	(78)
Tax effects from other income taxes	122	70	68
Non-taxable income	(75)	(154)	(456)
Tax effects from equity investments	(850)	(191)	(43)
Non-deductible expenses	790	98	85
Permanent differences	158	(27)	88
Goodwill impairment losses	133	(12)	3
Tax effects from loss carryforwards	(237)	34	57
Tax effects from additions to and reductions of local taxes	59	65	81
Adjustment of taxes to different foreign tax rates	26	24	(37)
Other tax effects	10	(2)	2
<b>INCOME TAX EXPENSE (BENEFIT) ACCORDING TO THE CONSOLIDATED INCOME STATEMENT</b>	<b>1,443</b>	<b>1,276</b>	<b>1,106</b>
Effective income tax rate %	32	27	25

### Current income taxes in the consolidated income statement

The following table provides a breakdown of current income taxes:

millions of €

	2016	2015	2014
<b>CURRENT INCOME TAXES</b>	<b>468</b>	<b>249</b>	<b>599</b>
Of which: Current tax expense	494	347	598
Prior-period tax expense	(26)	(98)	1

### Deferred taxes in the consolidated income statement

Deferred taxes developed as follows:

millions of €

	2016	2015	2014
<b>DEFERRED TAX EXPENSE (BENEFIT)</b>	<b>975</b>	<b>1,027</b>	<b>507</b>
Of which: From temporary differences	567	154	(252)
From loss carryforwards	339	917	780
From tax credits	69	(44)	(21)

### INCOME TAXES IN THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

Current income taxes in the consolidated statement of financial position:

millions of €

	Dec. 31, 2016	Dec. 31, 2015
Recoverable taxes	218	129
Tax liabilities	(222)	(197)
Current taxes recognized in other comprehensive income:		
Hedging instruments	(203)	(190)

### Deferred taxes in the consolidated statement of financial position:

millions of €

	Dec. 31, 2016	Dec. 31, 2015
Deferred tax assets	5,210	5,248
Deferred tax liabilities	(10,007)	(9,205)
	<b>(4,797)</b>	<b>(3,957)</b>
Of which: recognized in other comprehensive income:		
Gain (loss) from the remeasurement of defined benefit plans	1,300	1,095
Revaluation surplus	-	-
Hedging instruments	10	(43)
<b>RECOGNIZED IN OTHER COMPREHENSIVE INCOME BEFORE NON-CONTROLLING INTERESTS</b>	<b>1,310</b>	<b>1,052</b>
Non-controlling interests	(12)	(11)
	<b>1,298</b>	<b>1,041</b>

### Development of deferred taxes:

millions of €

	Dec. 31, 2016	Dec. 31, 2015
Deferred taxes recognized in the statement of financial position	(4,797)	(3,957)
Difference to prior year	(840)	(1,414)
Of which: Recognized in income statement	(975)	(1,027)
Recognized in other comprehensive income	257	62
Recognized in capital reserves	96	86
Acquisitions (disposals) (including assets and disposal groups held for sale)	2	(6)
Currency translation adjustments	(220)	(529)

### Development of deferred taxes on loss carryforwards:

millions of €

	Dec. 31, 2016	Dec. 31, 2015
Deferred taxes on loss carryforwards before allowances	2,357	2,933
Difference to prior year	(576)	(355)
Of which: Recognition (derecognition)	(538)	(612)
Acquisitions (disposals) (including assets and disposal groups held for sale)	(24)	1
Currency translation adjustments	(14)	256

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**Deferred taxes relate to the following key items in the statement of financial position, loss carryforwards, and tax credits:**

millions of €

	Dec. 31, 2016		Dec. 31, 2015	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
<b>CURRENT ASSETS</b>	<b>1,128</b>	<b>(429)</b>	<b>1,255</b>	<b>(369)</b>
Trade and other receivables	524	(130)	550	(129)
Inventories	81	(2)	185	(14)
Other assets	523	(297)	520	(226)
<b>NON-CURRENT ASSETS</b>	<b>3,361</b>	<b>(13,992)</b>	<b>3,459</b>	<b>(13,458)</b>
Intangible assets	651	(8,803)	632	(8,054)
Property, plant and equipment	773	(3,129)	1,053	(3,452)
Other financial assets	1,937	(2,060)	1,774	(1,952)
<b>CURRENT LIABILITIES</b>	<b>1,424</b>	<b>(630)</b>	<b>1,247</b>	<b>(677)</b>
Financial liabilities	424	(371)	372	(366)
Trade and other payables	67	(40)	58	(90)
Other provisions	373	(53)	278	(55)
Other liabilities	560	(166)	539	(166)
<b>NON-CURRENT LIABILITIES</b>	<b>5,960</b>	<b>(3,172)</b>	<b>5,870</b>	<b>(3,112)</b>
Financial liabilities	1,878	(1,669)	2,346	(1,714)
Provisions for pensions and other employee benefits	1,695	(1,292)	1,499	(1,154)
Other provisions	898	(179)	825	(186)
Other liabilities	1,489	(32)	1,200	(58)
<b>TAX CREDITS</b>	<b>312</b>	<b>-</b>	<b>367</b>	<b>-</b>
<b>LOSS CARRYFORWARDS</b>	<b>2,355</b>	<b>-</b>	<b>2,933</b>	<b>-</b>
<b>INTEREST CARRYFORWARDS</b>	<b>318</b>	<b>-</b>	<b>244</b>	<b>-</b>
<b>TOTAL</b>	<b>14,858</b>	<b>(18,223)</b>	<b>15,375</b>	<b>(17,616)</b>
Of which: non-current	12,141	(17,124)	11,708	(16,866)
Allowance	(1,432)	-	(1,716)	-
Netting	(8,216)	8,216	(8,411)	8,411
<b>RECOGNITION</b>	<b>5,210</b>	<b>(10,007)</b>	<b>5,248</b>	<b>(9,205)</b>

The allowances relate primarily to loss carryforwards.

**The loss carryforwards amount to:**

millions of €

	Dec. 31, 2016	Dec. 31, 2015
<b>LOSS CARRYFORWARDS FOR CORPORATE INCOME TAX PURPOSES</b>	<b>5,275</b>	<b>6,839</b>
Expiry within		
1 year	147	44
2 years	121	114
3 years	46	47
4 years	55	246
5 years	32	108
After 5 years	2,444	3,604
Unlimited carryforward period	2,430	2,676

**Loss carryforwards and temporary differences for which no deferred taxes were recorded amount to:**

millions of €

	Dec. 31, 2016	Dec. 31, 2015
<b>LOSS CARRYFORWARDS FOR CORPORATE INCOME TAX PURPOSES</b>	<b>1,407</b>	<b>2,505</b>
Expiry within		
1 year	147	24
2 years	121	114
3 years	32	45
4 years	48	25
5 years	20	41
After 5 years	135	152
Unlimited carryforward period	904	2,104
<b>TEMPORARY DIFFERENCES IN CORPORATE INCOME TAX</b>	<b>490</b>	<b>423</b>

In addition, no deferred taxes are recognized on trade tax loss carryforwards of EUR 33 million (December 31, 2015: EUR 107 million) and on temporary differences for trade tax purposes in the amount of EUR 3 million (December 31, 2015: EUR 9 million). Furthermore, apart from corporate income tax loss carryforwards, no deferred taxes amounting to EUR 817 million (December 31, 2015: EUR 858 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 34 million (December 31, 2015: EUR 30 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 28 million (2015: EUR 16 million, 2014: EUR 17 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 309 million (December 31, 2015: EUR 228 million) as it is unlikely that these differences will be reversed in the near future.

#### Disclosure of tax effects relating to each component of other comprehensive income:

	2016			2015			2014		
	Before tax amount	Tax (expense) benefits	Net of tax amount	Before tax amount	Tax (expense) benefits	Net of tax amount	Before tax amount	Tax (expense) benefits	Net of tax amount
<b>Items not reclassified to the income statement retrospectively</b>									
Gain (loss) from the remeasurement of defined benefit plans	(660)	205	(455)	230	(60)	170	(1,581)	477	(1,104)
Share of profit (loss) of investments accounted for using the equity method	0	0	0	0	0	0	(29)	0	(29)
	<b>(660)</b>	<b>205</b>	<b>(455)</b>	<b>230</b>	<b>(60)</b>	<b>170</b>	<b>(1,610)</b>	<b>477</b>	<b>(1,133)</b>
<b>Items reclassified to the income statement retrospectively, if certain reasons are given</b>									
Exchange differences on translating foreign operations									
Recognition of other comprehensive income in income statement	(948)	0	(948)	4	(1)	3	(4)	0	(4)
Change in other comprehensive income (not recognized in income statement)	395	0	395	2,000	0	2,000	1,849	0	1,849
Available-for-sale financial assets									
Recognition of other comprehensive income in income statement	2,282	(1)	2,281	0	0	0	(1)	0	(1)
Change in other comprehensive income (not recognized in income statement)	(2,323)	0	(2,323)	31	0	31	41	1	42
Gains (losses) from hedging instruments									
Recognition of other comprehensive income in income statement	328	(102)	226	(255)	79	(176)	(267)	82	(185)
Change in other comprehensive income (not recognized in income statement)	(457)	142	(315)	653	(205)	448	265	(80)	185
Share of profit (loss) of investments accounted for using the equity method									
Recognition of other comprehensive income in income statement	7	0	7	0	0	0	0	0	0
Change in other comprehensive income (not recognized in income statement)	1	0	1	25	0	25	0	0	0
	<b>(715)</b>	<b>39</b>	<b>(676)</b>	<b>2,458</b>	<b>(127)</b>	<b>2,331</b>	<b>1,883</b>	<b>3</b>	<b>1,886</b>
<b>OTHER COMPREHENSIVE INCOME</b>	<b>(1,375)</b>	<b>244</b>	<b>(1,131)</b>	<b>2,688</b>	<b>(187)</b>	<b>2,501</b>	<b>273</b>	<b>480</b>	<b>753</b>
Profit (loss)			3,104			3,502			3,244
<b>TOTAL COMPREHENSIVE INCOME</b>			<b>1,973</b>			<b>6,003</b>			<b>3,997</b>

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## 27 PROFIT/LOSS ATTRIBUTABLE TO NON-CONTROLLING INTERESTS

millions of €

	2016	2015	2014
T-Mobile US	400	186	115
Hrvatski Telekom	55	69	65
Hellenic Telecommunications Organization (OTE)	(129)	(63)	48
Magyar Telekom	84	50	47
Slovak Telekom	0	6	36
T-Mobile Czech Republic	0	0	11
Other	19	0	(2)
	<b>429</b>	<b>248</b>	<b>320</b>

## 28 EARNINGS PER SHARE

Basic and diluted earnings per share are calculated in accordance with IAS 33 as follows:

		2016	2015	2014
Profit attributable to the owners of the parent (net profit (loss))	millions of €	2,675	3,254	2,924
Adjustment	millions of €	-	-	-
<b>ADJUSTED BASIC/DILUTED NET PROFIT (LOSS)</b>	millions of €	<b>2,675</b>	<b>3,254</b>	<b>2,924</b>
Number of ordinary shares issued	millions	4,645	4,574	4,497
Treasury shares	millions	(20)	(21)	(21)
<b>ADJUSTED WEIGHTED AVERAGE NUMBER OF ORDINARY SHARES OUTSTANDING (BASIC/DILUTED)</b>	millions	<b>4,625</b>	<b>4,553</b>	<b>4,476</b>
<b>BASIC/DILUTED EARNINGS PER SHARE</b>	€	<b>0.58</b>	<b>0.71</b>	<b>0.65</b>

The calculation of basic earnings per share 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. As part of the issue of new shares in the course of the acquisition of T-Mobile USA (VoiceStream/ Powertel), the options and conversion rights existing in previous years were held in a trust depot for later issue and subsequent trading as registered shares and fully expired in the 2013 financial year. They have been treated in the same way as treasury shares since then. There are currently no diluting shares.

## 29 DIVIDEND PER SHARE

For the 2016 financial year, the Board of Management proposes a dividend of EUR 0.60 for each no par value share carrying dividend rights. On the basis of this payout volume, total dividends in the amount of EUR 2,794 million would be appropriated to the no par value shares carrying dividend rights as of February 14, 2017. 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 0.55 for the 2015 financial year for each no par value share carrying dividend rights was paid out in 2016. The shareholders had the choice between payment in cash or, alternatively, the conversion of their dividend entitlement into Deutsche Telekom AG shares (dividend in kind). In June 2016, dividend entitlements of EUR 1.0 billion were thus substituted by shares from authorized capital and thus did not have an effect on cash flows (see Note 15 "Shareholders' equity," page 180 et seq.).

## OTHER DISCLOSURES

### 30 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

#### NET CASH FROM OPERATING ACTIVITIES

Net cash from operating activities increased by EUR 0.5 billion year-on-year to EUR 15.5 billion mainly as a result of the positive business development of the United States operating segment. During the reporting period, factoring agreements were concluded concerning monthly revolving sales of trade receivables. Factoring agreements resulted in positive effects of EUR 0.8 billion on net cash from operating activities in the reporting period. This mainly relates to factoring agreements in the United States and Germany operating segments. The effect from factoring agreements in the prior-year period also totaled EUR 0.8 billion. Cash inflows from the cancellation of or changes in the terms of interest rate derivatives had a positive effect of EUR 0.2 billion compared with the prior-year period. A year-on-year decrease of EUR 0.2 billion in cash outflows for income taxes also had a positive impact. By contrast, the trend in net cash from operating activities was negatively affected by a EUR 0.2 billion decrease in the dividend payment from the former EE joint venture. The dividend payment received from BT of EUR 0.1 billion was matched in the prior-year period by the dividend payment of a corresponding amount received from the Scout24 group. In addition, net interest payments that were EUR 0.1 billion higher year-on-year had a negative effect on 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. Cash inflows from factoring agreements had a positive effect. For further explanations on individual assets carried as working capital, please refer to Note 2 "Trade and other receivables," pages 154 and 155, and Note 3 "Inventories," page 155. The decrease in liabilities carried as working capital is attributable to cash outflows for trade payables as a result of the sustained high procurement volume in the United States. For further explanations, please refer to Note 11 "Trade and other payables," page 170.

#### Net cash used in investing activities

millions of €

	2016	2015	2014
Cash capex			
Germany operating segment	(4,161)	(5,609)	(3,807)
United States operating segment	(5,855)	(6,381)	(5,072)
Europe operating segment	(2,764)	(1,667)	(2,116)
Systems Solutions operating segment	(1,058)	(1,151)	(1,156)
Group Headquarters & Group Services	(268)	(342)	(381)
Reconciliation	466	537	688
	<b>(13,640)</b>	<b>(14,613)</b>	<b>(11,844)</b>
Net cash flows for collateral deposited for hedging transactions	(3,015)	1,785	606
Cash inflows from the sale of the shares in Scout24 AG	135	390	-
Proceeds from the disposal of property, plant and equipment	363	363	265
Acquisition of the GTS Central Europe group	-	-	(539)
Cash flows from the loss of control of subsidiaries and associates <sup>a</sup>	4	(58)	1,540
Allocation under contractual trust agreement (CTA) on pension commitments	(250)	(250)	(250)
Acquisition/sale of government bonds, net	2,873	(2,759)	11
Other	(78)	127	(550)
	<b>(13,608)</b>	<b>(15,015)</b>	<b>(10,761)</b>

<sup>a</sup> In 2015, these mainly included outflows of cash and cash equivalents resulting from the sale of the online platform t-online.de and the digital marketing company InteractiveMedia to Ströer. In 2014, this item included cash inflows of EUR 1.6 billion from the sale of 70 percent of the shares in the Scout24 group.

Cash capex decreased by EUR 1.0 billion to EUR 13.6 billion. In the reporting period, mobile spectrum licenses were acquired for a total of EUR 2.7 billion, primarily in the United States and Europe operating segments. In the prior-year period, the United States and Germany operating segments in particular had acquired mobile spectrum licenses for EUR 3.8 billion in total. Cash capex (excluding spectrum investment) increased slightly year-on-year. Relevant factors were high investments in connection with the network modernization, including 4G/LTE network roll-out, in particular in the Germany, Europe, and United States operating segments.

Interest payments (including capitalized interest) of EUR 3.6 billion (2015: EUR 3.7 billion, 2014: EUR 3.5 billion) were made in the 2016 financial year. Capitalized interest was reported within cash capex in net cash used in investing activities, together with the associated assets.



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**Net cash used in financing activities**

millions of €

	2016	2015	2014
Repayment of bonds	(3,255)	(4,056)	(4,677)
Dividends (including to non-controlling interests)	(1,596)	(1,256)	(1,290)
Repayment of financial liabilities from financed capex and opex	(225)	(846)	(760)
Repayment of EIB loans	(830)	(412)	-
Net cash flows for collateral deposited for hedging transactions	605	(254)	170
Repayment of lease liabilities	(374)	(224)	(164)
Repayment of financial liabilities for media broadcasting rights	(215)	(192)	(40)
Cash deposits from the EE joint venture, net	(220)	(16)	3
Deutsche Telekom AG share buy-back	-	(15)	-
OTE credit line, net	-	-	(45)
Cash flows from continuing involvement factoring, net	(12)	30	31
Sale of Deutsche Telekom AG treasury shares	-	31	-
Loans taken out with the EIB	889	1,199	400
Promissory notes, net	(582)	1,655	(1,293)
Issuance of bonds	8,631	2,208	3,816
Commercial paper, net	(3,658)	2,645	1,561
Cash inflows from transactions with non-controlling entities			
T-Mobile US stock options	26	43	17
Cash inflows from the assignment of OTE stock options	-	-	26
	<b>26</b>	<b>43</b>	<b>43</b>
Cash outflows from transactions with non-controlling entities			
Acquisition of the remaining shares in Slovak Telekom	-	(900)	-
Acquisition of the remaining shares in T-Mobile Czech Republic	-	-	(828)
T-Mobile US share buy-back	(112)	(141)	(53)
OTE share buy-back	-	-	(69)
Other	(2)	-	-
	<b>(114)</b>	<b>(1,041)</b>	<b>(950)</b>
Other	(392)	(375)	(239)
	<b>(1,322)</b>	<b>(876)</b>	<b>(3,434)</b>

**NON-CASH TRANSACTIONS IN THE CONSOLIDATED STATEMENT OF CASH FLOWS**

In June 2016, dividend entitlements of Deutsche Telekom AG shareholders in the amount of EUR 1.0 billion did not have an effect on net cash used in financing activities when fulfilled; rather, they were substituted by shares from authorized capital (please refer to Note 15 "Shareholders' equity," page 180 et seq.). The dividend entitlements of Deutsche Telekom AG shareholders having an effect on cash flows totaled EUR 1.5 billion. In the previous year, dividend entitlements of Deutsche Telekom AG shareholders amounting to EUR 1.1 billion did not have an impact on cash flows, while dividend entitlements of EUR 1.2 billion did have an effect on cash flows.

In the 2016 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 (2015: EUR 0.7 billion). These payables are now shown 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 financing activities.

In 2016, Deutsche Telekom leased network equipment (classified as a finance lease) for a total of EUR 0.9 billion (2015: EUR 0.6 billion) in particular in the United States operating segment. The finance lease is shown under financial liabilities in the statement of financial position. Future repayments of the liabilities will be recognized in net cash used in 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 2016 financial year for future consideration for acquired broadcasting rights (2015: EUR 0.2 billion). As soon as the payments have been made, they are disclosed under net cash used in financing activities.

In the United States operating segment, mobile devices amounting to EUR 1.5 billion (2015: EUR 2.3 billion) were recognized under property, plant and equipment in the reporting period. These relate to the terminal equipment lease model JUMP! On Demand introduced at T-Mobile US in the previous year under which customers no longer purchase the device but lease it. The payments are presented under net cash from operating activities.

In the United States operating segment, the exchange of spectrum licenses agreed between T-Mobile US and a competitor was completed in March 2016 and spectrum licenses with a value of EUR 1.1 billion were acquired in a non-cash transaction. In September 2016, another exchange of spectrum licenses was completed in the United States operating segment and spectrum licenses with a value of EUR 0.4 billion were acquired in a non-cash transaction.

From the sale of the EE joint venture to the UK company BT, which was consummated on January 29, 2016, Deutsche Telekom received the purchase price of GBP 13.2 billion for its stake in the form of a financial stake of 12.0 percent in BT and a cash payment of GBP 15.7 million.

### 31 SEGMENT REPORTING

Deutsche Telekom reports on four operating segments, as well as on the Group Headquarters & Group Services segment. For three operating segments, business activities are assigned by region, whereas one segment allocates its activities by product and/or customer.

The **Germany** operating segment comprises all fixed-network and mobile activities for consumers and business customers in Germany. In addition, it provides wholesale telecommunications services for the Group's other operating segments. The **United States** operating segment combines 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, the Netherlands, Slovakia, Austria, Albania, the F.Y.R.O. Macedonia, and Montenegro. On January 1, 2016, the business customer operations at Magyar Telekom, which had previously been assigned to the Systems Solutions operating segment, was integrated into the Europe operating segment. Comparative figures have been adjusted retrospectively in segment reporting. The units International Carrier Sales & Solutions (ICSS), Group Technology, and Global Network Factory (GNF) as well as Deutsche Telekom Pan-Net

are also part of this operating segment. The Europe operating segment also offers information and communication technology (ICT) services to business customers in most of Deutsche Telekom's national companies. Drawing on a global infrastructure of data centers and networks, the **Systems Solutions** operating segment operates ICT systems for multinational corporations and public sector institutions. The T-Systems brand provides customers all over the world with integrated solutions for the digital age, which primarily includes services from the cloud, M2M, and security solutions, complementary, standardized mobile and fixed-network products, as well as solutions for virtual collaboration and IT platforms.

The **Group Headquarters & Group Services** segment comprises all Group units that cannot be allocated directly to one of the operating segments. Group Services provides services to the entire Group; in addition to services such as financial accounting, human resources services, and operational procurement, Group Services also includes the personnel service provider, Vivento. Further units are Group Supply Services for real estate management, MobilitySolutions as a one-stop provider of fleet management and mobility services, and the central innovation unit Group Innovation\*. The EE joint venture was sold to the UK company BT on January 29, 2016. In the prior year, the joint venture had been

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	2016	20,704	1,337	22,041	4,081	(3,796)	(13)	4	(165)	2
	2015	21,069	1,352	22,421	4,490	(3,746)	(9)	13	(221)	3
	2014	20,903	1,354	22,257	4,663	(3,884)	(9)	6	(277)	2
United States	2016	33,736	2	33,738	3,685	(5,282)	0	11	(1,367)	(6)
	2015	28,924	1	28,925	2,454	(3,774)	(1)	5	(1,284)	(12)
	2014	22,405	3	22,408	1,405	(2,829)	(10)	2	(867)	(41)
Europe	2016	12,431	316	12,747	717	(2,594)	(652)	10	(300)	(2)
	2015	12,782	242	13,024	1,476	(2,584)	(48)	19	(314)	2
	2014	12,910	311	13,221	1,729	(2,582)	(29)	27	(365)	2
Systems Solutions	2016	5,678	2,229	7,907	(330)	(575)	0	12	9	2
	2015	5,827	2,367	8,194	(541)	(612)	(22)	16	12	5
	2014	5,674	2,578	8,252	(447)	(699)	(5)	14	(1)	(9)
Group Headquarters & Group Services	2016	546	1,666	2,212	1,001	(493)	(28)	837	(1,566)	(49)
	2015	626	1,649	2,275	(860)	(545)	(82)	1,035	(1,641)	26
	2014	766	1,750	2,516	(109)	(582)	(89)	906	(1,808)	(152)
<b>TOTAL</b>	2016	<b>73,095</b>	<b>5,550</b>	<b>78,645</b>	<b>9,154</b>	<b>(12,740)</b>	<b>(693)</b>	<b>874</b>	<b>(3,389)</b>	<b>(53)</b>
	2015	<b>69,228</b>	<b>5,611</b>	<b>74,839</b>	<b>7,019</b>	<b>(11,261)</b>	<b>(162)</b>	<b>1,088</b>	<b>(3,448)</b>	<b>24</b>
	2014	<b>62,658</b>	<b>5,996</b>	<b>68,654</b>	<b>7,241</b>	<b>(10,576)</b>	<b>(142)</b>	<b>955</b>	<b>(3,318)</b>	<b>(198)</b>
Reconciliation	2016	-	(5,550)	(5,550)	10	53	-	(651)	674	-
	2015	-	(5,611)	(5,611)	9	63	-	(842)	839	-
	2014	-	(5,996)	(5,996)	6	145	(1)	(630)	653	-
<b>GROUP</b>	2016	<b>73,095</b>	<b>-</b>	<b>73,095</b>	<b>9,164</b>	<b>(12,687)</b>	<b>(693)</b>	<b>223</b>	<b>(2,715)</b>	<b>(53)</b>
	2015	<b>69,228</b>	<b>-</b>	<b>69,228</b>	<b>7,028</b>	<b>(11,198)</b>	<b>(162)</b>	<b>246</b>	<b>(2,609)</b>	<b>24</b>
	2014	<b>62,658</b>	<b>-</b>	<b>62,658</b>	<b>7,247</b>	<b>(10,431)</b>	<b>(143)</b>	<b>325</b>	<b>(2,665)</b>	<b>(198)</b>

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reported under non-current assets and disposal groups held for sale (see also Note 4 "Non-current assets and disposal groups held for sale and liabilities directly associated with non-current assets and disposal groups held for sale," pages 156 and 157).

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 earning 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 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 following table shows the performance indicators used by Deutsche Telekom to evaluate the operating segments' performance as well as additional segment-related indicators:

	Income taxes	Segment assets <sup>a, b</sup>	Segment liabilities <sup>a, b</sup>	Segment investments	Investments accounted for using the equity method <sup>a</sup>	Net cash from operating activities	Net cash (used in) from investing activities	Of which: cash capex <sup>c</sup>	Net cash (used in) from financing activities <sup>a</sup>	Average number of employees
	(2)	33,353	26,423	5,069	20	8,524	(4,238)	(4,161)	(5,652)	67,977
	0	33,552	26,270	6,340	20	8,185	(5,736)	(5,609)	(4,830)	69,440
	0	29,980	23,148	4,144	19	8,810	(4,171)	(3,807)	(6,844)	68,106
	(1,109)	68,349	49,791	9,970	216	5,586	(5,174)	(5,855)	354	43,699
	(360)	62,534	46,087	10,164	215	5,327	(8,624)	(6,381)	2,935	41,669
	(203)	49,784	35,724	7,318	197	3,170	(5,417)	(5,072)	1,952	37,858
	(8)	30,778	12,519	3,251	59	3,130	(2,804)	(2,764)	(317)	49,370
	(310)	30,437	12,543	2,063	61	3,377	(1,994)	(1,667)	(2,287)	52,151
	(371)	31,400	13,506	2,732	52	3,606	(2,209)	(2,116)	662	54,343
	(60)	9,031	6,073	1,077	21	456	(686)	(1,058)	298	43,705
	(39)	8,701	5,870	1,175	21	87	(803)	(1,151)	736	45,019
	(31)	8,441	5,814	1,264	14	644	(827)	(1,156)	458	47,303
	(259)	42,628	50,502	284	409	2,214	(465)	(268)	(571)	15,832
	(566)	44,532	50,830	397	504	2,638	1,056	(342)	(1,374)	18,052
	(492)	41,358	48,702	441	335	2,510	912	(381)	(4,055)	20,639
	<b>(1,438)</b>	<b>184,139</b>	<b>145,308</b>	<b>19,651</b>	<b>725</b>	<b>19,910</b>	<b>(13,367)</b>	<b>(14,106)</b>	<b>(5,888)</b>	<b>220,583</b>
	<b>(1,275)</b>	<b>179,756</b>	<b>141,600</b>	<b>20,139</b>	<b>821</b>	<b>19,614</b>	<b>(16,101)</b>	<b>(15,150)</b>	<b>(4,820)</b>	<b>226,331</b>
	<b>(1,097)</b>	<b>160,963</b>	<b>126,894</b>	<b>15,899</b>	<b>617</b>	<b>18,740</b>	<b>(11,712)</b>	<b>(12,532)</b>	<b>(7,827)</b>	<b>228,249</b>
	(5)	(35,654)	(35,668)	(756)	-	(4,377)	(241)	466	4,566	(1)
	(1)	(35,836)	(35,830)	(772)	1	(4,617)	1,086	537	3,944	1
	(9)	(31,603)	(31,600)	(818)	-	(5,347)	951	688	4,393	(1)
	<b>(1,443)</b>	<b>148,485</b>	<b>109,640</b>	<b>18,895</b>	<b>725</b>	<b>15,533</b>	<b>(13,608)</b>	<b>(13,640)</b>	<b>(1,322)</b>	<b>220,582</b>
	<b>(1,276)</b>	<b>143,920</b>	<b>105,770</b>	<b>19,367</b>	<b>822</b>	<b>14,997</b>	<b>(15,015)</b>	<b>(14,613)</b>	<b>(876)</b>	<b>226,332</b>
	<b>(1,106)</b>	<b>129,360</b>	<b>95,294</b>	<b>15,081</b>	<b>617</b>	<b>13,393</b>	<b>(10,761)</b>	<b>(11,844)</b>	<b>(3,434)</b>	<b>228,248</b>

<sup>a</sup> Group Headquarters & Group Services segment: Deutsche Telekom AG shareholders made use of the option of receiving part of their dividend entitlement in the form of shares in Deutsche Telekom AG. As a result, this dividend in kind had no impact on cash flows (see Note 15 "Shareholders' equity," page 180 et seq.).

<sup>b</sup> In line with internal reporting, the carrying amounts for investments have not been disclosed in segment reporting at segment level since January 1, 2015. Three holding companies were reallocated as of July 1, 2015 from the Group Headquarters & Group Services segment into the Europe operating segment in connection with the build-out of the pan-European all-IP network. The comparatives were adjusted as of December 31, 2014.

<sup>c</sup> 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, 2016	Dec. 31, 2015	Dec. 31, 2014	2016	2015	2014
Germany	37,756	37,280	35,343	24,657	25,078	24,999
International	70,995	65,678	56,766	48,438	44,150	37,659
Of which: Europe (excluding Germany)	20,961	21,099	21,654	13,910	14,431	14,311
North America	49,948	44,505	35,039	33,915	29,224	22,701
Other countries	86	74	73	613	495	647
<b>GROUP</b>	<b>108,751</b>	<b>102,958</b>	<b>92,109</b>	<b>73,095</b>	<b>69,228</b>	<b>62,658</b>

**Information on products and services.** Revenue generated with external customers for groups of comparable products and services developed as follows:

millions of €

	Net revenue		
	2016	2015	2014
Telecommunications	66,048	61,769	55,946
ICT solutions	6,501	6,833	6,513
Other	546	626	199
	<b>73,095</b>	<b>69,228</b>	<b>62,658</b>

### 32 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 0.4 billion (December 31, 2015: EUR 0.2 billion) and to contingent assets amounting to EUR 0.0 billion (December 31, 2015: EUR 0.0 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.** There are around 2,600 ongoing actions filed by around 16,000 alleged buyers of T-Shares sold on the basis of the prospectuses published on May 28, 1999 (second public offering, or DT2) and May 26, 2000 (third public offering, or DT3). The plaintiffs assert that individual figures given in these prospectuses were inaccurate or incomplete. The amount in dispute totals approximately EUR 80 million. 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 has 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. In the model proceedings (Musterverfahren) on the second public offering (DT2) on July 3, 2013, the Frankfurt/Main Higher Regional Court issued a decision and ruled that the disputed stock exchange prospectus did not contain any errors. In a decision dated November 22, 2016, the Federal Court of Justice confirmed the ruling of the Frankfurt/Main Higher Regional Court in all its key points. This brings the DT2 model proceedings to an end. On May 16, 2012, the Frankfurt/Main Higher Regional Court had ruled in the model proceedings (Musterverfahren) on the third public offering (DT3) that there were also no 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.

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**Claims by partnering publishers of telephone directories.** Several publishers that had set up joint ventures with DeTeMedien GmbH, a wholly owned subsidiary of Deutsche Telekom AG, 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 refunds from DeTeMedien GmbH and, to a certain extent, from Deutsche Telekom AG as joint and several debtor alongside DeTeMedien 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, 15 actions are still pending for a remaining amount in dispute of around EUR 104 million plus interest. 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.

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, however, the Group is unable 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.

**Toll Collect arbitration proceedings.** The principal members of the Toll Collect consortium are Daimler Financial Services AG and Deutsche Telekom AG. In the arbitration proceedings between these principal shareholders and the consortium company Toll Collect GbR on one side and the Federal Republic of Germany on the other concerning disputes in connection with the truck toll collection system, Deutsche Telekom received the Federal Republic of Germany's statement of claim on August 2, 2005. The Federal Republic is claiming some EUR 3.33 billion in lost toll revenues plus interest due to the delayed commencement of operations as well as contractual penalties in the amount of around EUR 1.65 billion plus interest. The Federal Republic's main claims – including contractual penalty claims – thus total about EUR 4.98 billion plus interest. After the hearings in spring 2014, we reassessed the proceedings, updated Deutsche Telekom's share of the amount at risk, and recognized adequate provisions for the risk in the statement of financial position. Further hearings took place in 2015 and 2016. There is no reason to adjust the provisions for risk recognized in 2014 in the statement of financial position. Deutsche Telekom AG believes that a claim arising from the joint and several liability is unlikely to be made in excess of Deutsche Telekom's share of the risk.

■ **Bank loans guarantee.** Deutsche Telekom guarantees to third parties bank loans of up to a maximum amount of EUR 100 million granted to Toll Collect GmbH. These guarantees for bank loans will expire on October 15, 2018.

■ **Equity maintenance undertaking.** The consortium partners have the obligation, on a joint and several basis, to provide Toll Collect GmbH with additional equity in order to ensure a minimum equity ratio of 15 percent (in the single-entity financial statements prepared in accordance with German GAAP) (equity maintenance undertaking). This obligation ends when the operating agreement expires on August 31, 2018, or earlier if the operating agreement is terminated prematurely. The amount of a potential settlement attributable to the equity maintenance undertaking cannot be estimated because of uncertainties.

In June 2006, the Federal Republic of Germany began to partially offset its monthly advance payments for operating fees to Toll Collect GmbH of EUR 8 million against the contractual penalty claims that are already the subject of the aforementioned arbitration proceedings. As a result, it may become necessary for the consortium members to provide Toll Collect GmbH with further liquidity.

The risks and obligations of Compagnie Financière et Industrielle des Autoroutes S. A., Sèvres Cedex (Cofiroute, which holds a 10-percent stake in Toll Collect) are limited to EUR 70 million. Deutsche Telekom AG and Daimler Financial Services AG have the obligation, on a joint and several basis, to indemnify Cofiroute against further claims.

**Claims relating to charges for the shared use of cable ducts.** In 2012, Kabel Deutschland Vertrieb und Service GmbH (KDG) – now Vodafone Kabel Deutschland GmbH – 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, KDG's claims amounted to around EUR 407 million along with another around EUR 34 million for the alleged benefit from additional interest, plus interest in each case. 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 similar proceedings, Unitymedia Hessen GmbH & Co. KG, Unitymedia NRW GmbH and Kabel BW GmbH demanded in January 2013 that Telekom Deutschland GmbH cease charging the plaintiffs more than a specific and precisely stated amount for the shared use of cable ducts. For charges allegedly paid in excess between 2009 and 2012, the plaintiffs are claiming a refund for a total amount of around EUR 189 million plus interest. The claim was dismissed in the first instance by the Cologne Regional Court on October 11, 2016. The plaintiffs have appealed against this decision.

**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 first-instance proceedings in this matter are scheduled for spring/summer 2017.

**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 the European Commission's 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. The fines 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. Following the decision of the European Commission, Orange Slovensko, SWAN, and Slovanet filed damage actions against Slovak Telekom with the civil court in Bratislava in 2015, claiming compensation for damages of EUR 247 million, EUR 53 million and EUR 62 million respectively, plus interest. These claims seek compensation for alleged damages due to Slovak Telekom's abuse of a dominant market position, as determined by the European Commission. Whereas Slovanet's claim has not yet been served on Slovak Telekom, the latter has submitted a detailed defense as regards Orange Slovensko and SWAN, rejecting in full the claims for damages in both cases. In parallel, Slovak Telekom is conducting negotiations with Orange Slovensko with a view to reaching an out-of-court settlement. The Company has recognized adequate provisions for this risk in the statement of financial position.

**New consumer credit regulations in the Netherlands.** The Supreme Court of the Netherlands (Hoge Raad der Nederlanden) found in the final instance that mobile contracts that are bundled with a free or discounted device such that the price of the device is not apparent for the customer, are to be treated as consumer credit or installment purchases. Accordingly, such contracts are subject to Dutch consumer credit law. As a consequence, contracts that do not comply with these specific consumer credit provisions can be rescinded. T-Mobile Netherlands is currently examining the consequences of this decision. At present the full financial impact of this cannot be assessed with sufficient certainty. To ensure it complies with the legal situation in future, T-Mobile Netherlands applied for a license for 2017 to issue consumer credit. The license it received is valid with effect from January 1, 2017.

**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.

### 33 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 16 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:

	Dec. 31, 2016		Dec. 31, 2015	
		Of which: sale and leaseback transactions		Of which: sale and leaseback transactions
Land and buildings	490	246	559	290
Technical equipment and machinery	1,631	0	796	0
Other	14	0	9	0
<b>NET CARRYING AMOUNTS OF LEASED ASSETS CAPITALIZED</b>	<b>2,135</b>	<b>246</b>	<b>1,364</b>	<b>290</b>

The increase in technical equipment and machinery is primarily a result of new finance leases for network upgrades at T-Mobile US totaling EUR 0.6 billion.

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.

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The following table provides a breakdown of these amounts:

	Minimum lease payments		Interest component		Present values	
	Total	Of which:	Total	Of which:	Total	Of which:
		sale and leaseback		sale and leaseback		sale and leaseback
millions of €						
<b>Dec. 31, 2016</b>						
<b>MATURITY</b>						
Within 1 year	711	102	126	38	585	64
In 1 to 3 years	1,067	183	190	58	877	125
In 3 to 5 years	528	73	130	43	398	30
After 5 years	948	304	261	116	687	188
	<b>3,254</b>	<b>662</b>	<b>707</b>	<b>255</b>	<b>2,547</b>	<b>407</b>
<b>Dec. 31, 2015</b>						
<b>MATURITY</b>						
Within 1 year	425	103	114	42	311	61
In 1 to 3 years	774	198	253	69	521	129
In 3 to 5 years	422	126	65	48	357	78
After 5 years	1,052	333	314	136	738	197
	<b>2,673</b>	<b>760</b>	<b>746</b>	<b>295</b>	<b>1,927</b>	<b>465</b>

**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 2016 financial year (2015: EUR 3.2 billion, 2014: EUR 3.3 billion). The following table provides a breakdown of future obligations arising from operating leases that are deemed to be reasonably certain:

	Dec. 31, 2016	Dec. 31, 2015
millions of €		
<b>MATURITY</b>		
Within 1 year	3,486	3,322
In 1 to 3 years	5,493	5,650
In 3 to 5 years	3,799	4,548
After 5 years	3,749	7,822
	<b>16,527</b>	<b>21,342</b>

In the fourth quarter of the 2016 financial year, the United States operating segment changed its assessment of the term of operating leases for cell sites with regard to the exercise of extension options. For new leases, the exercising of extension options is not deemed reasonably certain beyond the non-cancelable basic lease term of between five and ten years against the background of the altered market situation and new technical framework. As a result of this change

in assessment, the disclosure in the notes was limited to payment obligations for non-cancelable basic lease terms that Deutsche Telekom is no longer able to elude. This change resulted in a decrease of EUR 5.3 billion in the expected future minimum lease payments from operating leases in the United States operating segment as of December 31, 2016. This was offset in particular by foreign currency translation effects.

#### 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:

	Dec. 31, 2016	Dec. 31, 2015
millions of €		
Minimum lease payments	190	219
Unguaranteed residual value	3	5
Gross investment	193	224
Unearned finance income	(11)	(14)
<b>NET INVESTMENT (PRESENT VALUE OF THE MINIMUM LEASE PAYMENTS)</b>	<b>182</b>	<b>210</b>

The following table presents the gross investment amounts and the present value of payable minimum lease payments:

	Dec. 31, 2016		Dec. 31, 2015	
	Gross investment	Present value of minimum lease payments	Gross investment	Present value of minimum lease payments
<b>MATURITY</b>				
Within 1 year	91	87	94	86
In 1 to 3 years	86	80	116	110
In 3 to 5 years	14	13	12	12
After 5 years	2	2	2	2
	<b>193</b>	<b>182</b>	<b>224</b>	<b>210</b>

**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:

	Dec. 31, 2016	Dec. 31, 2015
<b>MATURITY</b>		
Within 1 year	1,006	1,184
In 1 to 3 years	477	728
In 3 to 5 years	321	339
After 5 years	496	485
	<b>2,300</b>	<b>2,736</b>

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 2016, sales of mobile terminal equipment under installment plans increased again.

### 34 OTHER FINANCIAL OBLIGATIONS

The following table provides an overview of Deutsche Telekom's other financial obligations:

	Dec. 31, 2016			
	Total	Due within 1 year	Due > 1 year ≤ 5 years	Due > 5 years
Purchase commitments regarding property, plant and equipment	2,337	1,984	316	37
Purchase commitments regarding intangible assets	544	417	127	-
Firm purchase commitments for inventories	1,777	1,691	86	-
Other purchase commitments and similar obligations	11,742	6,366	4,395	981
Payment obligations to the Civil Service Pension Fund	3,585	428	1,389	1,768
Purchase commitments for interests in other companies	6	6	-	-
Miscellaneous other obligations	9	1	4	4
	<b>20,000</b>	<b>10,893</b>	<b>6,317</b>	<b>2,790</b>

### 35 SHARE-BASED PAYMENT SHARE MATCHING PLAN

In the 2011 financial year, specific executives were 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.

In the 2015 financial year, executives who were not contractually obligated to participate in the Share Matching Plan were 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.



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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 2016 financial year, a total of 0.6 million (2015: 0.5 million) matching shares were allocated to beneficiaries of the plan at a weighted average fair value of EUR 12.97 (2015: EUR 14.10). The cost is to be recognized against the capital reserves pro rata temporis until the end of the service period and amounted to EUR 3.37 million in total for all tranches as of December 31, 2016 (December 31, 2015: EUR 2.91 million). The capital reserves recognized for the Share Matching Plan as of December 31, 2016 amounted to EUR 11.54 million (December 31, 2015: EUR 8.17 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 115 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. 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 2016 financial year, a total of 3.3 million (2015: 4.4 million) virtual shares were granted at a weighted average fair value of EUR 16.50 (2015: EUR 13.16). 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, 2016, the cost of the long-term incentive plan amounted to EUR 29 million in total for all tranches (December 31, 2015: EUR 17 million). The provision totaled EUR 47 million as of December 31, 2016 (December 31, 2015: EUR 17 million).

### SHARE-BASED PAYMENT AT T-MOBILE US

T-Mobile US maintains the 2013 Omnibus Incentive Plan, which authorized the issuance of up to 63 million shares of common stock of T-Mobile US. Under the 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, 2016, there were 22 million T-Mobile US shares of common stock (December 31, 2015: 29 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 stock units (PSUs) 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 up to three years.

PSUs 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. 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 PSU plans resulted in the following share-related development:

	Number of shares	Weighted average fair value at grant date USD
<b>Non-vested as of January 1, 2016</b>	<b>16,334,271</b>	<b>29.95</b>
Granted	8,431,980	45.07
Vested	(7,712,463)	28.33
Forfeited	(1,338,397)	34.42
<b>Non-vested as of December 31, 2016</b>	<b>15,715,391</b>	<b>37.93</b>

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 PSUs was determined using the Monte Carlo model. Stock-based compensation expense was EUR 255 million as of December 31, 2016 (December 31, 2015: EUR 227 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)
<b>Stock options outstanding/ exercisable at January 1, 2016</b>	<b>1,824,354</b>	<b>30.50</b>	<b>2.7</b>
Exercised	(982,904)	29.34	
Forfeited	(7,519)	44.21	
<b>Stock options outstanding/ exercisable at December 31, 2016</b>	<b>833,931</b>	<b>31.75</b>	<b>2.3</b>

The exercise of stock options generated cash inflows of EUR 26 million (USD 29 million) in the 2016 financial year (2015: EUR 42 million (USD 47 million)).

## 36 FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

## Carrying amounts, amounts recognized, and fair values by class and measurement category

millions of €

	Category in accordance with IAS 39	Carrying amounts Dec. 31, 2016	Amounts recognized in the statement of financial position in accordance with IAS 39			
			Amortized cost	Cost	Fair value recognized in equity	Fair value recognized in profit or loss
<b>ASSETS</b>						
Cash and cash equivalents	LaR	7,747	7,747			
Trade receivables	LaR	9,179	9,179			
Originated loans and receivables	LaR/n. a.	5,664	5,482			
Of which: collateral paid	LaR	235	235			
Other non-derivative financial assets						
Held-to-maturity investments	HtM	8	8			
Available-for-sale financial assets <sup>a</sup>	AFS	5,548		126	5,422	
Derivative financial assets <sup>b</sup>						
Derivatives without a hedging relationship	FAHFT	1,881				1,881
Of which: termination rights embedded in bonds issued	FAHFT	915				915
Derivatives with a hedging relationship	n. a.	498			268	230
<b>LIABILITIES<sup>c</sup></b>						
Trade payables	FLAC	10,388	10,388			
Bonds and other securitized liabilities	FLAC	50,090	50,090			
Liabilities to banks	FLAC	4,097	4,097			
Liabilities to non-banks from promissory notes	FLAC	535	535			
Liabilities with the right of creditors to priority repayment in the event of default	FLAC	1,866	1,866			
Other interest-bearing liabilities	FLAC	1,823	1,823			
Of which: collateral received	FLAC	829	829			
Other non-interest-bearing liabilities	FLAC	1,958	1,958			
Finance lease liabilities	n. a.	2,547				
Derivative financial liabilities <sup>b</sup>						
Derivatives without a hedging relationship	FLHFT	1,607				1,607
Of which: conversion rights embedded in Mandatory Convertible Preferred Stock	FLHFT	837				837
Of which: options granted to third parties for the purchase of shares in subsidiaries	FLHFT	-				
Derivatives with a hedging relationship	n. a.	127			48	79
Derivative financial liabilities directly associated with non-current assets and disposal groups held for sale	FLHFT	50				50
Of which: aggregated by category in accordance with IAS 39						
Loans and receivables	LaR	22,408	22,408			
Held-to-maturity investments	HtM	8	8			
Available-for-sale financial assets <sup>a</sup>	AFS	5,548		126	5,422	
Financial assets held for trading	FAHFT	1,881				1,881
Financial liabilities measured at amortized cost	FLAC	70,757	70,757			
Financial liabilities held for trading	FLHFT	1,657				1,657

<sup>a</sup> For details, please refer to Note 8 "Other financial assets," pages 166 and 167.<sup>b</sup> For details, please refer to the derivatives table in this Note, page 211.<sup>c</sup> For financial guarantees and loan commitments existing at the reporting date, please refer to the additional information provided in this section, page 209.<sup>d</sup> The exemption provisions under IFRS 7.29a were applied for information on specific fair values.

Trade receivables include receivables amounting to EUR 1.5 billion (December 31, 2015: EUR 1.0 billion) due in more than one year. The fair value generally equates to the carrying amount.

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Amounts recognized in the statement of financial position in accordance with IAS 17	Fair value Dec. 31, 2016 <sup>d</sup>	Category in accordance with IAS 39	Amounts recognized in the statement of financial position in accordance with IAS 39				Amounts recognized in the statement of financial position in accordance with IAS 17	Fair value Dec. 31, 2015 <sup>d</sup>
			Carrying amounts Dec. 31, 2015	Amortized cost	Cost	Fair value recognized in equity		
	-	LaR	6,897	6,897				-
	-	LaR	8,752	8,752				-
182	5,701	LaR/n.a.	3,283	3,076			207	3,318
	-	LaR	98	98				-
	-	HtM	10	10				-
	5,422	AfS	3,354		156	3,198		3,198
	1,881	FAHFT	1,526				1,526	1,526
	915	FAHFT	390				390	390
	498	n.a.	1,160			870	290	1,160
	-	FLAC	11,037	11,037				-
	55,547	FLAC	47,766	47,766				52,194
	4,186	FLAC	4,190	4,190				4,247
	662	FLAC	934	934				1,069
	1,921	FLAC	1,822	1,822				1,830
	1,859	FLAC	3,009	3,009				3,059
	-	FLAC	1,740	1,740				-
	-	FLAC	1,798	1,798				-
2,547	2,852	n.a.	1,927				1,927	2,166
	1,607	FLHFT	817				817	817
	837	FLHFT	298				298	298
	-	FLHFT	39				39	39
	127	n.a.	117			107	10	117
	50	FLHFT	-					-
	5,519	LaR	18,725	18,725				3,111
	-	HtM	10	10				-
	5,422	AfS	3,354		156	3,198		3,198
	1,881	FAHFT	1,526				1,526	1,526
	64,175	FLAC	70,556	70,556				62,399
	1,657	FLHFT	817				817	817

**Financial instruments not measured at fair value, the fair values of which are disclosed nevertheless**

millions of €

	Dec. 31, 2016				Dec. 31, 2015			
	Level 1 Inputs as prices in active markets	Level 2 Other inputs that are directly or indirectly observable	Level 3 Inputs that are unobservable <sup>a</sup>	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
<b>ASSETS</b>								
Originated loans and receivables		5,701		5,701		3,318		3,318
<b>LIABILITIES</b>								
Financial liabilities measured at amortized cost (FLAC)	49,043	15,054	78	64,175	41,498	20,810	91	62,399
Of which: bonds and other securitized liabilities	49,043	6,426	78	55,547	41,498	10,605	91	52,194
Of which: liabilities to banks		4,186		4,186		4,247		4,247
Of which: liabilities to non-banks from promissory notes		662		662		1,069		1,069
Of which: liabilities with the right of creditors to priority repayment in the event of default		1,921		1,921		1,830		1,830
Of which: other interest-bearing liabilities		1,859		1,859		3,059		3,059
Finance lease liabilities		2,852		2,852		2,166		2,166

<sup>a</sup> 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, 2016				Dec. 31, 2015			
	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	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
<b>ASSETS</b>								
Available-for-sale financial assets (AFS)	5,212		210	5,422	2,931		267	3,198
Financial assets held for trading (FAHFT)		966	915	1,881		1,136	390	1,526
Derivative financial assets with a hedging relationship		498		498		1,160		1,160
<b>LIABILITIES</b>								
Financial liabilities held for trading (FLHFT)		770	887	1,657		480	337	817
Derivative financial liabilities with a hedging relationship		127		127		117		117

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Of the available-for-sale financial assets (AFS) presented under other non-derivative 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 instruments recognized as Level 1 are the price quotations at the reporting date. The total volume of instruments recognized as Level 1 amounting to EUR 5,212 million (December 31, 2015: EUR 2,931 million) comprises a strategic financial stake of 12 percent in BT, received in the reporting period, with a carrying amount equivalent to around EUR 5.1 billion. As of December 31, 2016, an impairment of this financial stake equivalent to around EUR 2.2 billion was recognized in profit or loss, because the decline in value is assumed to reflect a permanent assessment by market players, given the circumstances of the individual case. The impairment covers the entire decline in fair value since initial recognition and includes both the share price effect and the exchange rate effect up to December 31, 2016. In future, the financial stake is to be measured at the current share value translated into euros. Future decreases in value would have to be expensed in full (i. e., share price effect and exchange rate effect) directly in the consolidated income statement. Future increases in value would have to be recognized in full directly in equity (other comprehensive income).

The available-for-sale financial assets assigned to Level 3 that are carried under other non-derivative financial assets are equity investments with a carrying amount of EUR 210 million measured using the best information available at the reporting date. As a rule, Deutsche Telekom considers executed transactions involving shares in those companies to have the greatest relevance. Executed 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. In the case of investments with a carrying amount of EUR 120 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, 2016. In the case of investments with a carrying amount of EUR 49 million, although the last arm's length transactions relating to shares in these companies took place some time ago, based on the analysis of operational development (in particular revenue, EBIT and liquidity), the previous carrying amount nevertheless corresponds to the fair value and, due to limited comparability, is preferable to measurement on the basis of transactions executed more recently relating to shares in comparable companies. In the case of investments with a carrying amount of EUR 41 million, for which the last arm's length transactions relating to shares in these companies took place some time

ago, measurement on the basis of transactions executed more recently relating to shares in comparable companies provides the most reliable representation of the fair values. Here, multiples to the reference variable of net revenue (ranging between 2.7 and 3.7) were taken, using the respective median. In certain cases, due to specific circumstances, valuation discounts need to be applied to the respective multiples. If the value of the respective 2/3-quantile (1/3-quantile) had been used as a multiple with no change in the reference variables, the fair value of the investments at the reporting date would have been EUR 19 million higher (EUR 5 million lower). If the reference variables had been 10 percent higher (lower) with no change in the multiples, the fair value of the investments at the reporting date would have been EUR 4 million higher (EUR 4 million lower). In the reporting period, net expense of EUR 37 million was recognized in other financial income/expense for unrealized losses for the investments in the portfolio at the reporting date. Please refer to the table on the following page for the development of the carrying amounts in the reporting period. No plans existed as of the reporting date to sell these investments.

The listed bonds and other securitized liabilities are assigned to Level 1 or Level 2 on the basis of the amount of the trading volume for the relevant instrument. As a rule, 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 value 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 financial assets held for trading assigned to Level 3 that are carried under other derivative financial assets relate to options embedded in bonds issued by T-Mobile US with a carrying amount of EUR 915 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 routinely 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 were used for the measurement because these provide a more reliable estimate for these unobservable inputs 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 1.8 and 2.6 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 1.9 and 3.2 percent for the maturities of the bonds and between 1.6 and 1.7 percent for shorter terms. In Deutsche Telekom's opinion, 10 percent constituted the best estimate for the mean reversion, another unobservable input. If 10 percent higher (lower) interest rate volatilities in absolute terms had been used for the measurement at the reporting date, with otherwise unchanged parameters, the fair value of the options from T-Mobile US' perspective would have been EUR 71 million higher (EUR 66 million lower) when translated into euros. If spreads of 100 basis points higher (lower) had been used for the measurement at the reporting date, with otherwise unchanged parameters, the fair value of the options from T-Mobile US' perspective would have been EUR 306 million lower (EUR 387 million higher) when translated into euros. If a mean reversion of 100 basis points higher (lower) had been used for the measurement at the reporting date, with otherwise unchanged parameters, the fair value of the options from T-Mobile US' perspective would have been EUR 14 million lower (EUR 16 million higher) when translated into euros. In the reporting period, net income of EUR 449 million when translated into euros was recognized under the Level 3 measurement in other financial income/expense for unrealized gains for the options in the portfolio at the reporting date. Please refer to the following table for the development of the carrying amounts in the reporting period. The change in value in the reporting period is mainly attributable to fluctuations in the interest rates and historical interest rate volatilities in absolute terms that are relevant for measurement. Due to its distinctiveness, this instrument constitutes a separate class of financial instruments.

The financial liabilities held for trading assigned to Level 3 that are presented under financial liabilities with a carrying amount of EUR 837 million when translated into euros relate to stock options embedded in the Mandatory Convertible Preferred Stock issued by T-Mobile US. The Mandatory Convertible Preferred Stock will be converted into a variable number of shares of T-Mobile US on the maturity date in 2017 and, in accordance with IFRS, is accounted for as debt rather than equity. The entire instrument is split into a debt instrument (bond) measured at amortized cost and an embedded derivative measured at fair value through profit or loss. In addition to conversion on the maturity date, this derivative also includes the early conversion rights granted to investors. An observable market price is available regularly and at the reporting date for the Mandatory Convertible Preferred Stock as an entire instrument, but not for the options embedded therein. The conversion rights are measured using an option pricing model. The market price of the entire instrument and its individual components is largely dependent on T-Mobile US' share price performance and the market interest rates. If the share price of T-Mobile US had been 10 percent higher (lower) at the reporting date, with

otherwise unchanged parameters, the fair value of the options from T-Mobile US' perspective would have been EUR 169 million lower (EUR 176 million higher) when translated into euros. If a market interest rate of 100 basis points higher (lower) had been used for the measurement at the reporting date, with otherwise unchanged parameters, the fair value of the options from T-Mobile US' perspective would have been EUR 8 million lower (EUR 8 million higher) when translated into euros. In the reporting period, a net expense of EUR 517 million when translated into euros was recognized in other financial income/expense for unrealized losses for the options in the portfolio at the reporting date. Please refer to the following table for the development of the carrying amount in the reporting period. The change in the market price in the reporting period is largely attributable to the rise in T-Mobile US' share price. Due to its distinctiveness, this instrument constitutes a separate class of financial instruments.

The financial liabilities assigned to Level 3 include derivative financial liabilities with a carrying amount of EUR 50 million resulting from an option granted to third parties in the 2015 financial year for the purchase of shares in a subsidiary of Deutsche Telekom. The term ends in 2017 and no notable fluctuations in value are expected in future. Due to its distinctiveness, this instrument constitutes a separate class of financial instruments. In the reporting period, the derivative financial liabilities were reclassified as derivative financial liabilities directly associated with non-current assets and disposal groups held for sale.

#### 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 liabilities held for trading (FLHFT): Conversion rights embedded in Mandatory Convertible Preferred Stock
<b>Carrying amount as of January 1, 2016</b>	<b>267</b>	<b>390</b>	<b>(298)</b>
Additions (including first-time categorization as Level 3)	59	34	0
Value decreases recognized in profit/loss (including losses on disposal)	(45)	(424)	(552)
Value increases recognized in profit/loss (including gains on disposal)	8	873	35
Value decreases recognized directly in equity	(54)	0	0
Value increases recognized directly in equity	11	0	0
Disposals	(36)	0	0
Currency translation effects recognized directly in equity	0	42	(22)
<b>CARRYING AMOUNT AS OF DECEMBER 31, 2016</b>	<b>210</b>	<b>915</b>	<b>(837)</b>

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**Net gain/loss by measurement category**

millions of €

	Recognized in profit or loss from interest, 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)
		At fair value	Currency translation	Impairments/ allowances			
Loans and receivables (LaR)	25		183	(687)		2	(477)
Held-to-maturity investments (HtM)	-						-
Available-for-sale financial assets (AFS)	220			(2,282)	(41)	20	(2,083)
Financial instruments held for trading (FAHFT and FLHFT)	n. a.	27					27
Financial liabilities measured at amortized cost (FLAC)	(2,449)		(149)				(2,598)
	<b>(2,204)</b>	<b>27</b>	<b>34</b>	<b>(2,969)</b>	<b>(41)</b>	<b>22</b>	<b>(5,131)</b>

millions of €

	Recognized in profit or loss from interest, 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)
		At fair value	Currency translation	Impairments/ allowances			
Loans and receivables (LaR)	34		1,854	(748)			1,140
Held-to-maturity investments (HtM)	-						-
Available-for-sale financial assets (AFS)	7			(4)	31	3	37
Financial instruments held for trading (FAHFT and FLHFT)	n. a.	258					258
Financial liabilities measured at amortized cost (FLAC)	(2,381)		(2,144)				(4,525)
	<b>(2,340)</b>	<b>258</b>	<b>(290)</b>	<b>(752)</b>	<b>31</b>	<b>3</b>	<b>(3,090)</b>

Interest from financial instruments is recognized in finance costs, dividends in other financial income/expense (please also refer to Note 23 "Finance costs," pages 184 and 185, and Note 25 "Other financial income/expense," page 185). Deutsche Telekom recognizes the other components of net gain/loss in other financial income/expense, except for allowances on trade receivables (please also refer to Note 2 "Trade and other receivables," pages 154 and 155) that are classified as loans and receivables, which are reported under other operating expenses. The net gain from the subsequent measurement for financial instruments held for trading (EUR 27 million) also includes interest and currency translation effects. The net currency translation gains on financial assets classified as loans and receivables (EUR 183 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 149 million. These include currency translation losses from derivatives that Deutsche Telekom used as hedges for hedge accounting in foreign currency (EUR 98 million; 2015: currency translation gains of EUR 335 million). Finance costs from financial liabilities measured at amortized cost (expense of EUR 2,449 million) primarily consist of interest expense on bonds and other (securitized) financial liabilities. The item also includes interest expenses from 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 period to hedge the fair value risk of financial liabilities (please also refer to Note 23 "Finance costs," pages 184 and 185).

**Principles of risk management.** Deutsche Telekom is exposed in particular to risks from movements 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 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 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 finance 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.

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. 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, 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 IAS 39. Exchange rate fluctuations of the currencies on which these transactions are based affect the hedging reserve 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 IAS 39 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, 2016, the hedging reserve in shareholders' equity and the fair values of the hedging instruments before taxes would have been EUR 85 million higher (lower) (December 31, 2015: EUR 38 million higher (lower)). The hypothetical effect of EUR 85 million on profit or loss primarily results from the currency sensitivities EUR/USD: EUR 97 million and EUR/GBP: EUR -11 million.

If the euro had gained (lost) 10 percent against all currencies at December 31, 2016, other financial income and the fair value of the hedging instruments before taxes would have been EUR 79 million higher (lower) (December 31, 2015: EUR 42 million higher (lower)). The hypothetical effect of EUR 79 million on profit or loss primarily results from the currency sensitivities EUR/USD: EUR 60 million and EUR/GBP: EUR 16 million.



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**Interest rate risks.** Deutsche Telekom is exposed to interest rate risks, mainly in the euro zone and in the United States. The interest risks in euros are managed as part of the interest rate management activities, in the course of which the maximum permissible negative deviation from the planned finance costs (the risk budget) is determined. The composition of the liabilities portfolio (ratio of fixed/variable and average fixed interest rate) is managed by both issuing primary (non-derivative) financial instruments and, where necessary, also deploying derivative financial instruments to ensure compliance with the risk budget. This consistently resulted in a fixed-income net position in the United States. Regular reports are submitted to the Board of Management and Supervisory Board.

Including derivative hedging instruments, an average of 43 percent (2015: 53 percent) of net debt in 2016 denominated in euros had a fixed rate of interest. In U. S. dollars, the advance financing of the current spectrum auction and the high fixed-rate percentage at T-Mobile US, which is in any case standard in the market for high-yield issuers, resulted in an increase to over 100 percent, taking into account the relatively high assets. The interest rate exposure of net debt denominated in euros decreased steadily in the reporting period, whereas it increased steadily for net debt denominated in U. S. dollars.

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 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.

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 IAS 39 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, 2016, profit or loss before taxes would have been EUR 423 million (December 31, 2015: EUR 369 million) lower. If the market interest rates had been 100 basis points lower at December 31, 2016, profit or loss before taxes would have been EUR 504 million (December 31, 2015: EUR 443 million) higher. This simulation includes the effects from the financial instruments assigned to Level 3 described above. The hypothetical effect of EUR 504 million/EUR -423 million on income primarily results from the potential effects of EUR 439 million/EUR -358 million from interest rate derivatives, and EUR 57 million/EUR -57 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, 2016, the hedging reserve in equity before taxes would have been EUR 10 million higher (lower) (December 31, 2015: EUR 24 million lower (higher)), and gains and losses recognized in equity from the remeasurement of available-for-sale financial assets before taxes would have been less than EUR 1 million higher (lower) (December 31, 2015: EUR 9 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.

If the BT share price had been 10 percent lower (higher) on December 31, 2016, other financial income and the fair value of the financial stake in BT before taxes would have been EUR 513 million lower (higher) (December 31, 2015: unchanged).

Furthermore, aside from the value-creating factors in the financial instruments assigned to Level 3 described above, there were no other price risks as of December 31, 2016, as was also the case at December 31, 2015.

**Credit risk.** 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 and collective allowances.

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.

millions of €

	Dec. 31, 2016			
	Trade receivables	Trade payables	Derivative financial assets	Derivative financial liabilities
Gross amounts subject to enforceable master netting arrangements or similar agreements	398	492	1,464	897
Amounts set off in the statement of financial position in accordance with IAS 32.42	(117)	(117)	-	-
<b>Net amounts presented in the statement of financial position</b>	<b>281</b>	<b>375</b>	<b>1,464</b>	<b>897</b>
<b>Amounts subject to enforceable master netting arrangements or similar agreements and not meeting all offsetting requirements in accordance with IAS 32.42</b>	<b>(65)</b>	<b>(65)</b>	<b>(1,453)</b>	<b>(881)</b>
Of which: amounts related to recognized financial instruments	(65)	(65)	(672)	(672)
Of which: amounts related to financial collateral (including cash collateral)	-	-	(781)	(209)
<b>NET AMOUNTS</b>	<b>216</b>	<b>310</b>	<b>11</b>	<b>16</b>

millions of €

	Dec. 31, 2015			
	Trade receivables	Trade payables	Derivative financial assets	Derivative financial liabilities
Gross amounts subject to enforceable master netting arrangements or similar agreements	701	778	2,296	597
Amounts set off in the statement of financial position in accordance with IAS 32.42	(126)	(126)	-	-
<b>Net amounts presented in the statement of financial position</b>	<b>575</b>	<b>652</b>	<b>2,296</b>	<b>597</b>
<b>Amounts subject to enforceable master netting arrangements or similar agreements and not meeting all offsetting requirements in accordance with IAS 32.42</b>	<b>(23)</b>	<b>(23)</b>	<b>(2,217)</b>	<b>(587)</b>
Of which: amounts related to recognized financial instruments	(23)	(23)	(492)	(492)
Of which: amounts related to financial collateral (including cash collateral)	-	-	(1,725)	(95)
<b>NET AMOUNTS</b>	<b>552</b>	<b>629</b>	<b>79</b>	<b>10</b>

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.

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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 154. 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 8 "Other financial assets," pages 166 and 167) is offset by corresponding negative net derivative positions of EUR 209 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 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.

In accordance with the terms of bonds issued by a Deutsche Telekom subsidiary, this subsidiary has the right to terminate the bonds prematurely under specific conditions. The rights of termination constitute embedded derivatives and are accounted for separately as derivative financial assets. The conversion rights contained in Mandatory Convertible Preferred Stock issued by a subsidiary of Deutsche Telekom constitute an embedded derivative and are recognized separately as a derivative. Since these rights of termination and conversion rights are not exposed to a credit risk, they constitute a separate class of financial instruments.

No other significant agreements reducing the maximum exposure to the credit risks of financial assets existed. The maximum exposure to credit risk of the other financial assets thus corresponds to their carrying amounts.

In addition, Deutsche Telekom is exposed to a credit risk through the granting of financial guarantees. Guarantees amounting to a nominal total of EUR 75 million had been pledged as of the reporting date (December 31, 2015: EUR 84 million), which also represent the maximum exposure to credit risk.

There were no indications as of the reporting date that Deutsche Telekom will incur a loss from a financial guarantee.

**Risks from financing and loan commitments.** There were no risks from financing and loan commitments as of the reporting date. Obligations recognized in the prior year to the EE joint venture, which was sold in the reporting year, ceased to apply.

**Liquidity risk.** Please also refer to Note 10 "Financial liabilities," page 167 et seq.

## HEDGE ACCOUNTING

**Fair value hedges.** To hedge the fair value risk of fixed-interest liabilities, Deutsche Telekom primarily used interest rate swaps and forward interest rate swaps (pay variable, receive fixed) denominated in EUR, GBP, NOK, and USD. Fixed-income bonds denominated in EUR, GBP, NOK, 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, NOK OIBOR, or USD Libor swap rate are offset against the changes in the value of these interest rate swaps. In addition, cross-currency and interest rate swaps (EUR/AUD 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 and USD Libor swap rate as well as the AUD 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.

The effectiveness of the hedging relationship is tested prospectively and retrospectively at each reporting date using statistical methods in the form of a regression analysis. All hedging relationships were sufficiently effective as of the reporting date.

In the reporting period, new fair value hedges with a total nominal volume of EUR 5.7 billion were designated for reducing the fair value risk.

As the list of the fair values of derivatives shows (see table on page 211), Deutsche Telekom had interest rate derivatives with a net fair value of EUR 0.2 billion (December 31, 2015: EUR 0.3 billion) designated as fair value hedges at December 31, 2016. The remeasurement of the hedged items resulted in gains of EUR 47 million being recorded in other financial income/expense in the 2016 financial year (2015: losses of EUR 0.1 billion); the changes in the fair values of the hedging transactions resulted in losses of EUR 25 million (2015: gains of EUR 0.1 billion) being recorded in other financial income/expense.

**Cash flow hedges – interest rate risks.** Deutsche Telekom entered into payer interest rate swaps and forward payer interest rate swaps (pay fixed, receive variable) to hedge the cash flow risk of variable-interest 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 Euribor and Libor rates 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.

The effectiveness of the hedging relationship is tested prospectively and retrospectively using statistical methods in the form of a regression analysis.

As of the reporting date, no more hedging relationships of this kind are designated. Although the hedged cash flows are still expected to occur, the hedging instruments were de-designated in the reporting period. The hedged cash flows are expected to occur between 2017 and 2019 and to be recognized in profit or loss.

Ineffectiveness of EUR 7 million (income) was recognized in profit or loss under other financial income/expense in the reporting year (2015: income of EUR 7 million).

As the list of the fair values of derivatives shows (see table on page 211), Deutsche Telekom had no interest rate derivatives (December 31, 2015: with a fair value of EUR –0.1 billion amounting to a nominal total of EUR 1.0 billion) designated as hedging instruments for the hedging of interest rate risks as part of cash flow hedges at December 31, 2016.

The recognition directly in equity of the change in the fair value of the hedging instruments resulted in losses (before taxes) of EUR 1 million (2015: losses of EUR 1 million) in shareholders' equity in the 2016 financial year. Losses amounting to EUR 109 million (2015: losses of EUR 100 million) recognized directly in equity were reclassified to other financial income/expense in the income statement in the 2016 financial year.

**Cash flow hedges – currency risks.** Deutsche Telekom entered into currency derivative and cross-currency swap agreements to hedge cash flows not denominated in a 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 2017 through 2033. The effectiveness of the hedging relationship is tested prospectively and retrospectively using statistical methods in the form of a regression analysis. All designated hedging relationships were sufficiently effective as of the reporting date.

No new cash flow hedges of this kind were designated in the reporting period.

In the 2016 financial year, losses (before taxes) totaling EUR 457 million (2015: gains of EUR 654 million) resulting from the change in the fair values of currency derivatives were taken directly to equity (hedging reserve). These changes constitute the effective portion of the hedging relationship. In the 2016 financial year, losses totaling EUR 189 million recognized directly in equity were reclassified to other financial income/expense and losses totaling EUR 30 million were reclassified to profit/loss from operations (2015: gains of EUR 358 million were reclassified to other financial income/expense and losses of EUR 4 million to profit/loss from operations). There was no material ineffectiveness of these hedges recorded as of the reporting date.

As the list of the fair values of derivatives shows (see table on page 211), Deutsche Telekom had currency forwards of a net fair value of EUR –11 million (December 31, 2015: EUR –26 million), that are the result of foreign currency purchases totaling EUR 0.6 billion and foreign currency sales totaling EUR 1.3 billion (December 31, 2015: foreign currency purchases of EUR 0.5 billion and foreign currency sales of EUR 0.7 billion), as well as cross-currency swaps of a net fair value of EUR 0.2 billion (December 31, 2015: EUR 0.9 billion) and a total volume of EUR 3.2 billion (December 31, 2015: EUR 4.8 billion) designated as hedging instruments for cash flow hedges as of December 31, 2016.

**Hedging of a net investment.** The hedge of the net investment in T-Mobile US against fluctuations in the U.S. dollar spot rate de-designated in 2012 did not generate any effects in 2016. The level of gains/losses recognized directly in equity (total other comprehensive income) remained unchanged at EUR –0.4 billion (before taxes).

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**Derivatives.** The following table shows the fair values of the various derivatives carried. A distinction is made depending on whether these are part of an effective hedging relationship as set out in IAS 39 (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, 2016	Net carrying amounts Dec. 31, 2015
<b>ASSETS</b>		
Interest rate swaps		
Without a hedging relationship	116	49
In connection with fair value hedges	217	290
In connection with cash flow hedges	-	-
Currency forwards/currency swaps		
Without a hedging relationship	131	29
In connection with cash flow hedges	25	7
Cross-currency swaps		
Without a hedging relationship	716	1,057
In connection with fair value hedges	13	-
In connection with cash flow hedges	243	863
Other derivatives in connection with cash flow hedges	-	-
Other derivatives without a hedging relationship	3	1
Embedded derivatives	915	390
<b>LIABILITIES</b>		
Interest rate swaps		
Without a hedging relationship	243	238
In connection with fair value hedges	38	-
In connection with cash flow hedges	-	74
Currency forwards/currency swaps		
Without a hedging relationship	249	147
In connection with cash flow hedges	36	33
In connection with net investment hedges	-	-
Cross-currency swaps		
Without a hedging relationship	273	76
In connection with fair value hedges	41	10
In connection with cash flow hedges	12	-
Other derivatives in connection with cash flow hedges	-	-
Other derivatives without a hedging relationship	5	58
Embedded derivatives	837	298
Derivative financial liabilities directly associated with non-current assets and disposal groups held for sale (without a hedging relationship)	50	-

### Transfer of financial assets

#### Factoring transactions with substantially all risks and rewards being transferred.

A factoring transaction is in place under which a bank is required to purchase current trade receivables. The bank's purchase obligation revolves on a monthly basis and covers a maximum receivables amount of EUR 250 million when translated into euros. Sales exceeding this amount must be agreed on a case-by-case basis. The agreement runs until 2020, giving Deutsche Telekom the freedom to decide whether receivables will be sold and in which revolving nominal volume. The risks relevant for the risk assessment with respect to the receivables sold are the credit risk and the risk of late payments (late-payment risk). The credit risk represents substantially all the risks and rewards of ownership of the receivables and is transferred to the bank in full in return for payment of a fixed purchase price discount. The late-payment risk continues to be borne in full by Deutsche Telekom. The maximum exposure to loss resulting from late-payment risk relating to the receivables sold and derecognized as of December 31, 2016 (nominal volume EUR 318 million) is EUR 1 million. At the derecognition date, the fixed purchase price discount and the fair value of the expected loss resulting from the late-payment risk was expensed. The expected loss resulting from the late-payment risk recognized under financial liabilities represents Deutsche Telekom's entire continuing involvement; as of December 31, 2016, the carrying amount and fair value each amounted to less than EUR 1 million. Deutsche Telekom expensed EUR 57 million in total in the 2016 financial year from its continuing involvement to account for purchase price discounts and program fees (interest and bank margin) and has expensed a total amount of EUR 129 million since the beginning of the transaction. Deutsche Telekom recognized the purchase price payments received from the buyers under cash generated from operations. Please refer to Note 30 "Notes to consolidated statement of cash flows," pages 190 and 191. The volume of receivables sold during the financial year amounted to between EUR 167 million and EUR 318 million. As of December 31, 2016, a total provision of EUR 3 million was recognized for the receivables management to be performed by Deutsche Telekom.

#### Factoring transactions involving the splitting of significant risks and rewards as well as the transfer of control.

Factoring transactions are in place under which banks are required to purchase trade receivables. The receivables sold entail both charges already due and charges from sales of handsets payable over a period of up to two years. The banks' purchase obligation revolves on a monthly basis and covers a maximum receivables amount of EUR 709 million when translated into euros. Sales exceeding this amount must be agreed on a case-by-case basis. The purchase price up to a maximum amount of EUR 479 million 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 term of the agreements ends between 2017 and 2019, giving Deutsche Telekom the freedom to decide whether receivables will be sold and in which volume. The risks relevant for the risk assessment with respect to the receivables sold are the credit risk and the risk of late payments (late-payment risk). The purchase price corresponds to the nominal amount. The maximum credit risk from the various tranches to be borne by Deutsche Telekom amounts to EUR 121 million. The other credit risk-related losses are borne by the banks. The existing loan insurance policy reimburses losses relating to certain receivables to a maximum amount of EUR 150 million and thus reduces the exposure to loss. The late-payment risk

continues to be borne largely by Deutsche Telekom. The maximum exposure to loss resulting from credit risk and late-payment risk relating to the receivables sold as of December 31, 2016 (nominal volume EUR 403 million when translated into euros), excluding loan insurance coverage, is EUR 131 million. Substantially all the risks and rewards of ownership of the receivables were neither transferred nor retained (allocation of the material risks between Deutsche Telekom and the bank). Control of the receivables sold was transferred to the banks because these have the practical ability to resell the receivables. All receivables sold as of December 31, 2016 have been derecognized. At the derecognition date, the fair value of the expected losses was expensed as financial liabilities. As of December 31, 2016, the carrying amount of the financial liability representing Deutsche Telekom's entire continuing involvement was EUR 2 million and its fair value was EUR 2 million. Deutsche Telekom expensed EUR 10 million, including credit-risk discounts and loss allocations to cover monthly credit risks, in the financial year from its continuing involvement including program fees (interest and bank margin), and has expensed a total amount of EUR 61 million since the beginning of the transaction. Deutsche Telekom recognizes the purchase price payments received from the buyers under cash generated from operations. Please refer to Note 30 "Notes to the consolidated statement of cash flows," pages 190 and 191. The bank has the right to sell back all overdue receivables to Deutsche Telekom. For some of the transactions, the purchase price corresponds to the nominal amount and is payable in the month following the buy-back (outstanding receivables volume as of December 31, 2016: EUR 352 million when translated into euros). 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 (outstanding receivables volume as of December 31, 2016: EUR 51 million when translated into euros). 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. The volume of receivables sold was not subject to major fluctuations since the beginning of the transaction. The carrying amount of the provision recognized by Deutsche Telekom as of December 31, 2016 for the receivables management to be performed is less than EUR 1 million.

**Factoring transactions involving the splitting of significant risks and rewards with control remaining at Deutsche Telekom.** Deutsche Telekom is party to factoring agreements under which it sells trade receivables on a revolving basis. The receivables are sold on a daily basis and settled on a monthly basis. The receivables sold entail both charges already due and charges from sales of handsets payable over a period of up to two years. The debtors are consumers as well as business customers. 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. The term of the agreements ends between 2017 and 2020.

In one factoring agreement, the buyers have a monthly revolving purchase obligation that covers a maximum receivables amount of EUR 1,660 million when translated into euros. The purchase price up to a maximum amount of EUR 901 million when translated into euros 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. As part of this transaction, subsidiaries of Deutsche Telekom sell receivables to a structured entity that is also a subsidiary of Deutsche Telekom and was established for the sole purpose of this factoring agreement. The structured entity has no assets and liabilities other than those resulting from the purchase and sale of the receivables under the factoring agreement. It resells the receivables to another structured entity. Deutsche Telekom does not consolidate this other structured entity because it has no ability to direct this entity's relevant activities. This other structured entity sells the ownership interests in the receivables to two banks and one structured entity on a pro-rata basis. Deutsche Telekom does not consolidate this structured entity either because it has no ability to direct this entity's relevant activities. The required funding is provided to the structured entity consolidated by Deutsche Telekom in the context of Deutsche Telekom's general Group financing. The structured entities not consolidated by Deutsche Telekom are financed by the external buyers of the receivables. All receivables are purchased in an automated process based on the purchase criteria set out in the receivables purchase agreement. Deutsche Telekom is obligated to buy back aged receivables and receivables for which a write-down is imminent at nominal value. The cash flows resulting from the buy-backs would occur in the month following the buy-back. Such buy-backs of receivables 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 nominal volume of the receivables sold by Deutsche Telekom and not yet settled by the debtors was EUR 1,318 million as of the reporting date when translated into euros.

In another factoring agreement, the buyers have a monthly revolving purchase obligation. Here the amount of the purchase price to be paid immediately is determined on the basis of the characteristics of the receivables. The buyers' purchase obligation covers a receivables amount that leads to an immediate purchase price payment of EUR 1,233 million when translated into euros. The remaining purchase price is only paid if the volume of the receivables sold decreases accordingly or the characteristics of the receivables change. As part of this transaction, subsidiaries of Deutsche Telekom sell receivables to a structured entity that is also a subsidiary of Deutsche Telekom and was established for the sole purpose of this factoring agreement. The required funding is provided to this structured entity in the context of Deutsche Telekom's general Group financing. It has no assets and liabilities other than those resulting from the purchase and sale of the receivables under the factoring agreement. The 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 structured entities. Deutsche Telekom does not consolidate these structured entities because it has no ability to direct these entities' relevant activities. The 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. All receivables are purchased in an automated process based on the purchase criteria set out in

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the receivables purchase agreement. Deutsche Telekom is obligated to buy back aged receivables and receivables for which a write-down is imminent at nominal value. Such buy-backs would not result in any cash outflow, but rather would correspondingly reduce the retained portions of the purchase price payable to Deutsche Telekom in the future. The 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 nominal volume of the receivables sold by Deutsche Telekom and not yet settled by the debtors was EUR 1,662 million as of the reporting date when translated into euros.

Another factoring agreement has a maximum program volume of EUR 150 million. If the buyer agrees to purchase receivables beyond this amount, the purchase price payment shall be deferred until the maximum program volume decreases again by the corresponding amount. With this structure, there is no structured entity consolidated by Deutsche Telekom. Rather, the receivables are sold directly to a structured entity that is not consolidated by Deutsche Telekom due to the lack of ability to direct the entity's relevant activities. 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. The structured entity is financed through the issue of commercial paper to third parties outside the Group or, alternatively, through a credit facility provided by a bank. In one receivables portfolio, the receivables are purchased in an automated process based on the purchase criteria set out in the receivables purchase agreement. In another receivables portfolio, the structured entity has the freedom to decide whether and which receivables will be purchased, though purchase of the agreed minimum volume is imperative. Deutsche Telekom is obligated to buy back aged receivables and receivables for which a write-down is imminent at nominal value. The cash flows resulting from the buy-backs would occur in the month following the buy-back. Such buy-backs of receivables 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 nominal volume of the receivables sold by Deutsche Telekom and not yet settled by the debtors was EUR 90 million as of the reporting date. None of the structured entities has business activities other than the purchase or sale of trade receivables or other investments.

Under another factoring agreement with a maximum volume of receivables of EUR 725 million, Deutsche Telekom sells the receivables directly to the purchasers outside the Group without using structured entities as intermediaries. If more receivables are purchased, the purchase price payment is deferred until the maximum program volume accordingly falls again. Deutsche Telekom has the freedom to decide whether receivables can be sold and in which volume. Receivables for which a write-down is imminent are sold back to Deutsche Telekom. Here the purchase price corresponds to the actual proceeds from collection or disposal and is payable in the month after Deutsche Telekom receives these proceeds from collection or disposal. As such, these buy-backs would affect neither the allocation of the credit risk-related losses nor Deutsche Telekom's liquidity situation.

Under another factoring agreement with a maximum volume of receivables of EUR 150 million, Deutsche Telekom sells the receivables directly to the purchasers outside the Group without using structured entities as intermediaries. Deutsche Telekom has the freedom to decide whether receivables can be sold and in which volume. The existing loan insurance policy reimburses losses relating to certain receivables to a maximum amount of EUR 50 million and thus reduces the exposure to loss.

Under another factoring agreement with a maximum volume of receivables of EUR 150 million, Deutsche Telekom also sells the receivables directly to the purchasers outside the Group without using structured entities as intermediaries. Deutsche Telekom has the freedom to decide whether receivables can be sold and in which volume.

The nominal volume of the receivables sold by Deutsche Telekom under the factoring agreements and not yet settled by the debtors was EUR 4,174 million as of the reporting date when translated into euros. The risks relevant for the risk assessment with respect to the receivables sold are the credit risk and the risk of late payments (late-payment risk). The maximum credit risk to be borne by Deutsche Telekom amounts to EUR 622 million as of the reporting date when translated into euros and is largely attributable to transactions involving structured entities. The other credit risk-related losses are borne by the buyers. The late-payment risk continues to be borne almost entirely by Deutsche Telekom. The maximum exposure to loss for Deutsche Telekom resulting from credit risk and late-payment risk relating to the receivables sold at the reporting date is EUR 691 million when translated into euros and is largely attributable to transactions involving structured entities. 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 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. Deutsche Telekom's continuing involvement as of December 31, 2016 amounted to EUR 691 million when translated into euros, and the carrying amount of the associated liability was EUR 692 million when translated into euros. Deutsche Telekom presents the purchase price payments received from the buyers under cash generated from operations where these relate to the derecognized portion of the receivables, and under net cash from/used in financing activities where they relate to the portion of the receivables that is still recognized. Please refer to Note 30 "Notes to the consolidated statement of cash flows," pages 190 and 191. The carrying amount of the provision recognized by Deutsche Telekom as of December 31, 2016 for the receivables management to be performed is EUR 4 million. The volume of receivables sold was not subject to major fluctuations since the beginning of the respective transaction.

### 37 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," page 31 et seq., in the combined management report.

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 2.3 at December 31, 2016 (December 31, 2015: 2.4). The target corridor for relative debt is between 2.0 and 2.5. 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 26.2 percent as of December 31, 2016 (December 31, 2015: 26.5 percent). The target corridor is 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; shareholders' equity

millions of €

	Dec. 31, 2016	Dec. 31, 2015
Financial liabilities (current)	14,422	14,439
Financial liabilities (non-current)	50,228	47,941
<b>FINANCIAL LIABILITIES</b>	<b>64,650</b>	<b>62,380</b>
Accrued interest	(955)	(1,014)
Other	(1,029)	(857)
<b>GROSS DEBT</b>	<b>62,666</b>	<b>60,509</b>
Cash and cash equivalents	7,747	6,897
Available-for-sale financial assets/financial assets held for trading	10	2,877
Derivative financial assets	2,379	2,686
Other financial assets	2,571	479
<b>NET DEBT</b>	<b>49,959</b>	<b>47,570</b>
<b>SHAREHOLDERS' EQUITY</b>	<b>38,845</b>	<b>38,150</b>

### 38 SERVICE CONCESSION ARRANGEMENTS

Satellie 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. Following Viapass' acceptance of 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. Satellie 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, Satellie 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 concessions arrangement within the meaning of IFRIC 12. During the phase of setting up the system, revenue from long-term construction contracts was recognized pursuant to IAS 11 and a financial asset carried in accordance with IFRIC 12. The percentage of completion was determined as the percentage of cost incurred up until the reporting date relative to the total estimated cost (cost-to-cost method). In the prior year, revenue from construction contracts of EUR 239 million, which in accordance with IAS 11 was only recognized in the amount of the contract costs expensed (zero-profit method), and capitalized costs from long-term construction contracts of EUR 293 million were reported under trade receivables. As a result of the completion of the set-up phase, income of EUR 0.1 billion from the construction contract was recognized as of March 31, 2016. Total expenses of EUR 0.4 billion were associated with the construction contract for the system. With the operation phase having started on April 1, 2016, the separate fees for operation and maintenance services will in the future be recognized as revenue in the respective periods in accordance with the provisions of IAS 18. Net revenue of EUR 0.3 billion was recorded in the reporting year.



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### 39 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 32.0 percent (December 31, 2015: 31.8 percent) of the share capital of Deutsche Telekom AG. In the last few years, this has resulted in the Federal Republic of Germany representing a solid majority at most shareholders' meetings of Deutsche Telekom AG due to its level of attendance, giving it control over Deutsche Telekom. Therefore, the Federal Republic and the companies controlled by the Federal Republic, or companies over which the Federal Republic can exercise a significant influence, are classified as related parties of Deutsche Telekom. Charges for services provided to the Federal Republic and its departments and agencies, and the individual companies are based on Deutsche Telekom's commercial pricing policies. Deutsche Telekom participates in the spectrum auctions of the Federal Network Agency. The acquisition of mobile communications spectrum through licenses may result in build-out requirements stipulated by the Agency.

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), 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 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 2016 financial year, Deutsche Telekom made payments in the amount of EUR 84 million (2015: EUR 85 million, 2014: EUR 58 million). Furthermore, payments are made to the Civil Service Pension Fund according to the provisions of the Act on the Reorganization of the Civil Service Pension Fund (please also refer to Note 12 "Provisions for pensions and other employee benefits," page 171 et seq.).

The Federal Republic and the companies controlled by the Federal Republic, or companies over which the Federal Republic can exercise a significant influence are customers or suppliers of Deutsche Telekom and as such have mutual contractual relationships with Deutsche Telekom.

The Federal Republic of Germany and KfW Bankengruppe requested their dividend entitlements for the 2015 financial year relating to shares held in Deutsche Telekom AG be paid out partly in cash and partly in shares from authorized capital. In this connection, 16,491 thousand shares were transferred to the Federal Republic and 15,055 thousand shares to KfW Bankengruppe in June 2016. As of December 31, 2016, the Federal Republic held a share of 14.5 percent and KfW Bankengruppe a share of 17.5 percent in Deutsche Telekom AG. Otherwise, Deutsche Telekom did not execute any individually material transactions in the 2016 financial year at off-market terms and conditions or, as described, outside of its normal business activities.

**Joint ventures.** Since consummation of the sale on January 29, 2016, the former joint venture EE has no longer been a related party of Deutsche Telekom AG. At the December 31, 2015 reporting date, there were loan commitments of EUR 0.3 billion. The arrangement concerning the loan commitments allowed for unilateral termination by Deutsche Telekom with immediate effect upon consummation of the sale. At the closing date of the transaction, Deutsche Telekom AG exercised this termination right. As a result, obligations from the loan commitment no longer exist. The loan guarantees and guarantee statements of EUR 0.9 billion given to external contracting parties of the former EE joint venture that were disclosed as of December 31, 2015 are fully covered as of December 31, 2016 with contractual recourse claims vis-à-vis BT.

Net funds of EUR 0.2 billion that had been invested by the former EE joint venture were repaid to the company by Deutsche Telekom upon consummation of the sale on January 29, 2016.

Revenue generated with Toll Collect totaled EUR 52 million (2015: EUR 83 million, 2014: EUR 65 million), in particular from data processing and telecommunications services as well as consulting services. As of December 31, 2016, there were also receivables in the amount of EUR 15 million (December 31, 2015: EUR 40 million), liabilities of EUR 0 million (December 31, 2015: EUR 0 million), an equity maintenance undertaking, and loan guarantees granted to banks. For further details, please refer to Note 32 "Contingencies," page 194 et seq.

**Associates.** The sale of parts of the share package in Scout24 AG in 2016 resulted in total income of EUR 96 million (2015: EUR 298 million).

There are otherwise no material revenue, receivables or liabilities in relation to joint ventures or associates.

**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 15.9 million (2015: EUR 16.1 million) and expenses for other long-term benefits amounted to EUR 4.8 million (2015: EUR 3.2 million). Service cost of EUR 3.1 million (2015: EUR 3.2 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 1.2 million (2015: EUR 0.9 million). EUR 0.0 million (2015: EUR 0.0 million) was paid for termination benefits and recognized as an expense.

As of December 31, 2016, Deutsche Telekom recognized provisions for Board of Management compensation from short-term benefits of EUR 6.5 million (2015: EUR 5.6 million) and from other long-term benefits of EUR 9.4 million (2015: EUR 7.3 million). Furthermore, the present value of the defined benefit obligation (DBO) from the Board of Management pension amounts to EUR 25.6 million (2015: EUR 20.5 million).

The compensation of the Board of Management and the Supervisory Board totaled EUR 25.0 million in the reporting year (2015: EUR 23.5 million).

For further information, please refer to the "Compensation report" in the combined management report, page 115 et seq., and Note 40 "Compensation of the Board of Management and the Supervisory Board," page 216.

Employees elected to the Supervisory Board of Deutsche Telekom 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.

#### **40 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 115 et seq.

##### **Board of Management compensation for the 2016 financial year**

Total compensation of the members of the Board of Management for the 2016 financial year amounted to EUR 16.7 million (2015: EUR 17.6 million). This includes a total of 112,126 entitlements to matching shares with a fair value of EUR 1.5 million on the date granted (2015: EUR 1.4 million).

##### **Former members of the Board of Management**

A total of EUR 7.2 million (2015: EUR 7.1 million) was granted for payments to and entitlements for former members of the Board of Management and their surviving dependents. Provisions (measured in accordance with IAS 19) totaling EUR 201.6 million (2015: EUR 188.1 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.

##### **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 123.

Total compensation of the members of the Supervisory Board for 2016 amounted to EUR 2,858,916.68 (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.

#### **41 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](http://www.telekom.com)) under Investor Relations in the Management & Corporate Governance section.

#### **42 EVENTS AFTER THE REPORTING PERIOD**

**U. S. dollar bond issue.** In January 2017, Deutsche Telekom placed a U. S. dollar bond with a volume of USD 3.5 billion with institutional investors. It comprised: a 3-year variable-interest bond with a volume of USD 400 million and a mark-up of 58 basis points above the 3-month USD Libor; a 3-year fixed-interest bond with a volume of USD 850 million and a coupon of 2.225 percent; a 5-year bond with a volume of USD 1.0 billion and a coupon of 2.820 percent; and a 10-year bond with a volume of USD 1.250 billion and a coupon of 3.600 percent. The bonds were issued by Deutsche Telekom International Finance B. V. and guaranteed by Deutsche Telekom AG.

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**Issuance of a euro bond.** Also in January 2017, Deutsche Telekom International Finance B. V. placed a euro bond with institutional investors with a volume of EUR 3.5 billion, which was in turn guaranteed by Deutsche Telekom under its debt issuance program. The bond comprised a 4 <sup>3</sup>/<sub>4</sub>-year fixed-interest bond with a volume of EUR 1.0 billion and a coupon of 0.375 percent; a 7-year fixed-interest bond with a volume of EUR 1.25 billion and a coupon of 0.875 percent; and a 10-year bond with a volume of EUR 1.25 billion and a fixed coupon of 1.375 percent.

**Early repayment of senior notes by T-Mobile US.** In January 2017, T-Mobile US prematurely canceled senior notes with a volume of USD 1.0 billion and an interest rate of 6.625 percent. The notes were repaid on February 10, 2017 at a price of 102.208 percent of their nominal value (plus interest accrued). In addition, in February 2017, T-Mobile US prematurely canceled senior notes with a volume of USD 500 million and an interest rate of 5.250 percent. The notes will be repaid on March 6, 2017 at a price of 101.313 percent of their nominal value (plus interest accrued).

**Financing relationship with T-Mobile US.** On January 25, 2017, Deutsche Telekom granted its subsidiary T-Mobile US secured loans totaling USD 4 billion. These loans included the secured loan of USD 660 million previously granted in December 2016, hence the loan volume increased by USD 3.34 billion. The secured loan was paid out to T-Mobile US on January 31, 2017 in two tranches of USD 2 billion each. At the end of January 2017, T-Mobile US used around USD 2 billion of this to repay a secured loan to third parties prematurely.

**Measurement of financial stake in BT.** For information on the future measurement of the financial stake in BT, please refer to Note 36 "Financial instruments and risk management," page 200 et seq.

For information on developments in the legal proceedings for the **claims relating to charges for the shared use of cable ducts**, please refer to Note 32 "Contingencies," page 194 et seq.

#### 43 AUDITOR'S FEES AND SERVICES IN ACCORDANCE WITH § 314 HGB

PricewaterhouseCoopers Aktiengesellschaft 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 2016 financial year:

#### PricewaterhouseCoopers Aktiengesellschaft, Wirtschaftsprüfungsgesellschaft

millions of €

	2016
Auditing services	15
Other assurance services	4
Tax advisory services	0
Other non-audit services	2
	<b>21</b>

Professional fees for auditing services include in particular fees for the statutory auditing of annual and 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.

Other non-audit services mainly relate to services in connection with fundamental business issues for the Company's compliance with requirements stipulated by the Federal Network Agency and other authorities and services for the strategic support.

# 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 14, 2017

Deutsche Telekom AG  
Board of Management

Timotheus Höttges

Reinhard Clemens

Niek Jan van Damme

Thomas Dannenfeldt

Srini Gopalan

Dr. Christian P. Illek

Dr. Thomas Kremer

Claudia Nemat

# INDEPENDENT AUDITOR'S REPORT

## To Deutsche Telekom Aktiengesellschaft, Bonn

### REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

#### *Audit Opinion on the Consolidated Financial Statements*

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, 2016, and the consolidated income statement, the 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, 2016, and notes to the consolidated financial statements, including a summary of significant accounting policies.

According to § (Article) 322 Abs. (paragraph) 3 Satz (sentence) 1 zweiter Halbsatz (second half sentence) HGB ("Handelsgesetzbuch": German Commercial Code), we state that, in our opinion, based on the findings of our audit, the accompanying consolidated financial statements comply, in all material respects, with IFRS, as adopted by the EU, and the additional requirements of German commercial law pursuant to § 315a Abs. 1 HGB and give a true and fair view of the net assets and financial position of the Group as at December 31, 2016, as well as the results of operations for the financial year from January 1, to December 31, 2016, in accordance with these requirements.

According to § 322 Abs. 3 Satz 1 erster Halbsatz HGB, we state that our audit has not led to any reservations with respect to the propriety of the consolidated financial statements.

#### *Basis for Audit Opinion on the Consolidated Financial Statements*

We conducted our audit in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW), and additionally considered the International Standards on Auditing (ISA). Our responsibilities under those provisions and standards, as well as supplementary standards, are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements" section of our report. We are independent of the Group entities in accordance with the provisions under German commercial law and professional requirements, and we have fulfilled our other German ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### *Key Audit Matters*

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, 2016. 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, and we do not provide a separate audit opinion on these matters.

In our view, the key audit matters were as follows:

- 1 | Recoverability of goodwill and other non-current assets
- 2 | Appropriateness of revenue recognition
- 3 | Disposal of shares in EE Ltd. to BT Group plc and subsequent measurement of the new shares in the BT Group plc
- 4 | Accounting treatment of the Toll Collect Legal Dispute

Our presentation of these key audit matters has been structured as follows:

- 1 | Matter and issue
- 2 | Audit approach and findings
- 3 | Reference to further information

#### **1 | Recoverability of goodwill and other non-current assets**

1 | An amount of EUR 14.3 billion (9.6 % of 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 AG. Goodwill is tested for impairment ("impairment test") at least once per financial year. These measurements are generally based on the present value of future cash flows of the cash-generating unit to which the respective goodwill is to be allocated. The impairment of the unit USA is determined on the basis of the listed share price of T-Mobile US, Inc. The measurements are based on budget projections of the individual cash-generating units, which in turn were based on the financial budgets approved by management. The discount rate used is the weighted average cost of capital for the relevant cash-generating unit. The impairment tests of the units Netherlands, Montenegro and Romania – Mobile communications led to impairment losses on goodwill totaling EUR 471 million.

Furthermore, because of the unit's declining profit margin in the face of high competition an impairment test was triggered for the non-current assets (excluding goodwill) of the unit Romania – Fixed network as of December 31, 2016. The resulting impairment loss was allocated to the tested assets, with their respective fair values serving as a floor. This resulted in the recognition of EUR 128 million in impairment of property, plant and equipment.

The result of these measurements depends particularly on management's assumptions of future cash inflows and the discount rate used. Therefore the assessment is subject to uncertainty.

2| We assessed that 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 cash-generating 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. We also examined that the costs for 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 cash-generating 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 management were properly derived for conducting impairment tests.

3| The Company's disclosures pertaining to impairment tests are contained in section "5 – Intangible assets" and "6 – Property, plant and equipment" of the notes to the consolidated financial statements.

## 2| Appropriateness of revenue recognition

1| Revenue of EUR 73.1 billion is recognized in the consolidated income statement in the consolidated financial statements of Deutsche Telekom AG. This material item is subject to considerable risk due to the complexity of the systems necessary for properly recording and identifying revenue and the impact of ever-changing business, price and tariff models (including tariff structures, customer discounts, incentives). Against this background, the proper application of the accounting standards is considered to be complex and to a certain extent based on estimates and assumptions made by management.

2| In light of the fact that the high degree of complexity and estimates and assumptions give rise to an increased risk of accounting misstatements, we assessed the Group's processes and controls for recognizing revenue. Furthermore, in order to mitigate the inherent audit risk in this audit area, we ensured that audit procedures were consistently carried out throughout the Group by issuing the relevant instructions to the component auditors. Our specific audit approach included testing of the controls and substantive audit procedures, in particular:

- Assessing the environment of the IT systems related to invoicing and measurement as well as other relevant systems supporting the accounting of revenue, including the implemented controls of system changes.

- Assessing the invoicing and measurement systems up to entries in the general ledger.
- Examining customer invoices and receipts of payment on a test basis.

Furthermore, we assessed the accounting effects of the new business and price models. We assured ourselves of the appropriateness of the systems, processes, and controls in place and that the estimates and assumptions made by management are sufficiently documented and substantiated to ensure that revenue is properly recognized.

3| The Company's disclosures pertaining to the particularities surrounding the recognition of revenue in the consolidated financial statements of Deutsche Telekom AG 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 of the notes to the consolidated financial statements.

## 3| Disposal of shares in EE Ltd. to BT Group plc and subsequent measurement of the new shares in the BT Group plc

1| On February 5, 2015, Deutsche Telekom AG and Orange S. A., France, entered into a sales agreement with BT Group plc for the shares in their joint venture EE Ltd. Following approval from the responsible anti-trust authority, the transaction was closed on January 29, 2016, and, in accordance with the agreement, the Group received 12% of the shares in BT Group plc valued at EUR 7.4 billion (market value on January 29, 2016) as well as an additional GBP 15.7 million in cash in exchange for transferring its 50% stake in EE Ltd to BT Group plc. The disposal gains reported under other operating income in the consolidated income statement totaled EUR 2.5 billion (including reclassification of currency reserves amounting to EUR 0.9 billion to the consolidated income statement).

The shares in BT Group plc are reported under available-for-sale financial assets that are generally measured subsequently at fair value outside profit or loss. However, due to an observed steady decline in the fair value of the shares since their initial recognition, as of the reporting date there was objective evidence for recognizing an impairment loss of EUR 2.2 billion in profit or loss. In this connection, the currency- and price-related impairment effects recognized in equity under the reserves for available-for-sale financial assets since the initial recognition of the shares were reclassified in full to "Other financial income (expense)" in the consolidated income statement.

Due to the considerable impact on profit or loss and the judgments and estimates, taking into account the existing accounting guidelines, made in assessing the impairment loss, this matter was of particular importance for our audit.

2| We assessed the disposal gains reported under other operating income, taking into account the sales agreement. We agreed the amount of the consideration received to deposit statements and bank confirmations. Furthermore, we assessed the level of the carrying amount of the shares in EE Ltd. (at the derecognition date) to be deducted from the agreed consideration and the cumulative currency gains recognized in profit or loss.

The shares in BT Group plc were subsequently remeasured at fair value on the basis of the listed price of the shares of BT Group plc. We determined that this share price steadily declined since the acquisition of the shares and that the fair value of the shares derived from that share price was continuously below the acquisition cost, meaning that as of December 31, 2016 there was objective evidence for recognizing an impairment loss in profit or loss. We evaluated the measurement of the shares and the recognition of the impairment loss in profit or loss on the basis of the BT Group plc's share price as of the reporting date, taking into account the exchange rate for the shares denominated in British pound sterling (GBP), and we assured ourselves of the appropriateness of the reporting in the consolidated financial statements.

From our point of view, the management's assessments underlying this accounting treatment are sufficiently documented and substantiated, and lead to an appropriate recognition in the consolidated financial statements.

- 3| The Company's disclosures pertaining to the disposal of shares in EE Limited are contained in the notes to the consolidated financial statements, particularly in the "Changes in the composition of the Group and other transactions" section of the "Summary of accounting policies" chapter and in section "17 – Other operating income". The disclosures on subsequent measurement are contained in particular in sections "25 – Other financial income/expense" and "36 – Financial instruments and risk management".

#### 4| Accounting treatment of the Toll Collect Legal Dispute

- 1| The Deutsche Telekom Group is a party in court and out-of-court proceedings with authorities, competitors and other parties. The determination of whether or not a provision should be recognized to cover the risks, and if so, in what amount, is subject to a high degree of uncertainty. In our view, the following action brought by the Federal Republic of Germany against, among others, Deutsche Telekom AG is of particular importance due primarily to the high monetary value of the asserted claims.

The Federal Republic of Germany has initiated in the year 2004 an arbitration proceedings in connection with the establishment and operation of a toll system. This arbitration is, among others, directed against Deutsche Telekom AG and its investment Toll Collect GbR ("Toll Collect Legal Dispute"). Claims for damages are asserted for lost toll proceeds and contractual penalties due to breaches of contract. Deutsche Telekom AG recognized a provision for the risks stemming from the legal dispute under other provisions in its consolidated financial statements.

- 2| As part of our audit, we assessed the process established by the Deutsche Telekom Group to ensure that a legal dispute is reported, its risks are assessed, and the dispute is accounted for. This assessment also included a substantive review of the material legal risks, including the Toll Collect Legal Dispute. Our assessment took into account the knowledge gained in the course of our regular meetings with Deutsche Telekom AG's legal department as well as from the assessments provided to us in writing on the outcomes of the respective proceedings. Furthermore, an external legal opinion on the Toll Collect Legal Dispute was obtained as of the balance sheet date that upholds Deutsche Telekom AG's risk assessment. We assessed and deem appropriate the presentation of the legal dispute and the associated risk provision in the consolidated financial statements.

- 3| The aforementioned legal dispute is disclosed in the "Other disclosures" chapter under section "32 – Contingencies" in the notes to the consolidated financial statements.

#### Other Information

Management is responsible for the other information. The other information comprises

- the Corporate Governance Report according to section 3.10 of the German Corporate Governance Code,
- the Corporate Governance Statement pursuant to § 289a HGB and § 315 Abs. 5 HGB, as well as
- other parts of the annual report of Deutsche Telekom Aktiengesellschaft, Bonn, for the financial year ended on December 31, 2016, which were not subject of our audit.

Our audit opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information, and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements 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 Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation of the consolidated financial statements, which comply with IFRS, as adopted by the EU, and the additional German legal requirements applicable under § 315a Abs. 1 HGB, and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. Furthermore, management is responsible for such internal control as management determines is 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, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements.

#### Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objective is 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 to issue an auditor's report that includes our audit opinion on the consolidated financial statements. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW), under additional consideration of the ISA, 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 economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW), under additional consideration of the ISA, 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, 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 opinion. 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 in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's 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 our auditor's report to the related disclosures in the consolidated financial statements or the Group management report or, if such disclosures are inadequate, to modify our audit opinion. 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 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 represent the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the net assets and financial position as well as the results of operations of the Group in accordance with IFRS, as adopted by the EU, and the additional German legal requirements applicable under § 315a Abs. 1 HGB.
- Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an audit opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance, 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 relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and 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 report on the audit of the consolidated financial statements unless law or regulation precludes public disclosure about the matter.

## OTHER LEGAL AND REGULATORY REQUIREMENTS

### Report on the Audit of the Group Management Report

#### *Audit Opinion on the Group Management Report*

We have audited the group management report of Deutsche Telekom Aktiengesellschaft, Bonn, which is combined with the Company's management report, for the financial year from January 1, to December 31, 2016.

In our opinion, based on the findings of our audit, the accompanying group management report as a whole provides a suitable view of the Group's position. In all material respects, the group management report is consistent with the consolidated financial statements, complies with legal requirements and suitably presents the opportunities and risks of future development.

Our audit has not led to any reservations with respect to the propriety of the group management report.

#### *Basis for Audit Opinion on the Group Management Report*

We conducted our audit of the group management report in accordance with § 317 Abs. 2 HGB and German generally accepted standards for the audit of management reports promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



### *Responsibilities of Management and Those Charged with Governance for the Group Management Report*

Management is responsible for the preparation of the group management report, which as a whole provides a suitable view of the Group's position, is consistent with the consolidated financial statements, complies with legal requirements, and suitably presents the opportunities and risks of future development. Furthermore, management is responsible for such policies and procedures (systems) as management determines are necessary to enable the preparation of a group management report in accordance with the German legal requirements applicable under § 315 Abs. 1 HGB and to provide sufficient and 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 group management report.

### *Auditor's Responsibilities for the Audit of the Group Management Report*

Our objective is to obtain reasonable assurance about whether the group management report as a whole provides a suitable view of the Group's position as well as, in all material respects, is consistent with the consolidated financial statements as well as the findings of our audit, complies with legal requirements, and suitably presents the opportunities and risks of future development, and to issue an auditor's report that includes our audit opinion on the group management report.

As part of an audit, we examine the group management report in accordance with § 317 Abs. 2 HGB and German generally accepted standards for the audit of management reports promulgated by the IDW. In this connection, we draw attention to the following:

- The audit of the group management report is integrated into the audit of the consolidated financial statements.
- We obtain an understanding of the policies and procedures (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 policies and procedures (systems).
- We perform audit procedures on the prospective information presented by management in the group management report. Based on appropriate and sufficient audit evidence, we hereby, in particular, evaluate the material assumptions used by management as a basis for the prospective information and assess the reasonableness of these assumptions as well as the appropriate derivation of the prospective information from these assumptions. We are not issuing a separate audit opinion on the prospective information or the underlying assumptions. There is a significant, unavoidable risk that future events will deviate significantly from the prospective information.
- We are also not issuing a separate audit opinion on individual disclosures in the group management report; our audit opinion covers the group management report as a whole.

## RESPONSIBLE AUDITOR

The auditor responsible for the audit is Thomas Tandetzki.

Frankfurt am Main, February 14, 2017

PricewaterhouseCoopers  
Aktiengesellschaft  
Wirtschaftsprüfungsgesellschaft

sgd. Harald Kayser  
Wirtschaftsprüfer  
(German Public Auditor)

sgd. Thomas Tandetzki  
Wirtschaftsprüfer  
(German Public Auditor)

# MEMBERS OF THE SUPERVISORY BOARD OF DEUTSCHE TELEKOM AG IN 2016

## 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 bodies of other companies:

- E.ON SE, Düsseldorf (since 4/2003)
- Porsche Automobil Holding SE, Stuttgart (since 11/2007)
- ThyssenKrupp AG, Duisburg and Essen (since 1/2008),  
Chairman of the Supervisory Board (since 3/2013)

## 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 bodies of other companies:

- Vereinigte Postversicherung VVaG, Stuttgart (since 6/2011)

### Member of the supervisory bodies of the following subsidiaries, associates and joint ventures:

- Deutsche Telekom Services Europe GmbH, Bonn,  
Deputy Chairman of the Supervisory Board (since 9/2016)
- Telekom Deutschland GmbH, Bonn (8/2003 to 12/2016),  
Deputy Chairman of the Supervisory Board (9/2003 to 12/2016)

## SARI BALDAUF

Member of the Supervisory Board since November 1, 2012  
Non-Executive Director and Chairwoman of the Board of Directors of Fortum Oyj, Espoo, Finland

### Seats on the supervisory bodies of other companies:

- Akzo Nobel N. V., Amsterdam, Netherlands (since 4/2012)
- Daimler AG, Stuttgart (since 2/2008)

### Member of comparable supervisory bodies of companies in Germany or abroad:

- Vexve Holding Oyj, Sastamala, Finland,  
Chairwoman of the Board of Directors (since 6/2016)

## JOSEF BEDNARSKI

Member of the Supervisory Board since November 26, 2013  
Chairman of the Group Works Council at Deutsche Telekom AG, Bonn  
– No other seats –

## DR. WULF H. BERNOTAT

Member of the Supervisory Board since January 1, 2010  
Managing Director and partner of Bernotat & Cie. GmbH, Essen  
Former Chairman of the Board of Management of E.ON AG, Düsseldorf

### Seats on the supervisory bodies of other companies:

- Allianz SE, Munich (since 4/2003)
- Bertelsmann SE & Co. KGaA, Gütersloh (since 5/2006)
- Bertelsmann Management SE, Gütersloh (since 5/2012)
- Vonovia SE, Bochum (formerly Deutsche Annington Immobilien SE, Düsseldorf), Chairman of the Supervisory Board (since 6/2013)

## MONIKA BRANDL

Member of the Supervisory Board since November 6, 2002  
Chairwoman of the Central Works Council at Deutsche Telekom AG, Bonn  
– No other seats –

## JOHANNES GEISMANN

Member of the Supervisory Board since February 6, 2014  
State Secretary, Federal Ministry of Finance, Berlin

### Seats on the supervisory bodies of other companies:

- KfW IPEX-Bank GmbH, Frankfurt/Main (2/2014 to 10/2016)

## KLAUS-DIETER HANAS

Member of the Supervisory Board since June 1, 2012  
Chairman of the Works Council at Deutsche Telekom Kundenservice GmbH, Bonn, Central-Eastern District

### Seats on the supervisory bodies of other companies:

- PSD-Bank Braunschweig eG, Braunschweig (since 11/1999),  
Deputy Chairman of the Supervisory Board (since 7/2011)

## SYLVIA HAUKE

Member of the Supervisory Board since May 3, 2007  
Chairwoman of the Central Works Council at Telekom Deutschland GmbH, Bonn

### Member of the supervisory bodies of the following subsidiaries, associates and joint ventures:

- Telekom Deutschland GmbH, Bonn (since 1/2011)

## LARS HINRICHS

Member of the Supervisory Board since October 1, 2013  
CEO of Cinco Capital GmbH, Hamburg

### Seats on the supervisory bodies of other companies:

- xbAV AG, Munich, Chairman of the Supervisory Board (since 1/2016)

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### 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 bodies of other companies:

- Allianz Asset Management AG, Munich, Chairwoman of the Supervisory Board (since 2/2015)<sup>a</sup>
- Allianz Deutschland AG, Munich (since 3/2016)<sup>a</sup>
- Allianz Global Corporate & Specialty SE, Munich, Deputy Chairwoman (since 5/2013)<sup>a</sup>

#### Member of comparable supervisory bodies of companies in Germany or abroad:

- Allianz Compañía de Seguros y Reaseguros S. A., Barcelona, Spain, Member of the Board of Directors (since 5/2012)<sup>a</sup>
- Companhia de Seguros Allianz Portugal S. A., Lisbon, Portugal, Member of the Board of Directors (since 3/2012)<sup>a</sup>
- UniCredit S.p.A., Milan, Italy, Member of the Board of Directors (1/2012 to 5/2016)

### HANS-JÜRGEN KALLMEIER

Member of the Supervisory Board since October 15, 2008  
Chairman of the Central Works Council at T-Systems International GmbH, Frankfurt/Main

#### Member of the supervisory bodies of the following subsidiaries, associates and joint ventures:

- T-Systems International GmbH, Frankfurt/Main (since 12/2010)

### PROF. DR. MICHAEL KASCHKE

Member of the Supervisory Board since April 22, 2015  
CEO & President of Carl Zeiss AG, Oberkochen

#### Seats on the supervisory bodies of other companies:

- Carl Zeiss Meditec AG, Jena, Chairman of the Supervisory Board (since 3/2010)<sup>a</sup>
- Carl Zeiss Microscopy GmbH, Jena, Chairman of the Supervisory Board (since 10/2006)<sup>a</sup>
- Carl Zeiss Industrielle Messtechnik GmbH, Oberkochen, Chairman of the Supervisory Board (since 1/2014)<sup>a</sup>
- Carl Zeiss SMT GmbH, Oberkochen, Chairman of the Supervisory Board (since 1/2011)<sup>a</sup>
- 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 Far East Co., Ltd., Hong Kong, China, Chairman of the Board of Directors (from 4/2002 to 9/2016)<sup>a</sup>
- Carl Zeiss Inc., Thornwood, United States, Chairman of the Board of Directors (since 5/2016)<sup>a</sup>
- Carl Zeiss India (Bangalore) Private Ltd., Bangalore, India, Chairman of the Board of Directors (since 12/2009)<sup>a</sup>
- Carl Zeiss Pte. Ltd., Singapore, Singapore, Member of the Board of Directors (4/2002 to 9/2016)<sup>a</sup>
- Carl Zeiss Pty. Ltd., North Ryde, Australia, Chairman of the Board of Directors (since 7/2001)<sup>a</sup>
- Carl Zeiss (Pty.) Ltd., Randburg, South Africa, Chairman of the Board of Directors (since 10/2003)<sup>a</sup>

### NICOLE KOCH

Member of the Supervisory Board since January 1, 2016  
Deputy Chairwoman of the Group Works Council at Deutsche Telekom AG, Bonn  
Chairwoman of the Works Council at Telekom Shop Vertriebsgesellschaft mbH, Bonn

#### Member of the supervisory bodies of the following subsidiaries, associates and joint ventures:

- Telekom Shop Vertriebsgesellschaft mbH, 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 bodies 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 (since 5/2014)

<sup>a</sup>Supervisory board seats in companies that are part of the same group, as defined in § 100 (2) sentence 2 AktG (German Stock Corporation Act).

**PETRA STEFFI KREUSEL**

Member of the Supervisory Board since January 1, 2013  
 Senior Vice President, Partner Management and Corporate Development TC  
 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 (since 1/2017)  
 Deputy Chairwoman of the Executive Staff Representation Committee  
 of T-Systems International GmbH, Frankfurt/Main (until 12/2016)

Member of the supervisory bodies of the following subsidiaries,  
 associates and joint ventures:

- T-Systems International GmbH, Frankfurt/Main (since 12/2010)

**DR. ULRICH SCHRÖDER**

Member of the Supervisory Board since October 1, 2008  
 CEO of the Executive Board of KfW, Frankfurt/Main

Seats on the supervisory bodies of other companies:

- DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH, Cologne  
 (since 10/2009)<sup>a</sup>
- Deutsche Post AG, Bonn (since 9/2008)
- 2020 European Fund for Energy, Climate Change and Infrastructure  
 (“Marguerite Fund”), Luxembourg, Luxembourg (since 11/2009)

**MICHAEL SOMMER**

Member of the Supervisory Board since April 15, 2000  
 Trade Union Secretary, former Chairman of the  
 German Confederation of Trade Unions (DGB), Berlin  
 – No other seats –

**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  
 CEO of Software AG, Darmstadt

Seats on the supervisory bodies of other companies:

- Deutsche Messe AG, Hanover (since 1/2013)
- Dürr AG, Bietigheim-Bissingen (since 5/2011),  
 Deputy Chairman of the Supervisory Board (since 4/2014)

Supervisory Board members who left in 2016:

**DR. HUBERTUS VON GRÜNBERG**

Member of the Supervisory Board from May 25, 2000 to May 25, 2016  
 Deputy Chairman of the Board of Directors, Sapinda Holding B. V.,  
 Schiphol, Netherlands  
 – No other seats –

<sup>a</sup>Supervisory board seats in companies that are part of the same group,  
 as defined in § 100 (2) sentence 2 AktG (German Stock Corporation Act).

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# MEMBERS OF THE BOARD OF MANAGEMENT OF DEUTSCHE TELEKOM AG IN 2016

## TIMOTHEUS HÖTTGES

Chairman of the Board of Management since January 1, 2014

### Seats on the supervisory bodies 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 bodies of the following 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 5/2013)

## REINHARD CLEMENS

Board member responsible for T-Systems since December 1, 2007  
– No other seats –

## NIEK JAN VAN DAMME

Board member responsible for Germany since July 1, 2009

### Member of the supervisory bodies of the following subsidiaries, associates and joint ventures:

- Deutsche Telekom Kundenservice GmbH, Bonn (since 8/2009)
- Deutsche Telekom Technik, Bonn (since 9/2016), Chairman of the Supervisory Board (since 9/2016)
- Deutsche Telekom Technischer Service GmbH, Bonn (since 9/2009), Chairman of the Supervisory Board (since 12/2009)
- Telekom Shop Vertriebsgesellschaft mbH, Bonn (since 8/2009), Chairman of the Supervisory Board (since 9/2009)
- T-Mobile Netherlands Holding B.V., The Hague, Netherlands, Chairman of the Supervisory Board (since 4/2014)

## THOMAS DANNENFELDT

Board member responsible for Finance since January 1, 2014

### Member of the supervisory bodies of the following subsidiaries, associates and joint ventures:

- BUYIN S.A., Brussels, Belgium, Member of the Board of Directors (since 2/2014), Chairman of the Board of Directors (since 1/2017)
- Deutsche Telekom Services Europe GmbH, Bonn, Chairman of the Supervisory Board (since 1/2016)
- EE Limited, Hatfield, United Kingdom (from 2/2014 to 1/2016), Chairman of the Board of Directors (4/2014 to 1/2016)

- T-Mobile US, Inc., Bellevue, United States, Member of the Board of Directors (since 11/2013)
- T-Systems International GmbH, Frankfurt/Main, Chairman of the Supervisory Board (1/2014 to 11/2016)

## SRINIVASAN GOPALAN

Board member responsible for Europe since January 1, 2017

### Member of the supervisory bodies of the following 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 since April 1, 2015

### Member of the supervisory bodies of the following subsidiaries, associates and joint ventures:

- Telekom Deutschland GmbH, Bonn (since 5/2015)
- 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 bodies of the following subsidiaries, associates and joint ventures:

- T-Systems International GmbH, Frankfurt/Main (since 5/2015)

## CLAUDIA NEMAT

Board member responsible for Technology and Innovation since January 1, 2017  
Board member responsible for Europe and Technology until December 31, 2016

### Seats on the supervisory bodies of other companies:

- Airbus Group SE, Leiden, Netherlands (since 5/2016)
- Airbus Defence and Space GmbH, Ottobrunn (since 5/2016)
- LANXESS AG, Cologne (7/2013 to 5/2016)

### Member of the supervisory bodies of the following subsidiaries, associates and joint ventures:

- BUYIN S.A., Brussels, Belgium (from 2/2012 to 1/2017), Chairwoman of the Board of Directors (1/2015 to 1/2017)
- HELLENIC TELECOMMUNICATIONS ORGANIZATION S.A. (OTE S.A.), Marousi, Athens, Greece (10/2011 to 1/2017)

# GLOSSARY

**4G.** Refers to the fourth-generation mobile communications standard that supports higher transmission rates (see LTE).

**5G.** The 5G mobile communications standard is to be introduced from 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 USA and the effects of the termination of the agreement on the sale of the former T-Mobile USA to AT&T, please refer to the 2011 Annual Report (in particular pages 76 and 182 et seq.).

**Big data.** Storage, preparation, processing, and analysis of large volumes of data.

**Bitstream access.** Wholesale service used by alternative telephone companies to provide broadband lines.

**BNG – Broadband Network Gateway.** BNG makes it possible to gradually implement a flat end-to-end production architecture for all-IP business customer and consumer services. Network elements (AGS1, AGS2, LER, DSR and BRAS) and configuration nodes are aggregated to simplify network management.

**Carrier.** A telecommunications network operator.

**Cash capex.** Investments in property, plant and equipment, and intangible assets (excluding goodwill) as shown in the statement of cash flows.

**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.

**Connected life and work.** Refers to the convenient management of all personal data and Internet services on any screen – whether tablet, PC, cell phone, or TV set. Requires secure storage of data in the network, which can then be accessed by all devices via broadband networks.

**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.

**Cyber security/safety.** Protection against Internet crime.

**Desktop services.** Global desktop services involve a variety of support services, including the outsourcing of the entire IT infrastructure. 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.

**Entertain.** Deutsche Telekom's Internet Protocol TV service (see also IPTV). TV signals are transported over the digital subscriber line, facilitating interactive features such as time-shift TV or access to online video stores. Entertain provides hybrid offerings which use not only the DSL line but also the satellite infrastructure for delivering TV signals.

**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).

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**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.

**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 roll-out: FTTB, FTTC, and FTTH.

**Greenhouse Gas 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).

**Housing sector.** Business model: partnering between Deutsche Telekom and the housing sector.

**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.

**ICT – Information and Communication Technology.**

**Intelligent network.** Refers to a service-oriented centralized system that piggy-backs onto an existing communication network, adding intelligent network components, and additional features in the process.

**Interconnection.** See MTR.

**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).

**Joint venture.** Two or more companies set up a joint enterprise for cooperation.

**KPI – Key Performance Indicator.** Measures the success, performance and/or capacity utilization of the company, its individual organizational units, or a machine.

**LTE – Long-Term Evolution.** New generation of 4G mobile communications technology using, among others, 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 used with LTE. 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).

**MTR – Mobile Termination Rate.** Termination refers to the transportation of a call, e.g., from the competitor's network to the Deutsche Telekom network. When a call is transported to the mobile communications network, this is referred to as mobile termination. If the call is transported to the fixed network, this is called fixed-network termination, or simply interconnection (IC). Termination rates are the fee a telephone company must pay for network interconnection when a call is terminated in a third-party network.

**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.

**Rating.** Assessment of the creditworthiness of securities or debtors by rating agencies. Deutsche Telekom defines a rating corridor in its finance strategy that is designed to safeguard access to the international capital markets.

**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.

**Servers managed and serviced.** Computing & desktop services of the business customer segment. Comprises all systems – the physical and logical (virtual) systems.

**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.



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**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.

**Stakeholder.** The stakeholder approach is an extension of the shareholder value approach, a concept frequently used in business administration. In contrast to the shareholder value principle, which focuses on the needs and expectations of a company's shareholders, the stakeholder approach attempts to appreciate the company against its overall social background and reconcile the needs of the different stakeholders. In addition to shareholders, stakeholders include staff, customers, suppliers, the government, and the public at large.

**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 customers' premises or in their home, so it is also known as the "last mile."

**Utilization rate.** Ratio of average number of hours billed to maximum possible hours billed per period.

**Vectoring.** Vectoring is a noise-canceling technology that removes the electromagnetic 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.

**Wholesale bundled lines – IP-Bitstream Access/IP-BSA.** Wholesale product for which Deutsche Telekom leases DSL lines to the competitor and transports the datastream via its concentrator network to the associated broadband point of presence (PoP), where the datastream is handed over to the competitor. In contrast to voluntary DSL resale, IP-BSA is a wholesale service required by the regulatory authority. This product is available in conjunction with a Deutsche Telekom PSTN line or as a DSL stand-alone variant (see also Wholesale unbundled lines).

**Wholesale unbundled lines – including IP-BSA Stand Alone (IP-BSA SA).** Wholesale product not bundled with a PSTN line of Deutsche Telekom that enables competitors to provide an all-IP service to retail customers.

## 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.

Forward-looking statements are based on current plans, estimates, and projections. You should consider them with caution. Such statements are subject to risks and uncertainties, most of which are difficult to predict and are generally beyond Deutsche Telekom's control. They include, for instance, the progress of Deutsche Telekom's workforce reduction initiative and the impact of other significant strategic or business initiatives, including acquisitions, dispositions, and business combinations.

In addition, movements in exchange rates and interest rates, regulatory rulings, stronger than expected competition, technological change, litigation, and regulatory developments, among other factors, may have a material adverse effect on costs and revenue development.

If these or other risks and uncertainties materialize, or if the assumptions underlying any of these statements prove incorrect, Deutsche Telekom's actual results may be materially different from those expressed or implied by such statements. Deutsche Telekom can offer no assurance that its expectations or targets will be achieved.

Without prejudice to existing obligations under capital market law, Deutsche Telekom does not assume any obligation to update forward-looking statements to account for new information or future events or anything else. In addition to figures prepared in accordance with IFRS, Deutsche Telekom presents alternative performance measures, e.g., EBITDA, EBITDA margin, adjusted EBITDA, adjusted EBITDA margin, adjusted EBIT, adjusted EBIT margin, adjusted net profit/loss, free cash flow, gross debt, and net debt.

These measures should be considered in addition to, but not as a substitute for, the information prepared in accordance with IFRS. Alternative performance measures are not subject to IFRS or any other generally accepted accounting principles. Other companies may define these terms in different ways. For further information relevant to alternative performance measures, please refer to the section "Management of the Group," page 31 et seq., in this Report or to Deutsche Telekom's Investor Relations website at [www.telekom.com/alternative-performance-measures](http://www.telekom.com/alternative-performance-measures).

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## FINANCIAL CALENDAR

### Financial calendar<sup>a</sup>

Press conference on the 2016 financial statements and publication of the 2016 Annual Report	March 2, 2017
Interim Group Report as of March 31, 2017	May 11, 2017
2017 shareholders' meeting (Cologne)	May 31, 2017
Dividend payout <sup>b</sup>	June 28, 2017
Interim Group Report as of June 30, 2017	August 3, 2017
Interim Group Report as of September 30, 2017	November 9, 2017
Press conference on the 2017 financial statements and publication of the 2017 Annual Report	March 1, 2018

All dates are subject to change.

<sup>a</sup>For more dates, an updated schedule, and information on webcasts, please go to  
[www.telekom.com/financial-calendar](http://www.telekom.com/financial-calendar).

<sup>b</sup>Deutsche Telekom is again considering offering the option of paying the dividend either in cash or in the form of shares. The cash dividend is expected to be paid out on June 28, 2017. Subject to approval by the relevant bodies and the fulfillment of other legal provisions.

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