



SAP Annual Report 2017 on Form 20-F

Intelligent Enterprise



UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 20-F

- REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g)
OF THE SECURITIES EXCHANGE ACT OF 1934
OR
 ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2017
OR
 TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934
OR
 SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934
Date of event requiring this shell company report.....
For the transition period from _____ to _____

Commission file number: 1-14251

SAP SE

(Exact name of Registrant as specified in its charter)

SAP EUROPEAN COMPANY

(Translation of Registrant's name into English)

Federal Republic of Germany

(Jurisdiction of incorporation or organization)

Dietmar-Hopp-Allee 16

69190 Walldorf

Federal Republic of Germany

(Address of principal executive offices)

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(Name, Telephone, Email and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of each class

Name of each exchange on which registered

American Depository Shares, each Representing one Ordinary

New York Stock Exchange

Share, without nominal value

New York Stock Exchange*

Ordinary Shares, without nominal value

Securities registered or to be registered pursuant to Section 12(g) of the Act: None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

Ordinary Shares, without nominal value: 1,228,504,232 (as of December 31, 2017)**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes No

Note — Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files.)

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or an emerging growth company. See definition of "accelerated filer," "large accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards[†] provided pursuant to Section 13(a) of the Exchange Act.

[†] The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP International Financial Reporting Standards as issued by the International Accounting Standards Board Other

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

* Listed not for trading or quotation purposes, but only in connection with the registration of American Depository Shares representing such ordinary shares pursuant to the requirements of the Securities and Exchange Commission.

** Including 35,098,989 treasury shares.

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Introduction

SAP SE is a European Company (Societas Europaea, or "SE") and is referred to in this report, together with its subsidiaries, as SAP, or as "Company," "Group," "we," "our," or "us."

In this report: (i) references to "US\$," "\$," or "dollars" are to U.S. dollars; (ii) references to "€" or "euro" are to the euro. Our financial statements are denominated in euros, which is the currency of our home country, Germany. Certain amounts that appear in this report may not add up because of differences due to rounding.

Unless otherwise specified herein, euro financial data have been converted into dollars at the noon buying rate in New York City for cable transfers in foreign currencies as certified for customs purposes by the Federal Reserve Bank of New York (the "Noon Buying Rate") on December 31, 2017, which was US\$1.2022 per €1.00. No representation is made that such euro amounts actually represent such dollar amounts or that such euro amounts could have been or can be converted into dollars at that or any other exchange rate on such date or on any other date. The rate used for the convenience translations also differs from the currency exchange rates used for the preparation of the Consolidated Financial Statements. This convenience translation is not a requirement under International Financial Reporting Standards (IFRS) and, accordingly, our independent registered public accounting firm has not audited these US\$ amounts. For information regarding recent rates of exchange between euro and dollars, see "Item 3. Key Information – Exchange Rates." On February 9, 2018, the Noon Buying Rate for converting euro to dollars was US\$1.2226 per €1.00.

Unless the context otherwise requires, references in this report to ordinary shares are to SAP SE's ordinary shares, without nominal value. References in this report to "ADRs" are to SAP SE's American Depository Receipts, each representing one SAP ordinary share. References in this report to "ADSs" are to SAP SE's American Depository Shares, which are the deposited securities evidenced by the ADRs.

SAP, ABAP, Adaptive Server, Advantage Database Server, Afaria, Ariba, Business ByDesign, BusinessObjects, ByDesign, Concur, Crystal Reports, Expenselt, Fieldglass, hybris, PartnerEdge, PowerBuilder, PowerDesigner, Quadrem, R/3, Replication Server, SAP BusinessObjects Explorer, SAP Business Workflow, SAP EarlyWatch, SAP Fiori, SAP HANA, SAP Jam, SAP Leonardo, SAP Lumira, SAP NetWeaver, SAP S/4HANA, SAP Vora, SAPPHIRE, SAPPHIRE NOW, SQL Anywhere, SuccessFactors, The Best-Run Businesses Run SAP, TravelTrax, Triplt, TripLink, TwoGo, Web Intelligence and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of

SAP SE (or an SAP affiliate company) in Germany and other countries.

Throughout this report, whenever a reference is made to our website, such reference does not incorporate by reference into this report the information contained on our website.

We intend to make this report and other periodic reports publicly available on our web site (www.sap.com) without charge immediately following our filing with the U.S. Securities and Exchange Commission (SEC). We assume no obligation to update or revise any part of this report, whether as a result of new information, future events or otherwise, unless we are required to do so by law.

Forward-Looking Statements

This report contains forward-looking statements and information based on the beliefs of, and assumptions made by, our management using information currently available to them. Any statements contained in this report that are not historical facts are forward-looking statements as defined in the U.S. Private Securities Litigation Reform Act of 1995. We have based these forward-looking statements on our current expectations, assumptions, and projections about future conditions and events. As a result, our forward-looking statements and information are subject to uncertainties and risks. A broad range of uncertainties and risks, many of which are beyond our control, could cause our actual results and performance to differ materially from any projections expressed in or implied by our forward-looking statements. The uncertainties and risks include, but are not limited to:

- Uncertainty in the global economy, financial markets, social and political instability caused by state-based conflicts, terrorist attacks, civil unrest, war, or international hostilities could lead to disruptions of our business operations or have a negative impact on our business, financial position, profit, and cash flows.
- Laws, regulatory requirements and standards in Germany, the United States, and elsewhere continue to be very stringent. Our international business activities and processes expose us to numerous and often conflicting laws and regulations, policies, standards, or other requirements and sometimes even conflicting regulatory requirements, and to risks that could harm our business, financial position, profit, and cash flows.
- Claims and lawsuits against us, such as for IP infringements, or our inability to obtain or maintain adequate licenses for third-party technology, could have an adverse effect on our business, financial position, profit, cash flows, and reputation. Moreover, similar adverse effects could result if we are unable to adequately protect or enforce our own intellectual property.

- Unethical behavior and non-compliance with our integrity standards due to intentional and fraudulent employee behavior could seriously harm our business, financial position, profit, and reputation.

We describe these and other risks and uncertainties in the Risk Factors section.

If one or more of these uncertainties or risks materializes, or if management's underlying assumptions prove incorrect, our actual results could differ materially from those described in or inferred from our forward-looking statements and information.

The words "aim," "anticipate," "assume," "believe," "continue," "could," "counting on," "is confident," "development," "estimate," "expect," "forecast," "future trends," "guidance," "intend," "may," "might," "outlook," "plan," "project," "predict," "seek," "should," "strategy," "want," "will," "would," and similar expressions as they relate to us are intended to identify such forward-looking statements. Such statements include, for example, those made in the *Operating Results* section, our quantitative and qualitative disclosures about market risk pursuant to the International Financial Reporting Standards (IFRS), namely IFRS 7 and related statements in our Notes to the Consolidated Financial Statements; *Expected Developments* section; *Risk Factors* section; and other forward-looking information appearing in other parts of this report. To fully consider the factors that could affect our future financial results, both this report and our Integrated Report should be considered, as well as all of our other filings with the U.S. Securities and Exchange Commission (SEC). Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date specified or the date of this report. We undertake no obligation to publicly update or revise any forward-looking statements as a result of new information that we receive about conditions that existed upon issuance of this report, future events, or otherwise unless we are required to do so by law.

This report includes statistical data about the IT industry and global economic trends that comes from information published by sources including International Data Corporation (IDC), Gartner, the European Central Bank (ECB), and the International Monetary Fund (IMF). This type of data represents only the estimates of IDC, Gartner, ECB, IMF, and other sources of industry data. SAP does not adopt or endorse any of the statistical information provided by sources such as IDC, Gartner, ECB, IMF, or other similar sources that is contained in this report. The data from these sources is subject to risks and uncertainties, and subject to change based on various factors, including those described above, in the *Risk Factors* section, and elsewhere in this report. These and other factors could cause our results to differ materially from those expressed in the estimates made by third parties and SAP. We caution readers not to place undue reliance on this data.

Performance Management System

We use various performance measures to manage our performance with regard to our primary financial objectives, which are growth and profitability, and our primary non-financial objectives, which are customer loyalty and employee engagement. We view growth and profitability as indicators of our current performance, while we see customer loyalty and employee engagement as indicators of our future performance.

Measures We Use to Manage Our Financial Performance

Measures We Use to Manage Our Operating Financial Performance

In 2017, we used the following key measures to manage our operating financial performance:

Cloud subscriptions and support revenue (non-IFRS): This revenue driver comprises the main revenues of our fast-growing cloud business. We generate cloud subscriptions and support revenue when we provide software functionality in a cloud-based infrastructure (software as a service, or SaaS) to our customers; when we provide our customers with access to a cloud-based infrastructure to develop, run, and manage applications (platform as a service, or PaaS); and also when we provide hosting services for software hosted by SAP (infrastructure as a service, or IaaS). Cloud subscriptions and support revenue is also generated by providing additional premium cloud subscription support beyond the regular support that is embedded in basic cloud subscription fees as well as by providing business network services to our customers. We use the cloud subscriptions and support revenue (non-IFRS) measure at both actual currencies and constant currencies.

Cloud and software revenue (non-IFRS): We use cloud and software revenue (non-IFRS) expressed in both actual currencies and constant currencies to measure our revenue growth. Our cloud and software revenue includes cloud subscriptions and support revenue plus software licenses and support revenue. Cloud subscriptions and support revenue and software revenue are our key revenue drivers because they tend to affect our other revenue streams. Generally, customers that buy software licenses also enter into related support contracts, and these generate recurring revenue in the form of support revenue after the software sale. Support contracts cover standardized support services that comprise unspecified future software updates and enhancements. Software licenses revenue as well as cloud subscriptions and support revenue also tend to stimulate services revenue, which is earned by providing customers with professional services, premium engagement

services, training services, messaging services, and payment services.

Total revenue (non-IFRS): We use nominal total revenue (non-IFRS) and total revenue at constant currencies (non-IFRS) to measure our growth. The total of cloud subscriptions and support revenue and software support revenue divided by total revenue is the share of more predictable revenue. This measure provides additional insight into our sustained business success.

New cloud bookings: For our cloud activities, we also look at new cloud bookings (both in actual currencies and constant currencies). This measure reflects the committed order entry from new customers and from incremental purchases by existing customers for offerings that generate cloud subscriptions and support revenue. In this way, it is an indicator of cloud-related sales success in a given period and of secured future cloud subscriptions and support revenue. We focus primarily on the average contract value variant of the new cloud bookings measure that generally takes into account annualized amounts for contracts. There are no comparable IFRS measures for these bookings metrics.

Cloud backlog: In addition to new cloud bookings, we use the measure "cloud backlog" to evaluate our sales success in the cloud business. We define cloud backlog as a measure that represents the volume of business that, as of period end, is contracted but not yet billed.

Operating profit (non-IFRS): We use operating profit (non-IFRS) expressed in both actual currencies and constant currencies to measure our overall operational process efficiency and overall business performance.

Cloud subscriptions and support gross margin (non-IFRS): We use our cloud subscriptions and support gross margin (non-IFRS) to measure our process efficiency in our cloud business. Cloud subscriptions and support gross margin (non-IFRS) is the ratio of our cloud subscriptions and support gross profit (non-IFRS) to cloud subscriptions and support revenue (non-IFRS), expressed as a percentage.

Operating margin (non-IFRS): We use operating margin to measure our overall operational efficiency. Operating margin (non-IFRS) is the ratio of our operating profit (non-IFRS) to total revenue (non-IFRS), expressed as a percentage.

Measures We Use to Manage Our Non-Operating Financial Performance

We use the following measures to manage our non-operating financial performance:

Financial income, net: This measure provides insight into the return on liquid assets and capital investments and the cost of borrowed funds. To manage our financial income, net, we focus on cash flow, the composition of our liquid assets and capital

investment portfolio, and the average rate of interest at which assets are invested. We also monitor average outstanding borrowings and associated finance costs.

Days Sales Outstanding (DSO): We manage working capital by controlling the DSO of trade receivables. Days sales outstanding measures the average number of days from the raised invoice to cash receipt from the customer. We calculate DSO by dividing the average invoiced trade receivables balance of the last 12 months by the average monthly cash receipt of the last 12 months.

Measures We Use to Manage Overall Financial Performance

We use the following measures to manage our overall financial performance:

Earnings per share (EPS) (IFRS and non-IFRS): EPS measures our overall performance because it captures all operating and non-operating elements of profit as well as income tax expense. It represents the portion of profit after tax allocable to each SAP share outstanding. EPS is influenced not only by our operating and non-operating business and income taxes but also by the number of shares outstanding.

Effective tax rate (IFRS and non-IFRS): We define our effective tax rate as the ratio of income tax expense to profit before tax, expressed as a percentage.

Operating, investing, and financing cash flows and free cash flow: Our consolidated statement of cash flows provides insight into how we generate and use cash and cash equivalents. When applied in conjunction with the other primary financial statements, it provides information that helps us evaluate the changes in our net assets, our financial structure (including our liquidity and solvency), and our ability to affect the amounts and timing of cash flows to adapt to changing circumstances and opportunities. We use our free cash flow measure to determine the cash flow remaining after all expenditures required to maintain or expand our organic business have been paid off. This measure provides management with supplemental information to assess our liquidity needs. We calculate free cash flow as net cash from operating activities minus purchases (other than purchases made in connection with business combinations) of intangible assets and property, plant, and equipment.

Measures We Use to Manage Our Non-Financial Performance

In 2017, we used the following key measures to manage our non-financial performance in the areas of customer loyalty, employee engagement, and leadership trust:

Customer Net Promoter Score (Customer NPS): This score measures the willingness of our customers to recommend or

promote SAP to others. It is derived from our annual customer survey that identifies, on a scale of 0–10, whether a customer is loyal and likely to recommend SAP to friends or colleagues, is neutral, or is unhappy. We introduced this measure in 2012, as we are convinced that we can achieve our financial goals only when our customers are loyal to, and satisfied with, SAP and our solutions. To derive the Customer NPS, we start with the percentage of “promoters” of SAP, that is, those giving us a score of 9 or 10 on a scale of 0–10. We then subtract the percentage of “detractors,” that is, those giving us a score of 0 to 6. The method ignores “passives”, that is, those giving us a score of 7 or 8. Consequently, the range of achievable scores is –100 to +100, with the latter being the best achievable score for customer loyalty as measured by the Customer NPS methodology.

Employee Engagement Index: We use this index to measure the motivation and loyalty of our employees, how proud they are of our company, and how strongly they identify with SAP. The index is derived from an annual survey of our employees. Applying this measure is recognition that our growth strategy depends on engaged employees.

Leadership Trust Score: We use this score to further enhance accountability and to measure our collective effort to foster a work environment based on trust. It is derived from a question in our annual global employee survey that gauges employees’ trust in our leaders. We measure leadership trust by using the same methodology as we do to compute the Net Promoter Score (NPS).

Value-Based Management

Our holistic view of the performance measures described above, together with our associated analyses, comprises the information we use for value-based management. We use planning and control processes to manage the compilation of these key measures and their availability to our decision-makers across various management levels.

SAP’s long-term strategic plans are the point of reference for our short-term and mid-term planning and controlling processes. We initially identify future growth and profitability drivers at a highly aggregated level. In a first step, the resulting financial plan is broken down into (i) our deployment models “On Premise,” “Software as a Service/Platform as a Service,” “Infrastructure as a Service,” and “Business Networks”; and (ii) functions such as development, sales, and administration. In a second step, the planned total revenues and total expenses are generally allocated to the areas of functional responsibility of the individual members of the Executive Board (the board areas). If a board area represents not only a functional department but also has a responsibility for operating segments within this board area (for example, SAP Business Network segment), the allocation is done at the lower segment level. Budget

adjustments may be applied during the year to reflect changes in priorities, to achieve efficiency targets and to reflect endogenous and exogenous factors. Such budget adjustments, as well as the Executive Board’s performance assessment, are handled at the board area level or at the lower level within a board area if representing an operating segment as outlined above. It is then the individual board member’s responsibility to break down the allocated budget adjustments. Based on an integrated portfolio process running in parallel to the budgeting process, we ensure aligned investment behavior across board areas with regards to specific solutions or solution areas. In a final step, customer-facing revenue targets and cost of sales and marketing targets are broken down into sales regions.

Based on our detailed annual plans, we determine the budget for the respective year. We also have processes in place to forecast revenue and profit on a quarterly basis, to quantify whether we expect to realize our financial goals, and to identify any deviations from plan. We continuously monitor the affected units in the Group to analyze these developments and define any appropriate actions. Our entire network of planning, control, and reporting processes is implemented in integrated planning and information systems, based on SAP software, across all organizational units so that we can conduct the evaluations and analyses needed to make informed decisions.

Non-IFRS Financial Measures Cited in This Report

Explanation of Non-IFRS Measures

We disclose certain financial measures such as revenue (non-IFRS), expense (non-IFRS), and profit measures (non-IFRS) that are not prepared in accordance with IFRS and are therefore considered non-IFRS financial measures. Our non-IFRS financial measures may not correspond to non-IFRS financial measures that other companies report. The non-IFRS financial measures that we report should only be considered in addition to, and not as substitutes for, or superior to, our IFRS financial measures.

We believe that the disclosed supplemental historical and prospective non-IFRS financial information provides useful information to investors because management uses this information, in addition to financial data prepared in accordance with IFRS, to attain a more transparent understanding of our past performance and our anticipated future results. We use non-IFRS revenue and profit measures consistently in our internal planning and forecasting, reporting, and compensation, as well as in our external communications, as follows:

- Our management primarily uses these non-IFRS measures rather than IFRS measures as the basis for making financial, strategic, and operating decisions.
- The variable components of our Executive Board members’ and employees’ remuneration are based on revenue (non-IFRS), operating profit (non-IFRS), as well as new cloud

bookings measures rather than the respective IFRS measures.

- The annual budgeting process for all management units is based on revenue (non-IFRS) and operating profit (non-IFRS) numbers rather than the respective IFRS financial measures.
- All forecast and performance reviews with all senior managers globally are based on these non-IFRS measures, rather than the respective IFRS financial measures.
- Both our internal performance targets and the guidance we provide to the capital markets are based on non-IFRS revenue and profit measures rather than the respective IFRS financial measures.

Our non-IFRS financial measures reflect adjustments based on the items below, as well as adjustments for the related income tax effects.

Revenue (Non-IFRS)

Non-IFRS revenue measures have been adjusted from the respective IFRS financial measures by including the full amount of software support revenue, cloud subscriptions and support revenue, and other similarly recurring revenue that we are not permitted to record as revenue under IFRS due to fair value accounting for the contracts in effect at the time of the respective acquisitions.

Under IFRS, we record at fair value the contracts in effect at the time entities were acquired. Consequently, our IFRS software support revenue, IFRS cloud subscriptions and support revenue, IFRS cloud and software revenue, and IFRS total revenue for periods subsequent to acquisitions do not reflect the full amount of revenue that would have been recorded by entities acquired by SAP had they remained stand-alone entities. Adjusting revenue numbers for this revenue impact provides additional insight into the comparability of our ongoing performance across periods.

Operating Expense (Non-IFRS)

Operating expense numbers that are identified as operating expenses (non-IFRS) have been adjusted by excluding the following expenses:

- Acquisition-related charges
 - Amortization expense/impairment charges of intangibles acquired in business combinations and certain stand-alone acquisitions of intellectual property (including purchased in-process research and development)
 - Settlements of preexisting business relationships in connection with a business combination
 - Acquisition-related third-party expenses
- Share-based payment expenses
- Restructuring expenses, that is, expenses resulting from measures which comply with the definition of restructuring according to IFRS.

We exclude certain acquisition-related expenses for the purpose of calculating operating profit (non-IFRS), operating margin (non-IFRS), and earnings per share (non-IFRS) when evaluating SAP's continuing operational performance because these expenses generally cannot be changed or influenced by management after the relevant acquisition other than by disposing of the acquired assets. Since management at levels below the Executive Board does not influence these expenses, we generally do not consider these expenses for the purpose of evaluating the performance of management units. For similar reasons, we eliminate share-based payment expenses as these costs are impacted by share price developments and other factors outside our control. We also eliminate restructuring expenses because they are volatile and mostly cannot be influenced by management at levels below the Executive Board.

Operating Profit (Non-IFRS), Operating Margin (Non-IFRS), Effective Tax Rate (Non-IFRS), and Earnings per Share (Non-IFRS)

Operating profit, operating margin, effective tax rate, and earnings per share identified as operating profit (non-IFRS), operating margin (non-IFRS), effective tax rate (non-IFRS), and earnings per share (non-IFRS) have been adjusted from the respective IFRS measures by adjusting for the aforementioned revenue (non-IFRS) and operating expenses (non-IFRS) and the income tax effects thereon.

Constant Currencies Information

We believe it is important for investors to have information that provides insight into our sales. Revenue measures determined under IFRS provide information that is useful in this regard. However, both sales volume and currency effects impact period-over-period changes in sales revenue. We do not sell standardized units of products and services, so we cannot provide relevant information on sales volume by providing data on the changes in product and service units sold. To provide additional information that may be useful to investors in breaking down and evaluating changes in sales volume, we present information about our revenue and various values and components relating to operating profit that are adjusted for foreign currency effects.

We calculate constant currencies measures by translating foreign currencies using the average exchange rates from the comparative period instead of the current period.

Free Cash Flow

Among other measures, we use free cash flow to manage our overall financial performance.

Free Cash Flow

€ millions	2017	2016	Δ in %
Net cash flows from operating activities	5,045	4,628	9
Purchase of intangible assets and property, plant, and equipment (without acquisitions)	-1,275	-1,001	27
Free cash flow	3,770	3,627	4

Usefulness of Non-IFRS Measures

We believe that our non-IFRS measures are useful to investors for the following reasons:

- Our revenue (non-IFRS), expense (non-IFRS), and profit (non-IFRS) measures, along with the “new cloud bookings” and “cloud backlog” measures (see above) provide investors with insight into management’s decision making because management uses these measures to run our business and make financial, strategic, and operating decisions. We include the revenue adjustments outlined above and exclude the expense adjustments outlined above when making decisions to allocate resources. In addition, we use these non-IFRS measures to facilitate comparisons of SAP’s operating performance from period to period.
- The non-IFRS measures provide investors with additional information that enables a comparison of year-over-year operating performance by eliminating certain direct effects of acquisitions, share-based compensation plans, and restructuring plans.
- Non-IFRS and non-GAAP measures are widely used in the software industry. In many cases, inclusion of our non-IFRS measures may facilitate comparison with our competitors’ corresponding non-IFRS and non-GAAP measures.

Limitations of Non-IFRS Measures

We believe that our non-IFRS financial measures described above have limitations including but not limited to the following:

- Without being analyzed in conjunction with the corresponding IFRS measures, the non-IFRS measures are not indicative of our present and future performance, foremost for the following reasons:
 - While our profit (non-IFRS) numbers reflect the elimination of certain acquisition-related expenses, no eliminations are made for the additional revenue or other income that results from the acquisitions.
 - While we adjust for the fair value accounting of the acquired entities’ recurring revenue contracts, we do not adjust for the fair value accounting of deferred

compensation items that result from commissions paid to the acquired company’s sales force and third parties for closing the respective customer contracts.

- The acquisition-related amortization expense that we eliminate in deriving our profit (non-IFRS) numbers is a recurring expense that will impact our financial performance in future years.
- The remaining acquisition-related charges that we eliminate in deriving our profit (non-IFRS) numbers are likely to recur should SAP enter into material business combinations in the future. Similarly, the restructuring expenses that we eliminate in deriving our profit (non-IFRS) numbers are likely to recur should SAP perform restructurings in the future.
- The revenue adjustment for the fair value accounting of the acquired entities’ contracts and the expense adjustment for acquisition-related charges do not arise from a common conceptual basis. This is because the revenue adjustment aims to improve the comparability of the initial post-acquisition period with future post-acquisition periods, while the expense adjustment aims to improve the comparability between post-acquisition periods and pre-acquisition periods. This should particularly be considered when evaluating our operating profit (non-IFRS) and operating margin (non-IFRS) numbers as these combine our revenue (non-IFRS) and expenses (non-IFRS) despite the absence of a common conceptual basis.
- Our restructuring charges resulted in significant cash outflows in the past and could do so in the future. The same applies to our share-based payment expense because most of our share-based payments are settled in cash rather than shares.
- The valuation of our cash-settled share-based payments could vary significantly from period to period due to the fluctuation of our share price and other parameters used in the valuation of these plans.
- In the past, we have issued share-based payment awards to our employees every year and we intend to continue doing so in the future. Thus, our share-based payment expenses are recurring although the amounts usually change from period to period.

We believe that constant currencies measures have limitations, particularly as the currency effects that are eliminated constitute a significant element of our revenue and expenses and could materially impact our performance. Therefore, we limit our use of constant currencies measures to the analysis of changes in volume as one element of the full change in a financial measure. We do not evaluate our results and performance without considering both constant currencies and nominal measures of revenue (non-IFRS) and operating profit (non-IFRS) measures on the one hand, and changes in revenue, operating expenses, operating profit, or other measures of

financial performance prepared in accordance with IFRS on the other. We caution the readers of our financial reports to follow a similar approach by considering nominal and constant currencies non-IFRS measures only in addition to, and not as a substitute for or superior to, changes in revenue, operating expenses, operating profit, or other measures of financial performance prepared in accordance with IFRS.

Despite these limitations, we believe that the presentation of our non-IFRS measures and the corresponding IFRS measures, together with the relevant reconciliations, provide useful information to management and investors regarding present and future business trends relating to our financial condition and results of operations.

Reconciliations of IFRS to Non-IFRS Financial Measures for the Years Ended December 31

Due to rounding, the sum of the numbers presented in the following table might not precisely equal the totals we provide.

€ millions, unless otherwise stated					2017			2016	
	IFRS	Adj.	Non-IFRS	Currency Impact	Non-IFRS Constant Currency		IFRS	Adj.	Non-IFRS
Revenue measures									
Cloud subscriptions and support	3,769	2	3,771	59	3,831	2,993	2	2,995	
Software licenses	4,872	0	4,872	111	4,983	4,860	2	4,862	
Software support	10,908	0	10,908	97	11,005	10,571	1	10,572	
Software licenses and support	15,780	0	15,781	207	15,988	15,431	3	15,434	
Cloud and software	19,549	3	19,552	267	19,819	18,424	5	18,428	
Services	3,911	0	3,911	34	3,946	3,638	0	3,638	
Total revenue	23,461	3	23,464	301	23,765	22,062	5	22,067	
Operating expense measures									
Cost of cloud subscriptions and support	-1,660	233	-1,427			-1,313	247	-1,066	
Cost of software licenses and support	-2,234	190	-2,044			-2,182	238	-1,944	
Cost of cloud and software	-3,893	423	-3,471			-3,495	485	-3,010	
Cost of services	-3,158	166	-2,991			-3,089	113	-2,976	
Total cost of revenue	-7,051	589	-6,462			-6,583	598	-5,985	
Gross profit	16,410	592	17,001			15,479	603	16,081	
Research and development	-3,352	281	-3,072			-3,044	201	-2,843	
Sales and marketing	-6,924	700	-6,225			-6,265	549	-5,716	
General and administration	-1,075	138	-936			-1,005	119	-886	
Restructuring	-182	182	0			-28	28	0	
Other operating income/expense, net	1	0	1			-3	0	-3	
Total operating expenses	-18,584	1,889	-16,694	-151	-16,845	-16,928	1,494	-15,434	
Profit numbers									
Operating profit	4,877	1,892	6,769	151	6,920	5,135	1,498	6,633	
Other non-operating income/expense, net	-36	0	-36			-234	0	-234	
Finance income	463	0	463			230	0	230	
Finance costs	-278	0	-278			-268	0	-268	
Financial income, net	185	0	185			-38	0	-38	
Profit before tax	5,026	1,892	6,918			4,863	1,498	6,361	
Income tax expense	-970	-592	-1,563			-1,229	-474	-1,703	
Profit after tax	4,056	1,300	5,356			3,634	1,024	4,658	
Attributable to owners of parent	4,018	1,300	5,318			3,646	1,024	4,671	
Attributable to non-controlling interests	38	0	38			-13	0	-13	
Key ratios									
Operating margin (in %)	20.8		28.9		29.1	23.3		30.1	
Effective tax rate (in %)	19.3		22.6			25.3		26.8	
Earnings per share, basic (in €)	3.36		4.44			3.04		3.90	

Non-IFRS Adjustments by Functional Areas

	€ millions		2017					2016		
	IFRS	Acqui-sition-Related	SBP ¹⁾	Restruc-turing	Non-IFRS	IFRS	Acqui-sition-Related	SBP ¹⁾	Restructuring	Non-IFRS
Cost of cloud and software	-3,893	307	115	0	-3,471	-3,495	395	89	0	-3,010
Cost of services	-3,158	8	158	0	-2,991	-3,089	12	101	0	-2,976
Research and development	-3,352	11	269	0	-3,072	-3,044	10	190	0	-2,843
Sales and marketing	-6,924	258	442	0	-6,225	-6,265	257	292	0	-5,716
General and administration	-1,075	3	135	0	-936	-1,005	6	113	0	-886
Restructuring	-182	0	0	182	0	-28	0	0	28	0
Other operating income/expense, net	1	0	0	0	1	-3	0	0	0	-3
Total operating expenses	-18,584	587	1,120	182	-16,694	-16,928	680	785	28	-15,434

¹⁾ Share-based payments

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

Selected Financial Data

The following table sets forth our selected consolidated financial data as of and for each of the years in the five-year period ended December 31, 2017. The consolidated financial data has been derived from, and should be read in conjunction with, our Consolidated Financial Statements prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS), presented in *"Item 18. Financial Statements"* of this report.

Our selected financial data and our Consolidated Financial Statements are presented in euros. Financial data as of and for the year ended December 31, 2017 has been translated into U.S. dollars for the convenience of the reader.

SELECTED FINANCIAL DATA: IFRS

millions, unless otherwise stated	2017 ⁽¹⁾ US\$	2017 €	2016 €	2015 €	2014 €	2013 €
Income Statement Data: Years ended December 31,						
Cloud subscriptions and support revenue	4,531	3,769	2,993	2,286	1,087	696
Software licenses and support revenue	18,971	15,780	15,431	14,928	13,228	12,809
Cloud and software revenue	23,502	19,549	18,424	17,214	14,315	13,505
Total revenue	28,205	23,461	22,062	20,793	17,560	16,815
Operating profit	5,864	4,877	5,135	4,252	4,331	4,479
Profit after tax	4,876	4,056	3,634	3,056	3,280	3,325
Profit attributable to owners of parent	4,830	4,018	3,646	3,064	3,280	3,326
Earnings per share ⁽²⁾						
Basic in €	4.03	3.36	3.04	2.56	2.75	2.79
Diluted in €	4.03	3.35	3.04	2.56	2.74	2.78
Other Data:						
Weighted-average number of shares outstanding						
Basic	1,197	1,197	1,198	1,197	1,195	1,193
Diluted	1,198	1,198	1,199	1,198	1,197	1,195
Statement of Financial Position Data: At December 31,						
Cash and cash equivalents	4,822	4,011	3,702	3,411	3,328	2,748
Total assets ⁽³⁾	51,090	42,497	44,277	41,390	38,565	27,091
Current financial liabilities ⁽⁴⁾	1,877	1,561	1,813	841	2,561	748
Non-current financial liabilities ⁽⁴⁾	6,051	5,034	6,481	8,681	8,980	3,758
Issued capital	1,477	1,229	1,229	1,229	1,229	1,229
Total equity	30,704	25,540	26,397	23,295	19,534	16,048

- (1) Amounts presented in US\$ have been translated for the convenience of the reader at €1.00 to US\$1.2022, the Noon Buying Rate for converting €1.00 into dollars on December 31, 2017. See "Item 3. Key Information — Exchange Rates" for recent exchange rates between the Euro and the dollar.
- (2) Profit attributable to owners of parent is the numerator and weighted average number of shares outstanding is the denominator in the calculation of earnings per share. See Note (11) to our Consolidated Financial Statements for more information on earnings per share.
- (3) The large increase in total assets from 2013 to 2014 was mainly due to the acquisition of Concur.
- (4) The balances include primarily bonds, private placements and bank loans. Current is defined as having a remaining life of one year or less; non-current is defined as having a remaining term exceeding one year. The significant increase from 2013 to 2014 was due to a long-term bank loan and the issuance of a three-tranche Eurobond, both in connection with the Concur acquisition. See Note (17b) to our Consolidated Financial Statements for more information on our financial liabilities.

Exchange Rates

The sales prices for our ordinary shares traded on German stock exchanges are denominated in euro. Fluctuations in the exchange rate between the euro and the U.S. dollar affect the dollar equivalent of the euro price of the ordinary shares traded on the German stock exchanges and, as a result, may affect the price of the ADRs traded on the NYSE in the United States. See "[Item 9. The Offer and Listing](#)" for a description of the ADRs. In addition, SAP SE pays cash dividends, if any, in euro. As a result, any exchange rate fluctuations will also affect the dollar amounts received by the holders of ADRs on the conversion into dollars of cash dividends paid in euro on the ordinary shares represented by the ADRs. Deutsche Bank Trust Company Americas is the depositary (the Depositary) for SAP SE's ADR program. The deposit agreement with respect to the ADRs requires the Depositary to convert any dividend payments from euro into dollars as promptly as practicable upon receipt. For additional information on the Depositary and the fees associated with SAP's ADR program see "[Item 12. Description of Securities Other Than Equity Securities – American Depository Shares](#)".

For details on the impact of exchange rate fluctuations see "[Item 5. Operating and Financial Review and Prospects – Foreign Currency Exchange Rate Exposure](#)".

The following table sets forth (i) the average, high and low Noon Buying Rates for the euro expressed as U.S. dollars per €1.00 for the past five years on an annual basis and (ii) the high and low Noon Buying Rates on a monthly basis from July 2017 through and including February 9, 2018.

Year	Average ⁽¹⁾	High	Low
2013	1.3303	1.3816	1.2774
2014	1.3210	1.3927	1.2101
2015	1.1032	1.2015	1.0524
2016	1.1029	1.1516	1.0375
2017	1.1396	1.2041	1.0416

(1) The average of the applicable Noon Buying Rates on the last day of each month during the relevant period.

Month	High	Low
2017		
July	1.1826	1.1336
August	1.2025	1.1703
September	1.2041	1.1747
October	1.1847	1.1580
November	1.1936	1.1577
December	1.2022	1.1725
2018		
January	1.2488	1.1922
February (through February 9, 2018)	1.2482	1.2226

The Noon Buying Rate on February 9, 2018 was US\$1.2226 per €1.00.

Dividends

Dividend Distribution Policy

Dividends are jointly proposed by SAP SE's Supervisory Board (Aufsichtsrat) and Executive Board (Vorstand) based on SAP SE's year-end stand-alone statutory financial statements, subject to approval by the Annual General Meeting of Shareholders. Dividends are officially declared for the prior year at SAP SE's Annual General Meeting of Shareholders. SAP SE's Annual General Meeting of Shareholders usually convenes during the second quarter of each year. Beginning with the dividends payable for the 2016 fiscal year and in accordance with a change of the German Stock Corporation Act that aims to implement joint market standards in Europe for corporate actions processing, dividends are remitted to the custodian bank on behalf of the shareholders on the third business day following the Annual General Meeting of Shareholders. Record holders of the ADRs on the dividend record date will be entitled to receive payment of the dividend declared in respect of the year for which it is declared. Cash dividends payable to such holders will be paid to the Depositary in euro and, subject to certain exceptions, will be converted by the Depositary into U.S. dollars.

Dividends paid to holders of the ADRs may be subject to German withholding tax. See "[Item 10. Additional Information – Taxation](#)," for further information.

Annual Dividends Paid and Proposed

The following table sets forth in euro the annual dividends paid or proposed to be paid per ordinary share in respect of each of the years indicated. One SAP ADR currently represents one SAP SE ordinary share. Accordingly, the final dividend per ADR is equal to the dividend for one SAP SE ordinary share and is dependent on the euro/U.S. dollar exchange rate. The table does not reflect tax credits that may be available to German taxpayers who receive dividend payments. If you own our ordinary shares or ADRs and if you are a U.S. resident, refer to

"*Item 10. Additional Information – Taxation*," for further information.

Year Ended December 31,	Dividend Paid per Ordinary Share	
	€	US\$
2013	1.00	1.37 ⁽¹⁾
2014	1.10	1.22 ⁽¹⁾
2015	1.15	1.30 ⁽¹⁾
2016	1.25	1.37 ⁽¹⁾
2017 (proposed)	1.40 ⁽²⁾	1.71 ^{(2), (3)}

(1) Translated for the convenience of the reader from euro into U.S. dollars at the Noon Buying Rate for converting euro into U.S. dollars on the dividend payment date. The Depository is required to convert any dividend payments received from SAP as promptly as practicable upon receipt.

(2) Subject to approval at the Annual General Meeting of Shareholders of SAP SE currently scheduled to be held on May 17, 2018.

(3) Translated for the convenience of the reader from euro into U.S. dollars at the Noon Buying Rate for converting euro into U.S. dollars on February 9, 2018 of US\$1.2226 per €1.00. The dividend paid may differ due to changes in the exchange rate.

The amount of dividends paid on the ordinary shares depends on the amount of profits to be distributed by SAP SE, which depends in part upon our financial performance. In addition, the amount of dividends received by holders of ADRs may be affected by fluctuations in exchange rates (see "*Item 3. Key Information – Exchange Rates*"). The timing, declaration, amount and payment of any future dividend will depend upon our future earnings, capital needs and other relevant factors, in each case as proposed by the Executive Board and the Supervisory Board of SAP SE and approved by the Annual General Meeting of Shareholders.

Risk Factors

Economic, Political, Social, and Regulatory Risks

Uncertainty in the global economy, financial markets, social and political instability caused by state-based conflicts, terrorist attacks, civil unrest, war, or international hostilities could lead to disruptions of our business operations or have a negative impact on our business, financial position, profit, and cash flows.

As a global company, we are influenced by multiple factors that are difficult to predict and beyond our influence and control. Any of these factors could have a significant adverse effect on the local economy and beyond.

These events could lead to risks in the following areas, among others:

- General economic, political, social, environmental, market conditions, and unrest (for example, Turkey, Venezuela, UK/Brexit)

- Continued deterioration in global economic conditions (impact on accurate forecast) or budgetary constraints of national governments
- Financial market volatility episodes, global economic crises and chronic fiscal imbalances, slowing economic conditions, or disruptions in emerging markets
- Higher credit barriers for customers, reducing their ability to finance software purchases
- Increased number of bankruptcies among customers, business partners, and key suppliers
- Terrorist attacks or other acts of violence, natural disasters, pandemic diseases impacting our business

Any of these events could have an adverse effect on our business operations, financial position, profit, and cash flows.

Laws, regulatory requirements and standards in Germany, the United States, and elsewhere continue to be very stringent. Our international business activities and processes expose us to numerous and often conflicting laws and regulations, policies, standards, or other requirements and sometimes even conflicting regulatory requirements, and to risks that could harm our business, financial position, profit, and cash flows.

We are a global company and currently market our products and services in more than 180 countries and territories in the Americas (Latin America and North America); Asia Pacific Japan (APJ); China, Hong Kong, Macau, and Taiwan (Greater China); Europe, Middle East, and Africa (EMEA); and Middle and Eastern Europe (MEE) regions. As a European company domiciled in Germany with securities listed in Germany and the United States, we are subject to European, German, U.S., and other governance-related regulatory requirements.

Our business in these countries is subject to numerous risks inherent to international business operations. Among others, these risks include:

- Possible tax constraints impeding business operations in certain countries
- Changes in accounting standards and tax laws including, but not limited to, conflict and overlap among tax regimes measures as well as the introduction of new tax concepts that harm digitized business models
- Discriminatory, protective, or conflicting fiscal policies and tax laws, such as certain protectionist measures included in the U.S. Tax Reform which was enacted end of 2017 and involves uncertainties as to how the U.S. government will implement the new law
- Workforce restrictions resulting from changing laws and regulations, from political decisions (such as Brexit, government elections), or through required works council involvements, labor union approvals, and immigration laws in different countries

- Protectionist trade policies, import and export regulations, and trade sanctions (such as in Russia), and embargoes (such as in Iran) including, but not limited to, country-specific software certification requirements
- Violations of country-specific sanctions (such as the UN sanction against North Korea or the United States' sanction requirements against Iran and certain other countries)
- Compliance with and stringent enforcement of laws and regulations (including interpretations), implications of government elections, lack of reforms, data protection and privacy rules, regulatory requirements and standards (such as the Payment Card Industry Data Security Standard (PCI DSS))
- Expenses associated with the localization of our products and compliance with local regulatory requirements
- Difficulties enforcing intellectual property and contractual rights in certain jurisdictions

In 2017, an investigation was initiated and is ongoing with regards to potential sanction violations. For more information relating to the potential sanctions violations noted above, see the Notes to the Consolidated Financial Statements, [Note \(23\)](#).

As we expand into new countries and markets or extend our business activities in these markets, including emerging markets, these risks could intensify. The application of the respective local laws and regulations to our business is sometimes unclear, subject to change over time, and often conflicting among jurisdictions. Additionally, these laws and government approaches to enforcement are continuing to change and evolve, just as our products and services continually evolve. Compliance with these varying laws and regulations could involve significant costs or require changes in products or business practices. Non-compliance could result in the imposition of penalties or cessation of orders due to alleged non-compliant activity. Governmental authorities could use considerable discretion in applying these statutes and any imposition of sanctions against us could be material. One or more of these factors could have an adverse effect on our operations globally or in one or more countries or regions, which could have an adverse effect on our business, financial position, profit, and cash flows.

Claims and lawsuits against us, such as for IP infringements, or our inability to obtain or maintain adequate licenses for third-party technology, could have an adverse effect on our business, financial position, profit, cash flows, and reputation. Moreover, similar adverse effects could result if we are unable to adequately protect or enforce our own intellectual property.

We believe that we will continuously be subject to claims and lawsuits, including intellectual property infringement claims, as our solution portfolio grows; as we acquire companies with increased use of third-party code including open source code; as

we expand into new industries with our offerings, resulting in greater overlap in the functional scope of offerings; and as non-practicing entities that do not design, manufacture, or distribute products increasingly assert intellectual property infringement claims. Moreover, protecting and defending our intellectual property is crucial to our success.

The outcome of litigation and other claims or lawsuits is intrinsically uncertain and could lead, for example, to the following risks:

- Claims and lawsuits being brought against us, including claims and lawsuits involving businesses we have acquired
- We might be dependent in the aggregate on third-party technology, including cloud and Web services, that we embed in our products or that we resell to our customers
- Third parties have claimed, and might claim in the future, that we infringe their intellectual property rights or that we are overusing or misusing licenses to these technologies
- We integrate certain open source software components from third parties into our software. Open source licenses might require that the software code in those components or the software into which they are integrated be freely accessible under open source terms
- Despite our efforts, we might not be able to prevent third parties from obtaining, using, or selling without authorization what we regard as our proprietary technology and information. In addition, proprietary rights could be challenged, invalidated, held unenforceable, or otherwise affected. Moreover, the laws and courts of certain countries might not offer effective means to enforce our legal or intellectual property rights. Finally, SAP may not be able to collect all judgments awarded to it in legal proceedings
- Some intellectual property might be vulnerable to disclosure or misappropriation by employees, partners, or other third parties

Third parties might reverse-engineer or otherwise obtain and use technology and information that we regard as proprietary. Accordingly, we might not be able to protect our proprietary rights against unauthorized third-party copying or utilization. Adverse outcomes to some or all of the claims and lawsuits pending against us might result in the award of significant damages or injunctive relief against us or brought against us in the future that could hinder our ability to conduct our business and could have an adverse effect on our reputation, business, financial position, profit, and cash flows. Third parties could require us to enter into royalty and licensing arrangements on terms that are not favorable to us, cause product shipment delays, subject our products to injunctions, require a complete or partial redesign of products, result in delays to our customers' investment decisions, and damage our reputation. Third-party claims might require us to make freely accessible under open source terms one of our products or third-party (non-SAP) software upon which we depend.

Any legal action we bring to enforce our proprietary rights could also involve enforcement against a partner or other third party, which might have an adverse effect on our ability, and our customers' ability, to use that partner's or other third parties' products.

The outcome of litigation and other claims or lawsuits is intrinsically uncertain. Management's view of the litigation might also change in the future. Actual outcomes of litigation and other claims or lawsuits could differ from the assessments made by management in prior periods, which are the basis for our accounting for these litigations and claims under IFRS.

Non-compliance with applicable data protection and privacy laws or failure to adequately meet the requirements of SAP's customers with respect to our products and services could lead to civil liabilities and fines, as well as loss of customers and damage to SAP's reputation.

As a global software and service provider, SAP is required to comply with local laws wherever SAP does business. With regard to data protection requirements, in May 2016, the EU enacted a "General Data Protection Regulation" (GDPR) with the aim of further harmonizing data protection laws across the EU. The GDPR will be directly applicable law in all EU and EEA member states as of May 25, 2018, after a two-year transition period. Within limits, member states can supplement the GDPR with additional national rules.

Non-compliance with applicable data protection and privacy laws, in particular the EU GDPR, by SAP and/or any of the subcontractors engaged by SAP for the processing of personal data could lead, for example, to risks in the following areas:

- Mandatory disclosures of breaches to affected individuals, customers, and data protection supervisory authorities
- Investigations and administrative measures by data protection supervisory authorities, such as the instruction to alter or stop non-compliant data processing activities, including the instruction to stop using non-compliant subcontractors
- Fines of up to 4% of SAP's annual Group turnover
- Damage claims by customers
- Harm to SAP's reputation

Any one or more of these events could have an adverse effect on our business, financial position, profit, and cash flows.

Corporate Governance and Compliance Risks

Our controls and efforts to prevent the unauthorized disclosure of confidential information might not be effective.

Confidential information and internal information related to topics such as our strategy, new technologies, mergers and acquisitions, unpublished financial results, customer data, or personal data, could be disclosed prematurely or inadvertently and subsequently lead to market misperception and volatility.

Such disclosure could lead to risks in the following areas, among others:

- Disclosure of confidential information and intellectual property, defective products, production downtimes, supply shortages, and compromised data (including personal data) through, for example, inappropriate usage of social media by employees
- Requirement to notify multiple regulatory agencies and comply with applicable regulatory requirements and, where appropriate, the data owner

Any one or more of these events could have an adverse effect on our market position and lead to fines and penalties. In addition, this could have an adverse effect on our business, reputation, financial position, profit, and cash flows.

Unethical behavior and non-compliance with our integrity standards due to intentional and fraudulent employee behavior could seriously harm our business, financial position, profit, and reputation.

SAP's leadership position in the global market is founded on the long-term and sustainable trust of our stakeholders worldwide. Our overarching approach is one of corporate transparency, open communication with financial markets, and adherence to recognized standards of business integrity. The SAP Code of Business Conduct, adopted by the Executive Board on January 29, 2003, and updated as necessary since then, memorialized and supplemented the already existing guidelines and expectations for the business behavior practiced at SAP.

However, we might for instance encounter the following risks associated with:

- Non-compliance with our integrity standards and violation of compliance related rules, regulations, and legal requirements including, but not limited to, anticorruption and bribery legislation in Germany, the U.S. Foreign Corrupt Practices Act, the UK Bribery Act, and other local laws prohibiting corrupt payments by employees, vendors, distributors, or agents
- Unethical and fraudulent behavior of individual employees or partners leading to criminal charges, fines, and claims by

- injured parties also considering the ongoing investigations for example in South Africa, the Middle East, and North Africa
- Collusion with external third parties, for example providing assistance in securing contracts
 - Fraud and corruption together with operational difficulties, especially in countries with a high Corruption Perceptions Index
 - Impact on business activities in regulated industries such as public sector, healthcare, banking, or insurance

Any one or more of these events could have an adverse effect on our business, reputation, financial position, share price, profit, and cash flows.

In 2017, SAP encountered situations that required clear messaging and strong action on non-compliance in the context of ethical behavior with the potential to harm our business. In South Africa, SAP is investigating its dealings with the public sector. For more information relating to the alleged anti-bribery law violations noted above, see the Notes to the Consolidated Financial Statements, [Note \(23\)](#).

Failure to meet customer, partner, or other stakeholder expectations or generally accepted standards on climate change, energy constraints, and our social investment strategy could negatively impact SAP's business, results of operations, and reputation.

Energy and emissions management are an integral component of our holistic management of social, environmental, and economic risks and opportunities.

We have identified risks in this context, including, but not limited to, the following:

- Failure to meet customer, partner, or other stakeholder expectations or generally accepted standards on climate change, energy constraints, and our social investment strategy
- Failure to achieve communicated (2020 and 2025) targets for greenhouse gas emissions
- Failure to maintain rating in sustainable investment indexes (Dow Jones Sustainability Indices and the CDP Climate Performance and Disclosure Leadership Indices)

If we do not meet stakeholder expectations in the areas identified, our rating in sustainable investment indexes might decrease, which could have an adverse effect on our reputation, profit, and share price.

Principal shareholders may be able to exert control over our future direction and operations.

If SAP SE's principal shareholders and the holdings of entities controlled by them vote in the same manner, this could delay, prevent or facilitate a change in control of SAP or other significant changes to SAP SE or its capital structure. See

"Item 7. Major Shareholders and Related-Party Transactions – Major Shareholders" for further information.

U.S. judgments may be difficult or impossible to enforce against us or our Board members.

Currently, except for Bill McDermott, Robert Enslin, and Jennifer Morgan all members of SAP SE's Executive Board and all members of the Supervisory Board are non-residents of the United States. A substantial portion of the assets of SAP and our Board members are located outside the United States. As a result, it may not be possible to effect service of process within the United States upon non-U.S. resident persons or SAP or to enforce against non-U.S. resident persons judgments obtained in U.S. courts predicated upon the civil liability provisions of the securities laws of the United States. In addition, awards of punitive damages in actions brought in the United States or elsewhere might be unenforceable in Germany.

Financial Risks

Our sales and revenue conditions are subject to market fluctuations and our forecasts might not be accurate.

Our revenue and operating results can vary and have varied in the past, sometimes substantially, from quarter to quarter. Our revenue in general, and our software revenue in particular, is difficult to forecast for a number of reasons, and could lead to risks related to the following, among others:

- Challenges in pipeline development and realization
- Long sales cycles for many of our products
- Timing issues with respect to the introduction of new products and services or product and service enhancements by SAP or our competitors
- Large size, complexity, and extended settlement of individual customer transactions
- Introduction/adaptation of licensing and deployment models such as cloud subscription models
- Adoption of, and conversion to, new business models, leading from upfront payment models to an increase in pay-per-use or subscription-based payment models, thus the respective service period can typically range from one to three years, and in some cases, up to five years
- Existing customers might cancel or not renew their maintenance contracts, or decide not to buy additional products and services
- Changes in customer budgets or seasonality of technology purchases by customers
- Decreased software sales that could have an adverse effect on related maintenance and services revenue
- Shortfall in anticipated revenue or delay in revenue recognition or deployment models that require revenue to be recognized over an extended period of time
- Inability of acquired companies to accurately predict their sales pipelines

- High operating expenses or insufficient revenue generation to offset the significant research and development costs

In recent years, the trend has been towards an increased number of sales transactions, with the average deal size remaining more or less constant. However, the loss or delay of one or a few large opportunities could have an adverse effect on our business, financial position, profit, and cash flows.

External factors could impact our liquidity and increase the default risk associated with, and the valuation of, our financial assets.

Macroeconomic factors such as an economic downturn could have an adverse effect on our future liquidity. We use a globally centralized financial management approach to control financial risk, such as liquidity, exchange rate, interest rate, counterparty, and equity price risks. The primary aim is to maintain liquidity in the SAP Group at a level that is adequate to meet our obligations at any time.

However, adverse macroeconomic factors could increase the default risk associated with the investment of our total Group liquidity, and could lead to the following risks, among others:

- Group liquidity shortages
- Inability to repay financial debt
- Increased default risk of financial investments, which might lead to significant impairment charges in the future
- Limitation of operating and/or strategic financial flexibility

Any one or more of these events could have an impact on the value of our financial assets, which could have an adverse effect on our business, financial position, profit, and cash flows.

Management use of estimates could negatively affect our business, financial position, profit, and cash flows.

To comply with IFRS, management is required to make numerous judgments, estimates, and assumptions that affect the reported financial figures.

These management decisions could lead to risks in the following areas, among others:

- The facts and circumstances, as well as assumptions on which management bases these estimates and judgments and management's judgment regarding the facts and circumstances, might change over time

This could result in significant changes in the estimates and judgments and, consequently, in the reported financials, and could have an adverse effect on our business, financial position, profit, and cash flows.

Current and future accounting pronouncements and other financial reporting standards, might negatively impact our financial results.

We regularly monitor our compliance with applicable financial reporting standards and review new pronouncements and drafts thereof that are relevant to us. As a result of new standards, changes to existing standards, and changes in their interpretation, we might be required to change our accounting policies.

This could lead to risks in the following areas, among others:

- Not being able to react in a timely manner to new accounting pronouncements and financial reporting standards concerning revenue recognition (including the new IFRS 15 on revenue from contracts with customers that we will need to adopt in 2018)
- Unpredictable changes in interpretation of standards

Any one or more of these events could have an adverse effect on our business, financial position, and profit.

As a globally operating company, SAP is subject to various financial risks related to currencies, interest rates, and share price fluctuations, which could negatively impact our business, financial position, profit, and cash flows.

Because we operate throughout the world, a significant portion of our business is conducted in foreign currencies. In 2017, approximately 72.4% of our revenue was attributable to operations in foreign currencies. This foreign currency business therefore gets translated into our reporting currency, the euro.

This could lead to the following risks, among others:

- Period-over-period fluctuations
- Exchange rate risks with currency appreciation or depreciation
- Interest rate fluctuation
- Share price fluctuation impacting cash outflows for share based compensation payments

Any one or more of these events could have an adverse effect on our business, financial position, profit, and cash flows.

Our insurance coverage might not be sufficient and uninsured losses may occur.

We maintain insurance coverage to protect us against a broad range of risks, at levels we believe are appropriate and consistent with current industry practice. Our objective is to exclude or minimize risk of financial loss at reasonable cost.

Nevertheless, we could still be subject to risks in the following areas, among others:

- Losses that might be beyond the limits, or outside the scope, of coverage of our insurance and that may limit or prevent indemnification under our insurance policies
- Inability to maintain adequate insurance coverage on commercially reasonable terms in the future

- Certain categories of risks are currently not insurable at reasonable cost
- No assurance of the financial ability of the insurance companies to meet their claim payment obligations

Any one or more of these events could have an adverse effect on our business, financial position, profit, and cash flows.

We could incur significant losses in connection with venture capital investments.

Through Sapphire Ventures (formerly SAP Ventures), our consolidated venture investment funds, we plan to continue investing in new and promising technology businesses.

This could lead to risks in the following areas, among others:

- Investments could generate net losses and require additional expenditures from their investors
- Changes to planned business operations might affect the performance of companies in which Sapphire Ventures holds investments
- Tax deductibility of capital losses and impairment in connection with equity securities are often restricted, and could therefore have an adverse effect on our effective tax rate

Any one or more of these events could have an adverse effect on our business, financial position, profit, and cash flows.

The market price for our ADRs and ordinary shares may be volatile.

The market prices of our ADRs and ordinary shares have experienced and may continue to experience significant volatility in response to various factors including, but not limited to:

- unauthorized or inadvertent premature disclosure of confidential information, including information concerning pending acquisition negotiations or acquisition rumors;
- proposed and completed acquisitions or other significant transactions by us or our competitors;
- the announcement of new products or product enhancements by us or our competitors;
- technological innovation by us or our competitors;
- quarterly variations in our results or our competitors' results of operations or results that fail to meet market expectations;
- changes in revenue and revenue growth rates on a consolidated basis or for specific geographic areas, business units, products or product categories;
- changes in our externally communicated outlook and our midterm ambitions;
- changes in our capital structure, for example due to the potential future issuance of additional debt instruments;
- general market conditions specific to particular industries;
- litigation to which we are a party;

- general and country specific economic or political conditions (particularly wars, terrorist attacks, etc.); and
- general market conditions.

Many of these factors are beyond our control. In the past, companies that have experienced volatility in the market price of their stock have been subject to shareholder lawsuits, including securities class action litigation. Any such lawsuits against us, with or without merit, could result in substantial costs and the diversion of management's attention and resources, resulting in a decline in our results of operations and our stock price.

Human Capital Risks

If we are unable to attract, develop, retain, and effectively manage our geographically dispersed workforce, we might not be able to run our business and operations efficiently and successfully, or develop successful new solutions and services.

Our success is dependent on appropriate alignment of our planning processes for our highly skilled and specialized workforce and leaders, both male and female, adequate resource allocation, and our location strategy with our general strategy. In certain regions and specific technology and solution areas, we continue to set very high growth targets, depending on short-term and long-term skill requirements, taking infrastructure needs as well as local legal or tax regulations in consideration. Successful maintenance and expansion of our highly skilled and specialized workforce in the area of cloud is a key success factor for our transition to be the leading cloud company. The availability of such personnel as well as business experts is limited and, as a result, competition in our industry is intense.

We could face risks in the following areas, among others:

- Failure to apply workforce planning processes, adequate resource allocation, and location strategy in alignment with our general strategy
- Failure to identify, attract, develop, motivate, adequately compensate, and retain well-qualified and engaged personnel to scale to targeted markets
- Failure to successfully maintain, upskill, and expand our highly skilled and specialized workforce
- Poor succession management or failure to find adequate replacements
- Loss of key personnel of acquired business
- Failure to meet short-term and long-term workforce and skill requirements including achievements of internal gender diversity objectives
- Lack of appropriate or inadequately executed benefit and compensation programs
- Lack of availability and scalability of business experts and consultants

- Mismatch of expenses and revenue due to changes in headcount and infrastructure needs, as well as local legal or tax regulations
- Challenges with effectively managing a large distribution network of third-party companies

Any one or more of these events could reduce our ability to attract, develop, retain, and effectively manage our geographically dispersed workforce, which in turn could have an adverse effect on our business, financial position, profit, and cash flows.

Operational Business Risks

Sales and implementation of SAP software and services, including cloud, is subject to a number of significant risks sometimes beyond our direct control.

A core element of our business is the successful implementation of software and service solutions to enable our customers to master complexity and help our customers' businesses run at their best. The implementation of SAP software and cloud-based service deliveries is led by SAP, by partners, by customers, or by a combination thereof.

However, we might encounter risks in the following areas, among others:

- Implementation risks, if, for example implementations take longer than planned or fail to generate the profit originally expected, scope deviations, solution complexity, individual integration and migration needs or functional requirement changes, or insufficient milestone management and tracking leading to delays in timeline
- Insufficient customer expectation management, including scope, integration capabilities and aspects as well as lack in purposeful selection, implementation, and utilization of SAP solutions
- Lack of customer commitments and respective engagements, including lack of commitment of resources leading to delays or deviations from recommended best practices
- Challenges to effectively implement acquired technologies
- Protracted installation or significant third-party consulting costs
- Improper calculations or estimates leading to costs exceeding the fees agreed in fixed-price contracts
- Unrenderable services committed during the sales stage
- Delayed customer payments due to differing perception on project outcome/results
- Inadequate contracting and consumption models based on subscription models for services, support, and application management

Any one or more of these events could have an adverse effect on our business, financial position, profit, and cash flows.

If we are unable to scale, maintain, and enhance an effective partner ecosystem, revenue might not increase as expected.

An open and vibrant partner ecosystem is a fundamental pillar of our success and growth strategy. We have entered into partnership agreements that drive co-innovation on our platforms, profitably expand all our routes to market to optimize market coverage, optimize cloud delivery, and provide high-quality services capacity in all market segments. Partners play a key role in driving market adoption of our entire solutions portfolio, by co-innovating on our platforms, embedding our technology, and reselling and/or implementing our software.

These partnerships could lead to risks in the following areas, among others:

- Failure to establish and enable a network of qualified partners supporting our scalability needs
- Failure to get the full commitment of our partners might reduce speed and impact in market reach
- Products or services model being less strategic and/or attractive compared to our competition
- Partners might not renew agreements with us, or not enter into new agreements on terms acceptable to us or at all, or start competing with SAP
- Failure to enable and train sufficient partner resources to promote, sell, and support to scale to targeted markets
- Partners might not develop a sufficient number of new solutions and content on our platforms or might not provide high-quality products and services to meet customer expectations
- Partners might not embed our solutions sufficiently enough to profitably drive product adoption, especially with innovations such as SAP S/4HANA and SAP Cloud Platform (formerly called SAP HANA Cloud Platform)
- Partners might not adhere to applicable legal and compliance regulations
- Partners might not meet quality requirements expected by our customers.
- Partners might not transform their business model in accordance with the transformation of SAP's business model in a timely manner
- Partners might not be able or might not have capacity to meet customer expectations in terms of service provisioning
- Partners might fail to abide to contract terms in embargoed or high-risk countries

If one or more of these risks materialize, this might have an adverse effect on the demand for our products and services as well as the partner's loyalty and ability to deliver. As a result, we might not be able to scale our business to compete successfully with other software vendors, which could have an adverse effect on our reputation, business, financial position, profit, and cash flows.

We may not be able to properly protect and safeguard our critical information and assets, business operations, cloud offerings, and related infrastructure against disruption or poor performance.

SAP is highly dependent on the availability of our infrastructure, and the software used in our cloud portfolio is inherently complex.

This could lead to risks in the following areas, among others:

- Capacity shortage and SAP's inability to deliver and operate cloud services in a timely and efficient way as expected by or committed to our customers
- Customer concerns about the ability to scale operations for large enterprise customers
- Defects or disruption to data center operations or system stability and availability
- Interruptions in the availability of SAP's cloud applications portfolio
- System outages or downtimes, failure of the SAP network due to human or other errors, security breaches, or variability in user traffic for cloud applications
- Hardware failures or system errors resulting in data loss, corruption, or incompleteness of the collected information
- Loss of the right to use hardware purchased or leased from third parties could result in delays in our ability to provide our cloud applications
- Scalability demands on infrastructure and operation could lead to cost increase and margin impacts
- Non-adherence to our quality standards in the context of partner co-location of data centers
- Increased Total Cost of Ownership (TCO)
- Non-compliance with applicable certification requirements, such as Payment Card Industry Data Security Standard (PCI-DSS)

Any one or more of these events could have an adverse effect on our business, financial position, profit, and cash flows.

Undetected security vulnerabilities shipped and deployed within our products and infrastructure might cause damage to SAP and our customers and partners. Our cloud operations are dependent on a high-performance cyberspace. A cybersecurity breach or economic espionage could have an adverse effect on our customers, our reputation, and our business.

Customer systems or systems operated by SAP to provide services could potentially be compromised by vulnerabilities or cybersecurity breaches.

These kinds of occurrences could lead to risks in the following areas, among others:

- Undetected security defects and vulnerabilities

- Exposure of our business operations and service delivery by virtual attack, disruption, damage, and/or unauthorized access, theft, destruction, industrial and/or economic espionage, serious and organized crime, and other illegal activities, as well as violent extremism and terrorism
- Abuse of data, social engineering, misuse, trespassers in our facilities, or systems could be rendered unusable
- State-driven economic espionage or competitor-driven industrial espionage, and criminal activities including, but not limited to, cyberattacks and "mega breaches" against cloud services and hosted on-premise software
- Disruptions to back-up, disaster recovery, and business continuity management processes
- Customer concerns with regards to security capabilities and reliability
- Failure to securely and successfully deliver cloud services by any cloud service provider could have a negative impact on customer trust in cloud solutions.
- Increased response time for identified security issues due to complexity and interdependencies could lead to security threats for SAP and customers.
- Customer systems or systems operated by SAP could potentially be compromised by vulnerabilities due to hacker exploitation.
- Recovery costs as well as significant contractual and legal claims by customers, partners, authorities, and third-party service providers for damages

Any one or more of these events could have an adverse effect on our business, financial position, profit, and cash flows.

Our technology and/or products may experience undetected defects, coding or configuration errors, may not integrate as expected, or may not meet customer expectations.

Our product strategy and development investment, including new product launches and enhancements, are subject to risks in the following areas, among others:

- Software products and services might not fully meet market needs or customer expectations
- We might not be as fast as expected in integrating our platforms and solutions, enabling the complete product and cloud service portfolio, harmonizing our user interface design and technology, integrating acquired technologies and products, or bringing packages, services or new solutions based on the SAP HANA platform as well as SAP Cloud Platform to the market
- New products, services and cloud offerings, including third-party technologies, might not comply with local standards and requirements or could contain undetected or detected defects or could not be mature enough from the customer's point of view for business-critical solutions after shipment despite all the due diligence SAP puts into quality

- Inability to define and provide adequate solution packages and scope for all customer segments
- Inability to fulfil expectations of customers regarding time and quality in the defect resolution process
- Lack of customer references for new products and solutions

Any one or more of these events could have an adverse effect on our business, financial position, profit, and cash flows.

Strategic Risks

Our market share and profit could decline due to increased competition, market consolidation, technological innovation, and new business models in the software industry.

The market for cloud computing is increasing and shows strong growth relative to the market for on-premise solutions. To maintain or improve our operating results in the cloud business, it is important that our customers renew their agreements with us when the initial contract term expires and purchase additional modules or additional capacity. Additionally, we need to bring new solutions based on the SAP HANA platform as well as SAP Cloud Platform to the market in line with demands and ahead of our competitors, in particular, innovative applications such as SAP S/4HANA or new technologies such as Internet of Things, machine learning, or blockchain.

Factoring in the aforementioned, this could lead to risks in the following areas, among others:

- Potential loss of existing on-premise customers due to competing cloud market trends
- Adverse revenue effects due to increasing cloud business and conversions from on-premise licenses to cloud subscriptions from existing SAP customers, which could have an adverse effect on related maintenance and services revenue
- Insufficient solution and service adoption together with increased complexity could lead to a loss of SAP's position as a leading cloud company and subsequently to reduced customer adoption
- Customers and partners might be reluctant or unwilling to migrate and adapt to the cloud or consider competitive cloud offerings or not extend renewals
- Existing customers might cancel or not renew their maintenance contracts, or decide not to buy additional products and services
- The market for cloud business might not develop further, or it might develop more slowly than anticipated
- Strategic alliances among competitors and/or their growth-related efficiency gains in the cloud area could lead to significantly increased competition in the market with regards to pricing and ability to integrate solutions
- Price pressure, cost increases, and loss of market share through traditional, new, and especially cooperating competitors

Any one or more of these events could have an adverse effect on our business, financial position, profit, and cash flows.

We might not acquire and integrate companies effectively or successfully.

To expand our business, we acquire businesses, products, and technologies, and we expect to continue to make acquisitions in the future. Over time, certain of these acquisitions have increased in size and in strategic importance for SAP.

Management negotiation of potential acquisitions and alliances and integration of acquired businesses, products, or technologies demands time, focus, and resources of both management and workforce, and exposes us to unpredictable operational difficulties.

Acquiring businesses, products, and technologies may present risks to SAP, including risks related to the following areas, among others:

- Incorrect assumptions during the due diligence process for the acquisition (including assumptions related to business and license models)
- Failure to successfully integrate acquired technologies or solutions into SAP's solution portfolio and strategy
- Failure to successfully integrate acquired operations, cultures, or languages, all within the constraints of applicable local laws
- Unfulfilled needs of the acquired company's customers and partners
- Material unidentified liabilities of acquired companies (legal, tax, accounting, IP)
- Failure in implementing, restoring, or maintaining internal controls, procedures, and policies within acquired companies
- Incompatible practices or policies (compliance requirements)
- Insufficient integration of the acquired company's accounting, HR, and other administrative systems
- Failure to coordinate the acquired company's research and development (R&D), sales, and marketing activities
- Debt incurrence or significant unexpected cash expenditures
- Non-compliance with existing SAP standards
- Impairment of goodwill and other intangible assets acquired in business combinations

Any one or more of these events could have an adverse effect on our business, financial position, profit, and cash flows.

We might not be able to compete effectively if we strategize our solution portfolio ineffectively or if we are unable to keep up with rapid technological and product innovations, enhancements, new business models, and changing market expectations.

Our future success depends upon our ability to keep pace with technological and process innovations and new business

models, as well as on our ability to develop new products and services, enhance and expand our existing products and services portfolio, and integrate products and services we obtain through acquisitions. To be successful, we are required to adapt our products and our go-to-market approach to a cloud-based delivery and consumption model to satisfy changing customer demand and to ensure an appropriate level of adoption, customer satisfaction, and retention.

Considering preceding dependencies, this could lead to risks in the following areas, among others:

- Not being able to bring new business models, solutions, solution enhancements, integrations and interfaces, and/or services to market before our competitors or at equally favorable conditions
- Not being able to anticipate and develop technological improvements or succeed in adapting SAP products, services, processes, and business models to technological change, changing regulatory requirements, emerging industry standards, and changing requirements of our customers and partners (especially with innovations such as SAP S/4HANA and SAP Cloud Platform)
- Uncertainties regarding new SAP solutions, technologies, and business models as well as delivery and consumption models might lead customers to wait for proofs of concept or holistic integration scenarios through reference customers or more mature versions first
- Lower level of adoption of our new solutions, technologies, business models, and flexible consumption models, or no adoption at all
- New applications and services might not meet customer expectations
- Our product and technology strategy might not be successful, or our customers and partners might not adopt our technology platforms, applications, or cloud services quickly enough or they might consider other competitive solutions in the market, or our strategy might not match customers' expectations, specifically in the context of expanding the product portfolio into additional markets
- Delayed or unsuccessful market launches by us, new market entries, or introduction of new innovations by competitors
- Increasing competition from open source software initiatives, or comparable models in which competitors might provide software and intellectual property free and/or at terms and conditions unfavorable for SAP
- Inability to drive growth of references through customer use cases and demo systems

Any one or more of these events could have an adverse effect on our business, financial position, profit, and cash flows.

ITEM 4. INFORMATION ABOUT SAP

Our legal corporate name is SAP SE. SAP SE is translated in English to SAP European Company (Societas Europaea, or "SE"). SAP SE is organized in the Federal Republic of Germany under German and European law, see "[Item 10. Additional Information](#)." Where the context requires in the discussion below, SAP SE also refers to our predecessor or previous legal forms and names, as the case may be, i.e. Systemanalyse und Programmentwicklung GbR (1972-1976), SAP Systeme, Anwendungen, Produkte in der Datenverarbeitung GmbH (1976-1988), "SAP Aktiengesellschaft Systeme, Anwendungen, Produkte in der Datenverarbeitung" (1988 – 2005) and "SAP AG" (2005 – 2014). Our principal executive offices, headquarters and registered office are located at Dietmar-Hopp-Allee 16, 69190 Walldorf, Germany. Our telephone number is +49-6227-7-47474.

As part of our activities to reduce the number of legal entities in the SAP group, in 2017 we integrated certain subsidiaries into the following significant SAP subsidiaries: SAP France, SAP (UK) Limited, SAP (Schweiz) AG, SAP Nederland B.V., SAP America, Inc., SuccessFactors, Inc., SAP Australia Pty Ltd.

For (i) a description of our principal capital expenditures and divestitures and the amount invested (including interests in other companies) since January 1, 2015 until the date of this report and (ii) information concerning our principal capital expenditures and divestitures currently in progress, including the distribution of these investments geographically and the method of financing, see "[Item 4. Information About SAP – Description of Property – Capital Expenditures](#)."

Overview of the SAP Group

Our vision is to help the world run better and improve people's lives. Together with our broad ecosystem of partners, this comes to life as we help our customers master complexity as well as innovate and transform to become sustainable intelligent businesses. SAP drives innovation in numerous fields of the digital economy by using technology such as Internet of Things, machine learning, and artificial intelligence. For more information about our vision and strategy, see the [Strategy and Business Model](#) section.

Founded in 1972, SAP is a global company headquartered in Walldorf, Germany. Our legal corporate name is SAP SE. SAP is the market leader in enterprise application software and also the leading analytics and business intelligence company. Enterprise application software is computer software specifically developed to support and automate business processes. Globally, more than 76% of all transaction revenue touches an

SAP system. In 2017, SAP was ranked as the most sustainable software company in the Dow Jones Sustainability Index for the eleventh consecutive year. With more than 378,000 customers in more than 180 countries, the SAP Group has a global presence and employs more than 88,000 people.

Our ordinary shares are listed on the Frankfurt Stock Exchange. American Depository Receipts (ADRs) representing SAP SE ordinary shares are listed on the New York Stock Exchange (NYSE). SAP is a member of Germany's DAX, the Dow Jones EURO STOXX 50 and the Dow Jones Sustainability Indexes. As at December 31, 2017, SAP was the most valuable company in the DAX based on market capitalization and the 60th most valuable company in the world.

As at December 31, 2017, SAP SE directly or indirectly controlled a worldwide group of 227 subsidiaries that develop, distribute, and provide our products, solutions, and services. For a list of our subsidiaries, associates, and other equity investments, see the Notes to the Consolidated Financial Statements, [Note \(33\)](#).

The following table sets forth our most significant subsidiaries based on total revenues of SAP group in 2017. All of these subsidiaries are wholly owned by SAP SE.

Name of Subsidiary	Country of Incorporation
Germany	
SAP Deutschland SE & Co. KG, Walldorf	Germany
Rest of EMEA	
SAP France, Levallois Perret	France
SAP (UK) Limited, Feltham	United Kingdom
SAP (Schweiz) AG, Biel	Switzerland
SAP Nederland B.V., 's-Hertogenbosch	The Netherlands
SAP Italia Sistemi Applicazioni Prodotti in Data Processing S.p.A., Vimercate	Italy
LLC SAP CIS, Moscow	Russia
United States	
SAP America, Inc., Newtown Square	United States
Concur Technologies, Inc., Bellevue	United States
Ariba, Inc., Palo Alto	United States
SuccessFactors, Inc., South San Francisco	United States
SAP Industries, Inc., Newtown Square	United States
Rest of Americas	
SAP Canada, Inc., Toronto	Canada
SAP Brasil Ltda, São Paulo	Brazil
Japan	
SAP Japan Co., Ltd., Tokyo	Japan
Rest of APJ	
SAP China Co., Ltd., Shanghai	China
SAP Australia Pty Ltd., Sydney	Australia
SAP India Private Limited, Bangalore	India

Strategy and Business Model

The Intelligent Enterprise

Opportunity in a Time of Disruption

We are living in a time of unprecedented digital disruption that is transforming societies globally and changing how we work and interact with each other. Innovations in technology, such as the Internet of Things (IoT), Big Data, blockchain, artificial intelligence, and machine learning are disrupting entire industries. In this era, the key question our customers are asking is how they can apply these technological innovations to not just survive but also to thrive.

Technological innovation is necessary to tackle some of the world's most intractable problems, which are often driven by complexity. With innovative solutions from SAP, we can empower our customers to create a better economy, society, and environment for the world. Together with our vibrant ecosystem of partners, we have an opportunity to execute our vision to "help the world run better and improve people's lives."

We continue to help our more than 378,000 customers run at their best. Our strategy to be the **most innovative cloud company powered by SAP HANA**, focuses on how we can help our customers innovate faster and drive successful business outcomes.

Our Vision for the Intelligent Enterprise

In the digital era, data is the "new currency" in an enterprise. Businesses that are able to harness their data faster and more effectively will be the ones that succeed through disruption.

As the world's largest enterprise software company, SAP offers perspective on the massive scale and power of data. Our customers have a vast amount of enterprise data assets flowing through our SAP ERP and cloud applications and business networks every day. Our enterprise resource planning applications touch 76% of global transaction revenue, we run the world's largest business network with over US\$1 trillion in commerce annually, and we have over 150 million users of our cloud applications.

SAP software and technologies can deliver deep value to our customers by providing the tools to harness the power of the data flowing through their systems. Our vision for the intelligent enterprise is an event-driven, real-time business powered by intelligent applications and platforms. In this vision, enterprise data sits at the core of a virtuous cycle whereby:

- Enterprises will combine proprietary data assets from their internal systems of record with real-time, external data feeds to train intelligent algorithms.

- Intelligent algorithms will be embedded into core business processes to enable enterprises to increase their awareness of events and respond in real time.
- As the cycle repeats itself, enterprises will produce even richer datasets based on business outcomes that can be used to train the next generation of increasingly intelligent algorithms.

By embedding intelligence in core processes, businesses of all sizes will benefit from the automation of routine tasks and improved decision-making driven by advanced analytics.

Combining intelligent algorithms with empowered employees will allow companies to free up scarce resources to focus on what matters most – driving value for their customers. In this way, we can fulfill our promise of enabling our customers to Run Simple, while helping the world run better and improving people's lives.

Framework for the Intelligent Enterprise

SAP delivers software and technologies addressing the three core elements of the intelligent enterprise:

- An **intelligent cloud suite** of applications for every line of business. This includes our next-generation ERP in the cloud, as well as solutions for manufacturing, digital supply chain, customer experience, networks, spend management, and people management. The intelligent cloud suite will be integrated and differentiated by industry-specific business processes for integrated scenarios (for example, order to cash, procure to pay, and so on). It will be enhanced by machine learning algorithms that deliver intelligence in the workflow and drive better business outcomes including profitability and customer satisfaction. While integrated, the suite will also be modular to enable lean consumption. We will extend it with business networks that enable our customers to see events happening in real time and to further automate business processes by creating information transparency across the value chain.
- A **digital platform** to help customers manage data orchestration and system integration across their entire business:
 - Real-time visibility into distributed data silos using the next generation of **data management** solutions. Our customers can tap into the data sitting in their core business applications, combined with third-party data streams and data from connected devices to radically simplify data management. SAP applications will be data-driven and will embed intelligence across their core business processes.
 - An open **cloud platform** for new application development, extensions, and integration across heterogeneous environments. Using the cloud platform, our customers can extend the business processes of our intelligent cloud suite and build innovations that go beyond standard

business processes. SAP Cloud Platform will also be the foundation for a vibrant, open ecosystem that can extend the power of SAP applications to drive customer value.

- **Intelligent systems**, such as IoT, artificial intelligence, and machine learning, as well as analytics, help customers to optimize their core business processes and reinvent their business models. This intelligence is integrated across applications and helps SAP to deliver individual outcomes to every customer. Combined with a design thinking approach and SAP's industry thought leadership, customers can now reimagine new business models and deliver radically new customer experiences leveraging the power of intelligent technologies.

By embracing all the components of the intelligent enterprise, we firmly believe that we can create the future of enterprise software. The cornerstones are empathy for our customers, innovative solutions, and engagement from our employees. By harnessing the power of data and machine learning, we can enable our customers to transform their businesses into intelligent enterprises.

Acquisitions

We take a balanced approach on how we grow. We will continue to focus on organic investments in technology and innovations to drive our short-term and midterm growth ambitions. We will continue to look at unleashing the full potential of our employees' talent as well as strategic partnerships with our ecosystem to foster innovation.

Additionally, we occasionally acquire targeted "tuck-in" technologies to add to our broad solution offerings and improve coverage in key strategic markets. In 2017, SAP made the following smaller acquisitions:

- **Abakus**, a marketing attribution company that measures the customer's journey across all channels, helps enhance SAP's marketing offerings to ensure marketers are optimizing marketing spend. By combining rich marketing performance management capabilities from Abakus with the SAP Hybris Marketing Cloud solution capabilities, marketers get unique insight into marketing performance to optimize campaigns and understand customer interaction across channels.
- **Gigya**, a customer identity management company, helps us to strengthen our customer experience across all devices and channels. The consent-based identity data platform from Gigya helps companies build better relationships with their customers while remaining within legal privacy requirements. We intend to integrate Gigya into our SAP Hybris software to build better profiles of our customers, and to personalize sales, service, and marketing.

Investing in Future Technology

Sapphire Ventures

In addition to our investments in organic growth, SAP also supports entrepreneurs that aspire to build industry-leading businesses, through venture capital funds managed by Sapphire Ventures. Sapphire Ventures currently has over US\$2 billion under management and has invested in more than 130 companies on five continents. This includes growth-stage technology companies and early-stage venture capital funds on five continents. Sapphire Ventures pursues opportunities in which it can help fuel enterprise growth by adding expertise, relationships, geographic reach, and capital. It places a particular focus on companies in Europe, Israel, and the United States.

Our Business Model

We innovate software and technology solutions that empower our customers to become intelligent digital businesses and create a better and more sustainable economy, environment, and society. This way, we aim to fulfill our strategic purpose of helping the world run better and improving people's lives.

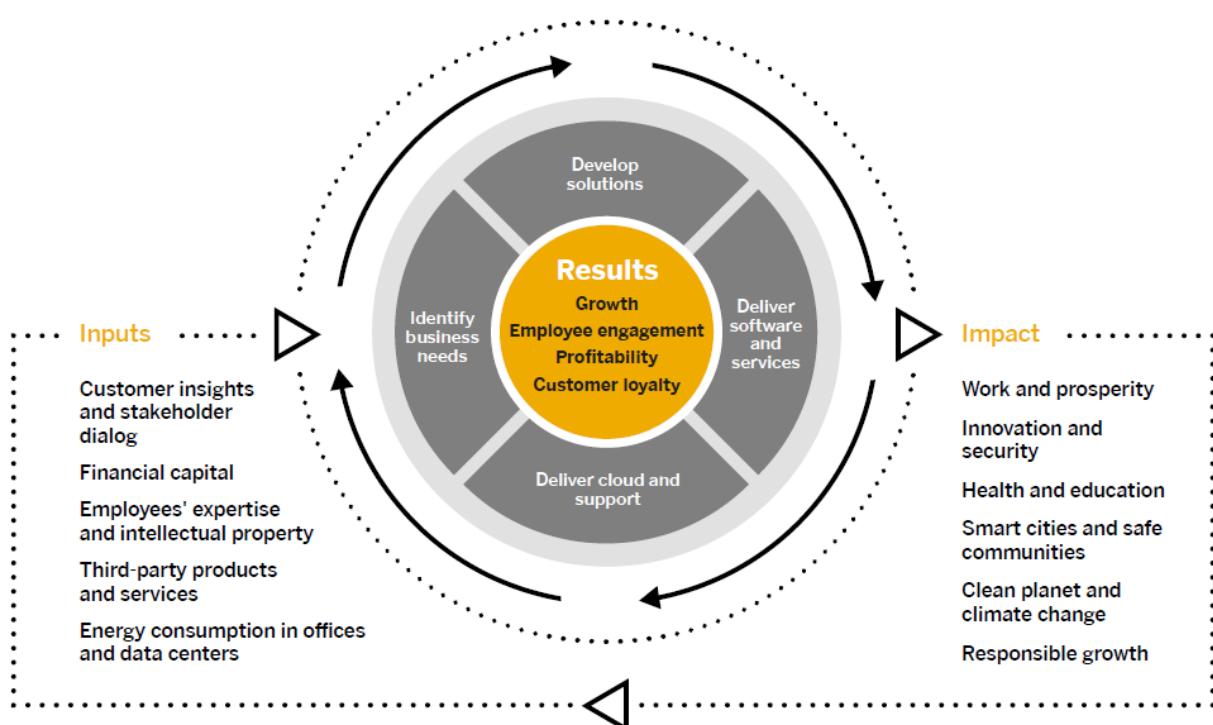
We create value by identifying the business needs of our customers and addressing these with innovative software, service, and support solutions. The collaboration with our customers and partners throughout this process helps us continuously improve our solutions and deliver enhanced value to our customers.

Our value creation process does not happen in a vacuum. It is enabled by external inputs and value drivers and leads to significant impact at our customers and – through them – in the world.

How SAP creates value

Our vision is to help the world run better and improve people's lives.

We innovate software and technology solutions that empower our customers to become intelligent enterprises and create a better and more sustainable economy, environment, and society.



Measuring Our Success

We believe the most important indicators for measuring our success comprise both financial and non-financial areas:

- Growth
- Profitability
- Customer loyalty
- Employee engagement

The table below provides an overview of the specific key performance indicators (KPIs) used to measure performance, and compares this performance with our goals.

Outlook and Results for 2017

Strategic Objective	KPI	2017 Outlook*	2017 Results
		(non-IFRS, at constant currencies)	(non-IFRS, at constant currencies)
Growth	Cloud subscriptions and support revenue	€3.8 billion to €4.0 billion	€3.83 billion
	Cloud and software revenue	+7.0% to +8.5%	+8%
	Total revenue	€23.4 billion to €23.8 billion	€23.77 billion
Profitability	Operating profit	€6.85 billion to €7.0 billion	€6.92 billion
Customer Loyalty	Customer Net Promoter Score	21% to 23%	17.8%
Employee Engagement	Employee Engagement Index	84% to 86%	85%

* The outlook was communicated in January 2017 and raised in July and October 2017. The 2017 outlook numbers above reflect the raised outlook from October 2017.

Outlook for 2018 and Ambitions for 2020

Strategic Objective	KPI	2017 Results (non-IFRS)	2018 Outlook (non-IFRS, at constant currencies)	2020 Ambition (non-IFRS)
Growth	Cloud subscriptions and support revenue	€3.77 billion	€4.8 billion to €5.0 billion	€8.0 billion to €8.5 billion
	Cloud and software revenue	€19.55 billion	€20.7 billion to €21.1 billion	
	Total revenue	€23.46 billion	€24.6 billion to €25.1 billion	€28 billion to €29 billion
Profitability	Operating profit	€6.77 billion	€7.3 billion to €7.5 billion	€8.5 billion to €9.0 billion
Customer Loyalty	Customer Net Promoter Score	17.8%	21% to 23%	35% to 40%
Employee Engagement	Employee Engagement Index	85%	84% to 86%	84% to 86%

Seasonality

Our business has historically experienced the highest revenue in the fourth quarter of each year, due primarily to year-end capital purchases by customers. Such factors have resulted in 2017, 2016, and 2015 first quarter revenue being lower than revenue in the prior year's fourth quarter. We believe that this trend will continue in the near future and that our total revenue will continue to peak in the fourth quarter of each year and decline from that level in the first quarter of the following year. Unlike our on-premise software revenues, our on-premise support revenues and cloud subscriptions and support revenues are less subject to seasonality.

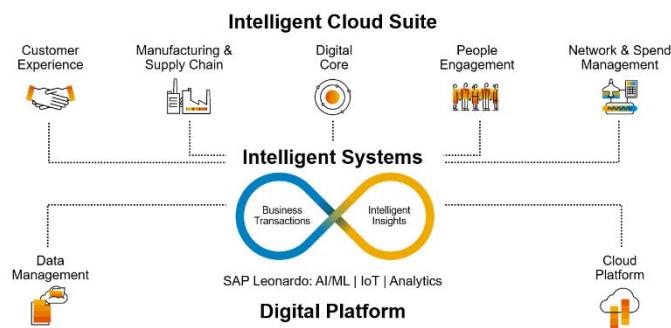
Products, Research & Development, and Services

Bringing Continuous Innovation to Our Customers

SAP solutions touch millions of lives around the world every day. Some users skim the edges of our technology when they use our customers' services, while others are fully immersed, driving their business forward with integrated applications built on our most advanced SAP technology foundation. Each SAP solution is a powerful standalone application, built to enrich and improve businesses and lives through its specific purpose. But when working together, they are optimized to integrate, learn, and improve themselves in a way that goes beyond basic software and database solutions.

By bringing continuous innovation to our customers, we not only help them, and ourselves, to be successful, but we also realize our vision and purpose of helping the world run better and improving people's lives.

Intelligent Enterprise Framework



Digital Platform

SAP HANA

SAP HANA is our flagship in-memory database. It enables businesses to process and analyze live data and make business decisions based on the most up-to-date information, a requirement of today's digital economy. The innovative architecture in SAP HANA allows both transactional processing for data capture and retrieval, and analytical processing for business intelligence and reporting. It reduces time-consuming database and data management tasks and underpins intelligent applications that use advanced analytic processing. It includes features such as text analysis, multitenant database containers to support multiple isolated databases in a single SAP HANA system, as well as external machine learning libraries.

SAP Data Hub

In September 2017, SAP launched SAP Data Hub. The solution enables businesses to manage data from numerous sources, SAP or third-party, without having to centralize data into one location. SAP Data Hub allows users to process data "in flow," for example, while the data is being recorded to the data store, or while they are preparing the data for use in machine learning. It also provides enterprise data governance to see who changed or accessed the data. The solution lets companies safely and effectively move and share their data to enable agile data operations across the enterprise. SAP Data Hub is also part of the SAP Leonardo Data Intelligence capability.

SAP Cloud Platform

In the digital economy, companies need both standard applications and a highly flexible platform that allows them to:

- Extend and customize cloud and on-premise SAP applications
- Develop new applications for different processes
- Integrate cloud and on-premise applications

SAP Cloud Platform is an enterprise platform as a service (PaaS), an environment where companies can build, test, run, manage, and expand software applications in the cloud. It offers comprehensive capabilities to help business users and developers create better, more agile applications in less time. Customers can apply, among other things, mobile services, advanced analytic tools, state-of-the-art authentication mechanisms, and social functionality. For maximum flexibility, portability, and agility, we use open source technologies. SAP Cloud Platform enables businesses to connect and integrate best-of-breed applications to our digital core and to custom-built solutions.

Multi-Cloud Strategy

SAP Cloud Platform allows customers to choose from a selection of infrastructure-as-a-service (IaaS) providers, and today many enterprise customers are choosing more than one

provider. SAP has partnered with Amazon, Google, and Microsoft so that our customers have the choice of running their applications in an SAP or a third-party data center or in a combination thereof.

SAP BW/4HANA

SAP BW/4HANA is a data warehouse solution built entirely on SAP HANA. It offers a unique real-time analytics layer, which can query the database directly instead of processing data at the application layer like traditional analytical engines do. It integrates data from across an organization to deliver key business intelligence. SAP BW/4HANA provides customers with enhanced data modelling and governance, so that they can manage the availability, integrity, and security of their data. The solution can be connected to various data sources, including SAP or unstructured third-party data, such as Hadoop.

Intelligent Systems

SAP Leonardo

The SAP Leonardo digital innovation system enables customers to make business sense and opportunity of disruptive technologies such as advanced analytics, Big Data, Internet of Things (IoT), and machine learning. It does so with a proven methodology that brings together the customer vision, SAP's process and industry knowledge, and our software capabilities. SAP Cloud Platform provides the environment for applications to consume these disruptive technologies.

SAP Leonardo Machine Learning

Machine learning allows companies to augment human capabilities and automate repetitive tasks. The technology is an essential part of the SAP Leonardo digital innovation system, empowering enterprises to improve processes. Currently, several SAP Leonardo Machine Learning solutions are in productive use. We have already embedded machine learning capabilities into a wide range of applications across the SAP portfolio. Customers can also build their own machine learning models using SAP Leonardo Machine Learning Foundation.

SAP Leonardo Blockchain

Blockchain technology is a distributed digital ledger where transactions can be securely shared among independent parties. It is most familiar as the underlying technology for cryptocurrencies but it has the potential to be the foundation for a new type of collaborative business. We intend to use blockchain technology to build a new generation of transactional applications that retain their trustworthiness and transparency even when used by multiple parties and business networks. We also encourage customers to use our SAP Leonardo Blockchain technology to build blockchain solutions for their specific business needs.

SAP Leonardo Internet of Things

The proliferation of intelligent devices with sensors and ubiquitous connectivity, aptly named the Internet of Things (IoT), has led to an upsurge of connected things, from washing machines to airplane engines and oil rigs. The data generated from these "things" is processed either near the point of origin or in the cloud, and can be the catalyst for digital transformation as companies use this data to improve their business processes. With SAP Leonardo IoT capabilities, we enable companies to optimize their business processes by connecting things to people and processes. We help companies to collaborate with business partners on digital twins – digital replicas of connected things that change and are updated when the physical counterpart changes. SAP Leonardo IoT also enables organizations to design innovative business models, and create new work environments and connected user experiences.

SAP Leonardo Innovation Services

SAP Leonardo Innovation Services provide a guided approach to digital transformation. They use design thinking methods to help identify and test new digital business models – and offer a fast, low-risk path to SAP Leonardo adoption. There are three service editions to choose from: The express edition provides fast implementation of predefined use cases. The open innovation edition helps users create a new solution for their specific business challenges. The enterprise edition extends the scope of the open innovation edition. It includes services and empowerment sessions to help create multiple business-specific solutions in parallel.

SAP Analytics Cloud

SAP Analytics Cloud leverages the inherent intersection of business intelligence (BI), planning, and predictive analytics to deliver new capabilities such as simulation and automated discovery in BI, as well as storytelling and predicted forecasts in planning. The solution allows organizations to close the gap between transactions, data preparation, analysis, and action. SAP Analytics solutions allow customers to take advantage of high-speed innovation in the cloud, while using their existing on-premise investments. To enable a smooth transition to the cloud, the SAP Analytics Hub solution, built on SAP Cloud Platform, is designed to centralize access to all analytics from SAP and third-party applications and platforms.

The Intelligent Cloud Suite

SAP S/4HANA

SAP S/4HANA is our enterprise resource planning (ERP) suite for the intelligent enterprise. Three years after its introduction, over 7,900 customers have chosen the suite to support their digital transformation. It enables businesses to access and analyze data in real time, giving them insights to act in the moment, providing predictive suggestions, and connecting business functions and the people within them. SAP S/4HANA

software spans across all business functions including finance, human resources, sales, service, procurement, manufacturing, asset management, supply chain, and R&D.

Flexible Deployment

SAP S/4HANA is developed first for the cloud, and can be delivered as a software-as-a-service (SaaS) solution, on-premise, in a private cloud, or as a hybrid deployment. All consumption options are compatible, so that organizations have the flexibility to implement SAP S/4HANA to meet their exact needs. SAP S/4HANA Cloud provides SaaS qualities such as scalability as well as quarterly innovation updates. On-premise customers receive the same updates but on an annual update cycle.

Real Time

SAP S/4HANA is built specifically to take advantage of in-memory computing with SAP HANA. SAP S/4HANA reduces both the complexity of the data model and the data footprint. It enables SAP S/4HANA solutions to process huge amounts of data in real time and end users can flexibly change their perspective of the data. This not only saves time and costs for our customers but also delivers a new interactive experience and new business insights. SAP S/4HANA empowers business users to act in the moment, as they have immediate access to information at the most granular level to help make better, more informed decisions.

Machine Learning

In 2017, we delivered SAP S/4HANA with innovations that utilize SAP Leonardo machine learning services. Routine business processes can now be automated by eliminating inefficient manual process steps, such as matching payments to invoices. This increase in automation increases productivity by allowing users to focus on higher value tasks. Machine learning also helps users by providing information that is relevant to the current task, so they can quickly identify areas requiring attention and action.

Integrated and Extendable

SAP S/4HANA is built with an open architecture and connects to the entire SAP portfolio and beyond. The new SAP S/4HANA Cloud software development kit (SDK) allows our cloud and on-premise customers, as well as partners, to innovate quickly and easily on SAP Cloud Platform while leveraging the capabilities of their digital core. As part of the open architecture, the SDK provides all the necessary APIs, libraries, and project templates needed to develop extension applications on SAP S/4HANA so customers can get going quickly.

Supply Chain Management

To meet the rising expectations of today's discerning, tech-savvy customer, companies need to respond quickly and accurately to their demands, which means creating responsive and distributed manufacturing and supply chain networks. SAP

solutions enable customers to set up a real digital supply chain that provides real-time visibility into manufacturing, logistics, and how their assets are operating, enabling them to optimize maintenance and service schedules.

Integrated Business Planning

The SAP Integrated Business Planning solution is powered by SAP HANA, and delivers real-time supply chain planning capabilities for sales and operations, demand and supply planning, and inventory optimization in the cloud. It provides the necessary information to make business decisions using embedded analytics, simulation, prediction, and decision support. Individual SAP Integrated Business Planning applications can be used with the established user interface from SAP Fiori or with a Microsoft Excel plug-in, allowing users to run optimization scenarios directly in their spreadsheets.

Small and Midsize Enterprises (SMEs)

SAP also offers a portfolio of solutions that extends the power of SAP HANA to support SMEs with their digital transformation.

SAP Business ByDesign

SAP Business ByDesign is a cloud-based ERP solution for midsize companies that uses the power of SAP HANA. It gives fast-growing midmarket businesses the platform to scale up their operations and compete in their markets without complexity or high costs. The solution connects every function across a company to time-tested best practices and in-depth analytics. As an integrated suite across all key business functions, it also enables the growing ecosystem of SAP's third-party partners to develop additional content for customers using their domain-specific expertise.

SAP Business One

SAP Business One is an on-premise and cloud business application for small businesses that is modular and flexible, with add-ons available that are tailored to industries and special functions. These are developed and sold by an established network of partners ready to help small businesses grow wherever they are in the world.

SAP Fiori

Personalization with Fiori UX

SAP continuously improves our user experience (UX) in accordance with how people work today – collaboratively, spontaneously, or socially. Our users demand solutions that not only understand the business content but also the context in which they operate. SAP Fiori is our signature user interface, and we have personalized the UX even more with new machine learning capabilities. SAP CoPilot, a digital assistant and bot integration framework, is integrated into SAP Fiori. Its conversational user interface allows users to chat, ask questions, and give commands. SAP CoPilot augments users'

capabilities with context and business situation awareness, and provides recommended actions.

Line-of-Business Software-as-a-Service Solutions

SAP delivers line-of-business (LoB) cloud applications that simplify and connect key business areas and address specific customer needs, from human resources to supply chain and customer engagement to spend management. Each of these cloud applications from SAP represent a new generation of business applications – cloud based and connected to the world's largest businesses networks to automate, transform, and support business in the digital economy.

As a modular, integrated ERP system, SAP S/4HANA is the backbone of a company. Our LoB cloud applications are designed to tightly integrate with SAP S/4HANA software and the wider SAP portfolio. They are built on open platforms that enable customers to easily link them with third-party applications, delivering real-time insights to help businesses run effectively and innovate with speed and flexibility.

Workforce Engagement

SAP SuccessFactors Solutions

Our SAP SuccessFactors Human Capital Management (HCM) solutions help organizations increase the value of their workforce by developing, managing, engaging, and empowering their people.

SAP SuccessFactors HCM cloud software is used by more than 6,400 customers in over 200 countries and territories. The core HR and talent management solutions reach more than 93 million users. Our development approach ensures that our solutions are optimized for different devices to provide the best user experience. We deliver SAP SuccessFactors HCM solutions as a complete and innovative digital HR suite that addresses all aspects of HR, from administration, payroll, and benefits to talent management and collaboration across the employee journey. They are designed to help companies attract, develop, and retain their best talent. SAP SuccessFactors solutions integrate with companies' internal and external databases and software, including SAP S/4 HANA.

In 2017, SAP SuccessFactors Employee Central, a core HCM solution, surpassed 2,300 customers, more than doubling our customer numbers from 1,000 just two years ago. We developed "Business Beyond Bias," a set of business processes and smart data analytics tools based on SAP Leonardo Machine Learning capabilities, that can help companies eliminate unconscious bias in the workplace. Additionally, in partnership with Apple, we created a new mobile experience for SAP SuccessFactors solutions that combines the award-winning SAP Fiori UX with a best-in-class Apple iOS experience.

SAP SuccessFactors solutions help manage the core employee workforce, but organizations also need to manage flexible external talent such as freelancers or consultants. With seamlessly integrated SAP Fieldglass solutions for external workforce management and services procurement, we deliver a total workforce management solution.

Spend Management

Our cloud applications help customers manage spend across their entire organization, from the sourcing of indirect goods to direct materials and services with SAP Ariba solutions and the online marketplace Ariba Network, as well as SAP Fieldglass solutions for services procurement, and SAP Concur solutions for travel and expense management. Built on open platforms, all of our cloud applications work together seamlessly, enabling customers to use our entire portfolio or choose the specific solutions that address their specific needs.

SAP Fieldglass Solutions

SAP Fieldglass solutions are cloud-based applications enabling external workforce management and services procurement. The SAP Fieldglass Vendor Management System, an external talent management system, helps organizations find, engage, and manage all types of flexible resources – including contingent workers, statement of work-based consultants, freelancers, and more.

In 2017, the SAP Fieldglass solutions connected customers with 4.3 million workers and more than 89,000 suppliers in more than 180 countries. Its open API framework makes it easy for organizations to connect to other systems and solutions to transform how work gets done. To further help our customers, we introduced the flex edition of SAP Fieldglass Vendor Management System designed for the midmarket. In addition, SAP Fieldglass Live Insights, a machine-learning-based industry benchmarking and simulation service, enables users to assess external talent scenarios using anonymized and aggregated data.

SAP Ariba Solutions

SAP Ariba solutions offer an online business-to-business marketplace connecting more than 3.1 million buyers in more than 180 countries with sellers realizing more than US\$1 trillion in goods and services every year. SAP Ariba solutions help buyers build a sustainable supply chain by connecting them with sellers through Ariba Network and by providing a comprehensive set of cloud-based applications to collaborate across the entire procurement process, from sourcing and orders to invoice and payment.

With SAP Ariba solutions, sellers can easily connect with buyers, and more effectively manage both their sales cycle and cash flow to grow their businesses. Innovations such as "guided buying," a set of capabilities embedded within the SAP Ariba Buying and Invoicing solution, automatically leads users to the

goods and services they need to do their jobs. Guided buying also leads employees through the purchase process in compliance with company policies. More than 1 million users are using guided buying to make procurement more simple, efficient, and intelligent.

The Ariba Network light account capability is a new, simple way for companies to bring all of their suppliers onto Ariba Network, where they can collaborate on purchase orders, invoices, and more, free of charge and without any limits on the number of documents exchanged. To date, more than 185,000 purchase orders and invoices worth over US\$40 billion in spend are managed using the service.

Additionally, the SAP Ariba Supplier Risk solution automatically provides companies with a complete view of their exposure to risk across their supply chain. Companies can then make more timely, contextual, and accurate business decisions and build global supply chains that are more responsible, sustainable, and inclusive.

SAP Concur Solutions

With close to 50 million users worldwide, SAP Concur solutions are the world's leading travel and expense management software. They help companies of all sizes and stages go beyond automation to a completely connected spend management system that encompasses travel, expense, invoice, compliance, and risk. New solutions include Concur Locate, an integrated traveler risk management solution. During times of crisis and uncertainty, Concur Locate enables businesses to find vital information and communicate it with employees. Concur Hipmunk, an expense solution built on Hipmunk's technology, gives small businesses the basic tools, access, and visibility they need to manage their travel expenses.

Customer Experience

SAP Hybris Solutions

SAP Hybris offers cloud-based products that run front-office functions across customer experience, commerce, marketing, sales, services, and billing. It can be used for business-to-business and business-to-consumer operations to deliver contextual, consistent, and relevant experiences throughout the customer journey.

Our commerce function helps businesses deliver retail services across all channels, in-store or online, via mobile device or a desktop. The customer relationship management and marketing function monitors, manages, and optimizes how the business engages with customers, whatever device they use to shop. Ready-to-use artificial intelligence (AI) and machine learning scenarios are integrated into SAP Hybris standard software. Examples include the SAP Brand Impact application for the precise measurement of brand exposure and value in SAP Hybris Marketing Cloud, as well as functionality to help sales

executives evaluate deal opportunities at a glance in the SAP Hybris Sales Cloud solution. The SAP Hybris Revenue Cloud solution is designed to help companies rapidly deploy highly innovative offers and effective sales processes in an agile, flexible, and scalable environment.

SAP Digital Business Services

SAP offers an entire portfolio of services and support designed to help our customers maximize the value of their SAP solutions and to realize the full potential of innovation. We empower customer success, built on SAP's 45 years of delivery experience across 25 industries. Our people, processes, and platform help our customers to achieve digital transformation, enabling them to differentiate through innovation and produce exceptional business outcomes.

In 2017, SAP Digital Business Services embarked on a major portfolio simplification process. This work resulted in a portfolio framework that groups our SAP Digital Business Services products into three categories:

- Premium engagements
- Services
- Continuous customer success

These services and support products are underpinned by our collaborative platform, advisory services that provide customers with intelligent guidance, and the SAP ecosystem.

Premium Engagements

SAP MaxAttention is the most exclusive and closest customer partnership with SAP. As the highest engagement level throughout the software lifecycle, this customized, on-site engagement orchestrates all SAP experts to work with our customers to innovate, develop ideas, and accelerate their digital transformation. It enables our customers to simplify their IT operations and optimize operations.

The SAP ActiveEmbedded service encompasses a similar level of premium engagement but is designed to support smaller businesses requiring less intensive interaction.

Services

Depending on the needs of the customer, we may offer advisory and implementation services separately, or package them together to deliver defined business outcomes.

Advisory Services

Advisory services create and realize new opportunities. We guide customers throughout the innovation process, focusing on creating economic, social, and environmental impact.

Recent innovations in our advisory services include **SAP Leonardo Innovation Services**.

Implementation Services

Implementation and migration services help companies realize the benefits of our products and solutions faster and safer when deploying SAP technology. In 2017, we innovated in the following areas:

- **The SAP Value Assurance** program, our systematic approach to accelerating implementation while minimizing risk. Customers and partners have access to best practices, methodologies, and tools, as well as deep technology expertise to accelerate the implementation of SAP S/4HANA and SAP BW/4HANA. It is available in packages depending on the level of service required, simplifying each phase of the implementation to ensure solutions are resilient, sustainable, and flexible.
- **SAP Model Company**, an accelerator service created from best practices gathered in our digital transformation projects. SAP Model Company provides a preconfigured, ready-to-run reference solution with business content, accelerators, and engineered services for multiple industries or LoBs. It provides the fundamental building blocks for an industry or LoB solution, helping customers accelerate deployment and digital transformation.

Continuous Customer Success

We want to enable our customers to succeed, so we help drive adoption of our products and facilitate business continuity with services and support. We deliver success plans to accelerate time to value from SAP technology. Our support offerings are the foundation of customer success plans, and are embedded in all cloud solutions from SAP and for on-premise installations.

SAP Enterprise Support

Providing a seamless end-to-end customer support experience across all products and solutions, our flagship SAP Enterprise Support offering is embedded in all relevant cloud subscriptions from SAP and offered as an option for on-premise systems.

SAP Preferred Success

The SAP Preferred Success plan focuses on advanced support, learning, and empowerment for administrators and end users. It also includes resources to drive cloud adoption and consumption. It is currently available for SAP S/4HANA, public cloud edition; SAP SuccessFactors solutions; and the SAP Hybris Cloud for Customer solution.

Our **SAP ONE Support** approach ensures our customers enjoy the same support experience across their entire portfolio of SAP products. In addition, the **Next-Generation Support** approach enables us to anticipate customer needs, accelerate their path to getting accurate answers when they need them, and offering expert help at their fingertips.

Collaboration Platform and Intelligent Guidance

Complementing the skills of our people, we use technology internally and externally to support customer success.

SAP Solution Manager

SAP Solution Manager helps customers manage their SAP products throughout the entire solution lifecycle, providing support for all SAP solutions and integrated third-party software, for both on-premise and cloud implementations. It enables customers to collaborate with SAP and to monitor and manage their existing applications, as well as new innovation projects that can be managed from conception to deployment. It builds a single source of the truth into one, user-friendly solution that helps customers jump-start SAP implementation projects with predefined content, thereby minimizing business risk.

SAP has developed tools and related services in response to our customers' requests for more targeted guidance. These include:

- **SAP Innovation and Optimization Pathfinder**, a service that recommends new SAP innovations, business process improvements, and IT optimizations tailor-made for each business, based on the way the core SAP ERP system is being used. Available for customers in maintenance, SAP Innovation and Optimization Pathfinder helps them strengthen the relationship with their internal business departments by prioritizing areas of innovation and optimization.
- **SAP Transformation Navigator**, a self-service tool that identifies the SAP products and services already being used by the customer, and recommends new products and services that would benefit the customers' business and IT strategies. It is designed to answer the key questions SAP customers have about which innovations they need to bring into their organization, in what order, during what timeframes, and the business value and outcomes they can expect. SAP Transformation Navigator also provides information about integration, transformation services, and licenses.
- **SAP Readiness Check**, our latest tool to help prepare businesses for an SAP S/4HANA deployment. The easy-to-use cloud-based tool provides answers to the questions of compatibility, relevance, system requirements, and business impacts that customers may have regarding implementation of SAP S/4HANA. The tool removes the complexity of planning and discovery tasks that are required to prepare businesses for their transformation to SAP S/4HANA.

Ecosystem

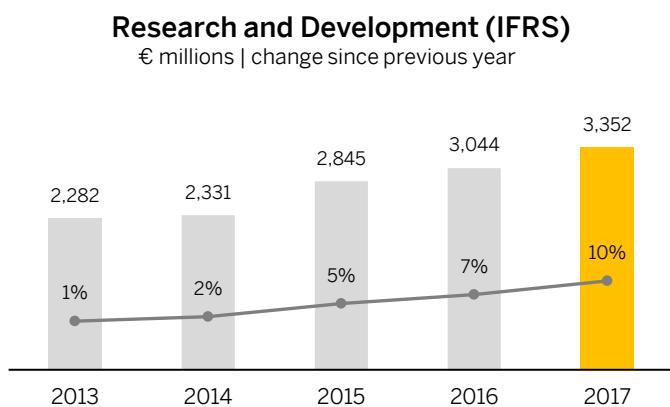
Extending Our Reach Through a Broad Ecosystem

Our extensive ecosystem and partner network extends our reach in the marketplace. Our vibrant ecosystem is made up of more than 17,000 partners worldwide that build, sell, service, and run SAP solutions and technology to customers from businesses large and small. Our partner ecosystem is a vital driver for SAP, especially in the SME sector.

Through the power of partnership and co-innovation, our partner ecosystem helps drive the bulk of SAP's presence among the small businesses and midsize companies that make up more than 80% percent of SAP customers. In addition, partners are responsible for the more than 55,000 customers using SAP Business One. Overall, having a robust and vibrant partner ecosystem is vital for SAP's growth and success; partners are key allies in bringing awareness of SAP solutions and technology to the marketplace. They also help SAP break into new markets, for instance, with SAP Leonardo and SAP Cloud Platform, as well as leverage new technologies such as artificial intelligence, blockchain, and 3D to deliver successful business outcomes for customers.

Investment in R&D

SAP's strong commitment to R&D is reflected in our expenditures (see figure below).



In 2017, our IFRS R&D expenses as a portion of total operating expenses remained stable at 18.0% compared to the prior year. Our non-IFRS R&D expense ratio remained stable at 18.4% year over year. At the end of 2017, our total full-time equivalent (FTE) headcount in development work was 24,872 (2016: 23,363). Measured in FTEs, our R&D headcount was 28% of total headcount (2016: 28%).

Total R&D expense not only includes our own personnel costs but also the external cost of work and services from the providers and cooperation partners we work with to deliver and

enhance our products. We also incur external costs for the following:

- Translating, localizing, and testing products
- Obtaining certification for products in different markets
- Patent attorney services and fees
- Consulting related to our product strategy
- Professional development of our R&D workforce

Patents

SAP actively seeks intellectual property protection for innovations and proprietary information. Our software innovations continue to strengthen our market position as a leader in business solutions and services. Our investment in R&D has resulted in numerous patents. As at December 31, 2017, SAP held a total of more than 8,852 validated patents worldwide. Of these, 845 were granted and validated in 2017.

While our intellectual property is important to our success, we believe our business as a whole is not dependent on any particular patent or a combination of patents.

Security, Privacy, and Data Protection

Meeting Today's Data Protection Challenges

Every day, organizations around the world trust SAP with their data – either on their own premises, in the cloud, or using mobile devices while on the move. Our customers need to know that we will keep that data safe, process it in a manner that complies with local legislation, and protect it from malicious use.

For this reason, data protection and IT security are of paramount importance to us. We have implemented safeguards to help protect the fundamental rights of everyone whose data is processed by SAP, whether they are our customers, prospects, employees, or partners. In addition, we work towards compliance with all relevant legal requirements for data protection. Our global security officer and our data protection officer report to the SAP chief technology officer and the SAP chief financial officer (CFO) respectively and monitor the compliance of all activities in these areas.

Furthermore, SAP has established a formal security governance model. Relevant security topics are discussed at Executive Board level at least six times each year, during steering meetings attended by single or multiple board members. To meet and ensure consistent data protection compliance, our CFO and our data protection officer meet at least on a monthly basis. Furthermore, our compliance status related to data

protection has been an inherent part of many Supervisory Board meetings.

Facing Increasing Risks in IT Security

Safeguarding data is an increasingly challenging task today. Companies are collecting and storing more data than ever before from more varied sources. Data now proliferates outside the four walls of businesses with multiple endpoints exposed and vulnerable to attack. Moreover, the sheer number of and the sophistication of attacks facing businesses are at an all-time high. We are seeing the "commercialization of hacking", while new advanced persistent threats can bypass many traditional security protection techniques.

Establishing a Comprehensive Security Vision

For SAP and for our customers, security means more than just addressing compliance demands. Companies need to be proactive when securing business-critical data and core information assets. Up-to-date security mechanisms, such as authentication, authorization, and encryption, serve as a first line of defense. To secure the SAP software landscape, we offer a comprehensive portfolio of security products, services, and secure support as well as security consulting. These offerings help our customers build security, data protection, and privacy capabilities into their businesses.

Our comprehensive portfolio includes sophisticated authentication and authorization tools and solutions for governance, risk, and compliance. In addition, we offer integrated tools for efficiently scanning and testing source code written in ABAP and solutions that enable organizations to detect system anomalies and react before damage can be done. As well as offering solutions from our security portfolio to our customers, SAP also runs the software internally.

Several of our security measures extend across all sectors of our company and thus to all of our products and services. These measures include, among other things, the regular training of our employees on IT security, data protection, and privacy, including the handling of confidential information and ensuring controlled and restrictive access to customer information. In addition, we have developed a three-pronged strategy focusing on the security of our products, operations, and organization:

Secure Products Strategy: Championing Product Security

Businesses use SAP applications to process mission-critical transactional data that can be highly attractive to cyber attackers. Our secure products strategy focuses on incorporating security features into our applications to minimize the risk of a security breach.

Our secure software development lifecycle is at the heart of this strategy. It provides a comprehensive methodological approach for incorporating security features and capabilities into our applications. Before a release decision is made, our software is assessed and validated by internal IT security experts. The development team then addresses any recommendations made by these security experts before we release the application.

This approach conforms to the ISO/IEC 27034 standard for application security and is closely embedded into our ISO 9001-certified process framework for developing standard software.

Secure Operations Strategy: Running Secure Operations

Our secure operations strategy focuses on the security principles of "confidentiality, integrity, and availability" to support overall protection of our business, as well as our customers' businesses. Our mission is to provide a comprehensive end-to-end IT operations security framework – from system and data access, and system security configuration to security patch management, security monitoring, and end-to-end incident handling. This involves the implementation of key security measures across all layers, including physical access and process-integrated controls.

Furthermore, our secure operations approach concentrates on the early identification of deviations from the standards defined in our security framework. Deviations are identified through a combination of automated and manual reviews which are performed by third parties as well as SAP employees.

Industry best-practice certifications are key success factors for our secure operations strategy. Many of our cloud solutions undergo Service Organization Control (SOC) audits ISAE3402, SSAE16 SOC I Type II, and SSAE16 SOC II Type II. The SOC standards are harmonized with a number of ISO certifications including ISO 9001, 27001, and 22301.

In 2017, we also launched our SAP Cloud Trust Center site. Here, customers can find information about how SAP provides security, privacy, and compliance in the cloud.

Secure Company Strategy: Taking a Holistic Approach to the Security of Our Business

At SAP, we take a holistic approach to the security of our company, encompassing processes, technology, and employees. At the heart of our secure company strategy is an information security management system and a security governance model that brings together different aspects of security. These include the following three main areas:

- **Security culture:** Awareness and compliance with our security policy and standards are fostered through regular mandatory training, assessments, and reporting.
- **Secure environments:** Comprehensive physical security measures are in place to ensure the security of our data

centers and development sites so that we can protect buildings and facilities effectively.

- **Business continuity:** A corporate continuity framework aimed at having robust governance in place at all times is reviewed on an annual basis to adapt to new or changed business needs.

Complying with Data Protection and Privacy Legislation

When processing data about employees, applicants, customers, suppliers, and partners, SAP respects and protects their right to data protection and privacy while implementing appropriate security measures. We develop and support our data protection and privacy strategy in accordance with our business strategy.

To comply with applicable data protection laws, SAP has adopted a global data protection and privacy policy. It outlines a Group-wide minimum standard for handling personal data in compliance with data protection and privacy laws. The policy defines requirements for all operational processes that affect the processing of or access to personal data, as well as providing clear responsibilities and organizational structures. We actively monitor changes to applicable laws and regulations so that we can update our standards on an ongoing basis.

SAP is committed to ensuring compliance with the harmonized European data protection law, the General Data Protection Regulation (GDPR), which will be applicable as of May 25, 2018. We are also developing our products to support our customers in applying GDPR requirements.

We have implemented a wide range of measures to protect data controlled by SAP and SAP customers from unauthorized access and processing, as well as from accidental loss or destruction. These include, among others, the implementation of our data protection management system (DPMS) in areas critical to data protection. This system is certified on a yearly basis by the British Standards Institute. Initially implemented at our global support organization, the DPMS has been successively rolled out and is now implemented in almost all areas and countries at SAP and will be introduced in all acquired companies.

In 2017, SAP did not experience any significant incidents within the scope of processing personal data – for its own purposes or on behalf of its customers – that are subject to the provisions of the German Federal Data Protection Act or other applicable data protection laws.

Customers

Continuing to Build Strong Customer Relationships

Customer loyalty is one of our four corporate objectives, along with growth, profitability, and employee engagement. We measure customer loyalty based on a Net Promoter Score (NPS) approach which uses a range from -100% to +100%. In 2017, our combined on-premise and cloud Customer Net Promoter Score (Customer NPS) was +17.8% (2016: +19.2%). We completed the elimination of differences in the survey approach that existed in one of our acquired entities (where a year-over-year NPS comparison is not possible because of the change in survey approach).

While we continue to have a positive Customer NPS, we did not reach our target of 25% in 2017. Based on customer feedback, we continue to focus on helping customers choose the SAP products that best support their business needs, simplifying purchasing processes for customers, and making our products easy and pleasing to use. With a sustained emphasis on customer experience across the company, we are again targeting a combined Customer NPS of 21% to 23% in 2018, with our medium-term goal being 35% to 40% by 2020.

For more information about the Customer NPS, see the *Performance Management System* section.

Continuing Strong Customer Demand

Companies continue to turn to our software to help their digital transformation. In 2017, customers licensed or subscribed to the full range of SAP software, from comprehensive solutions for large enterprises to the latest mobile apps.

Our examples by region include the following customers:

North America and Latin America (Americas) Region

- **Aldo Group**, a Canadian retailer, and SAP engaged in a workshop on the SAP Leonardo digital innovation system at the SAP Leonardo Center in New York, bringing together CxO-level leaders of the Aldo team, SAP experts, and leading academics. Using design thinking techniques, the team developed a long list of new and creative digital transformation strategies to address Aldo's business priorities. Aldo will take these ideas, test them through controlled execution in real-world conditions, and iterate innovations in collaboration with SAP to help them increase scale and business value.
- **Citrosuco**, a leading supplier in the global orange juice market based in Brazil, turned to SAP as a partner in its

digital transformation journey. Citrosuco has an ambitious innovation plan that includes the latest technology from the SAP Leonardo IoT for SAP Vehicle Insights system (SAP Vehicle Insights now available as SAP Moving Assets), together with SAP S/4HANA and the full range of the SAP Supply Chain Management application. The combination of SAP solutions will enable better planning based on demand, and the ability to connect farms to manufacturing sites for an orchestrated process that will also optimize transportation logistics worldwide. In addition, the company has acquired SAP Ariba, SAP SuccessFactors, SAP Hybris, and SAP Fieldglass solutions to manage its human resources, suppliers, e-commerce, vendors, and external workforce.

- **Duke Energy**, a U.S. energy company, chose SAP S/4HANA for energy utilities and SAP Hybris Cloud for Service solutions to help them transform how they serve their customers. By combining four legacy billing systems onto a single customer service-centric platform, Duke Energy can easily provide a high-touch, personalized experience while driving efficiencies, consistency, and visibility across the organization.
- **Google** and its parent company, **Alphabet Inc.**, have chosen to work with SAP to drive operational excellence in treasury and IT asset management by implementing these functions on SAP S/4HANA software running on Google Cloud. Google expects improved efficiency in finance operations and greater transparency through real-time insights. At SAPPHIRE NOW in May, SAP announced the expansion of our co-innovation partnership with Google to deliver integrated cloud solutions for our customers on Google Cloud.
- **Sancor Cooperativa de Seguros Ltda**, a leading insurance company in Argentina with operations in Brazil, Uruguay, and Paraguay, purchased SAP S/4HANA software and the SAP HANA Enterprise Cloud service to advance its digital transformation strategy and to support its domestic and international expansion. With the goal of drastically reducing its use of paper, and making data from its core system readily available for consulting, management, and decision-making, the SAP solutions will allow Sancor to track processes ranging from claims to policy renewals in real time, and to integrate transactions.

Asia Pacific Japan (APJ) Region

- **China International Marine Containers Co. Ltd. (CIMC)** is a leading logistics, energy equipment, and service supplier. CIMC chose SAP S/4HANA software as a foundation for innovation in smart manufacturing and Industry 4.0. Through accelerated digital transformation, CIMC hopes to become the industry lighthouse in China that is aligned with the state's "Belt and Road" initiative as well as "Made in China 2025."
- **Hanon Systems** is a full-line supplier of automotive thermal and energy management solutions. The design thinking

engagement with SAP helped Hanon Systems rapidly prototype a solution for its people to more effectively manage reporting and data checks to enable more time for strategic decisions and faster responses. The South Korean company is launching its Digital Manufacturing Performance initiative utilizing machine learning in one of its European plants to streamline floor operations and gain insights into machine availability, performance, effectiveness and quality.

- **Ningbo Economic & Technical Development Zone Holding Co. Ltd. (NETD)** operates public utilities businesses in logistics, real estate, financial investment, and environmental protection in China. Through the implementation of SAP Leonardo, SAP S/4HANA, and SAP SuccessFactors solutions, it is building a Smart Manufacturing Innovation Center in Ningbo to speed up the development of intelligent manufacturing. This will support NETD's strategic plan – to help the local government provide better services in Zhejiang Province and to expand to the whole of China in the future.
- **Pricerite Stores Ltd.** is the leading home-furnishing retailer in Hong Kong, including brands such as TMF Company Ltd., the largest chain store offering tailor-made furniture to local homes and families. They chose the SAP Hybris Cloud for Customer and SAP Hybris Marketing Cloud solutions to gain a 360-degree view of their customers. Both Pricerite and TMF will use these solutions to understand their customers' interests and motivations, so that they can identify real-time marketing opportunities and develop personalized marketing experiences.
- **SEBANG Express**, a South Korea-based company engaged in the logistics business, has been operating SAP ERP Central Component and the SAP Transportation Management application as its main ERP system. The successful implementation of this project enabled the SEBANG Group to become a company that is well-integrated, united, and aligned internally, while staying competitive and presenting a united front to the customer. Using SAP Transportation Management as a process model will facilitate growth in overall performance through more customer management applications, improved customer service, and improved new product and service innovation processes and applications, allowing the company to achieve market efficiency.

Europe, Middle East, and Africa (EMEA) Region

- **AI-Futtaim**, a large conglomerate comprised of automotive, retail and property development, and engineering and technology businesses in the United Arab Emirates, moves to the cloud by integrating SAP SuccessFactors Employee Central with SAP Concur solutions. It will also leverage the SAP Leonardo digital innovation system to transform facilities management into "energy as a service" and reduce energy costs at its properties over the next five years. AI Futtaim plans to implement an energy management solution

with IoT on SAP Cloud Platform, enabling scale to future properties.

- **Centrica**, a multinational energy and services company based in the United Kingdom, has confirmed its commitment to SAP by extending its solution footprint to include SAP Hybris, SAP Ariba, and SAP Digital Boardroom solutions. We have also joined forces to develop an energy IoT solution, integrating sensors and machine learning algorithms running on SAP Leonardo IoT technologies. SAP S/4HANA Cloud will also act as Centrica's digital core, connecting the enterprise with these IoT initiatives.
- **ifm electronic GmbH**, a German vendor of automation technology, has chosen SAP Cloud Platform and the SAP IoT Application Enablement toolkit to get more real-time information from each piece of equipment on the shop floor. ifm is building its own sensor platform for real-time maintenance, energy data management, and Big Data analysis through ifm dashboards, as well as building innovative, data-driven applications (positioned as ifm Sensor Cloud).
- **innogy SE** is a leading German energy company with the three business segments of grid and infrastructure, retail, and renewables. To be prepared for the future, innogy has chosen the SAP S/4HANA Finance solution, SAP Predictive Analytics software, SAP BusinessObjects BI suite, and the SAP Business Planning and Consolidation application to set up a new ERP system. innogy will use the digital core as the new platform for its management support and operations and maintenance processes.
- **Mercadona**, the market leader for grocery retail in Spain, has chosen SAP to help move their business into the cloud. They will adopt SAP offerings to enable their end-to-end digital transformation, implementing a broad set of SAP software (including SAP S/4HANA and SAP SuccessFactors solutions) on the SAP HANA Enterprise Cloud service. This transformation will simplify company processes and the IT landscape, and help the company meet agile business requirements faster than ever. Mercadona and SAP have established a long-term partnership based on trust, which will help build a fully integrated SAP platform.

Energy and Emissions

Being a Front-Runner for a Greener Way of Working

As a role model for sustainable business operations, SAP takes its environmental responsibilities seriously. We believe that by running cleaner, greener operations, we can make a difference to our planet. In addition, we aim to enable our customers to reduce their overall carbon footprint through our software.

Our global environmental policy promotes a more productive use of resources by providing transparency in environmental issues, driving efficiency, and leveraging transformational strategies. It also outlines our environmental goals.

Our chief sustainability officer and our dedicated sustainability organization coordinate our response to climate change. Facilities management staff design and operate our facilities based on robust environmental standards. In addition, our IT operations personnel is committed to optimizing energy consumption in our data centers. We assess our environmental performance in quarterly management reviews.

This year, we continued to roll out our global environmental management system based on the ISO 14001 standard. We plan for the system to cover operations of about 70% of employees globally by 2018. At the end of 2017, 48 SAP sites in 28 countries (49% of employees) have been certified and have implemented ISO 14001.

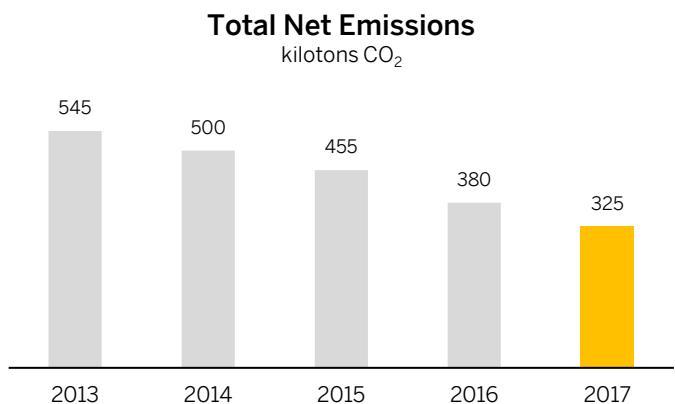
Cutting Carbon Emissions

In 2017, we announced a commitment to making our operations carbon neutral by 2025. This is the next logical step in our long-term greenhouse gas (GHG) avoidance strategy, which also includes an undertaking to reduce GHG emissions to levels of the year 2000 by 2020. This year, we met our 2020 target and are now well on track to becoming carbon neutral. The target includes all direct emissions from running our business as well as a selected subset of indirect emissions from supply chains and services.

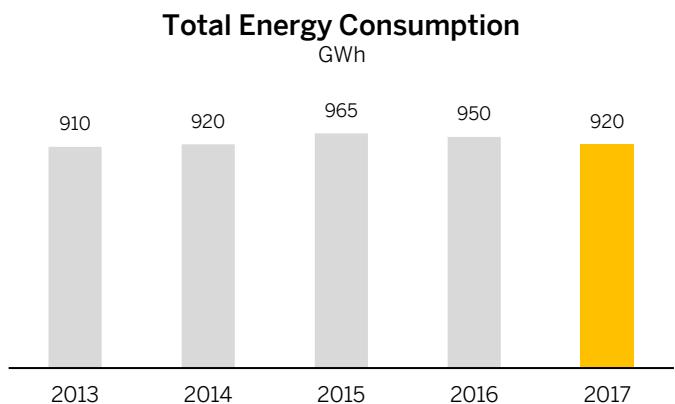
In 2017, SAP also became the first German company to be approved for the Science-Based Targets Initiative. As a member of this initiative, our science-based climate targets reflect the level of decarbonization required to keep the global temperature increase below two degrees Celsius compared to pre-industrial temperatures. This represents a reduction in emissions by SAP of 85% of our 2016 emissions by 2050, including energy consumption of our products in use at our customers.

A number of initiatives harness innovative technologies to help us run our operations in a way that minimizes our impact on the environment. In addition, our investment in renewable electricity

certificates and carbon credits enables us to support sustainability projects across the globe.



In addition to our long-term commitment for 2025, we have derived annual targets for our internal operational steering. In 2017, we outperformed our annual target to reduce our emissions to 380 kilotons (kt) of CO₂ by 55 kt, thus already fulfilling our 2020 target. This result stems primarily from a decrease in company car emissions as well as compensation with carbon emission offsets. Our focus on carbon emissions has contributed to a cumulative cost avoidance of €206 million in the past three years, compared to a business-as-usual scenario based on 2007. We achieved 45% of this cost avoidance in 2017.



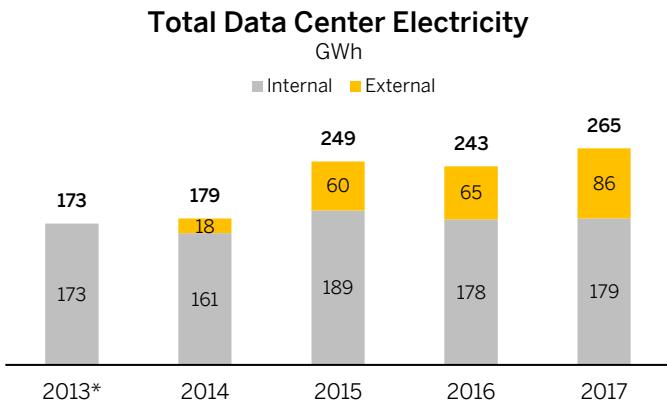
Strengthening Our “Green Cloud”

At SAP, we have tied our business strategy to our environmental strategy by creating a “green cloud” powered by 100% renewable electricity. As more business moves to the cloud, data centers are a key part of how SAP provides solutions to our customers. By using our green cloud services, customers can significantly reduce their carbon footprint. Given the increasing data center capacity and an increasing energy consumption, our data centers have become a primary focus of our carbon reduction efforts.

We have introduced initiatives to drive efficiency and innovation with respect to our buildings, data center operations, and infrastructure. For example, in 2017, one of our main data centers in Rot, Germany, had a very efficient power usage effectiveness (PUE) of 1.36.

Committing to 100% Renewable Electricity

Our commitment to 100% renewable electricity is crucial to making our operations more sustainable. While SAP produces a small amount of renewable electricity through solar panels in some locations, we rely primarily on the purchase of renewable energy certificates (RECs) to achieve our target of 100% renewable electricity. We only invest in Gold Standard RECs, which support renewable energy projects that meet robust criteria in terms of environmental integrity, stakeholder inclusivity, safeguards, and reporting and verification.



*We started reporting our external data center energy consumption in 2014.

Helping Our Customers Run Greener Operations

The vast majority of our overall emissions result from the use of our software. When our customers run SAP software on their hardware and on their premises, the resulting carbon footprint is about 30 times the size of our own net carbon footprint. To address this, we have developed a downstream emissions strategy to help our customers, hardware providers, and others run greener operations. One of the most important ways we help our customers reduce their energy usage and emissions is by managing their SAP systems through cloud services provided by our carbon-neutral green cloud offerings. In addition, the solutions in our portfolio enable our customers to manage their resources, such as electricity, in an efficient manner.

The SAP HANA platform also plays a vital role in helping our customers cut their carbon emissions. By combining the worlds of analytic and transactional data into one real-time, in-memory

platform, it can help create much leaner operations, further simplifying the system landscape and reducing energy consumption.

SAP also works with customers to optimize their on-premise landscapes so that they consume less energy. We achieve this by helping them decommission legacy systems, archive unused data, and consolidate business applications, as well as virtualize their system landscape.

Driving Environmental Initiatives Throughout SAP

We continuously pursue strategies to help us achieve our goal of reducing emissions at a time of ongoing growth in our business.

Key initiatives for 2017 included the following:

– EKOenergy certification

Most of our renewable electricity is purchased on the electricity market and is not produced by SAP. As recommended by the Greenhouse Gas Protocol and CDP, we actively look for the best available quality. Therefore, all of our purchased renewable electricity is EKOenergy certified. EKOenergy is the international not-for-profit ecolabel for energy. It certifies electricity from renewable energy installations that fulfil additional sustainability criteria. Through the purchase of EKOenergy, we also contribute to EKOenergy's Climate Fund, used to finance solar projects tackling energy poverty.

– Electric vehicles

As a result of our business expansion, the number of SAP employees eligible for a company car has increased annually. We want to ensure that the resulting growth in our car fleet does not undo our successes in cutting emissions. To help address this, SAP aims to increase the number of electric vehicles (battery electric vehicles and plug-in hybrid electric vehicles) in our company car fleet from 5% at the end of 2017 to 20% by 2020.

All electric company cars charged at SAP are powered with 100% renewable electricity. In addition, in Germany, we provide employees with an incentive to switch to electric alternatives by offering a battery subsidy that partially offsets the higher costs of an electric vehicle.

– Internal carbon pricing for business flights

We continue with our program introduced in 2015 to reduce the impact of air travel by SAP employees. In addition to avoiding business flights by investing in virtual collaboration and communication technologies, we invest in carbon emission offsets for air travel in the majority of countries we travel from by charging an internal carbon price. This offset effort resulted in a compensation of 135 kt in 2017.

– Investment in carbon credits

In 2017, we continued to realize the benefits of our investment in the Livelihoods Fund. Several years ago, we made a commitment to invest €3 million covering a 20-year

participation in a fund that supports social causes as well as the sustainability of agricultural and rural communities worldwide. The returns from this unique investment in the Livelihoods Fund consist of high-quality carbon credits. Following the success of this scheme, we plan to invest in a second Livelihoods Fund in 2018, increasing our commitment to sustainable initiatives. In 2017, the carbon credits we received helped us to offset our carbon footprint by 21.4 kt.

Intellectual Property, Proprietary Rights and Licenses

We rely on a combination of the protections provided by applicable statutory and common law rights, including trade secret, copyright, patent, and trademark laws, license and non-disclosure agreements, and technical measures to establish and protect our proprietary rights in our products. For further details on risks related to SAP's intellectual property rights, see "[Item 3, Key Information – Risk Factors – Economic, Political, Social, and Regulatory Risks](#)."

We may be dependent in the aggregate on technology that we license from third parties that is embedded into our products or that we resell to our customers. We have licensed and will continue to license numerous third-party software products that we incorporate into and/or distribute with our existing products. We endeavor to protect ourselves in the respective agreements by obtaining certain rights in case such agreements are terminated.

We are a party to patent cross-license agreements with several third parties.

We are named as a defendant or plaintiff in various legal proceedings for alleged intellectual property infringements. See [Note \(23\)](#) to our Consolidated Financial Statements for a more detailed discussion relating to certain of these legal proceedings.

Description of Property

Our principal office is located in Walldorf, Germany, where we own and occupy approximately 445,000 square meters of office and datacenter space including our facilities in neighboring St. Leon-Rot. We also own and lease office space in various other locations in Germany, totaling approximately 130,000 square meters. In approximately 70 countries worldwide, we occupy roughly 1,720,000 square meters. The space in most locations other than our principal office in Germany is leased. We also own certain real properties in Newtown Square and Palo Alto (United States); Bangalore (India); Sao Leopoldo (Brazil); London (UK) and a few other locations in and outside of Germany.

The office and datacenter space we occupy includes approximately 335,000 square meters in the EMEA region, excluding Germany, approximately 385,000 square meters in the region North and Latin America, and approximately 425,000 square meters in the APJ Region.

The space is being utilized for various corporate functions including research and development, our data centers, customer support, sales and marketing, consulting, training, administration and messaging. Substantially all our facilities are being fully used or sublet. For a discussion on our non-current assets by geographic region see [Note \(28\)](#) to our Consolidated Financial Statements. Also see, "Item 6. Directors, Senior

Management and Employees – Employee," which discusses the numbers of our employees, in FTE's, by business area and by geographic region, which may be used to approximate the productive capacity of our workspace in each region.

We believe that our facilities are in good operating condition and adequate for our present usage. We do not have any significant encumbrances on our properties. We do not believe we are subject to any environmental issues that may affect our utilization of any of our material assets. We are currently undertaking construction activities in various locations to increase our capacity for future expansion of our business. Our significant construction activities are described below, under the heading "*Principal Capital Expenditures and Divestitures Currently in Progress*".

Capital Expenditures

Principal Capital Expenditures and Divestitures Currently in Progress

In 2017, we continued various construction projects and started new construction activities in several locations. Except for one new office building in Walldorf, which is intended to be partially financed by a promotional loan, we plan to finance all of these projects from operating cash flow. Our most important projects are listed below:

Construction Projects

€ millions

Country	Location of Facility	Short Description	Estimated Total Cost	Costs Incurred as at December 31, 2017	Estimated Completion Date
Germany	Walldorf	New data center phase 1	65	46	April 2018
United States	Colorado Springs, CO	New data center	108	68	April 2018
Germany	Walldorf	New office building for approx. 450 employees	37	5	November 2018
Germany	Walldorf	New data center phase 2	52	1	January 2019
Germany	St. Leon-Rot	New office building for approx. 450 employees	37	1	January 2019
Germany	Walldorf	New office building for approx. 700 employees	74	37	February 2019
Germany	Munich	New office building for approx. 850 employees	95	0	April 2021

For more information about planned capital expenditures, see the *Investment Goals* section. There were no material divestitures within the reporting period.

Principal Capital Expenditures and Divestitures for the Last Three Years

Our principal capital expenditures for property, plant, and equipment amounted to €1,196 million in 2017 (2016: €933 million; 2015: €580 million). Principal capital expenditures in 2017 for property, plant, and equipment increased compared to 2016 primarily due to replacement and purchase of IT infrastructure (data centers, etc.). The increase from 2015 to 2016 was mainly due to higher investments in data centers and replacement investments in hardware as well as higher investments in office buildings.

Our capital expenditures for intangible assets such as acquired technologies and customer relationships amounted to €227 million in 2017 compared to €158 million in 2016 (2015: €70 million). Our investments allocated to goodwill increased to €208 million in 2017 from €57 million in 2016 (2015: €27 million). The respective increases in 2017 are due to one acquisition which added more goodwill than the several small acquisitions in 2016, while the increase in 2016 compared to 2015 was due to the fact that we executed several smaller acquisitions in 2016 compared to only one smaller acquisition in 2015. For further details on capital expenditures related to acquisitions, see *Note (15)* to our Consolidated Financial Statements.

For further information regarding the principal markets in which SAP conducts business, including a breakdown of total revenues by category of activity and geographic market for each of the last three years, see "*Item 5. Operating and Financial Review and Prospects – Operating Results (IFRS)*" of this report.

ITEM 4A. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

Overview

For information on our principal sources of revenue and how the different types of revenue are classified in our income statement refer to *Note (3b)* to our Consolidated Financial Statements, section Revenue Recognition.

See "*Item 4. Information about SAP – Products, Research & Development, and Services*" for a more detailed description of the products and services we offer.

The following discussion is provided to enable a better understanding of our operating results for the periods covered, including:

- the factors that we believe impacted our performance in 2017;
- our outlook for 2017 compared to our actual performance (non-IFRS);
- a discussion of our operating results for 2017 compared to 2016 and for 2016 compared to 2015;
- the factors that we believe will impact our performance in 2018; and
- our operational targets for 2018 (non-IFRS).

The preceding overview should be read in conjunction with the more detailed discussion and analysis of our financial condition and results of operations in this Item 5, "*Item 3. Key Information – Risk Factors*" and "*Item 18. Financial Statements*".

Economy and the Market

Global Economic Trends

The global economy continued to expand at a solid rate in 2017, and the recovery showed signs of worldwide synchronization. This conclusion was drawn by the European Central Bank (ECB) in its December 2017 Economic Bulletin¹. The document describes the sustained pace of expansion of the global economy, which became more broad-based throughout the year. However, it elaborates that in advanced economies, rates of investment fell in the wake of the financial crisis, driven by the ensuing weakened expectations of demand prospects together with tighter financial conditions and heightened uncertainty. According to the ECB, investment was also lower in emerging market economies in 2017, in particular in commodity-exporting countries.

In the Europe, Middle East, and Africa (EMEA) region, the ECB found a strong pace of economic expansion in the euro area in 2017, supported by growth in private consumption as well as exports benefiting from the global recovery. Also, according to the ECB's December 2017 Economic Bulletin, economic activity in central and eastern European countries accelerated in 2017, driven by a rebound in investment and strong private consumption. Even Russia, after its previous deep recession, managed an economic recovery in 2017, states the ECB.

As for the North America and Latin America (Americas) region, U.S. economic activity expanded at a solid pace in 2017, despite the impact of recent hurricanes, reports the ECB. Growth in investment and consumption strengthened domestic demand in the United States. Brazil was also in recovery throughout the year, even though political uncertainties continuously weighed on its business investments and consumer spending.

The Asia Pacific Japan (APJ) region produced a robust real GDP growth in Japan in 2017. This was due to strengthening foreign demand, growing private investments, and easing financing conditions. In China, economic activity expanded at a significant pace, supported by resilient consumption and a still stable housing market, finds the ECB. Finally, world economic activity was also supported by India.

The IT Market

In 2017, IDC (International Data Corporation), a U.S.-based market research firm, observed "tremendous" momentum and influence of digital transformation on technology spending worldwide, spanning all geographies and industries². Digital transformation became the source of innovation and creativity for new business models, many of which were subscription/cloud based³. Therefore, in 2017, the growing enterprise focus on digital transformation brought about expanding demand for cloud services, surrounding technologies as well as professional and management services⁴, explains IDC. Additionally, it states that the cloud delivery and consumption model has by now revolutionized the entire IT industry, shifting many traditional IT apps and workloads to the "as a service" model⁴ over the past year as organizations looked to become more productive, improve collaboration, and drive continuous innovation⁵.

Migrating or expanding existing on-premises and new workloads to the cloud was in most cases accompanied by an immediate or eventual reduction in capital expenditure for data center updates or expansion as well as a decline in on-premises operational expenses⁵, says IDC. Hence, IT spending was increasingly transferred from hardware to software in 2017, and most providers with perpetually licensed software were undergoing a major transition toward subscription and cloud³.

Under these circumstances, software spending rebounded strongly to US\$301.6 billion in 2017 (services spending to

US\$513.2 billion)², estimates IDC. In this calculation, a "hybrid" management of complex environments represented the largest percentage with multiple public clouds, private clouds, and traditional systems that needed to be interconnected, integrated, and collectively managed⁴. The second largest percentage featured managed and professional services around cloud adoption, accounting for one third of all cloud-related spending⁴, says IDC.

Over the past months, IDC monitored cloud services suppliers introducing a steady stream of innovative IT services, including Internet of Things back-end services, data services, blockchain services, and artificial intelligence-related services⁴. Therefore, IDC calls the cloud the "launch pad" for virtually all IT innovation⁴.

For example, asset-intensive industry segments in 2017 rapidly expanded their investments in IoT equipment and connected processes as well as connected finished products and services⁵. At the same time, according to IDC, more enterprises began to view data as an asset and invested more in technology, helping them to gain greater awareness of their data and to assess its value. Accordingly, nearly 50% of large enterprises generated revenue from data as a service, sale of raw data, derived metrics, insights, and recommendations in 2017⁶, reports IDC.

Furthermore, the blockchain technology as a foundation for digital trust⁶ became more important in 2017, observes IDC: While security concerns used to keep enterprises from moving to the cloud in earlier years, enhanced security capabilities available from service providers turned out to be a major incentive to move to the cloud in 2017⁴. Finally, IDC saw "artificial intelligence everywhere"⁶ in 2017 and finds this technology demonstrating its potential in smartphones, automobiles, aircrafts, cybersecurity, digital warfare, and on the Internet². According to IDC, worldwide revenue for cognitive and artificial intelligence systems reached US\$12.5 billion in 2017, an increase of 59.3% over 2016⁵.

Sources:

- ¹ European Central Bank, Economic Bulletin, Issue 8/2017, Publication Date: December 28, 2017 (<http://www.ecb.europa.eu/pub/pdf/ecbu/eb201708.en.pdf>)
- ² IDC FutureScape: Worldwide Digital Transformation 2018 Predictions, Doc #US43154617, October 2017
- ³ IDC Market Forecast: Software License, Maintenance & Subscription Forecast, 2017-2021, Doc #US42825517, July 2017
- ⁴ IDC Worldwide Whole Cloud Forecast, 2017-2021, Doc #US43215817, December 2017
- ⁵ IDC FutureScape, Worldwide Cloud 2018 Predictions, Doc #US42014717, October 2017
- ⁶ IDC FutureScape: Worldwide IT Industry 2018 Predictions, Doc #US43171317, October 2017

Impact on SAP

The global trend of digital transformation has been a major business driver for SAP, and the broad adoption of cloud solutions drove our success. Our consistent strategy of innovation and growth and our investments into new

technologies to help our customers become "intelligent enterprises" paid off.

We saw strong momentum across our entire portfolio and in all regions, and the growth of our more predictable revenue share signaled trust in SAP.

Performance Against Our Outlook for 2017 (Non-IFRS)

Our 2017 operating profit-related goals and published outlook were based on our non-IFRS financial measures. For this reason, in the following section we discuss performance against our outlook only in terms of non-IFRS numbers derived from IFRS measures. The subsequent section about IFRS operating results discusses numbers only in terms of the International Financial Reporting Standards (IFRSs), so the numbers in that section are not expressly identified as IFRS numbers.

Outlook for 2017 (Non-IFRS)

At the beginning of 2017, we projected that our 2017 non-IFRS cloud subscriptions and support revenue would be between €3.8 billion and €4.0 billion at constant currencies (2016: €2.99 billion). We expected full-year 2017 non-IFRS cloud and software revenue to increase by 6% to 8% at constant currencies (2016: €18.43 billion). In addition, we aimed for non-IFRS total revenue in a range of €23.2 billion to €23.6 billion at constant currencies (2016: €22.67 billion). We also projected our full-year non-IFRS operating profit for 2017 would end between €6.8 billion and €7.0 billion (2016: €6.63 billion) at constant currencies. We anticipated an effective tax rate (IFRS) of 26.0% to 27.0% (2016: 25.3%) and an effective tax rate (non-IFRS) of 27.0% to 28.0% (2016: 26.8%).

In July 2017, we raised our forecast for the non-IFRS cloud and software revenue growth rate to between 6.5% and 8.5% at constant currencies. We also raised our outlook for non-IFRS total revenue to a range of €23.3 billion to €23.7 billion at

constant currencies. These increases in comparison to our original outlook were based on a strong pipeline as well as a strong first half, which, in light of an 8% growth at constant currencies in non-IFRS cloud and software revenue, already lay at the upper end of our full-year expectations.

In October 2017, based on the continued high volume of orders, particularly for SAP S/4HANA, we raised our outlook for the 2017 non-IFRS cloud and software revenue growth rates to range between 7.0% and 8.5% at constant currencies. We consequently also raised our forecast for non-IFRS total revenue to range between €23.4 billion to €23.8 billion at constant currencies. In view of the greater revenues expected, we also narrowed our outlook for full-year operating profit (non-IFRS) for 2017 upward to range between €6.85 billion and €7.0 billion at constant currencies. We also announced that the Company expected its full-year 2017 effective tax rates (IFRS and non-IFRS) to be below the previous outlook for the effective tax rate (IFRS) of 26.0% to 27.0% and for the effective tax rate (non-IFRS) of 27.0% to 28.0%. The decrease in comparison to the previous outlook mainly resulted from a one-time tax benefit relating to an intra-group transfer of intellectual property rights to SAP SE which was expected to be executed in the fourth quarter. SAP committed to update its effective tax rate outlook once the effect is quantifiable.

In December 2017, considering the estimated one-time benefit and updated expectations for the full year, SAP adjusted its full-year 2017 effective tax rate (IFRS) to 23.0% to 24.0% and its full-year 2017 effective tax rate (non-IFRS) to 25.0% to 26.0% after the intra-group transfer of intellectual property rights to SAP SE was completed in the fourth quarter. This outlook did not consider any impact from a potential U.S. tax reform.

To assist in understanding our 2017 performance as compared to our 2017 outlook a reconciliation from our IFRS financial measures to our non-IFRS financial measures is provided below. These IFRS financial measures reconcile to the nearest non-IFRS equivalents as follows:

€ millions, except operating margin	IFRS Financial Measure	Recurring Revenue not Recorded Under IFRS	Acquisition-Related Charges	Share-Based Payments	Restructuring	Non-IFRS Financial Measure	Currency Effect on the Non-IFRS Financial Measure	Non-IFRS Financial Measure at Constant Currency
Cloud subscriptions and support revenue	3,769	2	NA	NA	NA	3,771	59	3,831
Software licenses and support revenue	15,780	0	NA	NA	NA	15,781	207	15,988
Cloud and software revenue	19,549	3	NA	NA	NA	19,552	267	19,819
Total revenue	23,461	3	NA	NA	NA	23,464	301	23,765
Operating profit	4,877	3	587	1,120	182	6,769	151	6,920
Operating margin (in %) ⁽¹⁾	20.8	0	2.5	4.8	0.8	28.9	0.3	29.1

(1) Operating profit is the numerator and total revenue is the denominator in the calculation of our IFRS operating margin and the comparable non-IFRS operating margin; operating margin numbers are included in this table for the convenience of the reader.

2017 Actual Performance Compared to Outlook (Non-IFRS)

We hit the raised outlook for all our guidance parameters we published in July, October and December.

Comparison of Outlook and Results for 2017

	Outlook for 2017 (as reported in Integrated Report 2016)	Revised Outlook for 2017 (Q2 Quarterly Statement)	Revised Outlook for 2017 (Q3 Quarterly Statement)	Results for 2017
Cloud subscriptions and support revenue (non-IFRS, at constant currencies)	€3.80 billion to €4.00 billion			€3.83 billion
Cloud and software revenue (non-IFRS, at constant currencies)	+6.0% to +8.0%	+6.5% to +8.5%	+7.0% to +8.5%	+8%
Total revenue (non-IFRS, at constant currencies)	€23.20 billion to €23.60 billion	€23.30 billion to €23.70 billion	€23.40 billion to €23.80 billion	€23.77 billion
Operating profit (non-IFRS, at constant currencies)	€6.80 billion to €7.00 billion		€6.85 billion to €7.00 billion	€6.92 billion
Effective tax rate (IFRS)	26.0% to 27.0%		23.0% to 24.0%*	19.3%
Effective tax rate (non-IFRS)	27.0% to 28.0%		25.0% to 26.0%*	22.6%

* In the Q3 Quarterly Statement we disclosed our expectation to be below the previous outlook; we adjusted these rates in December for the full-year 2017.

Despite diplomatic tensions, particularly in the Middle East, Turkey, and North Korea, coupled with uncertainties regarding the possible outcome and effects of the Brexit negotiations, our new and existing customers continued to show a strong willingness to invest in our solutions.

At constant currencies, non-IFRS cloud subscriptions and support revenue grew from €2.99 billion in 2016 to €3.83 billion in 2017 and therewith ended in our guidance range of €3.80 billion to €4.00 billion. That represents an increase of 28% on a constant currency basis.

Our new cloud bookings, which is the main measure for our cloud-related sales success and for future cloud subscriptions revenue, increased 30% on a constant currency basis in 2017 to €1.50 billion (2016: €1.15 billion). In addition to this strong growth, our cloud backlog (unbilled future revenue based on existing customer contracts) climbed by 38% to €7.5 billion (2016: €5.4 billion). This committed business will contribute to our cloud growth in 2018 and beyond.

Besides the cloud business, our traditional on-premise business again showed remarkable growth in 2017. On a constant currency basis, cloud and software revenue (non-IFRS) was €19.82 billion in 2017 (2016: €18.43 billion), representing an increase of 8%, and as such reached the upper end of our increased outlook in July and October.

Our total revenue (non-IFRS) on a constant currency basis rose 8% in 2017 to €23.77 billion (2016: €22.07 billion) and therefore achieved the upper end of our twice increased outlook, which we last predicted to range between €23.40 billion and €23.80 billion.

Operating expenses (non-IFRS) in 2017 on a constant currency basis were €16.84 billion (2016: €15.43 billion), an increase of 9%.

Our expense base in 2017 continued to be impacted by the transformation to a fast-growing cloud business. In our outlook, we expected the cloud subscriptions and support gross margin to be at least stable or to slightly increase compared to 2016. The cloud subscriptions gross margin for 2017 was 62.4%, a decrease of 2.0pp on a constant currency basis, and as such, below our expectations. The decrease is primarily due to ongoing investments in our cloud business as well as the change in the cloud subscription revenue mix. In order to further increase the efficiency and performance of our cloud services, we continued to invest heavily in our Software as a Service/Platform as a Service (SaaS/PaaS) and Infrastructure-as a Service (IaaS) cloud services, which are currently growing at an above-average rate. However, since these two service offerings have a lower gross margin than our network business, the overall margin decreased.

The cloud subscriptions and support gross margins of our cloud offerings developed heterogeneously in 2017:

Our cloud subscriptions gross margin (non-IFRS) in our business network business increased by 0.8pp (on a constant currency basis) and resulted in 76.8% for 2017, already close to our long-term ambition of 80%. This excellent result is attributable to the continued positive gross margin development within the Concur and SAP Ariba portfolio.

The cloud subscriptions gross margin (non-IFRS) of our Infrastructure as a Service (IaaS) cloud offering continued to

develop very well in 2017. Our cloud subscription gross margin (non-IFRS) was 6.6% in 2017, which reflects an improvement of 12.7pp on a constant currency basis.

Profitability in our Software as a Service/Platform as a Service (SaaS/PaaS) cloud offering was 57.4% at constant currency for 2017 compared to our long-term ambition of 80%. Affected by the incremental investments in our cloud infrastructure, cloud profitability fell by 3.8pp on a constant currency basis, mainly due to significant investments in the expansion of our data center and IT infrastructure as well as in the harmonization of our various public cloud offerings onto one platform.

Despite these investments, we saw efficiency improvements in both our cloud and traditional on-premise business, which drove continued operating profit expansion. Non-IFRS operating profit in 2017 was €6.92 billion on a constant currency basis (2016: €6.63 billion), reflecting an increase of 4%. As a result, we were able to surpass our excellent results from 2016, despite our continued investment in our business transformation during the reporting year. The positive development of our operating profit was influenced by careful investment decisions focused on customers and products which, among other things, resulted in an increase in our overall headcount by 4,361 full-time equivalents, primarily in research & development, cloud, and sales. With these additional resources, we continued to make targeted investments in our innovation areas and growth markets. Thus, constant currency non-IFRS operating profit amounting to €6.92 billion was at the midpoint of our outlook range raised in October (€6.85 billion to €7.00 billion).

We achieved an effective tax rate (IFRS) of 19.3% and an effective tax rate (non-IFRS) of 22.6%, which is significantly below the adjusted outlook in December of 23.0% to 24.0% (IFRS) and 25.0% to 26.0% (non-IFRS). This mainly resulted from a one-time tax benefit due to the U.S. tax reform.

Operating Results (IFRS)

This section on operating results (IFRS) discusses results only in terms of IFRS measures, so the IFRS numbers are not expressly identified as such.

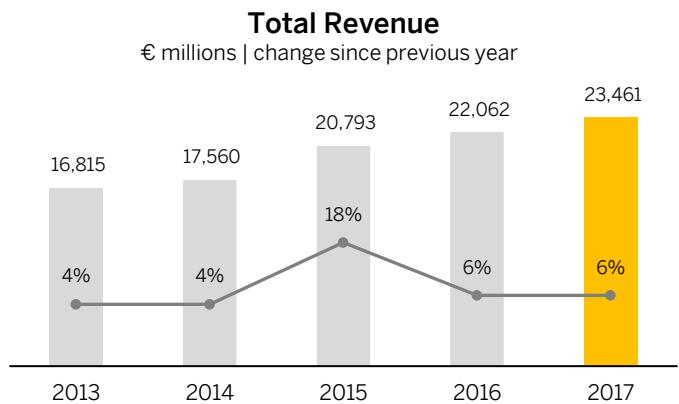
Our 2017 Results Compared to Our 2016 Results (IFRS)

Revenue

€ millions	2017	2016	Δ in %
Cloud subscriptions and support	3,769	2,993	26
Software licenses	4,872	4,860	0
Software support	10,908	10,571	3
Software licenses and support	15,780	15,431	2
Cloud and software	19,549	18,424	6
Services	3,911	3,638	8
Total revenue	23,461	22,062	6

Total Revenue

Total revenue increased from €22,062 million in 2016 to €23,461 million in 2017, representing an increase of €1,399 million or 6%.

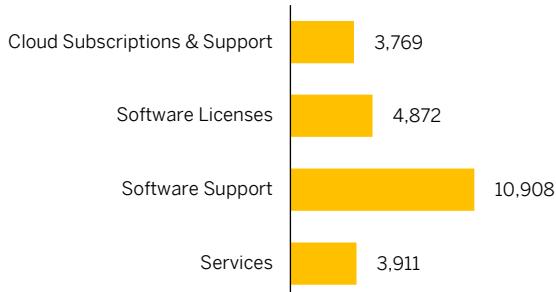


This increase reflects an 8% increase from changes in volumes and prices and a 1% decrease from currency effects. The growth in revenue resulted primarily from a €776 million increase in cloud subscriptions and support revenue. Furthermore, software support revenue rose €337 million. This growth is a result of continuously high software license revenue, which increased €12 million in 2017. Cloud and software revenue climbed to €19,549 million in 2017, an increase of 6%. Cloud and software revenue represented 83% of total revenue in 2017 (2016: 84%). Service revenue increased 8% from €3,638 million

in 2016 to €3,911 million in 2017, which was 17% of total revenue.

Revenue by Line Item

€ millions



For more information about our regional performance, see the [Revenue by Region](#) section below.

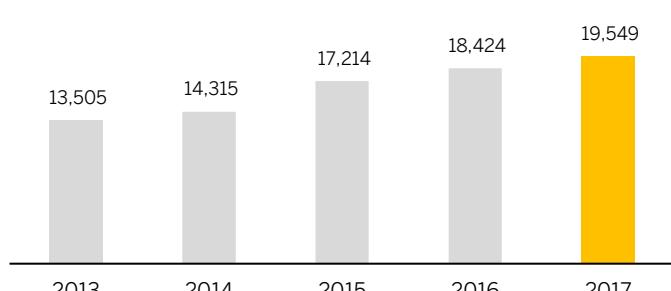
Cloud and Software Revenue

Revenue from cloud subscriptions and support refers to the income earned from contracts that permit the customer to access specific software solutions hosted by SAP during the term of its contract with SAP. Software revenue results from the fees earned from selling or licensing software to customers. Support revenue represents fees earned from providing technical support services and unspecified software upgrades, updates, and enhancements to customers.

Cloud and software revenue grew from €18,424 million in 2016 to €19,549 million in 2017, an increase of 6%. This reflects an 8% increase from changes in volumes and prices and a 1% decrease from currency effects.

Cloud and Software

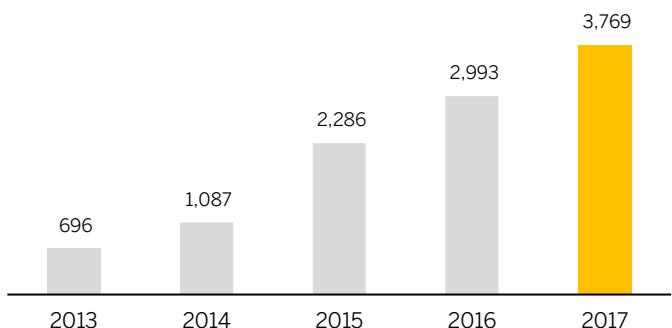
€ millions



Cloud subscriptions and support revenue increased from €2,993 million in 2016 to €3,769 million in 2017.

Cloud Subscriptions and Support

€ millions



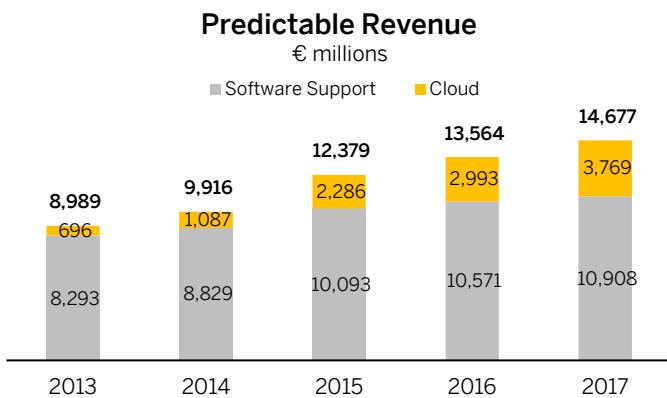
Despite a combination of a partly challenging macroeconomic and political environment and the accelerating industry shift to the cloud, we achieved a €12 million increase in software revenue. This increase, from €4,860 million in 2016 to €4,872 million in 2017, reflects a 3% increase from changes in volumes and prices and a 2% decrease from currency effects. Our customer base continued to expand in 2017. Based on the number of contracts concluded, 15% of the orders we received for software in 2017 (2016: 16%) were from new customers. The total value of software orders received increased 1% year over year. The total number of contracts signed for new software increased 3% to 59,147 (2016: 57,291 contracts), with an average order value of €89 thousand in 2017 (2016: €91 thousand). In 2017, 30% (2016: 29%) of our software order entry resulted from deals worth more than €5 million, while 40% (2016: 38%) resulted from deals worth less than €1 million.

Our stable customer base, the continued demand for our software throughout 2017 and the previous years, and the continued interest in our support offerings resulted in an increase in support revenue from €10,571 million in 2016 to €10,908 million in 2017. The SAP Enterprise Support offering was the largest contributor to our support revenue. The €337 million, or 3%, growth in support revenue reflects a 4% increase from changes in volumes and prices and a 1% decrease from currency effects. This growth is primarily attributable to SAP Product Support for Large Enterprises and SAP Enterprise Support. The acceptance rate for SAP Enterprise Support among new customers remained very high in 2017 at 99% (2016: 100%).

Software and support revenue rose €350 million, or 2%, from €15,431 million in 2016 to €15,780 million in 2017. This growth reflects a 4% increase from changes in volumes and prices and a 1% decrease from currency effects.

We define predictable revenue as the sum of our software support revenue and our cloud subscriptions and support revenue. Compared to the previous year, our predictable revenue increased from €13,564 million in 2016 to €14,677

million in 2017. This reflects a rise of 8%. Predictable revenue accounted for 63% of our total revenue in 2017 (2016: 61%).



Revenue by Region

Revenue by Region

	2017	2016	Δ in %
Germany	3,352	3,034	10
Rest of EMEA	7,063	6,721	5
EMEA	10,415	9,755	7
United States	7,436	7,167	4
Rest of Americas	1,911	1,763	8
Americas	9,347	8,931	5
Japan	885	825	7
Rest of APJ	2,814	2,552	10
APJ	3,699	3,377	10
SAP Group	23,461	22,062	6

Services Revenue

Services revenue combines revenue from professional services, premium support services, and other services such as training services, messaging services, and payment services.

Professional services primarily relate to the implementation of our cloud subscriptions and on-premise software products. Our premium support offering consists of high-end support services tailored to customer requirements. Messaging services are primarily transmissions of electronic text messages from one mobile phone provider to another. Payment services are delivered in connection with our travel and expense management offerings.

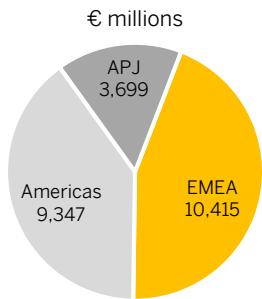
Services revenue increased €273 million, or 8%, from €3,638 million in 2016 to €3,911 million in 2017. This increase reflects an 8% increase from changes in volumes and prices and a 1% decrease from currency effects.

Solid market demand for service projects led to a 12% increase of €332 million in consulting revenue and premium support revenue from €2,883 million in 2016 to €3,215 million in 2017. This growth reflects a 12% increase from changes in volumes and prices and a 1% decrease from currency effects. Consulting and premium support revenue contributed 82% of total service revenue (2016: 79%). Consulting and premium support revenue contributed 14% of total revenue in 2017 (2016: 13%).

Revenue from other services decreased €59 million, or 8%, to €697 million in 2017 (2016: €756 million). This reflects a 7% decrease from changes in volumes and prices and a 1% decrease from currency changes.

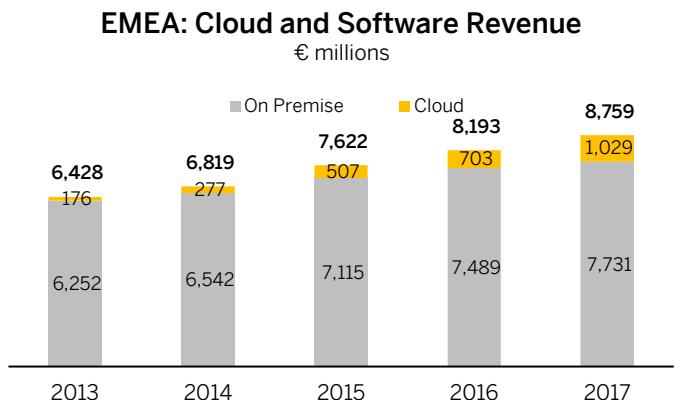
Revenue by Region

(based on customer location)



EMEA Region

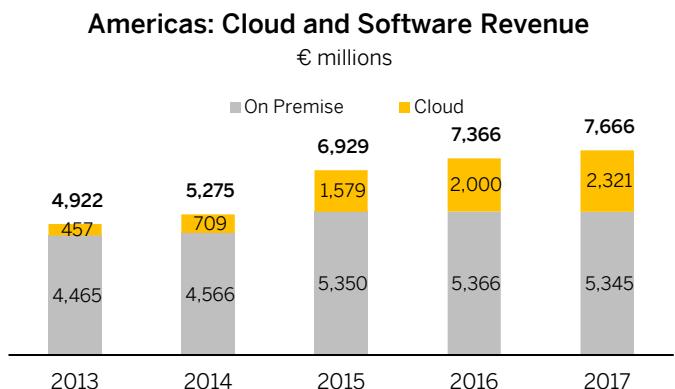
In 2017, the EMEA region generated €10,415 million in revenue (2016: €9,755 million), which was 44% of total revenue (2016: 44%). This represents a year-over-year increase of 7%. Revenue in Germany increased 10% to €3,352 million in 2017 (2016: €3,034 million). Germany contributed 32% (2016: 31%) of all EMEA region revenue. The remaining revenue in the EMEA region was primarily generated in the United Kingdom, France, Switzerland, the Netherlands, and Italy. Cloud and software revenue generated in the EMEA region totaled €8,759 million (2016: €8,193 million). That was 84% of all revenue from the region (2016: 84%).



Cloud subscriptions revenue in the EMEA region rose 46% to €1,029 million in 2017 (2016: €703 million). This increase reflects a 48% increase from changes in volumes and prices and a 2% decrease from currency effects. Software licenses and software support revenue rose 3% to €7,731 million in 2017 (2016: €7,489 million). This growth reflects a 3% increase from changes in volumes and prices and a currency effect of 0%.

Americas Region

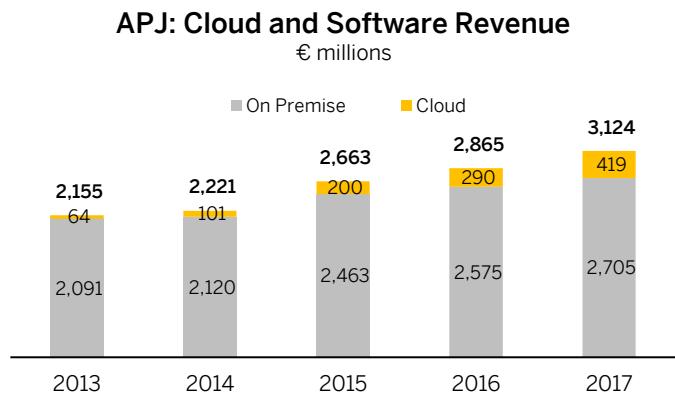
In 2017, 40% of our total revenue was generated in the Americas region (2016: 40%). Total revenue in the Americas region increased 5% to €9,347 million; revenue generated in the United States increased 4% to €7,436 million. The revenue growth in the United States reflects a 6% increase from changes in volumes and prices and a negative currency effect of 2%. The United States contributed 80% (2016: 80%) of all revenue generated in the Americas region. In the remaining countries of the Americas region, revenue increased 8% to €1,911 million. This increase reflects a 9% increase from changes in volumes and prices and a 1% decrease from currency effects. Revenue in the remaining countries of the Americas region was generated primarily in Canada, Brazil, and Mexico. Cloud and software revenue generated in the Americas region totaled €7,666 million (2016: €7,366 million). That was 82% of all revenue from the region (2016: 82%).



Cloud subscriptions revenue in the Americas region rose 16% to €2,321 million in 2017 (2016: €2,000 million); this includes a negative currency effect of 2%. Software licenses and software support revenue was €5,345 million in 2017 (2016: €5,366 million).

APJ Region

In 2017, 16% (2016: 15%) of our total revenue was generated in the APJ region. Total revenue in the APJ region increased 10% to €3,699 million. This growth reflects a 12% increase from changes in volumes and prices and a 2% decrease from currency effects. In Japan, revenue increased 7% to €885 million. Revenue from Japan was 24% (2016: 24%) of all revenue generated in the APJ region. The revenue growth in Japan was attributable to a 13% increase from changes in volumes and prices and a 6% decrease from currency effects. In the remaining countries of the APJ region, revenue increased 10%. Revenue in the remaining countries of the APJ region was generated primarily in Australia, India, and China. Cloud and software revenue in the APJ region totaled €3,124 million in 2017 (2016: €2,865 million). That was 84% of all revenue from the region (2016: 85%).



Cloud subscriptions revenue in the APJ region rose 45% to €419 million in 2017 (2016: €290 million). This increase reflects a 47% increase from changes in volumes and prices and a 2% decrease from currency effects. Software licenses and software support revenue rose 5% to €2,705 million in 2017 (2016: €2,575 million). This increase reflects an 8% increase from changes in volumes and prices and a 3% decrease from currency effects.

Operating Profit and Operating Margin

Total Operating Expenses

€ millions	2017	% of total revenue ⁽¹⁾	2016	% of total revenue ⁽²⁾	Δ in %
Cost of cloud subscriptions and support	-1,660	7	-1,313	6	26
Cost of software licenses and support	-2,234	10	-2,182	10	2
Cost of cloud and software	-3,893	17	-3,495	16	11
Cost of services	-3,158	13	-3,089	14	2
Research and development	-3,352	14	-3,044	14	10
Sales and marketing	-6,924	30	-6,265	28	11
General and administration	-1,075	5	-1,005	5	7
Restructuring	-182	1	-28	0	>100
Other operating income/expense, net	1	0	-3	0	<-100
Total operating expenses	-18,584	79	-16,928	77	10

(1) Total revenue for 2017: € 23,461 million.

(2) Total revenue for 2016: € 22,062 million.

Operating Profit and Operating Margin

€ millions, except for operating margin	2017	2016	Δ in %
Operating profit	4,877	5,135	-5
Operating margin (in %)	20.8	23.3	-2.5pp

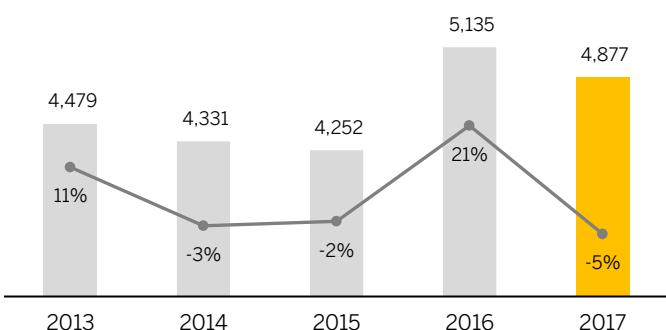
SAP posted record revenues in 2017, particularly in Cloud and Services. Our revenue from cloud subscriptions and support increased 26% while our services revenue improved 8%. In 2017, total revenue grew 6% to €23,461 million (2016: €22,062 million), representing an increase of €1,399 million.

On the other hand, our operating expenses increased €1,656 million or 10% to €18,584 million (2016: €16,928 million). The main contributors to that increase were our continued investment in sales and research and development activities as well as our higher revenue-related and investment-related cloud subscriptions and support costs. The higher share price in 2017 lead to increased costs of share-based compensation of €1,120 million (2016: €785 million). Our employee headcount (measured in full-time equivalents, or FTEs) increased by 4,361 FTEs year over year to 88,543.

Overall, the increase in expenses exceeded our growth in revenue, leading to a 5% decrease in operating profit to €4,877 million (2016: €5,135 million).

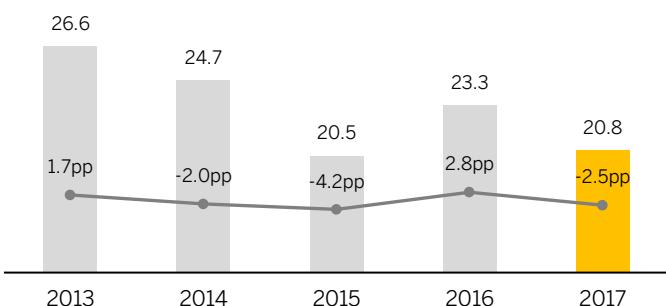
Operating Profit

€ millions | change since previous year



Operating Margin

Percent | change since previous year



We see the increased operating expenses largely as investments in the future that help to secure long-term sales growth.

As an overall result of these effects on operating profit, our operating margin narrowed 2.5pp to 20.8% in 2017 (2016: 23.3%).

Changes to the individual elements in our cost of revenue were as follows:

Cost of Cloud and Software

Cost of cloud and software consists primarily of customer support costs, costs of developing custom solutions that address customers' specific business requirements, costs for deploying and operating cloud solutions, amortization expenses relating to intangibles, and license fees and commissions paid to third parties for databases and the other complementary third-party products sublicensed by us to our customers.

In 2017, the cost of cloud and software increased 11% to €3,893 million (2016: €3,495 million).

Main impact on costs was an additional €347 million year over year for delivering and operating cloud applications in response to the sustained strength of customer demand. These investments contributed to revenue growth. Our margin on cloud subscriptions and support narrowed from 56.1% in 2016 to 56.0% in 2017. This margin decline is attributable to investments in our cloud business, which offset the strong growth in cloud subscriptions and support revenue.

A 2% increase in software license and support revenue led to a corresponding 2% increase in customer support costs to €2,234 million, and enabled us to keep our software license and support margin stable at 85.8% (2016: 85.9%). The gross margin on cloud and software, defined as cloud and software profit as a percentage of cloud and software revenue, narrowed by 1pp in 2017 to 80.1% (2016: 81.0%). This decline was mainly driven by the change in the Cloud and Software revenue mix, which now has a higher proportion of cloud subscriptions and support revenues. Due to infrastructure costs, these revenues currently deliver a lower margin and a declining proportion of higher-margin software and support revenues.

Cost of Services

Cost of services consists primarily of the cost of consulting, premium services and training personnel and the cost of bought-in consulting and training resources.

Although we were able to increase our service revenue by 8% year over year to €3,911 million in 2017 (2016: €3,638 million), our service business continues to be greatly affected as we trend away from classic software licensing and consulting revenue toward more subscription revenue from cloud solutions. In addition, we continue to invest in our SAP ONE

Service organization and in our customer co-innovation projects. As a result, cost of services rose 2% to €3,158 million (2016: €3,089 million). Our gross margin on services, defined as services profit as a percentage of services revenue, increased 4.2pp to 19.3% (2016: 15.1%).

Research and Development Expense

Our research and development (R&D) expense consists primarily of the personnel cost of our R&D employees, costs incurred for independent contractors we retain to assist in our R&D activities, and amortization of the computer hardware and software we use for our R&D activities.

Due to growing personnel costs driven by a 10% increase in our yearly average R&D headcount, our R&D expense increased by 10% to €3,352 million in 2017 from €3,044 million in 2016. R&D expense as a percentage of total revenue thus increased to 14.3% in 2017 (2016: 13.8%). For more information, see the *Products, Research & Development, and Services* section.

Sales and Marketing Expense

Sales and marketing expense consists mainly of personnel costs, direct sales costs, and the cost of marketing our products and services.

Our sales and marketing expense rose 11% from €6,265 million in 2016 to €6,924 million in 2017. The increase was mainly the result of greater personnel costs as we expanded our global sales force, and of increased expenditure for bonus payments prompted by the strong revenue growth. The ratio of sales and marketing expense to total revenue, expressed as a percentage, increased to 29.5% year over year (2016: 28.4%), an increase of 1.1pp.

General and Administration Expense

Our general and administration expense consists mainly of personnel costs to support our finance and administration functions.

General and administration expense increased 7% from €1,005 million in 2016 to €1,075 million in 2017. This increase is primarily the result of higher personnel costs related to job creation in administrative areas, based on the increased business volume related to our growth. Thanks to strong operating results, the ratio of general and administration expense to total revenue remained stable year over year at 4.6% (2016: 4.6%).

Segment Information

At the end of 2017, SAP had two operating segments: the Applications, Technology & Services segment and the SAP Business Network segment.

For more information about our segment reporting, see the Notes to the Consolidated Financial Statements, *Note (28)*, and the *Performance Management System* section.

Applications, Technology & Services Segment

€ millions, unless otherwise stated (Non-IFRS)	2017	2016	Δ in %	Δ in % (Constant Currency)
Cloud subscriptions and support revenue – SaaS/PaaS ¹⁾	1,604	1,191	35	37
Cloud subscriptions and support gross margin – SaaS/PaaS ¹⁾ (in %)	57	62	-4pp	-4pp
Cloud subscriptions and support revenue – IaaS ²⁾	328	209	57	60
Cloud subscriptions and support gross margin – IaaS ²⁾ (in %)	6	-6	12pp	13pp
Cloud subscriptions and support revenue	1,932	1,400	38	40
Cloud subscriptions and support gross margin (in %)	49	52	-3pp	-3pp
Segment revenue	21,141	20,130	5	6
Gross margin (in %)	73	74	-1pp	-0pp
Segment profit	8,102	8,051	1	2
Segment margin (in %)	38	40	-2pp	-1pp

¹⁾ Software as a Service/Platform as a Service

²⁾ Infrastructure as a Service

The Applications, Technology & Services segment recorded a strong increase in cloud subscriptions and support revenue in 2017. As a consequence of continuous strong demand in our Human Capital Management solutions, and growing success of our SAP Cloud Platform in the market, SaaS/PaaS revenue increased 34.6% (36.6% at constant currencies). We also saw SAP S/4HANA cloud and SAP Leonardo, our strategic offers for the future, develop very positively, with high growth rates.

Our software support revenue further increased in 2017. It rose 3.3% (4.2% at constant currencies) to €10,890 million. Including software licenses revenue, which remained at the same level year over year (increased 2.4% at constant currencies), we achieved a total software licenses and support revenue of €15,762 million in 2017.

Overall, the revenue share of more predictable revenue streams in this segment increased 1.3pp from 59.3% in 2016 to 60.7% in 2017.

The segment's cost of revenue during the same time period increased 7.4% (8.2% at constant currencies) to €5,703 million (2016: €5,311 million). This increase in expenses was primarily the result of higher investment in expanding our cloud infrastructure and in providing and operating our cloud applications. This impacted particularly the SaaS/PaaS business, whose margin consequently declined 4.3pp compared to the year before. These costs were partially offset by our IaaS business that with an increasing level of maturity achieved significant increases in efficiency. It ended the fiscal year with a margin growth of 11.8pp (12.7pp at constant currencies).

SAP Business Network Segment

€ millions, unless otherwise stated (Non-IFRS)	2017	2016	Δ in %	Δ in % (Constant Currency)
Cloud subscriptions and support revenue – SaaS/PaaS ¹⁾	1,840	1,595	15	17
Cloud subscriptions and support gross margin – SaaS/PaaS ¹⁾ (in %)	77	76	1pp	1pp
Cloud subscriptions and support revenue	1,840	1,595	15	17
Cloud subscriptions and support gross margin (in %)	77	76	1pp	1pp
Segment revenue	2,261	1,925	17	19
Gross margin (in %)	68	67	1pp	1pp
Segment profit	385	341	13	16
Segment margin (in %)	17	18	-1pp	-1pp

¹⁾ Software as a Service/Platform as a Service

The SAP Business Network segment was able to increase its cloud subscriptions and support gross margin in 2017 (0.8pp) to 76.7%. This improvement is mainly attributable to increased efficiency in operating costs. The segment's cost of revenue increased 15.0% in 2017 (16.8% at constant currencies) to €725 million (2016: €631 million).

The revenue increased by 17.4% (19.4% at constant currencies) to €2,261 million. As a result, the SAP Business Network segment achieved a segment gross profit of €1,536 million in 2017 (2016: €1,295 million), an increase of 18.6% (20.7% at constant currencies).

Reconciliation of Cloud Subscription Revenues and Margins

€ millions, unless otherwise stated	2017		2016		Δ in %	Δ in %
	Actual Currency	Constant Currency	Actual Currency	Actual Currency		Constant Currency
Cloud subscriptions and support revenue – SaaS/PaaS ¹⁾						
SAP Business Network segment	1,840	1,870	1,595	15		17
Other	1,604	1,627	1,191	35		37
Total	3,443	3,497	2,786	24		26
Cloud subscriptions and support revenue – IaaS ²⁾						
Cloud subscriptions and support revenue	3,771	3,831	2,995	26		28
Cloud subscriptions and support gross margin – SaaS/PaaS ¹⁾ (in %)						
SAP Business Network segment	77	77	76	1pp		1pp
Other	57	57	61	-4pp		-4pp
Total	68	68	70	-2pp		-2pp
Cloud subscriptions and support gross margin – IaaS ²⁾ (in %)						
Cloud subscriptions and support gross margin (in %)	62	62	64	-2pp		-2pp

¹⁾ Software as a Service/Platform as a Service

²⁾ Infrastructure as a Service

Financial Income, Net

Financial income increased to €185 million (2016: -€38 million). Our finance income was €463 million (2016: €230 million) and our finance costs were €278 million (2016: €268 million).

Finance income mainly consists of gains from disposal of equity securities totaling €382 million (2016: €164 million), interest income from loans and receivables, and other financial assets (cash, cash equivalents, and current investments) totaling €49 million (2016: €40 million), and income from derivatives totaling €44 million (2016: €29 million).

Finance costs mainly consist of interest expense on financial liabilities amounting to €90 million (2016: €108 million) and negative effects from derivatives amounting to €116 million (2016: €114 million). The decrease in finance costs is mainly due to lower average indebtedness. For more information about financing instruments, see the Notes to the Consolidated Financial Statements, [Note \(17b\)](#).

Income Taxes

The effective tax rate in 2017 was 19.3% (2016: 25.3%). The year-over-year decrease in the effective tax rate mainly resulted from one-time tax benefits relating to an intra-group transfer of intellectual property rights to SAP SE and the U.S. tax reform which were partly compensated by valuation allowances on deferred tax assets and changes in the regional allocation of income. For more information about income taxes, see the Notes to the Consolidated Financial Statements, [Note \(10\)](#).

Our 2016 Results Compared to Our 2015 Results (IFRS)

Revenue

€ millions	2016	2015	Δ in %
Cloud subscriptions and support	2,993	2,286	31
Software licenses	4,860	4,835	1
Software support	10,571	10,093	5
Software licenses and support	15,431	14,928	3
Cloud and software	18,424	17,214	7
Services	3,638	3,579	2
Total revenue	22,062	20,793	6

Total Revenue

Total revenue increased from €20,793 million in 2015 to €22,062 million in 2016, representing an increase of €1,269 million, or 6%. This increase reflects a 7% increase from changes in volumes and prices and a 1% decrease from currency effects. The growth in revenue resulted primarily from a €707 million increase in cloud subscriptions and support revenue. Furthermore, software support revenue rose €478 million. This growth is a result of continuously high software license revenue, which increased €25 million in 2016. Cloud and software revenue climbed to €18,424 million in 2016, an increase of 7%. Cloud and software revenue represented 84% of total revenue in 2016 (2015: 83%). Service revenue increased 2% from €3,579 million in 2015 to €3,638 million, which was 16% of total revenue, in 2016.

For more information about the breakdown of total revenue by region, see the *Revenue by Region* section below.

Cloud and Software Revenue

Software licenses revenue results from the fees earned from selling or licensing software to customers. Revenue from cloud subscriptions and support refers to the income earned from contracts that permit the customer to access specific software solutions hosted by SAP during the term of its contract with SAP. Support revenue represents fees earned from providing technical support services and unspecified software upgrades, updates, and enhancements to customers.

Cloud subscriptions and support revenue increased from €2,286 million in 2015 to €2,993 million in 2016.

Despite a combination of a challenging macroeconomic and political environment and the accelerating industry shift to the cloud, we achieved a €25 million increase in software license revenue. This increase, from €4,835 million in 2015 to €4,860 million in 2016, reflects a 1% increase from changes in volumes and prices and a 1% decrease from currency effects.

Our customer base continued to expand in 2016. Based on the number of contracts concluded, 16% of the orders we received for software in 2016 were from new customers (2015: 13%). The total value of software orders received was stable year-over-year. The total number of software license contracts remained at the same level with 57,291 (2015: 57,439), while the average order value remained unchanged year-over-year. 29% of our software order entry in 2016 resulted from deals worth more than €5 million (2015: 27%), while 38% resulted from deals worth less than €1 million (2015: 40%).

Our stable customer base, continued investment in new software licenses by customers throughout 2016 and the previous year, and the continued interest in our support offerings resulted in an increase in software support revenue from €10,093 million in 2015 to €10,571 million in 2016. The SAP Enterprise Support offering was the largest contributor to our software support revenue. The €478 million, or 5%, growth in software support revenue reflects a 6% increase from new support business and a 1% decrease from currency effects. This growth is primarily attributable to SAP Product Support for Large Enterprises and SAP Enterprise Support. The acceptance rate for SAP Enterprise Support among new customers reached 100% in 2016 (2015: 99%).

Software licenses and software support revenue rose €503 million, or 3%, from €14,928 million in 2015 to €15,431 million in 2016. This increase reflects a 4% increase from changes in volumes and prices and a 1% decrease from currency effects.

We define predictable revenue as the sum of our software support revenue and our cloud subscriptions and support revenue. Compared to 2015, our predictable revenue increased 10%, from €12,379 million to €13,564 million in 2016. Predictable revenue accounted for 61% of our total revenue in 2016 (2015: 60%).

Cloud and software revenue grew from €17,214 million in 2015 to €18,424 million in 2016, an increase of 7%. This reflects an 8% increase from changes in volumes and prices and a 1% decrease from currency effects.

Services Revenue

Services revenue combines revenue from professional services, premium support services, training services, messaging services and payment services. Professional services primarily relate to the installation and configuration of our cloud subscriptions and on-premise software products. Our premium support offering consists of high-end support services tailored to customer requirements. Messaging services are primarily transmission of electronic text messages from one mobile phone provider to another. Payment services are primarily delivered in connection with our travel and expense management offerings.

Services revenue increased €59 million, or 2%, from €3,579 million in 2015 to €3,638 million in 2016. This increase reflects a 3% increase from changes in volumes and prices and a 1% decrease from currency effects.

A solid market demand led to a 1% increase of €26 million in consulting revenue and premium support revenue from €2,856 million in 2015 to €2,883 million in 2016. This increase reflects a 2% increase from changes in volumes and prices and a 1% decrease from currency effects. Consulting and premium support revenue contributed 79% of the total service revenue (2015: 80%). Consulting and premium support revenue contributed 13% of total revenue in 2016 (2015: 14%).

Revenue from other services increased €33 million, or 5%, to €756 million in 2016 (2015: €723 million). This reflects a 6% increase from changes in volumes and prices and a 1% decrease from currency changes.

Revenue by Region

Revenue by Region

€ millions	2016	2015	Δ in %
Germany	3,034	2,771	9
Rest of EMEA	6,721	6,409	5
EMEA	9,755	9,181	6
United States	7,167	6,750	6
Rest of Americas	1,763	1,678	5
Americas	8,931	8,428	6
Japan	825	667	24
Rest of APJ	2,552	2,517	1
APJ	3,377	3,185	6
SAP Group	22,062	20,793	6

We break our operations down into three regions: the Europe, Middle East, and Africa (EMEA) region, the Americas region, and the Asia Pacific Japan (APJ) region. We allocate revenue amounts to each region based on where the customer is located. For more information about revenue by geographic region, see the Notes to the Consolidated Financial Statements section, Note (28).

EMEA Region

In 2016, the EMEA region generated €9,755 million in revenue (2015: €9,181 million), which was 44% of total revenue (2015: 44%). This represents a year-over-year increase of 6%.

Revenue in Germany increased 9% to €3,034 million in 2016 (2015: €2,771 million). Germany contributed 31% (2015: 30%) of all EMEA region revenue. The remaining revenue in the EMEA region was primarily generated in the United Kingdom, France, Switzerland, the Netherlands and Italy. Cloud and software revenue generated in the EMEA region in 2016 totaled €8,193 million (2015: €7,622 million). Cloud and software revenue represented 84% of all revenue in the region in 2016 (2015: 83%).

Cloud subscriptions revenue rose 39% to €703 million in 2016 (2015: €507 million). This growth reflects a 41% increase from changes in volumes and prices and a 3% decrease from currency effects. Software licenses and software support revenue rose 5% to €7,489 million in 2016 (2015: €7,115 million). This increase reflects a 7% increase from changes in volumes and prices and a 2% decrease from currency effects.

Americas Region

In 2016, 40% of our total revenue was generated in the Americas region (2015: 41%). Total revenue in the Americas region increased 6% to €8,931 million; revenue generated in the United States increased 6% to €7,167 million. This growth reflects a 6% increase from changes in volumes and prices and currency effect of 0%. The United States contributed 80% (2015: 80%) of all revenue generated in the Americas region. In the remaining countries of the Americas region, revenue increased 5% to €1,763 million. This increase reflects a 7% increase from changes in volumes and prices and a 2% decrease from currency effects. Revenue in the remaining countries of the Americas region was generated primarily in Mexico, Brazil and Canada. Cloud and software revenue generated in the Americas region in 2016 totaled €7,366 million (2015: €6,929 million). Cloud and software revenue represented 82% of all revenue in the Americas region in 2016 (2015: 82%).

Cloud subscriptions revenue rose by 27% to €2,000 million in 2016 (2015: €1,579 million); currency effects were 0%. Software licenses and software support revenue in 2016 of €5,366 million was virtually unchanged compared to the prior year (2015: €5,350 million).

APJ Region

In 2016, 15% (2015: 15%) of our total revenue was generated in the APJ region. Total revenue in the APJ region increased 6% to €3,377 million. In Japan, revenue increased 24% to €825 million. Revenue from Japan was 24% (2015: 21%) of all revenue generated in the APJ region. The revenue growth in Japan was attributable to a 10% increase from changes in volumes and prices and a 13% increase from currency effects. In the remaining countries of the APJ region, revenue increased 1%. Revenue in the remaining countries of the APJ region was generated primarily in Australia, India and China. Cloud and software revenue in the APJ region totaled €2,865 million in 2016 (2015: €2,663 million). That was 85% of all revenue from the region (2015: 84%).

Cloud subscriptions revenue grew 45% to €290 million in 2016 (2015: €200 million). This growth reflects a 43% increase from changes in volumes and prices and a 1% increase from currency effects. Software licenses and software support revenue increased 5% to €2,575 million in 2016 (2015: €2,463 million). This growth reflects a 3% increase from changes in volumes and prices and a 1% increase from currency effects.

Operating Profit and Operating Margin

Total Operating Expenses

€ millions	2016	% of total revenue ⁽¹⁾	2015	% of total revenue ⁽²⁾	Δ in %
Cost of cloud subscriptions and support	-1,313	6	-1,022	5	29
Cost of software licenses and support	-2,182	10	-2,291	11	-5
Cost of cloud and software	-3,495	16	-3,313	16	5
Cost of services	-3,089	14	-2,932	14	5
Research and development	-3,044	14	-2,845	14	7
Sales and marketing	-6,265	28	-5,782	28	8
General and administration	-1,005	5	-1,048	5	-4
Restructuring	-28	0	-621	3	-96
TomorrowNow and Versata litigation	0	0	0	0	0
Other operating income/expense, net	-3	0	1	0	<-100
Total operating expenses	-16,928	77	-16,541	80	2

(1) Total revenue for 2016: € 22,062 million.

(2) Total revenue for 2015: € 20,793 million.

Operating Profit and Operating Margin

€ millions, except for operating margin	2016	2015	Δ in %
Operating profit	5,135	4,252	21
Operating margin (in %)	23.3	20.5	2.8pp

SAP continued to invest in innovation and its cloud business and achieved a record revenue in 2016. Thanks to strong revenue growth and lower restructuring costs, our operating profit improved 21% to €5,135 million (2015: €4,252 million).

In 2016, our operating expenses increased €387 million or 2% to €16,928 million (2015: €16,541 million). The main contributors to that increase were our continued investment in sales activities and our greater revenue-related and investment-related cloud subscriptions and support costs.

The record revenue generated and significantly lower restructuring costs had a positive impact on our operating profit. Continuing investment in cloud infrastructure, in sales activities around the world, and in research and development also affected the results in 2016. The increased operating profit and the higher share price in 2016 pushed the cost of bonus payments to employees and share-based compensation higher. Our employee headcount (measured in full-time equivalents, or FTEs) increased by 7,197 year-over-year.

The increased operating expenses largely represent investments in the future and were offset by the increase in revenue.

As an overall result of these effects on operating profit, our operating margin widened 2.8pp to 23.3% in 2016 (2015: 20.5%).

Changes to the individual elements in our cost of revenue were as follows:

Cost of Cloud and Software

Cost of cloud and software consists primarily of customer support costs, cost of developing custom solutions that address customers' specific business requirements, costs for deploying and operating cloud solutions, amortization expenses relating to intangibles, and license fees and commissions paid to third parties for databases and the other complementary third-party products sublicensed by us to our customers.

In 2016, the cost of cloud and software increased 5% to €3,495 million (2015: €3,313 million).

Main impact on costs was an additional €291 million year-over-year to extend our cloud business in response to the sustained strength of customer demand, with an associated increase in the expense of delivering and operating cloud applications. These investments contributed to revenue growth. Our margin on cloud subscriptions and support increased 0.8pp to 56.1% (2015: 55.3%). This improvement in margin was achieved primarily through strong growth in revenue. The investments in our cloud business were offset by the significant increase in cloud subscriptions and support revenue.

While software licenses and support revenue increased, savings in customer support, in the cost of developing custom solutions, and in license fees, enabled us to reduce our software and support costs by a total of €109 million year over year.

The gross margin on cloud and software, defined as cloud and software profit as a percentage of cloud and software revenue, widened to 81.0% in 2016 (2015: 80.8%). This change was mainly driven by the improved software license and support margin, which increased 1.2pp to 85.9% (2015: 84.7%).

Cost of Services

Cost of services consists primarily of the cost of consulting, premium services and training personnel and the cost of bought-in consulting and training resources.

As of the second quarter of 2016, we changed the way sales and marketing expenses related to our service activities are classified in our income statement. For more information see the Notes to the Consolidated Financial Statements section, Note (3b).

Although we were able to increase our service revenue by 2% year over year to €3,638 million in 2016 (2015: €3,579 million), our service business continues to be greatly affected as we trend away from classic software licensing and consulting revenue toward more subscription revenue from cloud solutions. In addition, we continue to invest in our ONE Service organization and in our customer co-innovation projects. As a result, cost of services rose 5% to €3,089 million (2015: €2,932 million). Our gross margin on services, defined as services profit as a percentage of services revenue, narrowed to 15.1% (2015: 18.1%).

Research and Development Expense

Our research and development (R&D) expense consists primarily of the personnel cost of our R&D employees, costs incurred for independent contractors we retain to assist in our R&D activities, and amortization of the computer hardware and software we use for our R&D activities.

Due to growing personnel costs driven by a 12% increase in our R&D headcount by the end of the year, our R&D expense increased by 7% to €3,044 million in 2016 from €2,845 million in 2015. R&D expense as a percentage of total revenue thus increased to 13.8% in 2016 (2015: 13.7%). For more information, see the Products, Research & Development, and Services section.

Sales and Marketing Expense

Sales and marketing expense consists mainly of personnel costs, direct sales costs, and the cost of marketing our products and services.

Our sales and marketing expense rose 8% from €5,782 million in 2015 to €6,265 million in 2016. The increase was mainly the result of greater personnel costs as we expanded our global sales force, and of increased expenditure for bonus payments prompted by the strong revenue growth. The ratio of sales and marketing expense to total revenue, expressed as a percentage, increased to 28.4% year-over-year (2015: 27.8%), an increase of 0.6pp.

General and Administration Expense

Our general and administration expense consists mainly of personnel costs to support our finance and administration functions.

General and administration expense decreased 4% from €1,048 million in 2015 to €1,005 million in 2016. This decline in costs is primarily the result of careful cost management. Consequently, the ratio of general and administration expense to total revenue decreased in 2016 to 4.6% (2015: 5.0%).

Segment Information

The segment information below for 2016 and 2015 is presented based on the operating segments Applications, Technology & Services and SAP Business Network. For more information, see the Notes to the Consolidated Financial Statements section, Note (28), and the Performance Management System section.

Applications, Technology & Services Segment

€ millions (Non-IFRS)	2016	2015	Change in %	Δ in % (Constant Currency)
Cloud subscriptions and support revenue – SaaS/PaaS ¹⁾	1,191	872	37	38
Cloud subscriptions and support gross margin – SaaS/PaaS ¹⁾ (in %)	62	70	-8pp	-8pp
Cloud subscriptions and support revenue – IaaS ²⁾	209	91	>100	>100
Cloud subscriptions and support gross margin – IaaS ²⁾ (in %)	-6	-108	102pp	104pp
Cloud subscriptions and support revenue	1,400	963	45	47
Cloud subscriptions and support margin (in %)	52	53	-1pp	-1pp
Segment revenue	20,130	19,134	5	6
Gross margin (in %)	74	74	-0pp	-0pp
Segment profit	8,051	7,742	4	4
Segment margin (in %)	40	40	-0pp	-1pp

¹⁾ Software as a Service/Platform as a Service

²⁾ Infrastructure as a Service

In 2016, the revenue increase in the Applications, Technology & Services segment was driven mainly by strong growth in software support revenue, which increased 5% (6% at constant currencies) to €10,545 million. As a consequence of continuous strong demand for our human capital management, customer engagement and commerce, and SAP HANA Enterprise Cloud offerings, cloud subscriptions and support revenue in the Applications, Technology & Services segment grew 45% (47% at constant currencies) to €1,400 million.

The increase of cloud subscriptions and support revenue and software support revenue resulted in an increase in the

revenue share of more predictable revenue streams in this segment of 2pp at constant currencies from 58% in 2015 to 59% in 2016. Software license revenue attributable to this segment increased 1% at constant currencies to €4,895 million (2015: €4,837 million).

The segment's cost of revenue during the same time period increased 7% (8% at constant currencies) to €5,311 million (2015: €4,985 million). This increase in expenses was primarily the result of greater investment in expanding our cloud infrastructure and in providing and operating our cloud applications, as well as additional personnel expenses to support the growth of the cloud business.

SAP Business Network Segment

€ millions, unless otherwise stated (Non-IFRS)	2016	2015	Δ in %	Δ in % (Constant Currency)
Cloud subscriptions and support revenue – SaaS/PaaS ¹⁾	1,595	1,337	19	19
Cloud subscriptions and support gross margin – SaaS/PaaS ¹⁾ (in %)	76	75	1pp	1pp
Cloud subscriptions and support revenue	1,595	1,337	19	19
Cloud subscriptions and support margin (in %)	76	75	1pp	1pp
Segment revenue	1,925	1,616	19	19
Gross margin (in %)	67	68	-1pp	-1pp
Segment profit	341	317	8	1
Segment margin (in %)	18	20	-2pp	-3pp

¹⁾ Software as a Service/Platform as a Service

The segment's cost of revenue increased 21% in 2016 (22% at constant currencies) to €631 million (2015: €520 million). The SAP Business Network segment achieved a segment gross

profit of €1,295 million in 2016 (2015: €1,095 million), an increase of 18% (17% at constant currencies).

Reconciliation of Cloud Subscription Revenues and Margins

€ millions, unless otherwise stated	2016	2015	Δ in %	Δ in %
	Actual Currency	Constant Currency	Actual Currency	Constant Currency
Cloud subscriptions and support revenue – SaaS/PaaS ¹⁾	SAP Business Network segment	1,595	1,589	1,337
	Other	1,191	1,204	869
	Total	2,786	2,794	2,205
Cloud subscriptions and support revenue – IaaS ²⁾		209	213	91
Cloud subscriptions and support revenue		2,995	3,007	2,296
Cloud subscriptions and support gross margin – SaaS/PaaS ¹⁾ (in %)	SAP Business Network segment	76	76	75
	Other	61	62	70
	Total	70	70	73
Cloud subscriptions and support gross margin – IaaS ²⁾ (in %)		-6	-4	-108
Cloud subscriptions and support gross margin (in %)		64	64	66
		102pp	104pp	
		-1pp	-1pp	

¹⁾ Software as a Service/Platform as a Service

²⁾ Infrastructure as a Service

Financial Income, Net

Financial income, net, changed to -€38 million (2015: -€5 million). Our finance income was €230 million (2015: €241 million) and our finance costs were €268 million (2015: €246 million).

Finance income mainly consists of gains from disposal of equity securities totaling €164 million (2015: €176 million), interest income from loans and receivables, and other financial assets (cash, cash equivalents, and current investments) totaling €40 million (2015: €41 million), and income from derivatives totaling €29 million (2015: €30 million).

Finance costs mainly consist of interest expense on financial liabilities amounting to €108 million (2015: €135 million) and negative effects from derivatives amounting to €114 million (2015: €72 million). The decrease in finance costs is mainly due to lower average indebtedness. For more information about financing instruments, see the Notes to the Consolidated Financial Statements section, Note (17b).

Income Taxes

Our effective tax rate increased to 25.3% in 2016 (2015: 23.4%). The increase in the effective tax rate mainly resulted from changes in taxes for prior years and the increase in profit before tax. For more information on income taxes, see the Notes to the Consolidated Financial Statements section, Note (10).

Foreign Currency Exchange Rate Exposure

Although our reporting currency is the euro, a significant portion of our business is conducted in currencies other than the euro. Since the Group's entities usually conduct their business in their respective functional currencies, our risk of exchange rate fluctuations from ongoing ordinary operations is not considered significant. However, occasionally we generate foreign-currency-denominated receivables, payables, and other monetary items by transacting in a currency other than the functional currency; to mitigate the extent of the associated foreign currency exchange rate risk, the majority of these transactions are hedged as described in [Note \(25\)](#) to our Consolidated Financial Statements. Also see [Notes \(3\)](#) and [\(24\)](#) for additional information on foreign currencies.

Approximately 72% of our total revenue in 2017 (2016: 73%) was attributable to operations in non-euro participating countries. We translated that revenue into euros for financial reporting purposes. Fluctuations in the exchange value of the euro had an unfavorable impact of €301 million on our total revenue for 2017, an unfavorable impact of €164 million on our total revenue for 2016 and a favorable impact of €1,504 million on our total revenue for 2015.

The impact of foreign currency exchange rate fluctuations discussed in the preceding paragraph is calculated by translating current period figures in local currency to euros at

the monthly average exchange rate for the corresponding month in the prior year. Our revenue analysis, included within the *"Operating Results" section of Item 5*, discusses at times the effect of currency movements which are calculated in the same manner.

Liquidity and Capital Resources

Finances (IFRS)

Overview

Global Financial Management

We use global centralized financial management to control liquid assets and monitor exposure to interest rates and currencies. The primary aim of our financial management is to maintain liquidity in the Group at a level that is adequate to meet our obligations. Most SAP companies have their liquidity managed centrally by the Group, so that liquid assets across the Group can be consolidated, monitored, and invested in accordance with Group policy. High levels of liquid assets help keep SAP flexible, sound, and independent. In addition, various credit facilities are currently available for additional liquidity, if required. For more information about these facilities, see the *Credit Facilities* section.

We manage credit, liquidity, interest rate, equity price, and foreign exchange rate risks on a Group-wide basis. We use selected derivatives exclusively for this purpose and not for speculation, which is defined as entering into a derivative instrument for which we do not have corresponding underlying transactions. The rules for the use of derivatives and other rules and processes concerning the management of financial risks are documented in our treasury guideline, which applies globally to all companies in the Group. For more information about the management of each financial risk and about our risk exposure, see the Notes to the Consolidated Financial Statements, *Notes (24) to (26)*.

Liquidity Management

Our primary source of cash, cash equivalents, and current investments is funds generated from our business operations. Over the past several years, our principal use of cash has been to support operations and our capital expenditure requirements resulting from our growth, to quickly repay financial debt, to acquire businesses, to pay dividends on our shares, and to buy back SAP shares on the open market. On December 31, 2017, our cash, cash equivalents, and current investments were primarily held in euros and U.S. dollars. We generally invest only in the financial assets of issuers or funds with a minimum credit rating of BBB, and pursue a policy of cautious investment

characterized by wide portfolio diversification with a variety of counterparties, predominantly short-term investments, and standard investment instruments. Investments in financial assets of issuers with a credit rating lower than BBB were not material in 2017.

We believe that our liquid assets combined with our undrawn credit facilities are sufficient to meet our operating financing needs in 2018 and, together with expected cash flows from operations, will support debt repayments and our currently planned capital expenditure requirements over the near term and medium term. It may also be necessary to enter into financing transactions when additional funds are required that cannot be wholly sourced from free cash flow (for example, to finance large acquisitions).

To expand our business, we have made acquisitions of businesses, products, and technologies. Depending on our future cash position and future market conditions, we might issue additional debt instruments to fund acquisitions, maintain financial flexibility, and limit repayment risk. Therefore, we continuously monitor funding options available in the capital markets and trends in the availability of funds, as well as the cost of such funding. In recent years, we were able to repay additional debt within a short period of time due to our persistently strong free cash flow. For more information about the financial debt, see the *Cash Flows and Liquidity* section.

Capital Structure Management

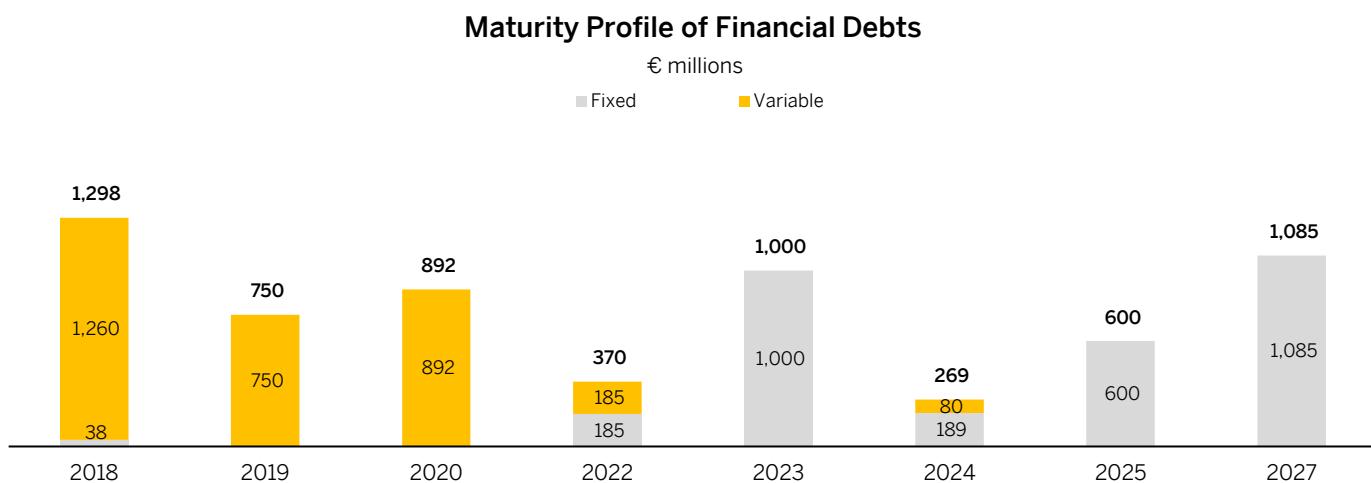
The primary objective of our capital structure management is to maintain a strong financial profile for investor, creditor, and customer confidence, and to support the growth of our business. We seek to maintain a capital structure that will allow us to cover our funding requirements through the capital markets at reasonable conditions, and in so doing, ensure a high level of independence, confidence, and financial flexibility.

For more information about the capital structure and its analysis, see the Notes to the Consolidated Financial Statements, *Note (21)*.

The long-term credit rating for SAP SE is "A2" by Moody's with stable outlook, and "A" by Standard & Poor's with positive outlook.

Our general intention is to remain in a position to return liquidity to our shareholders by distributing annual dividends totaling more than 40% of our profit after tax and potentially repurchasing treasury shares in future.

Financial Debts



Nominal volume of financial debt on December 31, 2017, included amounts in euros (€5,150 million) and U.S. dollars (€1,090 million). Approximately 50% of the financial debt was held at variable interest rates, partially swapped from fixed into variable using interest rate swaps.

In 2018, the Company intends to repay two Eurobond tranches of €1,150 million in total as well as a U.S. private placement tranche of US\$150 million in total when they mature.

Financial Debt

€ millions

Bonds	5,150
Private Placement	1,090
Bank Loan	24

For more information about our financial debt, see the Notes to the Consolidated Financial Statements, [Note \(17\)](#).

Cash Flows and Liquidity

Group Liquidity

€ millions	2017	2016	Δ
Cash and cash equivalents	4,011	3,702	309
Current investments	774	971	-196
Group liquidity	4,785	4,673	112
Current financial debt	-1,299	-1,435	136
Net liquidity 1	3,486	3,238	248
Non-current financial debt	-4,965	-6,390	1,425
Net liquidity 2	-1,479	-3,153	1,673

Group liquidity consists of cash and cash equivalents (for example, cash at banks, money market funds, and time deposits with original maturity of three months or less) and current investments (for example, investments with original maturities of greater than three months and remaining maturities of less than one year included in other financial assets) as reported in our Consolidated Financial Statements. Net liquidity is Group liquidity less total financial debt as defined above.

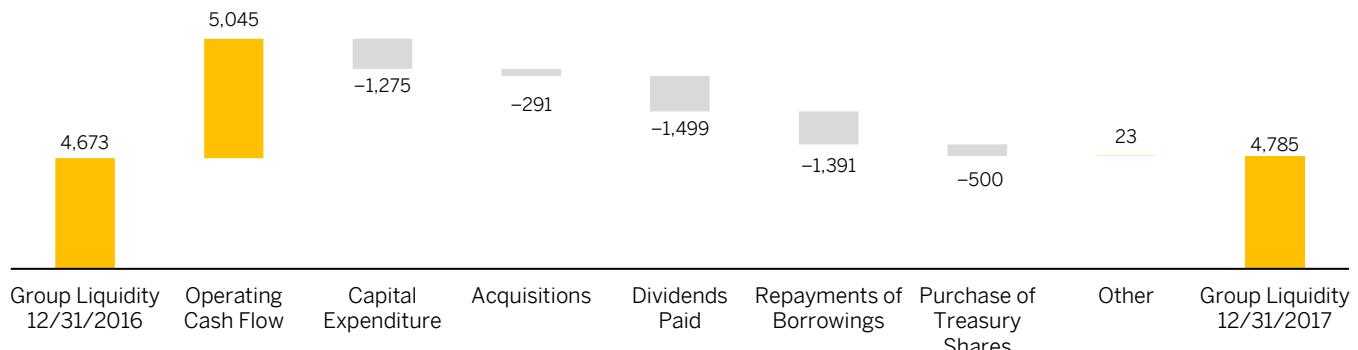
Group liquidity on December 31, 2017, primarily comprised amounts in euros and U.S. dollars.

The increase in Group liquidity compared to 2016 was mainly due to cash inflows from our operations. They were offset by cash outflows for dividend payments, purchase of treasury shares, and repayments of borrowings.

For information about the impact of cash, cash equivalents, current investments, and our financial liabilities on our income statements, see the analysis of our financial income, net, in the [Operating Results \(IFRS\)](#) section.

Group Liquidity Development

€ millions



Analysis of Consolidated Statements of Cash Flows

€ millions	Years ended December 31,			Δ in %	Δ in %
	2017	2016	2015		
Net cash flows from operating activities	5,045	4,628	3,638	9	27
Net cash flows from investing activities	-1,112	-1,799	-334	-38	>100
Net cash flows from financing activities	-3,406	-2,705	-3,356	26	-19

Analysis of Consolidated Statements of Cash Flows: 2017 compared to 2016

In 2017, cash inflows from operating activities increased by €417 million to €5,045 million (2016: €4,628 million). This result is due to a €145 million decrease in income tax payments compared to the prior year and improved working capital management, which can be shown in decreased days' sales outstanding (DSO) for receivables, defined as the average number of days from the raised invoice to cash receipt from the customer, which went down four days in 2017 to 70 days (2016: 74 days).

Cash outflows from investment activities were €1,112 million in 2017 (2016: €1,799 million). The decrease was caused by net cash inflows from sales and purchases of equity or debt instruments of other entities, totaling €358 million in 2017 compared to a net cash outflow €756 million in 2016. Cash outflows from the purchases of intangible assets and property, plant, and equipment increased by €274 million to €1,275 million in 2017, while cash outflows from business combinations increased by €185 million to €291 million in 2017. For more information about current and planned capital expenditures, see the *Investment Goals* section.

Net cash outflows from financing activities were €3,406 million in 2017, compared to €2,705 million in 2016. The 2017 cash outflows resulted from repayments of €1,000 million in Eurobonds and US\$442.5 million in U.S. private placements when they matured. Cash outflows in 2016 resulted from repayments of a €1,250 million bank loan that we had taken to finance the Concur acquisition. The repayment was partly refinanced through the issuance of a €400 million Eurobond. We also repaid a US\$600 million U.S. private placement in 2016.

The dividend payment of €1,499 million made in 2017 exceeded the amount of €1,378 million from the prior year, as a result of the increased dividend paid per share from €1.15 to €1.25. In 2017, we repurchased shares in the amount of €500 million (2016: €0).

Analysis of Consolidated Statements of Cash Flows: 2016 Compared to 2015

In 2016 cash inflows from operating activities increased by €990 million to €4,628 million (2015: €3,638 million). This result is primarily due to our revenue increase and higher profitability as well as €161 million lower payments to employees related to restructuring (2015: €476 million).

In 2016, days' sales outstanding (DSO) for receivables, defined as the average number of days from the raised invoice to cash receipt from the customer, increased three days to 74 days (2015: 71 days).

Cash outflows from investment activities increased to €1,799 million in 2016 (2015: €334 million). The increase resulted from lower proceeds from sale of equity or debt instruments of other entities of €793 million in 2016 (2015: €1,880 million). Cash outflows from purchase of intangible assets and property, plant, and equipment increased by €365 million to €1,001 million in 2016. For more information about current and planned capital expenditures, see the *Investment Goals* section.

Net cash outflows from financing activities were €2,705 million in 2016, compared to net cash outflows of €3,356 million in 2015. The 2016 cash outflows resulted from repayments of €1,250 million bank loan that we had taken to finance the Concur acquisition. The repayment was partly refinanced through the issuance of a €400 million Eurobond. We also repaid a US\$600 million U.S. private placements. Cash outflows in 2015 arose mainly from repayments of €1,270 million bank loan that we assumed in connection with our acquisition of Concur, €550 million Eurobonds and US\$300 million U.S. private placements. We refinanced another portion of the bank loan through the issuance of a three-tranche Eurobond of €1,750 million in total.

The dividend payment of €1,378 million made in 2016 exceeded the amount of €1,316 million from the prior year resulting from the increased dividend paid per share from €1.10 to €1.15.

Credit Facilities

Other sources of capital are available to us through various credit facilities, if required.

To retain high financial flexibility, on November 20, 2017, SAP SE entered into a €2.5 billion syndicated credit facility agreement with an initial term of five years plus two one-year extension options, replacing its previous credit facility of €2.0 billion from 2013. The credit facility may be used for general corporate purposes. A possible future utilization is not subject to any financial covenants. Borrowings under the facility bear interest of EURIBOR or LIBOR for the respective currency plus a margin of 0.17%. We are also required to pay a commitment fee of 0.0595% per annum on the unused available credit. So far, we have not used, and do not currently foresee any need to use, this credit facility.

As at December 31, 2017, SAP SE had additional available credit facilities totaling €474 million. Several of our foreign subsidiaries have credit facilities available that allow them to borrow funds at prevailing interest rates. As at December 31, 2017, approximately €36 million was available through such arrangements. There were immaterial borrowings outstanding under these credit facilities from our foreign subsidiaries as at December 31, 2017.

Off-Balance Sheet Arrangements

Several SAP entities have entered into operating leases for office space, hardware, cars and certain other equipment.

These arrangements are sometimes referred to as a form of off-balance sheet financing. Rental expenses under these operating leases are set forth below under "*Contractual Obligations*." We

do not believe we have forms of material off-balance sheet arrangements that would require disclosure other than those already disclosed.

Contractual Obligations

The table below presents our on- and off-balance sheet contractual obligations as of December 31, 2017:

Contractual obligations

€ millions	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Financial liabilities ⁽¹⁾	6,934	1,554	1,791	487	3,102
Derivative financial liabilities ⁽¹⁾	71	53	18	0	0
Operating lease obligations ⁽³⁾	1,459	322	493	285	358
Purchase obligations ⁽³⁾	1,141	662	280	107	93
Capital contribution commitments ⁽³⁾	182	182	0	0	0
Other non-current non-financial liabilities ⁽²⁾	503	0	355	15	133
Total	10,290	2,772	2,936	894	3,686

(1) For more information on financial liabilities and derivative financial liabilities see Note (24) to our Consolidated Financial Statements.

(2) For more information on other non-current non-financial liabilities see Note (17c) to our Consolidated Financial Statements.

(3) See Note (22) to our Consolidated Financial Statements for additional information about operating lease obligations, purchase obligations, and capital contribution commitments. Our expected contributions to our pension and other post-employment benefit plans are not included in the table above. For more information on these contributions see Note (18a) to our Consolidated Financial Statements.

We expect to meet these contractual obligations with our existing cash, our cash flows from operations and our financing activities. The timing of payments for the above contractual obligations is based on payment schedules for those obligations where set payments exist. For other obligations with no set payment schedules, estimates for the most likely timing of cash payments have been made. The ultimate timing of these future cash flows may differ from these estimates.

Obligations under Indemnifications and Guarantees

Our software license agreements and our cloud subscription agreements generally include certain provisions for indemnifying customers against liabilities if our software products infringe a third party's intellectual property rights. In addition, we occasionally provide function or performance guarantees in routine consulting contracts and development arrangements. We also generally provide a six to twelve month warranty on our software. Our warranty liability is included in other provisions. For more information on other provisions see [Note \(18b\)](#) to our Consolidated Financial Statements. For more information on obligations and contingent liabilities refer to [Note \(3\)](#) and [Note \(22\)](#) in our Consolidated Financial Statements.

Research and Development

For information on our R&D activities see "[Item 4. Information about SAP – Products, Research & Development, and Services](#)." For information on our R&D costs see "[Item 5. Operating and Financial Review and Prospects – Operating Results \(IFRS\)](#)" and for information related to our R&D employees see "[Item 6. Directors, Senior Management and Employees – Employee](#)."

Critical Accounting Estimates

Our Consolidated Financial Statements are prepared based on the accounting policies described in [Note \(3\)](#) to our Consolidated Financial Statements in this report. The application of such policies requires management to make judgments, estimates and assumptions that affect the application of policies and the reported amounts of assets, liabilities, revenues and expenses in our Consolidated Financial Statements. We base our judgments, estimates and assumptions on historical and forecast information, as well as regional and industry economic conditions in which we or our customers operate, changes to which could adversely affect our estimates. Although we believe we have made reasonable estimates about the ultimate resolution of the underlying uncertainties, no assurance can be given that the final outcome

of these matters will be consistent with what is reflected in our assets, liabilities, revenues and expenses. Actual results could differ from original estimates.

The accounting policies that most frequently require us to make judgments, estimates, and assumptions, and therefore are critical to understanding our results of operations, include the following:

- revenue recognition;
- valuation of trade receivables;
- accounting for share-based payments;
- accounting for income taxes;
- accounting for business combinations;
- subsequent accounting for goodwill and intangible assets;
- accounting for legal contingencies; and
- recognition of internally generated intangible assets from development.

Our management periodically discusses these critical accounting policies with the Audit Committee of the Supervisory Board. See [Note \(3c\)](#) to our Consolidated Financial Statements for further discussion on our critical accounting estimates and critical accounting policies.

New Accounting Standards not yet Adopted

See [Note \(3e\)](#) to our Consolidated Financial Statements for our discussion on new accounting standards not yet adopted.

Expected Developments

Future Trends in the Global Economy

In 2018, economic activity will remain broadly stable at the global level, but developments across countries and regions could vary notably. That is what the European Central Bank (ECB) projects in its December 2017 Economic Bulletin.¹ The ECB largely expects the growth potential to stabilize at below pre-crisis levels this year. Specifically, the outlook among advanced economies might entail robust expansion, which will most likely slow down gradually as the upturn matures. On the other side, the ECB awaits increased dynamism in emerging market economies, supported by strengthening activity in commodity exporters.

Regarding the Europe, Middle East, and Africa (EMEA) region, the ECB concludes that the euro area economic expansion in 2018 will continue to be solid and broad-based across countries and sectors. This will, on the one side, be due to private expenditure and consumption growth, supported by lower deleveraging needs and improved labor market conditions, says the ECB. On the other side, it attributes its projections to improvements in corporate profitability and the favorable financing conditions, while euro area exporters could benefit from the ongoing global economic expansion. In central and eastern European countries, the ECB expects economic activity to accelerate in the near term, driven by a rebound in investment and strong private consumption, on the back of improving labor markets and higher absorption of EU funds. Russia, according to the ECB, may lose some of its only recently recovered dynamism in the short term, but growth is expected to resume afterwards, supported by higher oil prices, a stronger ruble, and declining inflation.

As to the North America and Latin America (Americas) region, the ECB anticipates a robust expansion in the United States, which will slow down over the next few years as the recovery matures and output gaps gradually close. U.S. activity will benefit primarily from solid domestic demand with growth in investment and consumption, as tight labor market conditions gradually feed into higher wage growth and favorable financial conditions boost wealth, says the ECB. Moreover, the strengthening of external demand and the recent depreciation of the U.S. dollar might support the U.S. outlook. As to Brazil, the ECB projects that although recurring political uncertainties will continuously weigh on business investment and consumer spending, loosening financial conditions alongside increasing monetary accommodation and improving terms of trade will support the Brazilian economy over the medium term.

In the Asia Pacific Japan (APJ) region, the ECB expects economic activity in Japan in 2018 to be supported by firming foreign demand, private investment gains associated with high profits and increasing labor and capacity shortages, and

favorable financing conditions. However, according to the ECB, Japan will face another slow down already after 2018. The ECB's near-term outlook for solid development in China is dominated by the authorities' focus on stable growth, given the ongoing political transition. However, the ECB's assumption over the medium term is that continued structural reforms in China will gradually be implemented, leading to an orderly slowdown of economic growth. Finally, as to the ECB, growth in India will also remain solid in 2018.

Economic Trends – Year-Over-Year GDP Growth

%	2016	2017p	2018p
World	3.2	3.6	3.7
Advanced economies	1.7	2.2	2.0
Developing and emerging economies	4.3	4.6	4.9
Europe, Middle East, and Africa (EMEA)			
Euro area	1.8	2.1	1.9
Germany	1.9	2.0	1.8
Emerging and Developing Europe	3.1	4.5	3.5
Middle East, North Africa, Afghanistan, and Pakistan	5.0	2.6	3.5
Sub-Saharan Africa	1.4	2.6	3.4
Americas			
United States	1.5	2.2	2.3
Canada	1.5	3.0	2.1
Latin America and the Caribbean	-0.9	1.2	1.9
Asia Pacific Japan (APJ)			
Japan	1.0	1.5	0.7
Emerging and Developing Asia	6.4	6.5	6.5
China	6.7	6.8	6.5

p = projection

Source: International Monetary Fund (IMF), World Economic Outlook October 2017, Seeking Sustainable Growth, Short-Term Recovery, Long-Term Challenges (<http://www.imf.org/~/media/Files/Publications/WEO/2017/October/pdf/main-chapter/text.ashx?la=en>), p. 32.)

The IT Market: Outlook for 2018 and Beyond

In 2018, digital transformation will still be the top driver of IT spending and will remain so for the coming years,⁴ says IDC (International Data Corporation), a U.S.-based market research firm. IDC predicts worldwide spending on digital transformation technologies to expand at a compound annual growth rate of 17.9% through 2021 to more than \$2.1 trillion⁵ (\$1.7 trillion in 2019).⁶ According to IDC, virtually all digital transformation initiatives will be dependent on the cloud services delivery model for scale, access to key technologies, and access to digital supply networks and distribution networks.⁴

Therefore, IDC expects still growing percentages of IT operations budgets to go to public cloud in the coming years,⁵ assuming that cloud services spending will continue to grow at double-digit rates for the next few years.³ Most likely for IDC, the most notable growth area at a compound annual growth rate of 27.3% through 2021 will be managed public cloud services offerings.⁴ But even the entire software and services markets will grow significantly, forecasts IDC, with \$357.9 billion being invested in software in 2018 and \$430.0 billion in 2019, while services will be at \$601.7 billion in 2018 and \$703.2 billion in 2019.²

IDC expects the pace of IT innovation launches on public clouds to continue or even accelerate the migrations of applications and data from enterprise datacenters to shared/public cloud datacenters.⁴ This will be driven by new tooling and investments to manage and monitor public cloud-based resources and by the learning curve of getting familiar with new operational workflows,⁵ says IDC. It will most likely in the long term have a positive overall impact on industry growth as more users adopt more advanced computing solutions at a faster rate.³

By 2019, IDC expects that approximately \$0.4 trillion will be invested in technologies like the cloud and Big Data while \$1.3 trillion could be invested in innovation accelerators like the Internet of Things (IoT), next-generation security, and machine learning.² They all, according to IDC, then combine to continually sense and collectively learn from the data environment of the enterprise.² Many future commerce business models even necessarily require technologies such as the IoT, Big Data and analytics, security, enterprise mobility, cloud, and artificial intelligence,² says IDC, and predicts that, for example, by 2020, 25% of global transaction banks, nearly 30% of manufacturers and retailers, and 20% of healthcare organizations will use blockchain networks in production,⁶ calling this development the “blockchain-fueled rise of digital trust.”⁶

However, according to IDC, cognitive computing, artificial intelligence, and machine learning will soon become the fastest-growing segments of software development.⁶ 40% of digital transformation initiatives could use artificial intelligence services by 2019 and 75% of commercial enterprise apps by 2021.⁶ This means a compound annual growth rate of 54.4% through 2020 for cognitive and artificial intelligence solutions with a total revenue of more than \$46 billion by then,⁵ says IDC.

Sources:

- ¹ European Central Bank, Economic Bulletin, Issue 8/2017, Publication Date: December 28, 2017 (<http://www.ecb.europa.eu/pub/pdf/ecbu/eb201708.en.pdf>)
- ² IDC FutureScape: Worldwide Digital Transformation 2018 Predictions, Doc #US43154617, October 2017
- ³ IDC Market Forecast: Software License, Maintenance & Subscription Forecast, 2017-2021, Doc #US42825517, July 2017
- ⁴ IDC Worldwide Whole Cloud Forecast, 2017-2021, Doc #US43215817, December 2017
- ⁵ IDC FutureScape, Worldwide Cloud 2018 Predictions, Doc # US42014717, October 2017
- ⁶ IDC FutureScape: Worldwide IT Industry 2018 Predictions, #US43171317, October 2017

As to regional rates of growth, Gartner, another U.S.-based IT market research firm, projects the following accelerations in IT spending for the mid-term horizon until end of 2018:

Trends in the IT Market – Accelerated IT Spending Year Over Year

Growth in % at constant currencies	2016e	2017p	2018p
World			
Total IT	2.0	3.4	3.2
Software	6.5	8.6	8.3
Services	4.1	4.3	4.4
Europe, the Middle East, and Africa (EMEA)			
Total IT	1.7	2.2	2.1
Software	6.3	8.1	7.9
Services	2.8	3.3	3.7
Americas			
Total IT	2.0	3.6	2.9
Software	6.9	8.5	8.2
Services	5.5	5.2	5.1
Asia-Pacific-Japan (APJ)			
Total IT	2.3	4.5	4.7
Software	5.8	9.6	9.8
Services	3.0	3.7	3.7

e = estimate, p = projection

Table created by SAP based on: Gartner Market Databook, 4Q17 Update, December 28, 2017, Table 2-1 "Regional End-User Spending on IT Products and Services in Constant U.S. Dollars, 2015-2021 (Millions of Dollars)".

The Gartner Reports described herein, (the “Gartner Reports”) represent research opinion or viewpoints published, as part of a syndicated subscription service, by Gartner, Inc. (“Gartner”), and are not representations of fact. Each Gartner Report speaks as of its original publication date (and not as of the date of this Annual Report) and the opinions expressed in the Gartner Reports are subject to change without notice.

Impact on SAP

Our 2017 results again showed that our strategy of innovation and growth is the right way forward. SAP once again showed impressive resilience and global breadth to successfully navigate the evolving economic and political environment. We will continue to invest in strategic growth areas such as the cloud, the IoT, artificial intelligence, and blockchain, which are expected to become significant investment priorities of our customers in the upcoming years.

SAP is positioned at the business core processes of a large number of global corporations. The growing hyperconnectivity with the physical world, the capabilities of supercomputing architectures as well as the continuous adoption of cloud solutions makes us confident to significantly benefit from the mega trends predicted by industry analysts.

Operational Targets for 2018 (Non-IFRS)

Revenue and Operating Profit Outlook

The Company is providing the following 2018 outlook:

- Based on the continued strong momentum in SAP's cloud business, the Company expects full-year 2018 non-IFRS cloud subscriptions and support revenue to be in a range of €4.8 billion to €5.0 billion at constant currencies (2017: €3.77 billion). This range represents a growth rate of 27% to 33% at constant currencies.
- The Company expects full-year 2018 non-IFRS cloud and software revenue to be in a range of €20.7 billion to €21.1 billion (2017: €19.55 billion). This range represents a growth rate of 6% to 8% at constant currencies.
- The Company expects full-year 2018 non-IFRS total revenue to be in a range of €24.6 billion to €25.1 billion at constant currencies (2017: €23.46 billion). This range represents a growth rate of 5% to 7% at constant currencies.
- The Company expects full-year 2018 non-IFRS operating profit to be in a range of €7.3 billion to €7.5 billion at constant currencies (2017: €6.77 billion). This range represents a growth rate of 8% to 11% at constant currencies.

We expect that non-IFRS total revenue will continue to depend largely on the revenue from both cloud and software. However, we expect cloud revenue to overtake software license revenue in 2018 and beyond. As of Q2 2018, we expect an increase in operating margin again.

In 2018, we expect our headcount to increase at a similar pace as in 2017.

While the Company's full-year 2018 business outlook is at constant currencies, actual-currency reported figures are expected to be impacted by currency exchange rate fluctuations as we progress through the year. If exchange rates remain at the early January level for the rest of the year, we expect non-IFRS cloud and software revenue to experience a currency headwind in a range of –7pp to –9pp in Q1 2018 and –3pp to –5pp for the full year 2018, and non-IFRS operating profit to experience a currency headwind in a range of –6pp to –8pp in Q1 2018 and –4pp to –6pp for the full year 2018.

We continuously strive for profit expansion in both of our reportable segments.

The following table shows the estimates of the items that represent the differences between our non-IFRS financial measures and our IFRS financial measures.

Non-IFRS Measures

€ millions	Estimated Amounts for 2018	Actual Amounts for 2017
Revenue adjustments	<20	3
Share-based payment expenses	800 to 1,100	1,120
Acquisition-related charges	500 to 540	587
Restructuring	30 to 50	182

The Company expects a full-year 2018 effective tax rate (IFRS and non-IFRS) of 27.0% to 28.0% (2017: 19.3% (IFRS) and 22.6% (non-IFRS)).

Impact of the New Accounting Standard IFRS 15 'Revenue from Contracts with Customers'

As of January 1, 2018, SAP changed several of its accounting policies to adopt IFRS 15 'Revenue from Contracts with Customers'. Under the IFRS 15 adoption method chosen by SAP, prior years are not restated to conform to the new policies. Consequently, the year-over-year growth of revenue and profit in 2018 will be impacted by the new policies.

The Company expects the impact of the policy change on revenue, operating expenses, and profit to be as follows:

- Revenues are expected to experience a benefit of substantially less than €0.1 billion, with most of the difference resulting from exercises of customer software purchase options granted in prior years that result in software revenue.
- Operating expenses are expected to benefit, in cost of sales and marketing, in the amount of approximately €0.2 billion from higher capitalization of sales commissions. Other policy changes will weigh on operating expenses with an additional cost of revenue of substantially less than €0.1 billion.
- The abovementioned effects will result in a net positive impact on operating profit of approximately €0.2 billion.

For more information about the adoption of IFRS 15, see the Notes to the Consolidated Financial Statements, [Note \(3e\)](#).

Goals for Liquidity and Finance

On December 31, 2017, we had a negative net liquidity. We believe that our liquid assets combined with our undrawn credit facilities are sufficient to meet our operating financing needs also in 2018 and, together with expected cash flows from operations, will support debt repayments and our currently planned capital expenditure requirements over the near and medium term.

In 2018, we anticipate operating cash flow to reach around €5.0 billion.

We intend to repay US\$150 million in U.S. private placements in June 2018 as well as €400 million and €750 million in Eurobonds in August and November 2018, respectively.

Investment Goals

Our planned capital expenditures for 2018 and 2019, other than from business combinations, consist primarily of the construction activities described. We expect investments from these activities of approximately €473 million in 2018 (an increase of approximately 45% compared to the previous year). The expansion of our data centers is an important aspect of our planned investments again for 2018. In addition, we aim to extend our office space to cover currently anticipated future growth. In 2019, we expect investments of approximately €400 million.

On January 30, 2018, SAP announced that SAP America, Inc. has entered into an agreement to acquire Callidus Software Inc. SAP safeguards funding of the transaction with existing cash balances and an acquisition term loan and intends to refinance substantial portions of the purchase price with capital market transactions. The transaction is expected to close in the second quarter of 2018, subject to approval from Callidus Software Inc. stockholders, clearances by the relevant regulatory authorities, and other customary closing conditions. For more information about the acquisition of Callidus Software Inc., see the Notes to the Consolidated Financial Statements section, [Note \(32\)](#).

Other than that we do not expect major acquisitions in 2018 and 2019 but will rather focus on organic growth, complemented by minor tuck-in acquisitions.

Proposed Dividend

In 2018, we intend to pay a dividend totaling more than 40% of the prior year's profit after tax, subject to shareholder approval at the Annual General Shareholders meeting in May 2018.

Premises on Which Our Outlook Is Based

In preparing our outlook, we have taken into account all events known to us at the time we prepared this report that could influence SAP's business going forward. However, our outlook as well as the estimates for our non-IFRS adjustments do not include any contributions from the acquisition of CallidusCloud. SAP will provide an update on its outlook subsequent to the closing of the contemplated acquisition.

Medium-Term Prospects

In this section, all numbers are based exclusively on non-IFRS measures.

We expect to grow our more predictable revenue while steadily increasing operating profit. Our strategic objectives are focused primarily on our main financial and non-financial objectives:

growth, profitability, customer loyalty, and employee engagement.

We reiterate our 2020 ambition for cloud subscription and support revenue, total revenue, operating profit, and more predictable revenue share last provided at the beginning of 2017. This ambition reflects SAP's consistent fast growth in the cloud, solid software momentum, and operating profit expansion. Despite the currency headwinds in 2017 SAP continues to strive to reach the following in 2020:

- €8.0 billion to €8.5 billion in Non-IFRS cloud subscriptions and support revenue (2017: €3.77 billion)
- €28 billion to €29 billion in Non-IFRS total revenue (2017: €23.46 billion)
- €8.5 billion to €9.0 billion in Non-IFRS operating profit (2017: €6.77 billion)

We continue to expect the share of more predictable revenue (defined as the total of Non-IFRS cloud subscriptions and support revenue and Non-IFRS software support revenue) to reach 70% to 75% in 2020 (2017: 63%).

By 2020, we expect our public cloud offerings to contribute approximately half of Non-IFRS cloud subscription and support revenue, closely followed by our business network offerings. Both of these offerings are expected to each generate, in 2020, cloud subscriptions and support revenues that are significantly higher than the cloud subscriptions and support revenue generated from our private cloud offerings.

Our revenue growth trajectory through 2020 is expected to be driven by continued strong growth in the cloud and continued growth in our software support revenue. We continue to expect low to mid-single-digit declines in software revenue. This is all expected to result in high single-digit growth in cloud and software revenue through 2020.

We also strive to significantly improve, over the next few years, the profitability of our cloud business. Starting in 2018, we expect to see the benefits from previous efficiency-based investments, and thus an increasing cloud gross margin. We expect these profitability improvements to accelerate in the following years.

We expect that the individual gross margins of our different cloud operating models will increase at different rates over the next years to reach the following mid-term targets.

Previously, we expected our business network gross margin to reach 80% by 2020 (2017: 77%). We now expect that, in 2020, this gross margin will be higher than 80%.

We continue to expect the gross margin from our public cloud offerings to reach approximately 80% (2017: 57%), but this is now expected to take one to two years longer than 2020 as previously targeted.

We continue to expect the gross margin for our private cloud offerings to reach about 40% by 2020 (2017: 6%).

The changes in our gross margin ambitions for the individual cloud operating models also impact our ambition for the overall cloud gross margin. Previously, we expected the cloud gross margin to reach approximately 73% in 2020. The cloud gross margin is now expected to be approximately 71% by 2020. This change primarily results from our revised public cloud gross margin ambition as outlined above. However, this is expected to be partially outweighed by revenue mix-shift effects, as our private cloud offerings are now expected to have a lower share of our overall cloud subscriptions and support revenue.

We also aim at further improving the profitability of our on-premise software business. The gross margin for our software licenses and support is expected to be at approximately 87.5% by 2020 (2017: 87.0%) in 2020.

In addition, we expect our services gross margin to remain stable (2017: 23.5%) in 2020. The change in this target compared to our previously communicated target of 20% is driven by the continued efficiency gains from our SAP ONE Service initiative.

As we look to increase our profitability through 2020, our cost ratios (cost as a % of total revenue) are expected to develop as follows through 2020: Research and development is expected to remain at the current level. Sales and marketing as well as General and administration are expected to decline slightly.

Non-Financial Goals 2018 and Ambitions for 2020

In addition to our financial goals, we also focus on two non-financial targets: customer loyalty and employee engagement.

For 2018 through to 2020, we aim to reach an Employee Engagement Index of between 84% and 86% (2017: 85%).

We measure customer loyalty using the Customer Net Promoter Score (NPS). In 2018, we foresee a combined Customer NPS of 21% to 23%, with our medium-term goal of reaching a combined Customer NPS of 35% to 40% by 2020 (2017: 17.8%).

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

Supervisory Board

The current members of the Supervisory Board of SAP SE, each member's principal occupation, the year in which each was first elected and the year in which the term of each expires, respectively, are as follows:

Name	Age	Principal Occupation	Year First Elected	Year Term Expires
Prof. Dr. h.c. mult. Hasso Plattner, Chairman(1)(3)(6)(7)(10)(11)	74	Chairman of the Supervisory Board	2003	2019
Margret Klein-Magar, Vice Chairperson(3)(6)(8)	53	Employee, Vice President Head of SAP Alumni Relations	2012	2019
Pekka Ala-Pietila(1)(5)(6)(7)(10)	61	Chairman of the Board of Directors, Huhtamäki Oyj	2002	2019
Panagiotis Bissiritsas(4)(5)(6)(8)	49	Employee, Support Expert, Member of Works Council SAP SE	2007	2019
Martin Duffek(4)(6)(8)(11)	42	Employee, Product Manager	2015	2019
Aicha Evans(3)(6)	48	Senior Vice President and Chief Strategy Officer, Intel Corporation	2017	2018
Prof. Anja Feldmann(1)(6)(11)	52	Director of Max-Planck-Institut für Informatik Saarbrücken	2012	2019
Prof. Dr. Wilhelm Haarmann(1)(3)(5)(10)(11)	67	Attorney at Law, Certified Public Auditor and Certified Tax Advisor; Linklaters LLP, Rechtsanwälte, Notare, Steuerberater	1988	2019
Andreas Hahn(3)(6)(8)	47	Employee, Product Expert, IoT Standards, Member of Works Council SAP SE	2015	2019
Prof. Dr. Gesche Joost(2)(6)(11)	43	Professor for Design Research and Head of the Design Research Lab, University of Arts Berlin	2015	2019
Lars Lamadé(3)(8)(10)(11)	46	Employee, Head of Sponsorships Europe and Asia	2002	2019
Bernard Liautaud(1)(3)(6)(7)	55	Managing Partner, Balderton Capital	2008	2019
Christine Regitz(6)(8)(11)	52	Employee, Vice President User Experience, Chief Product Expert	2015	2019
Dr. Erhard Schipporeit(1)(4)(5)(9)(10)	69	Independent Management Consultant	2005	2019
Robert Schuschnig-Fowler(5)(8)(11)	58	Employee, Account Manager, Senior Support Consultant, Deputy Chairman of SAP SE Works Council Europe, Member of Works Council SAP SE	2015	2019
Dr. Sebastian Sick(3)(5)(8)(10)	45	Head of Company Law Unit, Hans Boeckler Foundation	2015	2019
Pierre Thiollet(6)(8)	56	Employee, Webmaster, Member of the SAP France Works Council, Secretary of CHSCT (Hygiene, Security and Work Conditions Committee)	2015	2019
Prof. Dr.-Ing. Dr.-Ing. E.h. Klaus Wucherer(1)(4)	73	Managing Director of Dr. Klaus Wucherer Innovations- und Technologieberatung GmbH	2007	2019

- (1) Elected by SAP SE's shareholders on May 21, 2014.
- (2) Elected by SAP SE's shareholders on May 12, 2016.
- (3) Member of the General and Compensation Committee.
- (4) Member of the Audit Committee.
- (5) Member of the Finance and Investment Committee.
- (6) Member of the Technology and Strategy Committee.
- (7) Member of the Nomination Committee.
- (8) Appointed by the SAP SE Works Council Europe on May 6, 2015.
- (9) Audit Committee financial expert.
- (10) Member of the Special Committee.
- (11) Member of the People and Organization Committee.

For detailed information on the Supervisory Board committees and their tasks, including the Audit Committee and the General and Compensation Committee, please refer to "[Item 10. Additional Information – Corporate Governance](#)."

Pursuant to the Articles of Incorporation of SAP SE and the Agreement on the Involvement of Employees in SAP SE, members of the Supervisory Board of SAP SE consist of nine representatives of the shareholders and nine representatives of the European employees. The current nine employees' representatives were appointed by the SAP SE Works Council Europe on May 6, 2015.

Certain current members of the Supervisory Board of SAP SE were members of supervisory boards and comparable governing bodies of enterprises other than SAP SE in Germany and other countries as of December 31, 2017. See [Note \(29\)](#) to our Consolidated Financial Statements for more detail. Apart from pension obligations for employees, SAP SE has not entered into contracts with any member of the Supervisory Board that provide for benefits upon a termination of the employment or service of the member.

Executive Board

The current members of the Executive Board, the year in which each member was first appointed and the year in which the term of each expires, respectively, are as follows:

Name	Year First Appointed	Year Current Term Expires
Bill McDermott, CEO	2008	2021
Robert Enslin	2014	2021
Adaire Fox-Martin	2017	2020
Christian Klein	2018	2020
Michael Kleinemeier	2015	2019
Bernd Leukert	2014	2021
Jennifer Morgan	2017	2020
Luka Mucic	2014	2021
Stefan Ries	2016	2019

The following changes occurred in the Executive Board in 2017:

- On April 30, 2017, Steve Singh left SAP.
- As of May 1, 2017, the responsibilities of Robert Enslin and Bernd Leukert were expanded.
- Effective May 1, 2017, Adaire Fox-Martin and Jennifer Morgan were appointed to the Executive Board.
- Effective January 1, 2018, Christian Klein was appointed to the Executive Board.

A description of the management responsibilities and backgrounds of the current members of the Executive Board are as follows:

Bill McDermott, CEO (Vorstandssprecher), 56 years old, holds a master's degree in business administration from Northwestern University-Kellogg School of Management. He joined SAP in 2002 and became a member of its Executive Board on July 1, 2008. On February 7, 2010 he became Co-CEO alongside Jim Hagemann Snabe and when Jim Hagemann Snabe concluded his role as Co-CEO in May 2014, Bill McDermott became sole CEO. Besides his duties as CEO, he is responsible for strategy, governance, digital government, business development, corporate development, global corporate affairs, corporate audit and global marketing. He represents SAP as a member of the European Roundtable of Chief Executive Officers, the U.S. Business Council and the World Economic Forum. Prior to joining SAP, he served as a global executive in several technology companies.

Robert Enslin, 55 years old, holds diplomas in data science as well as computer science and data management. He joined SAP in 1992 and became a member of the Executive Board in May 2014. He is president of Cloud Business Group and is responsible for Concur, Ariba, and Fieldglass (sales, development, delivery), for Customer Engagement and Commerce (CEC) and SuccessFactors (development and delivery) as well as for industry go-to-market. Before joining SAP, Robert Enslin spent 11 years in various roles in the IT industry.

Adaire Fox-Martin, 53 years old, is a graduate of Trinity College in Ireland. She joined SAP in 2008 and became a member of the Executive Board in 2017. She is responsible for Global Customer Operations and leads SAP's business in EMEA (Europe, Middle East, Africa), MEE (Middle & Eastern Europe) and Greater China. Prior to SAP, Adaire Fox-Martin served as the head of Public Sector for Asia Pacific Japan at Oracle Corporation.

Christian Klein, 37 years old, holds a diploma in international business administration from the University of Cooperative Education in Mannheim, Germany. He joined SAP in 1999 and became a member of the Executive Board in 2018. Christian is Chief Operating Officer (COO) of SAP and leads the board area Global Business Operations. He is responsible for managing the digital transformation at SAP focusing on business process simplification, IT services, and portfolio & pricing.

Michael Kleinemeier, 61 years old, holds a degree in commercial management from the University of Paderborn. He first joined SAP in 1989 and became a member of the Executive Board in November 2015. He leads the Digital Business Services organization including global consulting delivery, global and regional support and premium engagement, maintenance go-to-market, global user groups, and mobile services.

Bernd Leukert, 50 years old, holds a master's degree in business administration with an emphasis on engineering and information technology. He joined SAP in 1994 and became a member of the Executive Board in May 2014. He is responsible for the board area Products & Innovation including the global development and delivery of SAP technology and products, strategic innovation initiatives, and design and user experience.

Jennifer Morgan, 46 years old, is a graduate of James Madison University in Harrisonburg, Virginia, United States. She joined SAP in 2004 and became a member of the Executive Board in 2017. She is responsible for Global Customer Operations and leads SAP's business in the Americas and Asia Pacific Japan. Prior to SAP, Jennifer Morgan served in various management roles at Siebel Systems and Accenture.

Luka Mucic, 46 years old, holds master's degrees in law and business administration. He joined SAP in 1996 and became Chief Financial Officer (CFO), and a member of the Executive Board in July 2014. He is responsible for finance and administration including investor relations and data protection and privacy.

Stefan Ries, 51 years old, holds a master's degree in economics. He first joined SAP in 2002 and became a member of the Executive Board in April 2016. He is Chief Human Resources Officer with global responsibility for Human Resources including HR strategy, business transformation, leadership development, and talent development. He also serves as Labor Relations Director.

The members of the Executive Board of SAP SE as of December 31, 2017 that are members on other supervisory boards and comparable governing bodies of enterprises, other than SAP, in Germany and other countries, are set forth in [Note \(29\)](#) to our Consolidated Financial Statements. SAP SE has not entered into contracts with any member of the Executive Board that provide for benefits upon a termination of the employment of service of the member, apart from pensions, benefits payable in the event of an early termination of service, and abstention compensation for the postcontractual noncompete period.

To our knowledge, there are no family relationships among the Supervisory Board and Executive Board members.

Compensation Report

Compensation for Executive and Supervisory Board Members

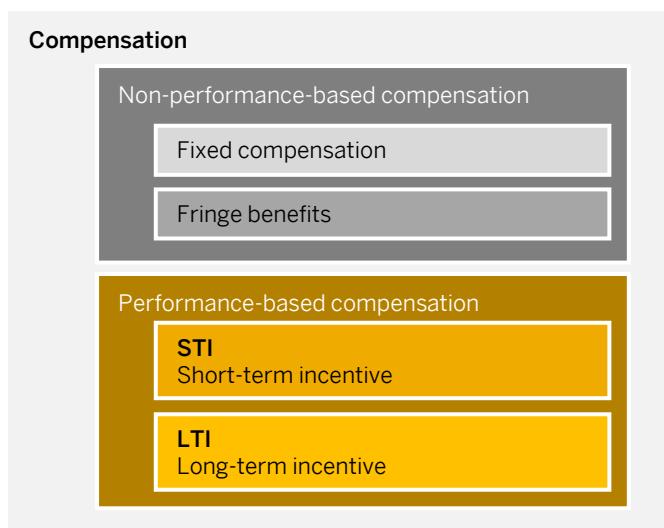
This compensation report describes the compensation system, outlines the criteria that apply to the compensation for Executive Board and Supervisory Board members for the year 2017, and discloses the amount of compensation.

Compensation for Executive Board Members

Compensation System for 2017

The compensation for Executive Board members is intended to reflect the demanding role of Executive Board members leading a global company in a quickly evolving sector. The compensation level is aimed to be competitive to support SAP in the worldwide market for highly skilled executives, especially in the context of the software industry. It is our vision that our Executive Board compensation provides sustainable incentive for committed, successful work in a dynamic business environment.

The Supervisory Board – supported by its General and Compensation Committee – determines the compensation for each Executive Board member based on their individual role and performance in its first regular meeting of each fiscal year. As pictured below, the compensation contains the following elements:



The amount of performance-based compensation depends primarily on SAP's performance against predefined financial target values (Key Performance Indicators, KPIs) and on the SAP share price, and is subject to hurdles and caps. These KPIs

and their target values as well as their weighting are set by the Supervisory Board each plan year and are aligned to the SAP budget for that year.

The Supervisory Board sets the individual total target compensation for each Executive Board member, comprised of the fixed compensation element and the two performance-based elements. The target compensation is benchmarked based on SAP's global strategy, market position, business performance and future prospects of economy, and the compensation paid at comparable national and international companies. The Supervisory Board also considers the compensation systems applicable for the rest of the Company, comparing Executive Board pay with the pay of executives and employees. The performance-based elements each correspond to a target achievement of 100% of all KPIs. The Supervisory Board reviews, assesses, and if appropriate, revises these compensation targets, in its first meeting of each fiscal year. The Supervisory Board is of the opinion that this approach ensures the compensation is appropriate.

The compensation system is designed to support the growth of value for the Company over the long term. The long-term incentive element therefore has significant weighting, making up more than two-thirds of the CEO's compensation target, and more than 50% of each Executive Board member's compensation target.

In the case of any extraordinary, unforeseeable events, the Supervisory Board is entitled, at its reasonable discretion, to adjust the performance-based compensation before payout upwards or downwards in the interest of SAP. No corrections to the payout amounts paid in May 2017 were made.

The individual elements of SAP's Executive Board compensation are described in more detail below.

Non-Performance-Based Compensation Fixed Compensation

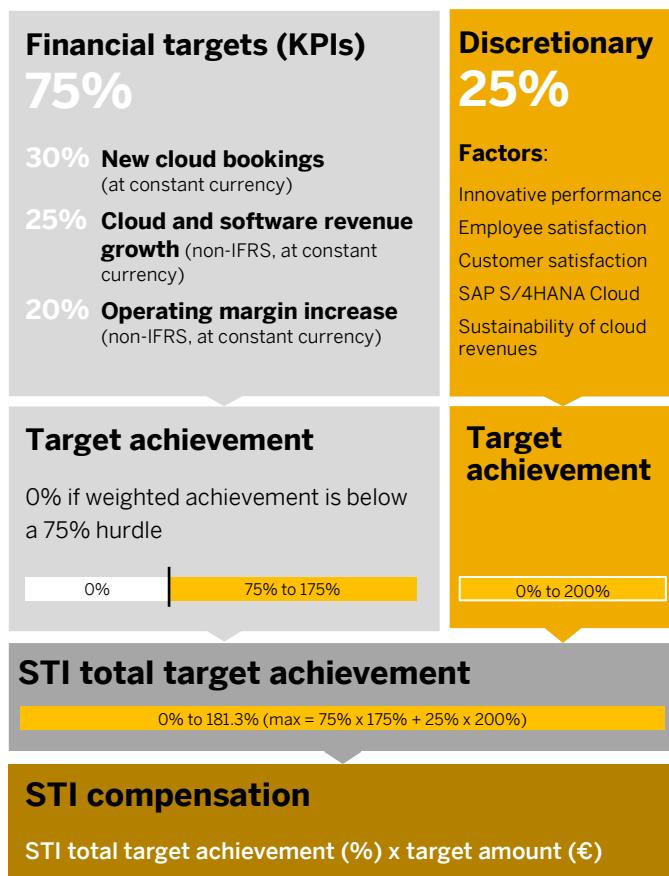
The fixed compensation is paid monthly in twelve equal installments in the Executive Board member's home currency¹⁾.

¹⁾ Home currency is the currency of the Executive Board member's home country or primary place of residence.

Fringe Benefits

The contractually guaranteed fringe benefits mainly comprise additional benefits such as insurance contributions, benefits in kind, expenses for maintenance of two households, use of aircraft, tax gross-ups according to local conditions, and discrete payments arising through application of the fixed exchange-rate clause due to payments in previous years.

Performance-Based Compensation Short-Term Incentive



The short-term, one-year performance-based compensation (Short-Term Incentive (STI)) is determined based on a set of financial targets (KPIs) with a weighting of 75% and a discretionary element with a weighting of 25%. This 25% in relation to the Executive Board target compensation based on a 100% target achievement corresponds with a proportion of 5% to 8% of the total compensation.

For the payout of the STI 2017, the financial KPIs are: constant currency new cloud bookings, non-IFRS constant currency cloud and software revenue growth, and non-IFRS constant currency operating margin increase. The KPIs and their respective target values are derived from SAP's budget for that year. For more information about financial KPIs, see the [Performance Management System](#) section.

Further, the discretionary element of the STI allows the Supervisory Board to address SAP's performance along the following factors: innovative performance, employee satisfaction (taking attractiveness as an employer, innovative HR strategy, HR excellence, leadership development, and social partnership into consideration), customer satisfaction, further development, expansion of application and marketing of our product SAP S/4HANA Cloud, and sustainability of cloud revenues. The last two factors are new for 2017, reflecting the increasing relevance of the cloud business.

SAP determines this discretionary element mainly based on market data, the results of an annual employee survey, and customer satisfaction surveys, and compares it with the corresponding prior-year values.

The Supervisory Board is also authorized to consider the individual performance of the Executive Board members when determining the target achievement of the discretionary element. In previous years, the Supervisory Board has consistently evaluated the Executive Board as a whole and has not applied individual adjustments.

If the weighted target achievement for the financial KPIs is below 75%, there is no STI payout for the financial KPIs. In this case, the target achievement for these KPIs is set to zero.

On February 21, 2018, the Supervisory Board assessed SAP's performance against the agreed targets and determined the amount of STI for the entire Executive Board compensation:

- Financial targets (KPIs) 88.3% (cloud and software revenue growth 99.6%, operating margin increase 85.0%, and new cloud bookings 81.1%)
- Discretionary element 88.0%

This resulted in a total target achievement of 88.2%. The STI compensation for 2017 will be paid out after the Annual General Meeting of Shareholders in May 2018. It is paid in the Executive Board member's home currency¹⁾. All Executive Board members are obliged to purchase SAP shares worth at least 5% of the actual payout amount according to appropriate trading period regulations. These shares are subject to a three-year holding period.

Long-Term Incentive

The purpose of the long-term, multiyear performance-based compensation (Long-Term Incentive, LTI) is to reward the annual achievement of the non-IFRS constant currency operating profit, to ensure long-term retention of our Executive Board members ("Retention"), and to reward them for a long-term SAP share price performance ("Performance") as compared to its main peer group (Peer Group).

The LTI 2016 plan came into effect on January 1, 2016. It is a virtual share program with a term of four years per tranche.

¹⁾ Home currency is the currency of the Executive Board member's home country or primary place of residence.

Under the plan, a new LTI tranche is granted annually. Each grant starts with determining a grant amount in euros. This grant amount is based on the Executive Board members' contractual target amount and the operating profit target achievement (non-IFRS, at constant currency) for the previous year. Taking this target achievement into account, the grant amount can be adjusted upwards or downwards in the range of 80% to 120% of the contractual target amount. The 2016 operating profit target achievement was 97.3%. Considering this, the Supervisory Board set the grant amount of the 2017 tranche at 100% of the contractual target amount.

This grant amount is converted into virtual shares (Share Units), so that Executive Board members participate in further share price developments. The grant price is the arithmetic mean of the XETRA closing prices of SAP stock on the 20 trading days following publication of SAP's fourth-quarter results. The grant date of the 2017 tranche was February 22, 2017 (April 13, 2017, for Adaire Fox-Martin and Jennifer Morgan).

All Share Units granted in this way, comprising 60% Performance Share Units (PSUs) and 40% Retention Share Units (RSUs), have a vesting period of approximately four years, during which the Executive Board member must actively contribute to the Company's operations. The value of the Share Units varies positively and negatively with the performance of SAP's share price. At the end of the vesting period, the corresponding Share Units are non-forfeitable.

LTI Grant Process

Supervisory Board determines grant amount for current financial year, based on operating profit target achievement (non-IFRS, at constant currency) set for the previous year,

80% to 120%

of the target amount

Grant amount is converted into PSUs and RSUs

resulting in

60% PSUs
Performance Share Units

PSU calculation

40% RSUs
Retention Share Units

Payout after four years
number of PSUs and RSUs x payout price (€)
Cap of payout price = 300% of grant price

The payout price used for the settlement is the simple arithmetic mean of the XETRA closing prices of the SAP share on the 20 trading days following the publication of SAP's fourth-quarter results subsequent to the end of the vesting period. The payout price is capped at 300% of the grant price. The LTI tranche is paid in euros after the Annual General Shareholders' Meeting of the corresponding year. Any potential foreign currency exchange rate risk is borne by the Executive Board members themselves.

The number of Share Units that will finally result in payments to the Executive Board members can and will likely differ from the number originally granted. The number of PSUs ultimately paid out changes depending on the performance of the SAP share relative to the Peer Group Index. This places more weight on SAP's performance within the industry. In contrast, the final number of RSUs is fixed. However, both types of Share Units may expire during the entire term of a tranche under certain conditions (see the "LTI Forfeiture Rules" graphic below).

PSU Calculation

60% PSUs
Originally granted

SAP share price performance relative to Peer Group Index performance

100% = same performance of SAP share price and Peer Group Index

Peer Group Index performs better than SAP share price

decreased by percentage points of outperformance of Peer Group Index

hurdle at 50%

SAP share price performs better than Peer Group Index

increased by percentage points of outperformance. If payout price is more than grant price, percentage points are doubled

cap at 50%

resulting in a
Performance factor



Final number of PSUs
Originally granted number x performance factor (%)

SAP's share price performance is measured by comparing the grant price against the payout price. We calculate the difference between SAP's share price performance and the Peer Group Index performance. In case of an increased SAP share price and an outperformance against the Peer Group Index, the calculated difference is doubled to reward positive performance. The following examples of the PSU calculation illustrate possible outcomes assuming 1,000 PSUs granted:

SAP share price performs better than Peer Group Index

SAP share price performance	+18%	
Peer Group Index performance	+10%	
Difference	+18% - (+10%)	+8%
Performance factor with doubled difference	(+8% x 2) + 100%	116%
Final number of PSUs	116% x 1000	1,160

SAP share price performs much higher than Peer Group Index; cap is triggered

SAP share price performance	+30%	
Peer Group Index performance	-5%	
Difference	+30% - (-5%)	+35%
Performance factor with doubled difference	(+35% x 2) + 100%	170%
	Capped at	150%
Final number of PSUs	150% x 1000	1,500

Peer Group Index performs better than SAP share price

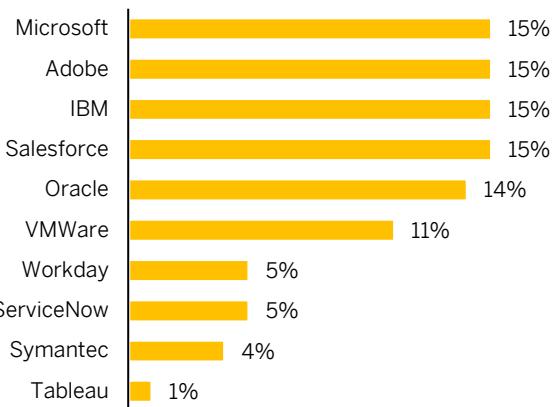
SAP share price performance	+5%	
Peer Group Index performance	+10%	
Difference	+5% - (+10%)	-5%
Performance factor	-5% + 100%	95%
Final number of PSUs	95% x 1000	950

Peer Group Index performs better than SAP share price; low hurdle triggered

SAP share price performance	-10%	
Peer Group Index performance	+50%	
Difference	-10% - (+50%)	-60%
Performance factor	-60% + 100%	40%
	Hurdle is 50%	0%
Final number of PSUs	0% x 1000	0

The Peer Group Index currently includes the following major international competitors of SAP: Microsoft, Adobe, IBM, Salesforce, Oracle, VMWare, Workday, ServiceNow, Symantec, and Tableau. The Supervisory Board has defined this group based on internal and external recommendations and, if necessary, adjusts the group, for example, in case of a competitor's delisting. The Peer Group Index is calculated as a price index based on weighted market capitalization, which is capped at 15%. Consequently, the weight of smaller, more volatile competitors is increased, resulting in a highly ambitious index. The index is calculated daily by Deutsche Börse Group and can be tracked under ISIN DE000A2BLEB9.

Composition of Peer Group Index

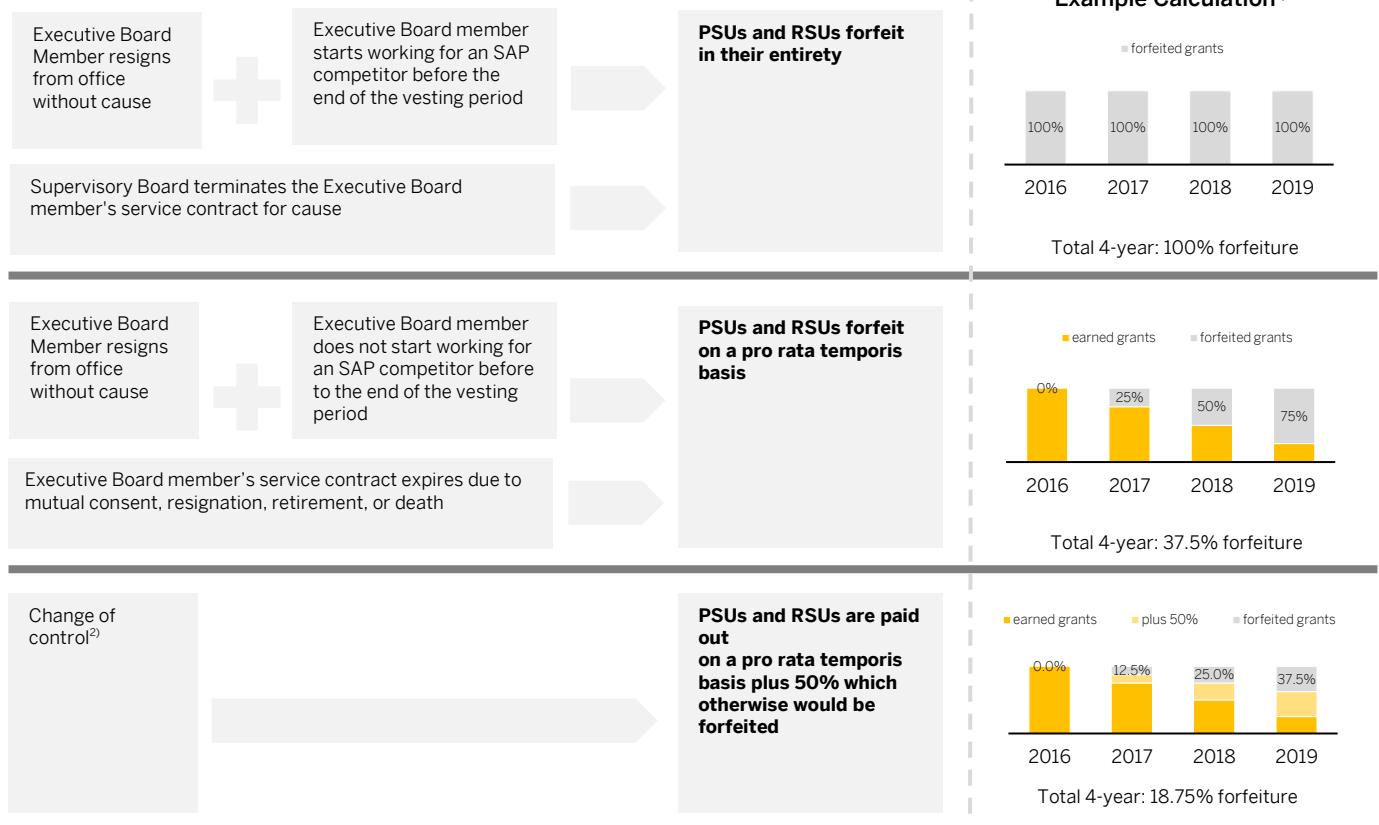


as at December 31, 2017

If an Executive Board member's service contract is terminated before the end of the third year following the year in which the Share Units were granted, both the PSUs and RSUs are forfeited in whole or in part, depending on the circumstances of the relevant resignation from office or termination of the service

contract. In case PSUs and RSUs are forfeited in part, the percentage of the forfeiture is proportional to the four-year vesting period of each grant. This means that 25% of the grant is earned each year of the vesting period. Unearned grants are forfeited.

LTI Forfeiture Rules



¹⁾ Example calculation with four tranches (grant allocation of 100%, stable share price from grant to vest, and no consideration of performance condition); Executive Board member's contract terminates after year four (December 31, 2019)

²⁾ For the definition, see the Early End-of-Service Undertakings section

The change from the previous RSU Milestone Plan to the new LTI 2016 Plan required a transition rule in order to avoid unjustified disadvantages for Executive Board members. The disadvantage arises from the difference in the one-year vesting period in the RSU Milestone Plan in comparison to the four-year vesting period in the LTI 2016 Plan. In order to compensate for this disadvantage related to the vesting periods, Executive Board members who have participated in the RSU Milestone Plan will receive an individual equalization amount.

The equalization amount is subject to:

- A target achievement of at least 60% of the non-IFRS constant currency operating profit target, and
- An ongoing employment relationship in 2016, 2017, and, in one case, in 2018.

In the event an Executive Board member leaves the company and PSUs would otherwise be forfeited on a pro rata basis, the Executive Board member is entitled to PSUs equal to the equalization amount. The following graphic gives an example of how the equalization amount was derived, assuming a grant of €1,000 for the RSU Milestone Plan, a grant of €1,500 for the LTI 2016 Plan, and a forfeiture of the grants on a pro rata temporis basis on December 31, 2019:



Clawback Provisions

According to an amendment of the standard service contract for all Executive Board members implemented at the end of 2017, SAP has the contractual right to request that the Executive Board member returns any payments made from STI or LTI if it subsequently emerges that the payment was not justified in whole or in part because targets were not achieved at all or not achieved in the scope assumed when calculating the payment amount due on account of false information having been provided. In such case, the Executive Board member is obliged to repay to SAP the amount by which the payment actually made exceeds the payment amount due on the basis of the targets actually achieved. Such contractually agreed claim to repayment supplements the claim for restitution of unjustified enrichment pursuant to section 812 of the German Civil Code (BGB).

Minimum and Maximum Compensation

The minimum compensation amount reflects the fixed compensation amount and an LTI and STI payout of zero.

The maximum compensation amount is capped at 369% (CEO) and 335% (Executive Board other than CEO) of the total target compensation. This would be achieved in the event of the maximum possible payout amount of the STI and the LTI, as follows:

- The maximum possible payout amount of the STI is reached when the target achievement of all financial KPIs is 175% and the target achievement of the discretionary element is 200%. This would amount to a total STI payout of 181.3%.
- The maximum possible payout amount for the LTI tranche is 468% of the contractual target amount.

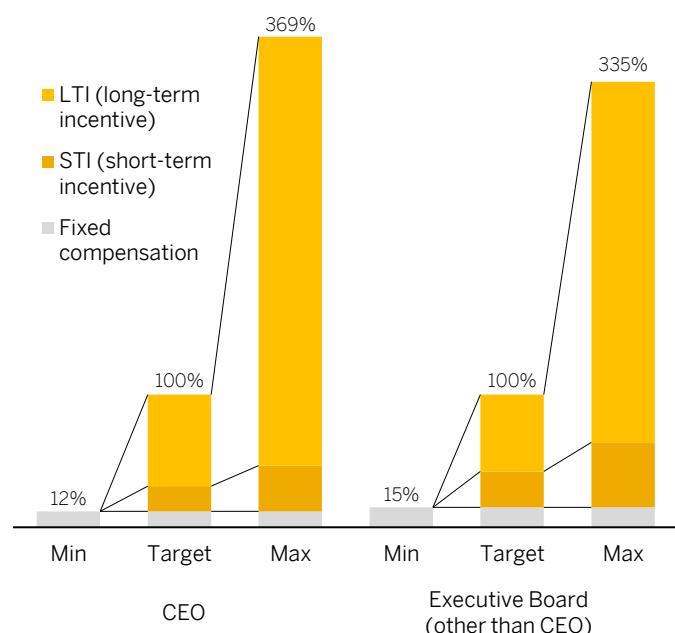
The maximum possible payout amount of the LTI is reached if all of the following conditions are cumulatively met:

- The grant amount for the LTI tranche has been set at its capped maximum of 120% of the contractual target amount.
- SAP's share price outperforms the Peer Group Index by at least 25 percentage points (reaching the capped maximum 150% of the initial PSU allocation for that year).
- The SAP share price has at least tripled (corresponding to an average annual increase of approximately 32%) compared to the grant price (cap on share price development).

In the event of the maximum LTI payout for the entire Executive Board of €120 million in 2021, the shareholders would also benefit through the strong increase in market capitalization, which would mean an increase of at least €200 billion from 2017 to 2021.

The following graphic illustrates the relation of the fixed and performance-based compensation elements in the Executive Board members' target compensation for 2017 based on € amounts, as well as the minimum and maximum possible compensation. The height of the bars is not indicative of the absolute compensation amount.

Compensation Scheme 2017



Overview of the Relations Between Target and Payout for Performance-Based Compensation

The total target achievements of STI reflect the relation between the target amount and the payout amount. The STIs for the years 2013 to 2016 were already paid out.

STI Total Target Achievement

Percentage	2017	2016	2015	2014	2013
	88.2	104.4	147.5	109.5	93.4

The relation between the LTI target amounts for the 2015 to 2017 tranches and the theoretical payout amounts are based on SAP's share price on December 31, 2017. The 2013 tranche discloses the relation between the respective target amount and the actual payout amount in May 2017. The 2014 tranche discloses the relation between the respective target amount and the payout amount scheduled for May 2018.

Relation between Target Amount and Payout Amount of the LTI

Percentage	LTI 2016 Plan		RSU Milestone Plan 2015		
	2017 Tranche ¹⁾	2016 Tranche ¹⁾	2015 Tranche ¹⁾⁽²⁾	2014 Tranche	2013 Tranche
	107.76	126.97	240.73	119.61	131.83

¹⁾ Consideration of theoretical payout amounts based on SAP's share price on December 31, 2017

²⁾ Consideration of individual adjustment factor in addition to target achievement 2015 ranging between 31.62% and 37.38%

Changes to the Compensation Structure for 2018

Under consideration of the feedback from the dialog between the Supervisory Board Chairman and investors, the Supervisory Board resolved in its February 21, 2018 meeting to change the structure of the Executive Board compensation for 2018 compared to the 2017 structure described above. Changes were only made to the short-term, one-year compensation (STI) and are as follows:

- The STI no longer includes a discretionary element. It is calculated solely on the basis of the three financial targets that were also part of the STI for 2017.

- The weighting of the financial targets is as follows: 40% New Cloud Bookings (at constant currencies), 35% Growth in Cloud and Software Revenue (non-IFRS, at constant currencies) and 25% growth of Operating Margin (non-IFRS, at constant currencies).
- The maximum target achievement of the financial KPIs and therefore the STI total target achievement for 2018 is 140%. (2017: 175% maximum target achievement of the financial KPIs and 181.3% STI total target achievement). This also reduces the maximum total compensation amount for 2018.

Amount of Compensation for 2017

We present the Executive Board compensation disclosures in accordance with the recommendations of the German Corporate Governance Code ("GCGC"). Furthermore, the tables below provide a reconciliation statement following the requirements of sections 314 and 315 of the German Commercial Code (*Handelsgesetzbuch*, or "HGB") as specified in the German Accounting Standards ("GAS 17"). Pursuant to the recommendations of the GCGC, the value of benefits granted for the year under review as well as the benefits received, that is, the amounts disbursed for the year under review, are disclosed below based on the reference tables recommended in the GCGC. In contrast to the disclosure rules stipulated in the German HGB and GAS 17, the GCGC includes the pension expense, that is, the service cost according to IAS 19, in the Executive Board compensation and requires the additional disclosure of the target value for the one-year variable compensation and the maximum and minimum compensation amounts achievable for the variable compensation elements.

Executive Board Members' Compensation

German Corporate Governance Code

€ thousands	Bill McDermott CEO										Robert Enslin Member of the Executive Board		
	Benefits Granted				Benefits Received		Benefits Granted				Benefits Received		
	2017 ¹⁾	2017 (Min)	2017 (Max)	2016 ¹⁾	2017 ¹⁾	2016 ¹⁾	2017 ¹⁾	2017 (Min)	2017 (Max)	2016 ¹⁾	2017 ¹⁾	2016 ¹⁾	
Fixed compensation	1,374.3	1,374.3	1,374.3	1,403.0	1,374.3	1,403.0	836.5	836.5	836.5	854.0	836.5	854.0	
Fringe benefits ²⁾	1,271.9	1,271.9	1,271.9	1,625.7	1,271.9	1,625.7	368.1	368.1	368.1	474.0	368.1	474.0	
Total	2,646.2	2,646.2	2,646.2	3,028.7	2,646.2	3,028.7	1,204.6	1,204.6	1,204.6	1,328.0	1,204.6	1,328.0	
One-year variable compensation	2,093.7	0	3,795.9	2,382.1	2,486.9	2,743.5	1,267.2	0	2,297.4	1,441.8	1,505.2	1,660.5	
Multiyear variable compensation													
LTI 2016 Plan	7,741.2	0	29,911.2	8,000.3			2,555.7	0	9,874.8	2,641.3			
RSU Milestone Plan 2015					5,787.6	9,244.7							
SAP SOP 2010					6,029.8								
SAP SOP 2011					4,148.5								
Total	12,481.1	2,646.2	36,353.3	13,411.1	21,099.0	15,016.9	5,027.5	1,204.6	13,376.8	5,411.1	2,709.8	2,988.5	
Service cost	686.2	686.2	686.2	571.3	686.2	571.3	194.1	194.1	194.1	34.7	194.1	34.7	
Total according to GCGC	13,167.3	3,332.4	37,039.5	13,982.4	21,785.2	15,588.2	5,221.6	1,398.7	13,570.9	5,445.8	2,903.9	3,023.2	

German Corporate Governance Code

	Adaire Fox-Martin Member of the Executive Board (from May 1, 2017)						Michael Kleinemeier Member of the Executive Board					
	Benefits Granted				Benefits Received		Benefits Granted				Benefits Received	
	2017	2017 (Min)	2017 (Max)	2016	2017	2016	2017	2017 (Min)	2017 (Max)	2016	2017	2016
Fixed compensation	466.7	466.7	466.7		466.7		700.0	700.0	700.0	700.0	700.0	700.0
Fringe benefits ²⁾	82.4	82.4	82.4		82.4		29.0	29.0	29.0	26.9	29.0	26.9
Total	549.1	549.1	549.1	0	549.1	0	729.0	729.0	729.0	726.9	729.0	726.9
One-year variable compensation	755.6	0	1,369.9				1,125.8	0	2,041.1	1,125.8	1,175.3	277.5
Multiyear variable compensation												
LTI 2016 Plan	1,680.0	0	6,215.4				2,396.4	0	9,259.6	2,476.6		
RSU Milestone Plan 2015												
SAP SOP 2010												
SAP SOP 2011												
Total	2,984.7	549.1	8,134.4	0	549.1	0	4,251.2	729.0	12,029.7	4,329.3	1,904.3	1,004.4
Service cost												
Total according to GCGC	2,984.7	549.1	8,134.4	0	549.1	0	4,251.2	729.0	12,029.7	4,329.3	1,904.3	1,004.4

	Bernd Leukert Member of the Executive Board						Jennifer Morgan Member of the Executive Board (from May 1, 2017)					
	Benefits Granted				Benefits Received		Benefits Granted				Benefits Received	
	2017	2017 (Min)	2017 (Max)	2016	2017	2016	2017 ¹⁾	2017 (Min)	2017 (Max)	2016	2017 ¹⁾	2016
Fixed compensation	700.0	700.0	700.0	700.0	700.0	700.0	430.4	430.4	430.4		430.4	
Fringe benefits ²⁾	30.3	30.3	30.3	12.4	30.3	12.4	48.4	48.4	48.4		48.4	
Total	730.3	730.3	730.3	712.4	730.3	712.4	478.8	478.8	478.8	0	478.8	0
One-year variable compensation	1,125.8	0	2,041.1	1,125.8	1,175.3	1,660.5	674.2	0	1,222.3			
Multiyear variable compensation												
LTI 2016 Plan	2,699.3	0	10,429.7	2,789.6			1,680.0	0	6,215.4			
RSU Milestone Plan 2015												
SAP SOP 2010												
SAP SOP 2011												
Total	4,555.4	730.3	13,201.1	4,627.8	1,905.6	2,372.9	2,833.0	478.8	7,916.5	0	478.8	0
Service cost							8.9	8.9	8.9		8.9	
Total according to GCGC	4,555.4	730.3	13,201.1	4,627.8	1,905.6	2,372.9	2,841.9	487.7	7,925.4	0	487.7	0

German Corporate Governance Code

	€ thousands											
	Luka Mucic Member of the Executive Board						Stefan Ries Member of the Executive Board					
	Benefits Granted			Benefits Received			Benefits Granted			Benefits Received		
	2017	2017 (Min)	2017 (Max)	2016	2017	2016	2017	2017 (Min)	2017 (Max)	2016	2017	2016
Fixed compensation	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	525.0	700.0	525.0
Fringe benefits ²⁾	11.0	11.0	11.0	12.1	11.0	12.1	22.4	22.4	22.4	13.5	22.4	13.5
Total	711.0	711.0	711.0	712.1	711.0	712.1	722.4	722.4	722.4	538.5	722.4	538.5
One-year variable compensation	1,125.8	0	2,041.1	1,125.8	1,175.3	1,660.5	1,125.8	0	2,041.1	845.9	883.1	
Multiyear variable compensation												
LTI 2016 Plan	2,396.4	0	9,259.6	2,476.6			2,018.7	0	7,799.9	1,532.1		
RSU Milestone Plan 2015												
SAP SOP 2010												
SAP SOP 2011												
Total	4,233.2	711.0	12,011.7	4,314.5	1,886.3	2,372.6	3,866.9	722.4	10,563.4	2,916.5	1,605.5	538.5
Service cost												
Total according to GCGC	4,233.2	711.0	12,011.7	4,314.5	1,886.3	2,372.6	3,866.9	722.4	10,563.4	2,916.5	1,605.5	538.5

	€ thousands											
	Steve Singh Member of the Executive Board (until April 30, 2017)						Total Executive Board					
	Benefits Granted			Benefits Received			Benefits Granted			Benefits Received		
	2017 ¹⁾	2017 (Min)	2017 (Max)	2016 ¹⁾	2017 ¹⁾	2016 ¹⁾	2017	2016	2017	2016	2017	2016
Fixed compensation	295.4	295.4	295.4	640.0	295.4	640.0			6,203.3	5,522.0	6,203.3	5,522.0
Fringe benefits ²⁾	2.5	2.5	2.5	6.1	2.5	6.1			1,866.0	2,170.7	1,866.0	2,170.7
Total	297.9	297.9	297.9	646.1	297.9	646.1	8,069.3	7,692.7	8,069.3	7,692.7		
One-year variable compensation	1,267.2	0	2,297.4	1,083.3	1,131.0				10,561.1	9,130.5	9,532.1	8,002.5
Multiyear variable compensation												
LTI 2016 Plan	2,555.6	0	9,874.8	1,939.7			25,723.3	21,856.2				
RSU Milestone Plan 2015											5,787.6	9,244.7
SAP SOP 2010											6,029.8	
SAP SOP 2011											4,148.5	
Total	4,120.7	297.9	12,470.1	3,669.1	1,428.9	646.1	44,353.7	38,679.4	25,498.0	24,939.9		
Service cost									889.2	606.0	889.2	606.0
Total according to GCGC	4,120.7	297.9	12,470.1	3,669.1	1,428.9	646.1	45,242.9	39,285.4	26,387.2	25,545.9		

¹⁾ The value of the fixed and one-year variable compensation is granted in U.S. dollars. For conversion purposes from U.S. dollars into euro, for fixed compensation the average exchange rate and for the one-year variable compensation the year-end exchange rate of the respective period applies.

²⁾ Insurance contributions, the private use of company cars and aircraft, benefits in kind, expenses for maintenance of two households, payments and related supplements for relocation upon appointment to the Executive Board, reimbursement of fees for the preparation of tax returns, tax gross ups according to local conditions and discrete payments arising through application of the fixed exchange-rate clause for 2015. The fringe benefits of Bill McDermott mainly consist of tax gross ups according to local conditions, discrete payments arising through application of the fixed exchange-rate clause for 2015 and expenses for maintenance of two households.

Reconciliation Reporting of Total Compensation Pursuant to Section 314(1)(6a) HGB in Connection with GAS 17

€ thousands	Bill McDermott		Robert Enslin		Adaire Fox-Martin		Michael Kleinemeier		Bernd Leukert	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Total according to GCGC	13,167.3	13,982.4	5,221.6	5,445.8	2,984.7	0	4,251.2	4,329.3	4,555.4	4,627.8
Less granted annual variable target compensation	-2,093.7	-2,382.1	-1,267.2	-1,441.8	-755.6		-1,125.8	-1,125.8	-1,125.8	-1,125.8
Plus allocated actual annual variable compensation	1,846.7	2,486.9	1,117.7	1,505.2	666.5		992.9	1,175.3	992.9	1,175.3
Less service cost	-686.2	-571.3	-194.1	-34.7						
Total compensation	12,234.1	13,515.9	4,878.0	5,474.5	2,895.6	0	4,118.3	4,378.8	4,422.5	4,677.3

€ thousands	Jennifer Morgan		Luka Mucic		Stefan Ries		Steve Singh		Total Executive Board	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Total according to GCGC	2,841.9	0	4,233.2	4,314.5	3,866.9	2,916.5	4,120.7	3,669.1	45,242.9	39,285.4
Less granted annual variable target compensation	-674.2		-1,125.8	-1,125.8	-1,125.8	-845.9	-1,267.2	-1,083.3	-10,561.1	-9,130.5
Plus allocated actual annual variable compensation	594.6		992.9	1,175.3	992.9	883.1	367.5	1,131.0	8,564.6	9,532.1
Less service cost	-8.9								-889.2	-606.0
Total compensation	2,753.4	0	4,100.3	4,364.0	3,734.0	2,953.7	3,221.0	3,716.8	42,357.2	39,081.0

Vertical Pay Ratio

The vertical pay ratio compares the total benefits granted to the CEO and the Executive Board members other than CEO with the total benefits granted to the Executives and all employees collectively who were employed on December 31, 2017. In order to ensure comparability for total benefits granted, only fixed compensation, one-year and multiyear variable compensation are considered. The Executives comprise the first and second management levels below the Executive Board, that is, the Global Executive Team (GET) and the Senior Executive Team (SET).

Ratio	CEO	Executive Board (other than CEO)	
		Average Annual Compensation (in € thousands)	3,880
Executives	923	12	4
Employees including Executives	101	111	39

Share-Based Payment Grants

The share-based payment amounts result from the following RSUs and PSUs under the LTI 2016 Plan.

Grants for 2017

	Total Share Units	(RSU) Retention Share Units (40%)	(PSU) Performance Share Units (60%)	Grant Value per RSU at Time of Grant	Grant Value per PSU at Time of Grant	Total Grant Value at Time of Grant
	Quantity	Quantity	Quantity	€	€	€ thousands
Bill McDermott (CEO)	89,217	35,687	53,530	83.60	88.88	7,741
Robert Enslin	29,454	11,782	17,672	83.60	88.88	2,556
Adaire Fox-Martin (from May 1, 2017)	18,539	7,416	11,123	85.91	93.76	1,680
Michael Kleinemeier	27,619	11,048	16,571	83.60	88.88	2,396
Bernd Leukert	31,109	12,444	18,665	83.60	88.88	2,699
Jennifer Morgan (from May 1, 2017)	18,539	7,416	11,123	85.91	93.76	1,680
Luka Mucic	27,619	11,048	16,571	83.60	88.88	2,396
Stefan Ries	23,265	9,306	13,959	83.60	88.88	2,019
Steve Singh (until April 30, 2017)	29,454	11,782	17,672	83.60	88.88	2,556
Total	294,815	117,929	176,886			25,723

Grants for 2016

	Total Share Units	(RSU) Retention Share Units (40%)	(PSU) Performance Share Units (60%)	Grant Value per RSU at Time of Grant	Grant Value per PSU at Time of Grant	Total Grant Value at Time of Grant
	Quantity	Quantity	Quantity	€	€	€ thousands
Bill McDermott (CEO)	122,423	48,969	73,454	66.52	64.57	8,000
Robert Enslin	40,417	16,167	24,250	66.52	64.57	2,641
Michael Kleinemeier	37,898	15,159	22,739	66.52	64.57	2,477
Bernd Leukert	42,687	17,075	25,612	66.52	64.57	2,790
Luka Mucic	37,898	15,159	22,739	66.52	64.57	2,477
Gerhard Oswald (until December 31, 2016)	31,924	12,770	19,154	66.52	64.57	2,086
Stefan Ries	23,987	9,595	14,392	65.77	62.61	1,532
Steve Singh (until April 30, 2017)	30,368	12,147	18,221	65.77	62.61	1,940
Total	367,602	147,041	220,561			23,942

End-of-Service Benefits

Regular End-of-Service Undertakings

Retirement Pension Plan

The following retirement pension agreements apply to the individual members of the Executive Board:

- Adaire Fox-Martin, Michael Kleinemeier, Bernd Leukert, Luka Mucic, and Stefan Ries are entitled to receive a retirement

pension when they reach the retirement age of 62 and retire from their Executive Board seat; or a disability pension depending on health examination if, before reaching the regular retirement age, they become subject to occupational disability or permanent incapacity. A surviving dependent's pension is paid on the death of a former member of the Executive Board. The disability pension is 100% of the vested retirement pension entitlement and is payable until the beneficiary's 62nd birthday, after which it is replaced by a retirement pension. The surviving dependent's pension is

60% of the retirement pension or vested disability pension entitlement at death. Entitlements are enforceable against SAP SE. Current pension payments are reviewed annually for adjustments and, if applicable, increased according to the surplus in the pension liability insurance. If service is ended before the retirement age of 62, pension entitlement is reduced in proportion as the actual length of service stands in relation to the maximum possible length of service. The applied retirement pension plan is contributory. The contribution is 4% of applicable compensation up to the applicable income threshold plus 14% of applicable compensation above the applicable income threshold. For this purpose, applicable compensation is 180% of annual base salary. The applicable income threshold is the statutory annual income threshold for the state pension plan in Germany (West), as amended from time to time.

- Bill McDermott has rights to future benefits under the portion of the pension plan for SAP America classified as "Non-

"Qualified Retirement Plan" according to the U.S. Employee Retirement Income Security Act (ERISA). This "Non-Qualified" pension plan is a cash balance plan that provides either monthly pension payments or a lump sum on retirement. The pension becomes available from the beneficiary's 65th birthday. Subject to certain conditions, the plan also provides earlier payment or invalidity benefits. The "Non-Qualified" pension plan closed with effect from January 1, 2009. Interest continues to be accrued on the earned rights to benefits within this plan.

- SAP made contributions to a third-party pension plan for Bill McDermott (2017: €686,200; 2016: €571,300), Robert Enslin (2017: €194,100; 2016: €34,700), and Jennifer Morgan (2017: €8,900). SAP's matching contributions are based on payments by Bill McDermott, Robert Enslin, and Jennifer Morgan into this pension plan.

Total Defined Benefit Obligations (DBO) and the Total Accruals for Pension Obligations to Executive Board Members

€ thousands	Bill McDermott (CEO)	Adaire Fox- Martin ¹⁾ (from May 1, 2017)	Michael Kleinemeier ¹⁾	Bernd Leukert ¹⁾	Luka Mucic ¹⁾	Stefan Ries ¹⁾	Total
DBO January 1, 2016	1,382.5	–	29.7	252.4	232.7	–	1,897.3
Less plan assets market value January 1, 2016	–	–	25.4	240.2	205.8	–	471.4
Accrued January 1, 2016	1,382.5	–	4.3	12.2	26.9	–	1,425.9
DBO change in 2016	76.7	–	125.2	199.2	211.9	257.9	870.9
Plan assets change in 2016	–	–	156.0	149.5	141.8	116.7	564.0
DBO December 31, 2016	1,459.2	–	154.9	451.6	444.6	257.9	2,768.2
Less plan assets market value December 31, 2016	–	–	181.4	389.7	347.6	116.7	1,035.4
Accrued December 31, 2016	1,459.2	–	-26.5	61.9	97.0	141.2	1,732.8
DBO change in 2017	-148.7	93.5	117.0	132.9	141.3	86.7	422.7
Plan assets change in 2017	–	100.7	164.5	151.2	143.1	159.1	718.6
DBO December 31, 2017	1,310.5	93.5	271.9	584.5	585.9	344.6	3,190.9
Less plan assets market value December 31, 2017	–	100.7	345.9	540.9	490.7	275.8	1,754.0
Accrued December 31, 2017	1,310.5	-7.2	-74.0	43.6	95.2	68.8	1,436.9

¹⁾ The values shown here only reflect the pension entitlements that Adaire Fox-Martin, Michael Kleinemeier, Bernd Leukert, Luka Mucic, and Stefan Ries will receive from the retirement pension plan for Executive Board members.

The table below shows the annual pension entitlement earned during the Executive Board membership of each member of the Executive Board on reaching the scheduled retirement age of 62, based on entitlements from SAP under performance-based and salary-linked plans.

Annual Pension Entitlement

€ thousands	Vested on December 31, 2017	Vested on December 31, 2016
Bill McDermott (CEO) ¹⁾	89.5	106.5
Adaire Fox-Martin (from May 1, 2017)	2.9	-
Michael Kleinemeier	9.8	5.2
Bernd Leukert	19.4	14.0
Luka Mucic	18.1	12.9
Stefan Ries	8.5	3.6

¹⁾ The rights shown here for Bill McDermott refer solely to rights under the pension plan for SAP America.

These are vested entitlements. To the extent that members continue to serve on the Executive Board and that therefore more contributions are made for them in the future, pensions actually payable at the scheduled retirement age will be higher than the amounts shown in the table.

Postcontractual Non-Compete Provisions

Each Executive Board member's contract includes a 12-month postcontractual non-compete agreement. During this non-compete period, Executive Board members receive abstention payments corresponding to 50% of their average contractual compensation as members. This average is calculated on the basis of the preceding three years. Any other occupational income generated by the Executive Board member is deducted from their compensation.

The following table presents the theoretical amounts for the net present values of the postcontractual non-compete abstention payments. The calculation assumes the following:

- The Executive Board member leaves SAP at the end of their respective current contract term.
- Their final average contractual compensation prior to their departure equals their compensation in 2017.

Actual postcontractual non-compete payments will likely differ from these amounts depending on the time of departure and the compensation levels and target achievements at the time of departure.

Net Present Values of the Postcontractual Non-Compete Abstention Payments

€ thousands	Contract Term Expires	Net Present Value of Postcontractual Non-Compete Abstention Payment ¹⁾
Bill McDermott (CEO)	3/31/2021	6,085
Robert Enslin	3/31/2021	2,426
Adaire Fox-Martin (from May 1, 2017)	4/30/2020	1,448
Michael Kleinemeier	12/31/2019	2,060
Bernd Leukert	3/31/2021	2,200
Jennifer Morgan (from May 1, 2017)	4/30/2020	1,376
Luka Mucic	3/31/2021	2,040
Stefan Ries	3/31/2019	1,869
Total		19,504

¹⁾ For the purpose of this calculation, the following discount rates have been applied: Bill McDermott 0.16% (2016: 0.22%); Robert Enslin 0.16% (2016: 0.22%); Adaire Fox.Martin 0.01%; Michael Kleinemeier -0.01% (2016: -0.026%); Bernd Leukert 0.16% (2016: 0.22%); Jennifer Morgan 0.01%; Luka Mucic 0.16% (2016: 0.22%); Stefan Ries -0.09% (2016: -0.01%).

Early End-of-Service Undertakings

Severance Payments

The standard contract for all Executive Board members provides that on termination before full term (for example, by the Company without cause where the member's appointment is revoked, where the member becomes occupationally disabled, or in connection with a change of control), SAP SE will pay to the member the outstanding part of the compensation target for the entire remainder of the term, appropriately discounted for early payment. Starting 2018, in accordance with the German Corporate Governance Code (GCGC), section 4.2.3, payments made to an Executive Board member due to early termination must not exceed twice the annual total compensation, or 150% of the severance payment cap in case of change of control. A member has no claim to that severance payment if he or she has not served SAP as a member of the Executive Board for at least one year or if he or she leaves SAP SE for reasons for which he or she is responsible. Upon the appointment of Adaire Fox-Martin and Jennifer Morgan to the Executive Board, the Supervisory Board abstained from the waiting period of one year in consideration of their long-term successful tenure with SAP.

If an Executive Board member's appointment to the Executive Board expires or ceases to exist because of, or as a consequence of, change or restructuring, or due to a change of control, SAP SE and each Executive Board member has the right to terminate the employment contract within eight weeks of the occurrence by giving six months' notice. A change of control is deemed to occur when:

- A third party is required to make a mandatory takeover offer to the shareholders of SAP SE under the German Securities Acquisition and Takeover Act;
- SAP SE merges with another company and becomes the subsumed entity;
- A control or profit transfer agreement is concluded with SAP SE as the dependent company.

An Executive Board member's contract can also be terminated before full term if their appointment as an Executive Board member of SAP SE is revoked in connection with a change of control.

Postcontractual Non-Compete Provisions

Abstention compensation for the postcontractual non-compete period as described above is also payable on early contract termination.

Permanent Disability

In case of permanent disability, the contract will end at the end of the quarter in which the permanent inability to work was determined. The Executive Board member receives, in addition to a potential disability pension under the retirement plan described above, the monthly basic salary (fixed compensation) for a further 12 months starting from the date the permanent disability is determined.

Payments to Executive Board Members Retiring in 2017

Steve Singh resigned from his position as Executive Board member on his own accord with effect from April 30, 2017, therefore no severance payment was made. The postcontractual non-compete provision was canceled without compensation.

Payments to Former Executive Board Members

In 2017, we paid pension benefits of €1,997,000 to Executive Board members who had retired before January 1, 2017 (2016: €1,667,000). At the end of the year, the DBO for former Executive Board members was €39,993,100 (2016: €33,935,000). Plan assets of €31,944,100 are available to meet these obligations (2016: €26,053,000).

Executive Board Members' Holdings of Long-Term Incentives

Members of the Executive Board hold or held share-based payment rights throughout the year under the LTI 2016 Plan, the RSU Milestone Plan 2015, and the SAP SOP 2010 (the last two were granted in previous years). For information about the terms and details of these programs, see the Notes to the Consolidated Financial Statements, [Note \(27\)](#).

LTI 2016 Plan

The table below shows Executive Board members' holdings, on December 31, 2017, of Share Units issued to them under the LTI 2016 plan.

LTI 2016 Plan

Quantity of Share Units	Year Granted	Holding on January 1, 2017	Granted		Forfeited ¹⁾	Balanced Performance Share Units ²⁾	Holding on December 31, 2017
			Retention Share Units (40%)	Performance Share Units (60%)			
Bill McDermott (CEO)	2017	0	35,687	53,530	0	0	89,217
	2016	122,423	0	0	0	0	122,423
Robert Enslin	2017	0	11,782	17,672	0	0	29,454
	2016	40,417	0	0	0	0	40,417
Adaire Fox-Martin (from May 1, 2017)	2017	0	7,416	11,123	0	0	18,539
Michael Kleinemeier	2017	0	11,048	16,571	0	0	27,619
	2016	37,898	0	0	0	0	37,898
Bernd Leukert	2017	0	12,444	18,665	0	0	31,109
	2016	42,687	0	0	0	0	42,687
Jennifer Morgan (from May 1, 2017)	2017	0	7,416	11,123	0	0	18,539
Luka Mucic	2017	0	11,048	16,571	0	0	27,619
	2016	37,898	0	0	0	0	37,898
Stefan Ries	2017	0	9,306	13,959	0	0	23,265
	2016	23,987	0	0	0	0	23,987
Steve Singh (until April 30, 2017)	2017	0	11,782	17,672	27,035	12,050	14,469
	2016	30,368	0	0	20,266	0	10,102
Total		335,678	117,929	176,886	47,301	12,050	595,242

¹⁾ Forfeiture according to leaver rules

²⁾ To balance disadvantages from leaver rules under the LTI 2016 Plan

RSU Milestone Plan 2015

The table below shows the Executive Board members' holdings, on December 31, 2017, of RSUs issued to them under the RSU Milestone Plan 2015. The plan is a cash-settled long-term incentive scheme with a payout subsequent to a performance period of one year (after which the RSUs become non-forfeitable) and an additional holding period of three years. The RSU Milestone Plan 2015 consists of four plan tranches to be issued with respect to the calendar years 2012 through 2015. The RSUs granted in 2014 have a remaining term of 0.08 years; and the RSUs granted in 2015 have a remaining term of 1.08 years.

RSU Milestone Plan 2015

Quantity of RSUs	Year Granted	Holding on January 1, 2017	Exercised	Holding on December 31, 2017
Bill McDermott (CEO)	2015	113,667	0	113,667
	2014	59,488	0	59,488
	2013	68,137	68,137	0
Robert Enslin	2015	39,985	0	39,985
	2014	14,148	0	14,148
Michael Kleinemeier	2015	5,221	0	5,221
Bernd Leukert	2015	41,578	0	41,578
	2014	14,148	0	14,148
Luka Mucic	2015	41,130	0	41,130
	2014	10,757	0	10,757
Total		408,259	68,137	340,122

SAP SOP 2010

The table below shows the Executive Board members' holdings, on December 31, 2017, of virtual share options issued to them under the SAP SOP 2010 since its inception. The strike price for an option is 115% of the base price. The issued options have a term of seven years and can only be exercised on specified dates after the vesting period. The options issued in 2010 were exercisable beginning in September 2014, and the options issued in 2011 were exercisable beginning in June 2015.

SAP SOP 2010 Virtual Share Options

Year Granted	Holding on January 1, 2017		Strike Price per Option	Exercised	Price on Exercise Date	Holding on December 31, 2017	
	Quantity	Remaining Term (in Years)				Quantity	Remaining Term (in Years)
Bill McDermott (CEO)	2010	135,714	0.7	40.80	135,714	85.23	0
	2011	112,426	1.4	48.33	112,426	85.23	0
Total	248,140				248,140		0

Total Expense for Share-Based Payment

Total expense for the share-based payment plans of Executive Board members was recognized as follows.

Total Expense for Share-Based Payment

€ thousands	2017	2016
Bill McDermott (CEO)	7,684.4	6,525.3
Robert Enslin	2,181.9	1,185.8
Adaire Fox-Martin (from May 1, 2017)	309.7	-
Michael Kleinemeier	1,509.8	635.2
Bernd Leukert	2,287.4	1,237.2
Jennifer Morgan (from May 1, 2017)	309.7	-
Luka Mucic	2,059.0	1,123.5
Stefan Ries	1,049.3	367.5
Steve Singh (until April 30, 2017)	1,676.5	465.3
Total	19,067.7	11,539.8

The expense is recognized in accordance with IFRS 2 (Share-Based Payments) and consists exclusively of obligations arising from Executive Board activities.

Executive Board: Other Information

We did not grant any compensation advance or credit to, or enter into any commitment for the benefit of, any member of our Executive Board in 2017 or the previous year.

As far as the law permits, SAP SE and its affiliated companies in Germany and elsewhere indemnify and hold harmless their respective directors and officers against and from the claims of third parties. To this end, we maintain directors' and officers' (D&O) group liability insurance. The policy is annual and is renewed from year to year. The insurance covers the personal

liability of the insured group for financial loss caused by its managerial acts and omissions. The current D&O policy includes an individual deductible for Executive Board members of SAP SE as required by section 93 (2) of the German Stock Corporation Act.

Compensation for Supervisory Board Members

Compensation System

Supervisory Board members' compensation is governed by our Articles of Incorporation, section 16.

Each member of the Supervisory Board receives, in addition to the reimbursement of their expenses, an annual basic compensation of €165,000. The chairperson receives €275,000 and the deputy chairperson €220,000 annually. In addition, we reimburse members of the Supervisory Board for the value-added tax payable on their compensation.

For membership of the Audit Committee, Supervisory Board members receive an additional fixed annual compensation of €16,500, and for membership of any other Supervisory Board committee €11,000, provided that the committee concerned has met in the year. The chairperson of the Audit Committee receives €27,500, and the chairpersons of the other committees receive €22,000. The fixed remuneration is payable after the end of the year.

Any members of the Supervisory Board having served for less than the entire year receive one-twelfth of the annual remuneration for each month of service commenced. This also applies to the increased compensation of the chairperson and the deputy chairperson(s) and to the remuneration for the chairperson and the members of a committee.

Supervisory Board Members' Compensation in 2017

€ thousands	2017			2016		
	Fixed Compensation	Compensation for Committee Work	Total	Fixed Compensation	Compensation for Committee Work	Total
Prof. Dr. h.c. mult. Hasso Plattner (chairperson)	275.0	88.0	363.0	275.0	88.0	363.0
Margret Klein-Magar (deputy chairperson)	220.0	27.5	247.5	220.0	33.0	253.0
Pekka Ala-Pietila	165.0	33.0	198.0	165.0	33.0	198.0
Panagiotis Bissiritsas	165.0	38.5	203.5	165.0	38.5	203.5
Martin Duffek	165.0	33.0	198.0	165.0	27.5	192.5
Aicha Evans (from July 1, 2017)	82.5	11.0	93.5	NA	NA	NA
Prof. Anja Feldmann	165.0	22.0	187.0	165.0	22.0	187.0
Prof. Dr. Wilhelm Haarmann	165.0	44.0	209.0	165.0	44.0	209.0
Andreas Hahn	165.0	22.0	187.0	165.0	22.0	187.0
Prof. Dr. Gesche Joost	165.0	22.0	187.0	165.0	22.0	187.0
Lars Lamadé	165.0	22.0	187.0	165.0	22.0	187.0
Bernard Liautaud	165.0	33.0	198.0	165.0	33.0	198.0
Christine Regitz	165.0	22.0	187.0	165.0	22.0	187.0
Dr. Erhard Schipporeit	165.0	33.0	198.0	165.0	27.5	192.5
Robert Schuschnig-Fowler	165.0	16.5	181.5	165.0	11.0	176.0
Dr. Sebastian Sick	165.0	22.0	187.0	165.0	22.0	187.0
Jim Hagemann Snabe (until June 30, 2017)	82.5	11.0	93.5	165.0	22.0	187.0
Pierre Thiollet	165.0	11.0	176.0	165.0	11.0	176.0
Prof. Dr.-Ing. Dr.-Ing. E.h. Klaus Wucherer	165.0	16.5	181.5	165.0	16.5	181.5
Total	3,135.0	528.0	3,663.0	3,135.0	517.0	3,652.0

In 2017, we received services from members of the Supervisory Board (including services from employee representatives on the Supervisory Board in their capacity as employees of SAP) in the amount of €1,269,700 (2016: €1,040,400). This amount includes fees paid in 2017 to Linklaters LLP in Frankfurt am Main, Germany (of which Supervisory Board member Wilhelm Haarmann is a partner), of €106,900 (2016: €0).

Long-Term Incentives for the Supervisory Board

We do not offer members of the Supervisory Board share-based payment for their Supervisory Board work. Any share-based payment awards received by employee-elected members relate to their position as SAP employees and not to their work on the Supervisory Board.

Supervisory Board: Other Information

We did not grant any compensation advance or credit to, or enter into any commitment for the benefit of, any member of our Supervisory Board in 2017 or the previous year.

Hasso Plattner, the chairperson of the Supervisory Board, entered into a consulting contract with SAP after joining the Supervisory Board in May 2003. The contract does not provide for any compensation. The only cost we incurred under the contract was the reimbursement of expenses.

As far as the law permits, we indemnify Supervisory Board members against, and hold them harmless from, claims brought by third parties. To this end, we maintain directors' and officers' (D&O) group liability insurance. The 2017 D&O policy did not include an individual deductible for Supervisory Board members as envisaged in the German Corporate Governance Code (GCGC). Starting 2018, in accordance with section 3.8 of the GCGC, each member of the Supervisory Board will bear a deductible of at least 10% of any loss. The deductible is capped at 1.5 times a member's fixed annual compensation.

Employee

Headcount

Note (Z) to our Consolidated Financial Statements presents the number of employees, measured in full-time equivalents by functional area and by geographic region.

Headcount and Personnel Expense

As of December 31, 2017, we had 88,543 full-time equivalent (FTE) employees worldwide (December 31, 2016: 84,183). This represents an increase in headcount of rounded 4,361 FTEs in comparison to 2016. The average number of employees in 2017 was 86,999 (2016: 80,609).

We define headcount in FTE as the number of people on permanent employment contract considering their staffing

percentage. Students, individuals employed by SAP who are currently not working for reasons such as maternity leave, and temporary employees with limited contracts of less than six months are excluded from our figures. The number of temporary employees is not material.

Our personnel expense for each employee increased to approximately €134,000 in 2017 (2016: approximately €127,000). This increase is primarily attributable to an increase of share-based payment expenses and employee-related restructuring expenses in 2017 compared to the previous year. The personnel expense per employee is defined as the overall personnel expense divided by the average number of employees.

For more information about employee compensation, see the Notes to the Consolidated Financial Statements section, Note (Z).

Number of Employees by Region and Function

Full-time equivalents	December 31, 2017				December 31, 2016				December 31, 2015			
	EMEA	Americas	APJ	Total	EMEA	Americas	APJ	Total	EMEA	Americas	APJ	Total
Cloud and software	5,869	3,895	4,719	14,482	6,406	4,184	5,412	16,002	6,095	3,920	4,976	14,991
Services	7,536	4,878	4,965	17,379	6,535	4,119	3,967	14,621	6,482	3,812	3,574	13,868
Research and development	11,349	5,250	8,273	24,872	10,525	4,860	7,977	23,363	9,676	4,233	7,029	20,938
Sales and marketing	9,196	9,169	4,854	23,219	8,542	8,999	4,435	21,977	7,683	7,766	3,974	19,422
General and administration	2,676	1,781	1,047	5,504	2,629	1,746	1,018	5,393	2,434	1,653	937	5,024
Infrastructure	1,732	855	501	3,087	1,584	788	454	2,827	1,535	783	425	2,743
SAP Group (December 31)	38,357	25,827	24,359	88,543	36,222	24,696	23,265	84,183	33,906	22,166	20,914	76,986
Thereof acquisitions	149	133	7	289	37	172	0	209	73	0	0	73
SAP Group (months' end average)	37,512	25,459	24,029	86,999	34,932	23,532	22,145	80,609	33,561	21,832	19,788	75,180

Due to reorganizations within our SAP Digital Business Services in 2017 employees were partially reallocated from cloud and software to services. Information for current year are therefore not fully comparable to prior years.

Employee and Labor Relations

On a worldwide basis, we believe that our employee and labor relations are excellent.

On a corporate level, employees of SAP in the European Economic Area are represented by the SAP SE Works Council (WoC) (Europe). By law and agreement with SAP the SAP SE WoC (Europe) is entitled to receive information on transnational

matters and to consult with the Executive Board or a representative thereof. The SAP SE WoC (Europe) was established in November 2014 as a result of the legal transformation of SAP AG into SAP SE. The SAP SE WoC (Europe) replaced the European Works Council which was dissolved following the conversion.

On the legal entity level, the SAP SE works council (Germany) represents the employees of SAP SE. The employees of SAP Deutschland SE & Co. KG (SAP Germany), Concur (Germany) GmbH, as well as the employees of SAP Business Compliance Services GmbH are represented by a separate works council. Other employee representatives include the group works

council (members of the works councils of SAP SE, SAP Germany, Concur (Germany) GmbH, and SAP BCS GmbH), the representatives of severely disabled persons in all entities and on group level (Germany) and the spokespersons committee as the representation of the executives.

Employees of SAP France, SAP France Holding and SAP Labs France SAS are subject to a collective bargaining agreement. Each of SAP France, SAP France Holding, SAP Labs France SAS and Concur (France) SAS are represented by a French works council. The represented unions negotiate agreements with SAP France and SAP Labs France SAS.

In addition, the employees of various other SAP entities, including SAP España – Sistemas, Aplicaciones y Productos en la Informática, S.A., SAP Belgium NV/SA., SAP Israel, SAP Nederland B.V., SAP Italia Sistemi Applicazioni Prodotti in Data Processing S.p.A., SAP Brasil Ltda, SAP sistemi, aplikacije in produkti za obdelavo podatkov d.o.o.(Slovenia), SAP Romania SRL, SAP Argentina S.A., SAP Svenska Aktiebolag (Sweden), SAP UK Ltd. and SAP Ireland Ltd. are represented by works councils, worker representatives, employee consultation forums and/or unions. In addition, some of these employees are subject to a collective bargaining agreement.

Share Ownership

Beneficial Ownership of Shares

The ordinary shares beneficially owned by the persons listed in “Item 6. Directors, Senior Management and Employees – Compensation Report” are disclosed in “Item 7. Major Shareholders and Related-Party Transactions – Major Shareholders.”

Share-Based Compensation Plans

Share-Based Compensation

We maintain certain share-based compensation plans. The share-based compensation from these plans result from cash-settled and equity-settled awards issued to employees. For more information on our share-based compensation plans refer to “Item 6. Directors, Senior Management and Employees – Compensation Report” and Note (27) to our Consolidated Financial Statements.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED-PARTY TRANSACTIONS

Major Shareholders

The share capital of SAP SE consists of ordinary shares, which are issued only in bearer form. Accordingly, SAP SE generally cannot determine the identity of its shareholders or how many shares a particular shareholder owns. SAP's ordinary shares are traded in the United States by means of ADRs. Each ADR currently represents one SAP SE ordinary share. On February 9, 2018, based on information provided by the Depositary there

were 53,325,907 ADRs held of record by 863 registered holders. The ordinary shares underlying such ADRs represented 4.34% of the then-outstanding ordinary shares (including treasury stock). Because SAP's ordinary shares are issued in bearer form only, we are unable to determine the number of ordinary shares directly held by persons with U.S. addresses.

The following table sets forth certain information regarding the beneficial ownership of the ordinary shares to the extent known to SAP as of February 9, 2018 of: (i) each person or group known by SAP SE to own beneficially 5% or more of the outstanding ordinary shares; and (ii) the beneficial ownership of all members of the Supervisory Board and all members of the Executive Board, individually and as a group, in each case as reported to SAP SE by such persons. There was, as far as we are able to tell given the nature of our shares, no significant change in the percentage ownership held by any major shareholder during the past three years. None of the major shareholders have special voting rights.

	Ordinary Shares Beneficially Owned	
	Number	% of Outstanding
Dietmar Hopp, collectively ⁽¹⁾	65,273,200	5.313
Hasso Plattner, Chairperson Supervisory Board, collectively ⁽²⁾	80,274,526	6.534
Executive Board Members as a group (9 persons)	51,407	0.004
Supervisory Board Members as a group (18 persons)	80,280,971	6.535
Executive Board Members and Supervisory Board Members as a group (27 persons)⁽³⁾	80,332,378	6.539
Options and convertible bonds that are vested and exercisable within 60 days of February 9, 2018, held by Executive Board Members and Supervisory Board Members, collectively	0	NA
BlackRock, Inc. ⁽⁴⁾	NA	>5 %

(1) Represents 65,273,200 ordinary shares beneficially owned by Dietmar Hopp, including 3,404,000 ordinary shares owned by DH Besitzgesellschaft AG & Co. KG (formerly known as Golf Club St. Leon-Rot GmbH & Co. Betriebs-oHG) of which DH-LT-Investments AG is the general partner and 61,869,200 ordinary shares owned by Dietmar Hopp Stiftung, GmbH. Mr. Hopp exercises voting and dispositive powers of the ordinary shares held by such entities. The foregoing information is based solely on a Schedule 13G filed by Dietmar Hopp and Dietmar Hopp Stiftung, GmbH on February 14, 2018.

(2) Includes HP Endowment GmbH & Co. KG in which Hasso Plattner exercises sole voting and dispositive power.

(3) We believe that, other than Hasso Plattner, each of the members of the Supervisory Board and the Executive Board beneficially owns less than 1% of SAP SE's ordinary shares as of February 9, 2018.

(4) As required under German law, BlackRock, Inc. informed SAP that they own more than 5% of SAP's outstanding ordinary shares. BlackRock, Inc. is not required to provide SAP with the number of shares owned as of February 9, 2018, and has not provided such information.

Currently we are not aware of any arrangements, the operation of which may, at a subsequent date, result in a change in control of the company.

Related-Party Transactions

For information on related-party transactions see [Note \(30\)](#) to our Consolidated Financial Statements.

ITEM 8. FINANCIAL INFORMATION

Consolidated Financial Statements and Financial Statement Schedule

See "[Item 18. Financial Statements](#)" and pages F-1 through F-77.

Other Financial Information

Legal Proceedings

We are subject to a variety of legal proceedings and claims, either asserted or unasserted, which arise in the ordinary course of business, including claims and lawsuits involving businesses we have acquired.

Refer to [Note \(23\)](#) to our Consolidated Financial Statements for a detailed discussion of our material legal proceedings.

Dividend Policy

For more information on dividend policy see the disclosure in "[Item 3. Key Information — Dividends](#)".

Significant Changes

Callidus Software Inc.

On January 29, 2018, we announced that our subsidiary SAP America, Inc. has entered into a definitive agreement to acquire Callidus Software Inc. Pursuant to the Agreement and Plan of Merger dated January 29, 2018 by and among Callidus Software Inc. (Callidus), SAP America, Inc., and Emerson One Acquisition Corp., a wholly owned subsidiary of SAP America, Inc., Emerson One Acquisition Corp. commenced a cash tender offer for all of the outstanding shares of Callidus common stock at US\$36.00 per share, representing an enterprise value of approximately US\$2.4 billion. The transaction is expected to close in the second quarter of 2018, subject to approval by the Callidus shareholders, clearances by the relevant regulatory authorities and other customary closing conditions.

The preceding description is a summary of the Agreement and Plan of Merger and is qualified in its entirety by the Agreement and Plan of Merger which is incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed with the Commission by Callidus on January 30, 2018.

Executive Board Appointment

Effective January 1, 2018, Christian Klein was appointed to the Executive Board.

ITEM 9. THE OFFER AND LISTING

General

Our ordinary shares are officially listed on the Frankfurt Stock Exchange, the Berlin Stock Exchange and the Stuttgart Stock Exchange. The principal trading market for the ordinary shares is Xetra, the electronic dealing platform of Deutsche Boerse AG.

ADRs representing SAP SE ordinary shares are listed on the New York Stock Exchange (NYSE) under the symbol "SAP," and currently each ADR represents one ordinary share.

Trading on the Frankfurt Stock Exchange and the NYSE

The table below sets forth, for the periods indicated, the high and low closing sales prices for the ordinary shares on the Xetra trading System of the Frankfurt Stock Exchange together with the closing highs and lows of the DAX, and the high and low closing sales prices for the ADRs on the NYSE (information is provided by Reuters):

	Price per Ordinary Share in €		DAX ⁽¹⁾ in points		Price per ADR in US\$	
	High	Low	High	Low	High	Low
Annual Highs and Lows						
2013	64.80	52.20	9,589.39	7,459.96	87.14	70.27
2014	62.55	50.90	10,087.12	8,571.95	85.45	64.14
2015	74.85	54.53	12,374.73	9,427.64	80.91	63.37
2016	82.81	64.90	11,481.06	8,752.87	92.36	72.02
2017	100.35	82.43	13,478.86	11,509.84	116.45	86.30
Quarterly Highs and Lows						
2016						
First Quarter	74.25	64.90	10,310.10	8,752.87	80.69	73.68
Second Quarter	72.96	65.20	10,435.73	9,268.66	81.90	72.02
Third Quarter	82.36	66.70	10,752.98	9,373.26	92.36	74.16
Fourth Quarter	82.81	75.84	11,481.06	10,259.13	90.96	81.61
2017						
First Quarter	91.98	82.43	12,312.87	11,509.84	98.46	86.30
Second Quarter	96.10	90.36	12,888.95	12,000.44	108.59	96.18
Third Quarter	92.69	87.14	12,828.86	11,945.88	110.33	102.71
Fourth Quarter	100.35	93.17	13,478.86	12,861.49	116.45	110.10
Monthly Highs and Lows						
2017						
July	91.58	88.75	12,641.33	12,118.25	106.09	102.71
August	91.44	87.14	12,297.72	11,945.88	107.35	103.80
September	92.69	87.88	12,828.86	12,102.21	110.33	104.76
October	98.32	93.79	13,229.57	12,902.65	114.18	110.10
November	100.35	94.65	13,478.86	12,976.37	116.45	112.34
December	98.49	93.17	13,312.30	12,861.49	115.94	111.24
2018						
January	96.44	90.06	13,559.60	12,871.39	116.30	109.64
February (through February 9, 2018)	89.79	82.86	13,003.90	12,107.48	111.67	101.60

(1) The DAX is a continuously updated, capital-weighted performance index of 30 German blue chip companies. In principle, the shares included in the DAX are selected on the basis of their stock exchange turnover and the issuer's free-float market capitalization. Adjustments to the DAX are made for capital changes, subscription rights and dividends.

On February 9, 2018, the closing sales price per ordinary share on the Frankfurt Stock Exchange (Xetra Trading System) was €82.86 and the closing sales price per ADR on the NYSE was US \$102.07 as reported by Reuters.

ITEM 10. ADDITIONAL INFORMATION

Articles of Incorporation

Organization and Register

SAP SE is a European Company (Societas Europaea, or "SE") organized in the Federal Republic of Germany under German and European law, including Council Regulation (EC) No. 2157/2001 on the Statute for a European Company (the "SE Regulation"), the German Act on the Implementation of Council Regulation No. 2157/2001 of October 8, 2001 on the Statute for a European Company (Gesetz zur Ausführung der Verordnung (EG) Nr. 2157/2001 des Rates vom 8. Oktober 2001 über das Statut der Europäischen Gesellschaft (SE) – SE-Ausführungsgesetz; "SE-AG") of December 22, 2004, and the German Stock Corporation Act (Aktiengesetz). SAP SE is registered in the Commercial Register (Handelsregister) at the Lower Court of Mannheim, Germany, under the entry number "HRB 719915." SAP SE publishes its official notices in the Federal Gazette (www.bundesanzeiger.de).

Objects and Purposes

SAP's Articles of Incorporation state that our objects involve, directly or indirectly, the development, production and marketing of products and the provision of services in the field of information technology, including:

- developing and marketing integrated product and service solutions for e-commerce;
- developing software for information technology and the licensing of its use to others;
- organization and deployment consulting, as well as user training, for e-commerce and other software solutions;
- selling, leasing, renting and arranging the procurement and provision of all other forms of use of information technology systems and related equipment; and
- making capital investments in enterprises active in the field of information technology to promote the opening and advancement of international markets in the field of information technology.

SAP is authorized to act in all the business areas listed above and to delegate such activities to affiliated entities within the

meaning of the German Stock Corporation Act; in particular SAP is authorized to delegate its business in whole or in part to such entities. SAP SE is authorized to establish branch offices in Germany and other countries, as well as to form, acquire or invest in other companies of the same or related kind and to enter into collaboration and joint venture agreements. SAP is further authorized to invest in enterprises of all kinds principally for investment purposes. SAP is authorized to dispose of investments, to consolidate the management of enterprises in which it participates, to enter into affiliation agreements with such entities, or to limit its activities to manage its shareholdings.

Corporate Governance

Introduction

SAP SE, as a European Company with a two-tier board system, is governed by three separate bodies: the Supervisory Board, the Executive Board and the Annual General Meeting of Shareholders. Their rules are defined by European and German law, by the Agreement on the Involvement of Employees in SAP SE ("Employee Involvement Agreement", or "EIA"), by the German Corporate Governance Code and by SAP's Articles of Incorporation (Satzung) and are summarized below. See "Item 16G. Differences in Corporate Governance Practices" for additional information on our corporate governance practices.

The Supervisory Board

The Supervisory Board appoints and removes the members of the Executive Board and oversees and advises the management of the corporation. At regular intervals it meets to discuss current business as well as business development and planning. The SAP Executive Board must consult with the Supervisory Board concerning the corporate strategy, which is developed by the Executive Board. Types of transactions for which the Executive Board requires the Supervisory Board's consent are listed in the Articles of Incorporation; in addition, the Supervisory Board has specified further types of transactions that require its consent. Accordingly, the Supervisory Board must also approve the annual budget of SAP upon submission by the Executive Board and certain subsequent deviations from the approved budget. The Supervisory Board is also responsible for representing SAP SE in transactions between SAP SE and Executive Board members.

The Supervisory Board, based on a recommendation by its Audit Committee, provides its proposal for the election of the external independent auditor to the Annual General Meeting of Shareholders. The Supervisory Board is also responsible for monitoring the auditor's independence, a task it has delegated to its audit committee.

Pursuant to Article 40 (3) sentence 1 of the SE Regulation, the number of members of the supervisory board and the rules for determining this number are to be laid down in the articles of incorporation. Furthermore, pursuant to Section 17 (1) SE-AG, the size of supervisory boards of companies which, like SAP SE, have a capital stock exceeding € 10,000,000, is limited to 21 members. In line with these provisions as well as the EIA, the Articles of Incorporation of SAP SE provide that the Supervisory Board shall be composed of 18 members. Furthermore, it is provided in the EIA that the shareholders of SAP SE have the possibility to reduce the size of the Supervisory Board in the future (i.e. at the earliest in the Annual General Meeting of Shareholders in 2018, with effect from the Annual General Meeting of Shareholders in 2019) to 12 members.

The current Supervisory Board of SAP SE consists of eighteen members, nine of whom are elected by the Annual General Meeting of Shareholders as shareholders' representatives and the remaining nine are appointed as employees' representatives by the SAP SE Works Council Europe in accordance with the EIA (see below for details). Pursuant to Section 17(2) SE-AG, the Supervisory Board of SAP SE must have a minimum of 30% men and 30% women. This quota for the Supervisory Board must be observed for any new appointment to the Supervisory Board. Currently there are three women on the shareholder representatives' side of the Supervisory Board and two women on the employee representatives' side. Thus the percentage of women on the Supervisory Board reached the minimum quota of 30% as of 31 December 2017. The term of office of all eighteen members will end upon the conclusion of the Annual General Meeting of Shareholders in 2019, except for Aicha Evans whose term will end upon the conclusion of the Annual General Meeting of Shareholders in 2018.

The procedure for the appointment of the employees' representatives on the Supervisory Board of SAP SE is governed by the EIA. In accordance with the EIA, the nine seats on the first Supervisory Board reserved for employees' representatives were allocated as follows: the first six seats were allocated to Germany, the seventh seat was allocated to France, the eighth seat was also allocated to Germany, and the ninth seat was allocated to a European country not represented by the first eight seats, as determined by the SAP SE Works Council Europe. The employees' representatives for the first six seats allocated to Germany were determined by direct vote by all SAP employees with their principal place of employment in Germany. According to the EIA, the employees' representative for the seventh seat allocated to France is generally determined according to the applicable provisions of French law on the election or appointment of employees' representatives on a supervisory board. With regard to the eighth and ninth seat, members of the SAP SE Works Council Europe from Germany and Slovakia were appointed by the SE Works Council as employees' representatives.

Any Supervisory Board member elected by the shareholders at the Annual General Meeting of Shareholders may be removed by three-quarters of the votes cast at the Annual General Meeting of Shareholders. Any Supervisory Board member appointed in accordance with the EIA may be removed by the SAP SE Works Council Europe upon application by the body that nominated the respective employees' representative for appointment by the SE Works Council or, in case the employees' representative was directly elected, the majority of the employees entitled to vote.

The Supervisory Board elects a chairperson and one or two deputy chairperson(s) among its members by a majority of the votes cast. Only a shareholders' representative may be elected as chairperson of the Supervisory Board. When electing the chairperson of the Supervisory Board, the oldest member in terms of age of the shareholders' representatives on the Supervisory Board will chair the meeting and, in the event of a tied vote, will have the casting vote.

Unless otherwise mandatorily prescribed by law or the Articles of Incorporation, resolutions of the Supervisory Board are adopted by simple majority of the votes cast. In the event of a tie, the vote of the chairperson and, in the event that the chairperson does not participate in passing the resolution, the vote of the deputy chairperson, provided that he or she is a shareholders' representative, will be decisive (casting vote).

The members of the Supervisory Board cannot be elected or appointed, as the case may be, for a term longer than six years. Other than for the employees' representatives on the first Supervisory Board of SAP SE, the term expires at the close of the Annual General Meeting of Shareholders giving its formal approval of the acts of the Supervisory Board for the fourth fiscal year following the year in which the term of office of the Supervisory Board members commenced. Re-election is possible. Our Supervisory Board normally meets four times a year. The compensation of the members of the Supervisory Board is set in the Articles of Incorporation.

As stipulated in the German Corporate Governance Code (GCGC), an adequate number of our Supervisory Board members are independent. To be considered for appointment to the Supervisory Board and for as long as they serve, members must comply with certain criteria concerning independence, conflicts of interest and multiple memberships of management, supervisory and other governing bodies. They must be loyal to SAP in their conduct and must not accept any position in companies that are in competition with SAP. Members are subject to insider trading prohibitions and the respective directors' dealing rules of the European Regulation (EU) No 596/2014 of the European Parliament and the Council of 16 April 2014 on market abuse and the German Securities Trading Act. A member of the Supervisory Board may not vote on matters relating to certain contractual agreements between

such member and SAP SE. Further, as the compensation of the Supervisory Board members is set in the Articles of Incorporation, Supervisory Board members are unable to vote on their own compensation, with the exception that they are able to exercise voting rights in a General Meeting of Shareholders in connection with a resolution amending the Articles of Incorporation.

The Supervisory Board may appoint committees from among its members and may, to the extent permitted by law, entrust such committees with the authority to make decisions on behalf of the Supervisory Board. Currently the Supervisory Board maintains the following committees:

The Audit Committee

The focus of the Audit Committee (Prüfungsausschuss) is the oversight of SAP's external financial reporting as well as SAP's risk management, internal controls (including internal controls over the effectiveness of the financial reporting process), corporate audit and compliance matters. According to German Law SAP's Audit Committee includes at least one independent member with specialist expertise in the fields of financial reporting or auditing. Among the tasks of the Audit Committee are the discussion of SAP's quarterly and year-end financial reporting prepared under German and U.S. regulations, including this report. The Audit Committee recommends to the Supervisory Board the appointment of the external independent auditor, determines focus audit areas, discusses critical accounting policies and estimates with and reviews the audit reports issued and audit issues identified by the auditor. The audit committee also negotiates the audit fees with the auditor and monitors the auditor's independence and quality. SAP's Corporate Audit, SAP's Office of Legal Compliance and Integrity and SAP's Risk Management Office report upon request or at the occurrence of certain findings, but in any case at least once a year (Office of Legal Compliance and Integrity and Risk Management Office) or twice a year (Corporate Audit), directly to the Audit Committee.

The Audit Committee has established procedures regarding the prior approval of all audit and non-audit services provided by our external independent auditor. See "Item 16C. Principal Accountant Fees and Services" for details.

The Audit Committee also does preparatory work for the full Supervisory Board's deliberations and resolutions on the adoption of the annual financial statements, the approval of the consolidated annual financial statements and the Integrated Report, and on the dividend proposal. Furthermore, the Audit Committee and the Finance and Investment Committee jointly prepare the full Supervisory Board's resolution to approve the group annual plan.

The Supervisory Board has determined Erhard Schipporeit, the Audit Committee's chairperson, to be an audit committee

financial expert as defined by the regulations of the SEC issued under Section 407 of the Sarbanes-Oxley Act as well as an independent financial expert as defined by the German Stock Corporation Act. See "[Item 16A. Audit Committee Financial Expert](#)" for details.

The General and Compensation Committee

The General and Compensation Committee (Präsidial- und Personalausschuss) coordinates the work of the Supervisory Board, prepares its meetings and deals with corporate governance issues. In addition, it carries out the preparatory work necessary for the personnel decisions made by the Supervisory Board, notably those concerning compensation for the Executive Board members and the conclusion, amendment and termination of the Executive Board members' contracts of appointment.

The German Stock Corporation Act prohibits the Compensation Committee from deciding on the compensation of the Executive Board members on behalf of the Supervisory Board and requires that such decision is made by the entire Supervisory Board. This Act also provides the General Meeting of Shareholders with the right to vote on the system for the compensation of Executive Board members, such vote, however, not being legally binding for the Supervisory Board.

The Finance and Investment Committee

The Finance and Investment Committee (Finanz- und Investitionsausschuss) addresses general financing issues. Furthermore, it regularly discusses acquisitions of intellectual property and companies, venture capital investments and other investments with the Executive Board and reports to the Supervisory Board on such investments. It is also responsible for the approval of such investments if the individual investment amount exceeds certain specified limits, as well as – together with the Audit Committee – for the preparation of the full Supervisory Board's resolution to approve the group annual plan.

The Technology and Strategy Committee

The Technology and Strategy Committee (Technologie- und Strategieausschuss) monitors technology transactions and provides the Supervisory Board with in-depth technical advice.

The Nomination Committee

The Nomination Committee (Nominierungsausschuss) is exclusively composed of shareholder representatives and is responsible for identifying suitable candidates for membership of the Supervisory Board for recommendation to the Annual General Meeting of Shareholders.

The Special Committee

The Special Committee (Sonderausschuss) deliberates on matters arising out of substantial exceptional risks, such as major litigations.

The People and Organization Committee

The People and Organization Committee (Ausschuss für Mitarbeiter- und Organisationsangelegenheiten) deliberates and advises the Executive and Supervisory Board on key personnel matters and major organizational changes at the management level below the Executive Board. It also advises on equal opportunities for women at SAP.

The duties and procedures of the Supervisory Board and its committees are specified in their respective rules of procedure, if any, which reflect the requirements of European and German law, including the SE Regulation and the German Stock Corporation Act, the Articles of Incorporation and the recommendations of the GCGC.

According to the provisions of the Sarbanes-Oxley Act, SAP does not grant loans to the members of the Executive Board or the Supervisory Board.

The Executive Board

The Executive Board manages the Company's business, is responsible for preparing its strategy and represents it in dealings with third parties. The Executive Board reports regularly to the Supervisory Board about SAP operations and business strategies and prepares special reports upon request. A person may not serve on the Executive Board and on the Supervisory Board at the same time.

The Executive Board and the Supervisory Board cooperate closely for the benefit of the Company. The Executive Board is required to provide the Supervisory Board regular, prompt and comprehensive information about all of the essential issues affecting the SAP Group's business progress and its potential business risks. Furthermore, the Executive Board must maintain regular contact with the chairperson of the Supervisory Board and vice versa. The Executive Board must inform the chairperson of the Supervisory Board promptly about exceptional events that are of significance to SAP's business. The Supervisory Board chairperson must inform the Supervisory Board accordingly and shall, if required, convene an extraordinary meeting of the Supervisory Board.

Pursuant to the Articles of Incorporation, the Executive Board must consist of at least two members. SAP SE's Executive Board is currently comprised of nine members. Any two members of the Executive Board jointly or one member of the Executive Board and the holder of a special power of attorney (Prokurst) jointly may legally represent SAP SE. The Supervisory Board appoints each member of the Executive

Board for a maximum term of five years, with the possibility of re-appointment. Under certain circumstances, a member of the Executive Board may be removed by the Supervisory Board prior to the expiration of that member's term. A member of the Executive Board may not vote on matters relating to certain contractual agreements between such member and SAP SE, and may be liable to SAP SE if such member has a material interest in any contractual agreement between SAP and a third party which was not previously disclosed to and approved by the Supervisory Board. Further, as the compensation of the Executive Board members is set by the Supervisory Board, Executive Board members are unable to vote on their own compensation, with the exception that they are able to exercise voting rights in a General Meeting of Shareholders resolving a non-binding vote on the system for the compensation of Executive Board members.

Under German law SAP SE's Supervisory Board members and Executive Board members have a duty of loyalty and care towards SAP SE. They must exercise the standard of care of a prudent and diligent businessman and bear the burden of proving they did so if their actions are contested. Both bodies must consider the interest of SAP SE shareholders and our employees and, to some extent, the common good. Those who violate their duties may be held jointly and severally liable for any resulting damages, unless they acted pursuant to a lawful resolution of the Annual General Meeting of Shareholders.

SAP has implemented a Code of Business Conduct for employees (see "[Item 16B. Code of Ethics](#)" for details). The employee code is equally applicable to managers and members of the Executive Board. Its rules are observed as well by members of the Supervisory board as applicable.

Under German law the Executive Board of SAP SE has to assess all major risks for the SAP Group. In addition, all measures taken by management to reduce and handle the risks have to be documented. Therefore, SAP's management has adopted suitable measures such as implementing an enterprise-wide risk monitoring system to ensure that adverse developments endangering the corporate standing are recognized at a reasonably early point in time.

The Office of Legal Compliance and Integrity was created by the SAP Executive Board in 2006 to oversee and coordinate legal and regulatory policy compliance at SAP. The Chief Global Compliance Officer heading the Office of Legal Compliance and Integrity directly reports to the CFO of SAP SE and also has direct communication channels and reporting obligations to the Audit Committee of the Supervisory Board. The Office of Legal Compliance and Integrity manages a network of more than 100 local subsidiary Compliance Officers who act as the point of contact for local questions or issues under the SAP Code of Business Conduct for employees. The Office of Legal Compliance and Integrity provides training and communication

to SAP employees to raise awareness and understanding of legal and regulatory compliance policies. Employee help lines are also supported in each region where questions can be raised or questionable conduct can be reported without fear of retaliation.

The Annual General Meeting of Shareholders

Shareholders of the Company exercise their voting rights at shareholders' meetings. The Executive Board calls the Annual General Meeting of Shareholders, which must take place within the first six months of each fiscal year. The Supervisory Board or the Executive Board may call an extraordinary meeting of the shareholders if the interests of the stock corporation so require. Additionally, shareholders of SAP SE holding in the aggregate a minimum of 5% of SAP SE's issued share capital may call an extraordinary meeting of the shareholders. Shareholders as of the record date are entitled to attend and participate in shareholders' meetings if they have provided timely notice of their intention to attend the meeting.

At the Annual General Meeting of Shareholders, the shareholders are asked, among other things, to formally approve the actions taken by the Executive Board and the Supervisory Board in the preceding fiscal year, to approve the appropriation of the corporation's distributable profits and to appoint an external independent auditor. Shareholder representatives of the Supervisory Board are generally elected at the Annual General Meeting of Shareholders for a term of approximately five years. Shareholders may also be asked to grant authorization to repurchase treasury shares, to resolve on measures to raise or reduce the capital of the Company or to ratify amendments of our Articles of Incorporation. The Annual General Meeting of Shareholders can make management decisions only if requested to do so by the Executive Board.

Change in Control

There are no provisions in the Articles of Incorporation of SAP SE that would have an effect of delaying, deferring or preventing a change in control of SAP SE and that would only operate with respect to a merger, acquisition or corporate restructuring involving it or any of its subsidiaries.

According to the German Securities Acquisition and Takeover Act (Wertpapiererwerbs- und Übernahmegesetz) a bidder seeking control of a company with its corporate seat in Germany or another state of the European Economic Area (EEA) and its shares being traded on an EEA stock exchange must publish an advance notice of its decision to make a tender offer, submit an offer statement to the Federal Financial Supervisory Authority (Bundesanstalt für

Finanzdienstleistungsaufsicht) for review, and obtain certification from a qualified financial institution that adequate financing is in place to complete the offer. The offer statement must be published upon approval by the Federal Financial Supervisory Authority or expiry of a certain time period without such publication being prohibited by the Federal Financial Supervisory Authority. Once a shareholder has acquired shares representing at least 30% of the voting rights in an EEA-listed company, it must make an offer for all remaining shares. The Securities Acquisition and Takeover Act requires the executive board of the target company to refrain from taking any measures that may frustrate the success of the takeover offer. However, the target executive board is permitted to take any action that a prudent and diligent management of a company that is not the target of a takeover bid would also take. Moreover, the target executive board may search for other bidders and, with the prior approval of the supervisory board, may take other defensive measures, provided that both boards act within the parameters of their general authority under the German Stock Corporation Act. An executive board may also adopt specific defensive measures if such measures have been approved by the supervisory board and were specifically authorized by the general shareholders' meeting no earlier than 18 months in advance of such measures by a resolution of at least 75% of the shares represented.

Under the European Takeover Directive of 2004 member states had to choose whether EU restrictions on defensive measures apply to companies that are registered in their territory. Germany decided to opt out and to retain its current restrictions on a board implementing defensive measures (as described above). As required by the Directive if a country decides to opt out the German Securities Acquisition and Takeover Act grants companies the option of voluntarily applying the European standard by a change of the Articles of Incorporation (opt-in). SAP SE has not made use of this option.

Change in Share Capital

Under German law, the capital stock may be increased in consideration of contributions in cash or in kind, or by establishing authorized capital or contingent capital or by an increase of the company's capital reserves. Authorized capital provides the Executive Board with the flexibility to issue new shares for a period of up to five years. The Executive Board must obtain the approval of the Supervisory Board before issuing new shares with regard to the authorized capital. Contingent capital allows the issuance of new shares for specified purposes, including stock option plans for Executive Board members or employees and the issuance of shares upon conversion of convertible bonds and exercise of stock options. By law, the Executive Board may only issue new shares with regard to the contingent capital for the specified purposes.

Capital increases require an approval by at least 75% of the valid votes cast at the General Meeting of Shareholders in which the increase is proposed, and requires an amendment to the Articles of Incorporation.

The share capital may be reduced by an amendment to the Articles of Incorporation approved by at least 75% of the valid votes cast at the General Meeting of Shareholders. In addition, the Executive Board of SAP SE is allowed to authorize a reduction of the company's capital stock by canceling a defined number of repurchased treasury shares if this repurchasing and the subsequent reduction have already been approved by the General Meeting of Shareholders.

The Articles of Incorporation do not contain conditions regarding changes in the share capital that are more stringent than those provided by applicable European and German law.

Rights Accompanying our Shares

There are no limitations imposed by German law or the Articles of Incorporation of SAP SE on the rights to own securities, including the rights of non-residents or foreign holders to hold the ADRs or ordinary shares, to exercise voting rights or to receive dividends or other payments on such shares.

According to the German stock corporation law, the rights of shareholders cannot be amended without shareholders' consent. The Articles of Incorporation do not provide more stringent conditions regarding changes of the rights of shareholders than those provided by applicable European and German law.

Voting Rights

Each ordinary SAP SE share represents one vote. Cumulative voting is not permitted under applicable European and German law. A corporation's articles of incorporation may stipulate a majority necessary to pass a shareholders' resolution differing from the majority provided by law, unless the law mandatorily requires a certain majority. Section 21 (1) of SAP SE's Articles of Incorporation provides that resolutions may be passed at the General Meeting of Shareholders with a majority of valid votes cast, unless a larger majority is prescribed by law or the Articles of Incorporation. SAP SE's Articles of Incorporation as well as applicable European and German law require that the following matters, among others, be approved by at least 75% of the valid votes cast at the General Meeting of Shareholders in which the matter is proposed:

- changing the corporate purpose of the company set out in the Articles of Incorporation;
- capital increases and capital decreases;

- excluding preemptive rights of shareholders to subscribe for new shares or for treasury shares;
- dissolution;
- a merger into, or a consolidation with, another company;
- a transfer of all or virtually all of the assets;
- a change of corporate form, including re-conversion into a German stock corporation;
- a transfer of the registered seat to another EU member state; and
- any other amendment to the Articles of Incorporation (pursuant to section 21 (2) sentence 1 of the Articles of Incorporation). For any amendments of the Articles of Incorporation which require a simple majority for stock corporations established under German law, however, section 21 (2) sentence 2 of SAP SE's Articles of Incorporation provides that the simple majority of the valid votes cast is sufficient if at least half of the subscribed capital is represented or, in the absence of such quorum, the majority prescribed by law (i.e. two thirds of the votes cast, pursuant to sec. 59 of the SE Regulation) is sufficient.

Dividend Rights

See "[Item 3. Key Information — Dividends](#)."

Preemptive Rights

Shareholders have preemptive rights to subscribe (Bezugsrecht) for any issue of additional shares in proportion to their shareholdings in the issued capital. The preemptive rights may be excluded under certain circumstances by a shareholders' resolution (approved by at least 75% of the valid votes cast at the General Meeting of Shareholders) or by the Executive Board authorized by such shareholders' resolutions and subject to the consent of the Supervisory Board.

Liquidation

If SAP SE were to be liquidated, any liquidation proceeds remaining after all of our liabilities were paid would be distributed to our shareholders in proportion to their shareholdings.

Disclosure of Shareholdings

SAP SE's Articles of Incorporation do not require shareholders to disclose their shareholdings. The German Securities Trading Act (Wertpapierhandelsgesetz), however, requires holders of voting securities of SAP SE to notify SAP SE and the Federal Financial Supervisory Authority of the number of shares they hold if that number reaches, exceeds or falls below specified thresholds. These thresholds are 3%, 5%, 10%, 15%, 20%, 25%, 30%, 50% and 75% of the corporation's outstanding voting rights. In respect of certificates representing shares, the notification requirement shall apply exclusively to the holder of the certificates. In addition, the German Securities Trading Act

also obliges anyone who holds, directly or indirectly, financial instruments that convey an unconditional entitlement to acquire under a legally binding agreement, shares in SAP SE, to notify SAP SE and the Federal Financial Supervisory Authority if the thresholds mentioned above have been reached, exceeded or fallen below, with the exception of the 3% threshold. This notification obligation also exists for the holder of a financial instrument which merely de facto enables its holder or a third party to acquire shares in SAP SE, subject to the thresholds mentioned in the preceding sentence. In connection with this notification, obligation positions in voting rights and other financial instruments have to be aggregated.

Exchange Controls and Other Limitations Affecting Security Holders

The euro is a fully convertible currency. At the present time, Germany does not restrict the export or import of capital, except for investments in certain areas in accordance with applicable resolutions adopted by the United Nations and the European Union. However, for statistical purposes only, every individual or corporation residing in Germany ("Resident") must report to the German Central Bank (Deutsche Bundesbank), subject only to certain immaterial exceptions, any payment received from or made to an individual or a corporation residing outside of Germany ("Non-Resident") if such payment exceeds €12,500 (or the equivalent in a foreign currency). In addition, German Residents (except for individuals and certain financial institutions) must report any accounts payable to or receivable from Non-Residents if such payables or receivables, in the aggregate, exceed €5 million (or the equivalent in a foreign currency) at the end of any calendar month. Furthermore, companies resident in Germany with accounts payable to or receivable from Non-Residents in excess of €500 million have to report any payables or receivables to/from Non-Residents arising from derivative instruments at the end of each calendar quarter. Residents are also required to report annually to the German Central Bank any shares or voting rights of 10% or more which they hold directly or indirectly in non-resident corporations with total assets of more than €3 million. Corporations residing in Germany with assets in excess of €3 million must report annually to the German Central Bank any shares or voting rights of 10% or more held directly or indirectly by a Non-Resident.

Taxation

General

The following discussion is a summary of certain material German tax and U.S. federal income tax consequences of the acquisition, ownership and disposition of our ADRs or ordinary

shares to a U.S. Holder. In general, a U.S. Holder (as hereinafter defined) is any beneficial owner of our ADRs or ordinary shares that (i) is a citizen or resident of the U.S. or a corporation organized under the laws of the U.S. or any political subdivision thereof, an estate whose income is subject to U.S. federal income tax regardless of its source or a trust, if a U.S. court can exercise primary supervision over its administration and one or more U.S. persons are authorized to control all substantial decisions of the trust; (ii) is not a resident of Germany for purposes of the income tax treaty between the U.S. and Germany (Convention between the Federal Republic of Germany and the United States of America for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital and to certain other Taxes, as amended by the Protocol of June 1, 2006 and as published in the German Federal Law Gazette 2008 vol. II pp. 611/851; the "Treaty"); (iii) owns the ADRs or ordinary shares as capital assets; (iv) does not hold the ADRs or ordinary shares as part of the business property of a permanent establishment or a fixed base in Germany; and (v) is fully entitled to the benefits under the Treaty with respect to income and gain derived in connection with the ADRs or ordinary shares. Special rules which are not discussed in the following summary apply to pension funds and certain other tax-exempt investors.

THE FOLLOWING IS NOT A COMPREHENSIVE DISCUSSION OF ALL GERMAN TAX AND U.S. FEDERAL INCOME TAX CONSEQUENCES THAT MAY BE RELEVANT FOR U.S. HOLDERS OF OUR ADRS OR ORDINARY SHARES. THEREFORE, U.S. HOLDERS ARE STRONGLY URGED TO CONSULT THEIR OWN TAX ADVISORS REGARDING THE OVERALL GERMAN TAX AND U.S. FEDERAL INCOME TAX CONSEQUENCES OF THE ACQUISITION, OWNERSHIP AND DISPOSITION OF OUR ADRS OR ORDINARY SHARES IN LIGHT OF THEIR PARTICULAR CIRCUMSTANCES, INCLUDING THE EFFECT OF ANY STATE, LOCAL OR OTHER FOREIGN OR DOMESTIC LAWS.

German Taxation

The summary set out below is based on German tax laws, interpretations thereof and applicable tax treaties to which Germany is a party and that are in force at the date of this report; it is subject to any changes in such authority occurring after that date, potentially with retroactive effect, that could result in German tax consequences different from those discussed below. This discussion is also based, in part, on representations of the Depositary and assumes that each obligation of the Deposit Agreement and any related agreements will be performed in accordance with its terms. For additional information on the Depositary and the fees associated with SAP's ADR program see "[Item 12. Description of Securities Other Than Equity Securities – American Depository Shares](#)".

For purposes of applying German tax law and the applicable tax treaties to which Germany is a party, a holder of ADRs will generally be treated as owning the ordinary shares represented thereby.

German Taxation of Dividends

Under German income tax law, the full amount of dividends distributed by an incorporated company is generally subject to German withholding tax at a domestic rate of 25% plus a solidarity surtax of 5.5% thereon (effectively 1.375% of dividends before withholding tax), resulting in an aggregate withholding tax rate from dividends of 26.375%. From January 1, 2017 onwards, taxes are incurred on the third bank working day after the annual general meeting, or at a later date as may be stipulated by SAP's articles of incorporation or by the annual general meeting's decision on dividends. Non-resident corporate shareholders will generally be entitled to a refund in the amount of two-fifths of the withholding tax (including solidarity surtax thereon). This does not preclude a further reduction or refund of withholding tax, if any, available under a relevant tax treaty.

Generally, for many non-resident shareholders the withholding tax rate is currently reduced under applicable income tax treaties. Rates and refund procedures may vary according to the applicable treaty. To reduce the withholding tax to the applicable treaty tax rate a non-resident shareholder must apply for a refund of withholding taxes paid. Claims for refund, if any, are made on a special German claim for refund form, which must be filed with the German Federal Tax Office (Bundeszentralamt für Steuern, D-53221 Bonn, Germany; <http://www.bzst.de>). The relevant forms can be obtained from the German Federal Tax Office. For details, such non-resident shareholders are urged to consult their own tax advisors. Special rules apply for the refund to U.S. Holders (we refer to the below section "Refund Procedures for U.S. Holders").

Refund Procedures for U.S. Holders

Under the Treaty, a partial refund of the 25% withholding tax equal to 10% of the gross amount of the dividend and a full refund of the solidarity surtax can be obtained by a U.S. Holder. Thus, for each US\$100 of gross dividends paid by SAP SE to a U.S. Holder, the dividends (which are dependent on the euro/dollar exchange rate at the time of payment) will be initially subject to a German withholding tax of US\$26.375, of which US\$11.375 may be refunded under the Treaty. As a result, a U.S. Holder effectively would receive a total dividend of US\$85 (provided the euro/dollar exchange rate at the time of payment of the dividend is the same as at the time of refund, otherwise the effective dividend may be higher or lower). Further relief of German withholding tax under the Treaty may be available for corporate U.S. Holders owning at least 10% of the voting stock of SAP or U.S. Holders qualifying as pension fund within the

meaning of the Treaty, subject to further requirements being met.

To claim the refund of amounts withheld in excess of the Treaty rate, a U.S. Holder must submit (either directly or, as described below, through the Data Medium Procedure participant) a claim for refund to the German tax authorities, with, in the case of a direct claim, the original bank voucher (or certified copy thereof) issued by the paying entity documenting the tax withheld, within four years from the end of the calendar year in which the dividend is received. Claims for refund are made on a special German claim for refund form (Form E-USA), which must be filed with the German Federal Tax Office (Bundeszentralamt für Steuern, D-53221 Bonn, Germany). The German claim for refund form may be obtained from the German tax authorities at the same address where applications are filed or can be downloaded from the homepage of the German Federal Tax Office (<http://www.bzst.de>).

U.S. Holders must also submit to the German tax authorities a certification of their U.S. residency status (IRS Form 6166). This certification can be obtained from the Internal Revenue Service by filing a request for certification (generally on an IRS Form 8802, which will not be processed unless a user fee is paid) with the Internal Revenue Service, P.O. Box 71052, Philadelphia, PA 19176-6052. U.S. Holders should consult their own tax advisors regarding how to obtain an IRS Form 6166.

An IT-supported quick-refund procedure is available for dividends received (the "Data Medium Procedure — DMP"). If the U.S. Holder's bank or broker elects to participate in the DMP, it will perform administrative functions necessary to claim the Treaty refund for the beneficiaries. The refund beneficiaries must confirm to the DMP participant that they meet the conditions of the Treaty provisions and that they authorize the DMP participant to file applications and receive notices and payments on their behalf. Further each refund beneficiary must confirm that (i) it is the beneficial owner of the dividends received; (ii) it is resident in the U.S. in the meaning of the Treaty; (iii) it does not have its domicile, residence or place of management in Germany; (iv) the dividends received do not form part of a permanent establishment or fixed base in Germany; and (v) it commits, due to its participation in the DMP, not to claim separately for refund.

The beneficiaries also must provide an IRS Form 6166 certification with the DMP participant. The DMP participant is required to keep these documents in its files and prepare and file a combined claim for refund with the German tax authorities by electronic media. The combined claim provides evidence of a U.S. Holder's personal data including its U.S. Tax Identification Number.

The German tax authorities reserve the right to audit the entitlement to tax refunds for several years following their payment pursuant to the Treaty in individual cases. The DMP

participant must assist with the audit by providing the necessary details or by forwarding the queries to the respective refund beneficiaries.

The German tax authorities will issue refunds denominated in euros. In the case of shares held through banks or brokers participating in the Depository, the refunds will be issued to the Depository, which will convert the refunds to dollars. The resulting amounts will be paid to banks or brokers for the account of the U.S. Holders.

German Taxation of Capital Gains

Under German income tax law, a capital gain derived from the sale or other disposition of ADRs or ordinary shares by a non-resident shareholder is subject to income tax in Germany only if such non-resident shareholder has held, directly or indirectly, ADRs or ordinary shares representing 1% or more of the registered share capital of a company at any time during the five-year period immediately preceding the sale or other disposition.

However, a U.S. Holder of ADRs or ordinary shares that qualifies for benefits under the Treaty is not subject to German income or corporate income tax on the capital gain derived from the sale or other disposition of ADRs or ordinary shares.

German Gift and Inheritance Tax

Generally, a transfer of ADRs or ordinary shares by a shareholder at death or by way of gift will be subject to German gift or inheritance tax, respectively, if (i) the decedent or donor, and the heir, donee or other transferee is resident in Germany at the time of the transfer, or with respect to German citizens who are not resident in Germany, if the decedent or donor, or the heir, donee or other transferee has not been continuously outside of Germany for a period of more than five years; (ii) the ADRs or ordinary shares are part of the business property of a permanent establishment or a fixed base in Germany; or (iii) the ADRs or ordinary shares subject to such transfer form part of a portfolio that represents 10% or more of the registered share capital of the Company and has been held, directly or indirectly, by the decedent or donor, respectively, at the time of the transfer, actually or constructively together with related parties.

However, the right of the German government to impose gift or inheritance tax on a non-resident shareholder may be limited by an applicable estate tax treaty. In the case of a U.S. Holder, a transfer of ADRs or ordinary shares by a U.S. Holder at death or by way of gift generally will not be subject to German gift or inheritance tax by reason of the estate tax treaty between the U.S. and Germany (Convention between the Federal Republic of Germany and the United States of America for the Avoidance of Double Taxation with respect to Estate, Gift and Inheritance Taxes, German Federal Law Gazette 1982 vol. II page 846, as amended by the Protocol of December 14, 1998 and as published on December 21, 2000, German Federal Law Gazette

2001 vol. II, page 65; the "Estate Tax Treaty") so long as the decedent or donor, or the heir, donee or other transferee was not domiciled in Germany for purposes of the Estate Tax Treaty at the time the gift was made, or at the time of the decedent's death, and the ADRs or ordinary shares were not held in connection with a permanent establishment or a fixed base in Germany. In general, the Estate Tax Treaty provides a credit against the U.S. federal gift or estate tax liability for the amount of gift or inheritance tax paid in Germany, subject to certain limitations, in a case where the ADRs or ordinary shares are subject to German gift or inheritance tax and U.S. federal gift or estate tax.

Other German Taxes

There are currently no German net worth, transfer, stamp or other similar taxes that would apply to a U.S. Holder on the acquisition, ownership, sale or other disposition of our ADRs or ordinary shares.

U.S. Taxation

The following discussion applies to U.S. Holders only if the ADRs and ordinary shares are held as capital assets for tax purposes. It does not address tax considerations applicable to U.S. Holders that may be subject to special tax rules, such as dealers or traders in securities, financial institutions, insurance companies, tax-exempt entities, regulated investment companies, U.S. Holders that hold ordinary shares or ADRs as a part of a straddle, conversion transaction or other arrangement involving more than one position, U.S. Holders that own (or are deemed for U.S. tax purposes to own) 10% or more (by vote or value) of the stock of SAP SE, U.S. Holders subject to special tax accounting rules as a result of any item of gross income with respect to the ADRs or shares being taken into account in the applicable financial statement, U.S. Holders that have a principal place of business or "tax home" outside the United States or U.S. Holders whose "functional currency" is not the dollar and U.S. Holders that hold ADRs or ordinary shares through partnerships or other pass-through entities.

The summary set out below is based upon the U.S. Internal Revenue Code of 1986, as amended (the "Code"), the Treaty and regulations, rulings and judicial decisions thereunder at the date of this report. Any such authority may be repealed, revoked or modified, potentially with retroactive effect, so as to result in U.S. federal income tax consequences different from those discussed below. No assurance can be given that the conclusions set out below would be sustained by a court if challenged by the IRS. The discussion below is based, in part, on representations of the Depository, and assumes that each obligation in the Deposit Agreement and any related agreements will be performed in accordance with its terms.

For U.S. federal income tax purposes, a U.S. Holder of ADRs will be considered to own the ordinary shares represented thereby.

Accordingly, unless the context otherwise requires, all references in this section to ordinary shares are deemed to refer likewise to ADRs representing an ownership interest in ordinary shares.

U.S. Taxation of Dividends

Subject to the discussion below under "Passive Foreign Investment Company Considerations", distributions made by SAP SE with respect to ordinary shares (other than distributions in liquidation and certain distributions in redemption of stock), including the amount of German tax deemed to have been withheld in respect of such distributions, will generally be taxed to U.S. Holders as ordinary dividend income.

As discussed above, a U.S. Holder may obtain a refund of German withholding tax under the Treaty to the extent that the German withholding tax exceeds 15% of the dividend distributed. Thus, for each US\$100 of gross dividends paid by SAP SE to a U.S. Holder, the dividends (which are dependent on the euro/dollar exchange rate at the time of payment) will be initially subject to German withholding tax of US\$25 plus US\$1.375 solidarity surtax, and the U.S. Holder will receive US\$73.625. A U.S. Holder who obtains the Treaty refund will receive from the German tax authorities an additional amount in euro that would be equal to US\$11.375. For U.S. tax purposes, such U.S. Holder will be considered to have received a total distribution of US\$100, which will be deemed to have been subject to German withholding tax of US\$15 (15% of US\$100) resulting in the net receipt of US\$85 (provided the euro/dollar exchange rate at the time of payment of the dividend is the same as at the time of refund, otherwise the effective dividend may be higher or lower).

In the case of a distribution in euro, the amount of the distribution generally will equal the dollar value of the euro distributed (determined by reference to the spot currency exchange rate on the date of receipt of the distribution, or receipt by the Depository in the case of a distribution on ADRs), regardless of whether the holder in fact converts the euro into dollars, and the U.S. Holder will not realize any separate foreign currency gain or loss (except to the extent that such gain or loss arises on the actual disposition of foreign currency received). However, a U.S. Holder may be required to recognize foreign currency gain or loss on the receipt of a refund in respect of German withholding tax to the extent the U.S. dollar value of the refund differs from the U.S. dollar equivalent of that amount on the date of receipt of the underlying dividend.

Dividends paid by SAP SE generally will constitute "portfolio income" for purposes of the limitations on the use of passive activity losses (and, therefore, generally may not be offset by passive activity losses) and as "investment income" for purposes of the limitation on the deduction of investment interest expense. Dividends paid by SAP SE will not be eligible for the dividends received deduction generally allowed to U.S.

corporations under Section 243 of the Code. Dividends paid by SAP SE to an individual are treated as "qualified dividends" subject to capital gains rates, i.e. at a maximum rate of 20%, if SAP SE was not in the prior year and, is not in the year in which the dividend is paid, a passive foreign investment company ("PFIC"). Based on our audited financial statements and relevant market and shareholder data, we believe that we were not treated as a PFIC for U.S. federal income taxes with respect to our 2017 tax year. In addition, based on our audited financial statements and our current expectations regarding the value and nature of our assets, the sources and nature of our income, and relevant market and shareholder data, we do not anticipate becoming a PFIC for the 2018 tax year. With the enactment of The Health Care and Education Reconciliation Act of 2010, certain US holders who are individuals, trusts, or estates, must pay a Medicare tax at a rate of 3.8% on the lesser of (i) net investment income such as dividends and (ii) the excess of modified adjusted gross income over the statutory thresholds.

U.S. Taxation of Capital Gains

In general, assuming that SAP SE at no time is a PFIC, upon a sale or exchange of ordinary shares to a person other than SAP SE, a U.S. Holder will recognize gain or loss in an amount equal to the difference between the amount realized on the sale or exchange and the U.S. Holder's adjusted tax basis in the ordinary shares. Such gain or loss will be a capital gain or loss and will be considered a long-term capital gain (taxable at a reduced rate for individuals) if the ordinary shares were held for more than one year. Capital gains may also be subject to the Medicare tax at a rate of 3.8%. The deductibility of capital losses is subject to significant limitations. Upon a sale of ordinary shares to SAP SE, a U.S. Holder may recognize a capital gain or loss or, alternatively, may be considered to have received a distribution with respect to the ordinary shares, in each case depending upon the application to such sale of the rules of Section 302 of the Code.

Deposit and withdrawal of ordinary shares in exchange for ADRs by a U.S. Holder will not result in its realization of gain or loss for U.S. federal income tax purposes.

U.S. Information Reporting and Backup Withholding

Dividend payments made to holders and proceeds paid from the sale of shares or ADRs are subject to information reporting to the Internal Revenue Service and will be subject to backup withholding taxes (currently imposed at a 28% rate for 2017 and 24% for 2018-2025) unless the holder (i) is a corporation or other exempt recipient or (ii) provides a taxpayer identification number on a properly completed IRS Form W-9 and certifies that no loss of exemption from backup withholding has occurred. Holders that are not U.S. persons are not subject to information reporting or backup withholding. However, such a holder may be required to provide a certification of its non-U.S.

status in connection with payments received within the United States or through a U.S.-related financial intermediary.

Backup withholding is not an additional tax and any amounts withheld as backup withholding may be credited against a holder's U.S. federal income tax liability. A holder may obtain a refund of any excess amounts withheld under the backup withholding rules by timely filing the appropriate claim for refund with the Internal Revenue Service and furnishing any required information.

Shareholders may be subject to other U.S. information reporting requirements and should consult their own tax advisors for application of these reporting requirements to their own facts and circumstances.

U.S. Foreign Tax Credit

In general, in computing its U.S. federal income tax liability, a U.S. Holder may elect for each taxable year to claim a deduction or, subject to the limitations on foreign tax credits generally, a credit for foreign income taxes paid or accrued by it. For U.S. foreign tax credit purposes, subject to the applicable limitations under the foreign tax credit rules, German tax withheld from dividends paid to a U.S. Holder, up to the 15% provided under the Treaty, will be eligible for credit against the U.S. Holder's federal income tax liability or, if the U.S. Holder has elected to deduct such taxes, may be deducted in computing taxable income.

For U.S. foreign tax credit purposes, dividends paid by SAP SE generally will be treated as foreign-source income and as "passive category income". Gains or losses realized by a U.S. Holder on the sale or exchange of ordinary shares generally will be treated as U.S.-source gain or loss.

Passive Foreign Investment Company Considerations

Special and adverse U.S. tax rules apply to a U.S. Holder that holds an interest in a passive foreign investment company (PFIC). Based on current projections concerning the composition of SAP SE's income and assets, SAP SE does not believe that it will be treated as a PFIC for its current or future taxable years. However, because this conclusion is based on our current projections and expectations as to its future business activity, SAP SE can provide no assurance that it will not be treated as a PFIC in respect of its current or any future taxable years.

Material Contracts

Callidus Software Inc.

On January 29, 2018, we announced that our subsidiary SAP America, Inc. has entered into a definitive agreement to acquire Callidus Software Inc. Pursuant to the Agreement and Plan of Merger dated January 29, 2018 by and among Callidus Software Inc. (Callidus), SAP America, Inc., and Emerson One Acquisition Corp., a wholly owned subsidiary of SAP America, Inc., Emerson One Acquisition Corp. commenced a cash tender offer for all of the outstanding shares of Callidus common stock at US\$36.00 per share, representing an enterprise value of approximately US\$2.4 billion. The transaction is expected to close in the second quarter of 2018, subject to approval by the Callidus shareholders, clearances by the relevant regulatory authorities and other customary closing conditions.

The preceding description is a summary of the Agreement and Plan of Merger and is qualified in its entirety by the Agreement and Plan of Merger which is incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed with the Commission by Callidus on January 30, 2018.

See "[Item 5. Operating and Financial Review and Prospects—Liquidity and Capital Resources](#)", for information on our credit facilities.

Compliance With Regulations

The Company is investigating allegations that certain Company independent partners violated the Company's contractual terms and sold Company products and services in embargoed countries, including Iran, Syria, Sudan, and Cuba. These third parties presumably did not adhere to the Company's strict procedures for indirect business activities. To the extent any independent company chooses not to follow the Company's licensing procedures, the Company is ultimately limited in its ability to stop their activities. Nonetheless, the Company devotes considerable resources to prevent and mitigate such activities should they occur. We are also investigating allegations regarding direct sales between the Company and certain customers, who may have engaged in unauthorized activities in Iran and other embargoed countries. The Company's Legal Compliance and Integrity Office is conducting investigations with the assistance of an external law firm.

In September 2017, the Company voluntarily self-disclosed potential export controls and economic sanctions violations to the U.S. Department of Justice and the U.S. Department of Treasury's Office of Foreign Assets Control. At the same time, the Company provided notification to the U.S. Securities and Exchange Commission and responded to an SEC comment

letter in October 2017. The Company has also provided disclosure to the U.S. Department of Commerce Bureau of Industry and Security based on the same alleged facts. Finally, pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 and Section 13(r) of the Securities Exchange Act of 1934, as amended, the Company has filed the required Iran Notice with the SEC.

At this time, the Company is unable to determine the gross revenues and net profits attributable to the activity involving sanctioned entities.

The Company will continue to comply with all U.S., EU, and German laws regarding economic sanctions and export controls, including laws restricting the sale, export, and usage of Company software and services in Iran and in other embargoed countries.

Documents on Display

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended. In accordance with these requirements, we file reports and furnish other information as a foreign private issuer with the SEC. These materials, including this report and the exhibits thereto, may be inspected and copied at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. The SEC also maintains a Web site at www.sec.gov that contains reports and other information regarding registrants that file electronically with the SEC. This report as well as some of the other information submitted by us to the SEC may be accessed through this Web site. In addition, information about us is available at our Web site: www.sap.com

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to various financial risks, such as market risks, including changes in foreign currency exchange rates, interest rates and equity prices, as well as credit risk and liquidity risk. We manage these risks on a Group-wide basis. Selected derivatives are exclusively used for this purpose and not for speculation, which is defined as entering into derivative instruments without a corresponding underlying transaction. Financial risk management is done centrally. See [Notes \(24\)](#) and [\(25\)](#) to our Consolidated Financial Statements for our quantitative and qualitative disclosures about market risk.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

American Depository Shares

Fees and Charges Payable by ADR Holders

Deutsche Bank Trust Company Americas is the Depositary for SAP SE's ADR program. ADR holders may be required to pay the following charges:

- taxes and other governmental charges;
- registration fees as may be in effect from time to time for the registration of transfers of SAP ordinary shares on any applicable register to the Depositary or its nominee or the custodian or its nominee in connection with deposits or withdrawals under the Deposit Agreement;
- applicable air courier, cable, telex and facsimile expenses of the Depositary;
- expenses incurred by the Depositary in the conversion of foreign currency;
- US \$5.00 or less per 100 ADSs (or portion thereof) to the Depositary for the execution and delivery of ADRs (including in connection with the depositing of SAP ordinary shares or the exercising of rights) and the surrender of ADRs;
- a maximum aggregate service fee of US \$3.00 per 100 ADSs (or portion thereof) per calendar year to the Depositary for the services performed by the Depositary in administering the ADR program, including for processing any cash dividends and other cash distributions; and
- US \$5.00 or less per 100 ADSs (or portion thereof) to the Depositary for distribution of securities other than SAP ordinary shares or rights.

These fees may at any time and from time to time be changed by agreement between SAP SE and the Depositary. These charges are described more fully in Section 5.9 of the Amended and Restated Deposit Agreement dated as of November 25, 2009, as amended by Amendment No. 1 dated as of March 18, 2016 and as may be further amended from time to time, incorporated by reference as Exhibits 4.1.1 and 4.1.2 to this report.

Applicable service fees are either deducted from any cash dividends or other cash distributions or charged separately to holders in a manner determined by the Depositary, depending on whether ADSs are registered in the name of investors (whether certificated or in book-entry form) or held in brokerage and custodian accounts (via DTC). In the case of distributions of securities other than SAP ordinary shares or rights, the

Depository charges the applicable ADS record date holder concurrent with the distribution. In the case of ADSs registered in the name of the investor, whether certificated or in book entry form, the Depository sends invoices to the applicable record date ADS holders. For ADSs held in brokerage and custodian accounts via DTC, the Depository may, if permitted by the settlement systems provided by DTC, collect the fees through those settlement systems from the brokers and custodians holding ADSs in their DTC accounts. The brokers and custodians who hold their clients' ADSs in DTC accounts in such case may in turn charge their clients' accounts the amount of the service fees paid to the Depository.

In the event of a refusal to pay applicable fees, the Depository may refuse the requested services until payment is received or may set off the amount of the service from any distribution to be made to the ADR holder, all in accordance with the Deposit Agreement.

If any taxes or other governmental charges are payable by the holders and/or beneficial owners of ADSs to the Depository, the Depository, the custodian or SAP may withhold or deduct from any distributions made in respect of the deposited SAP ordinary share and may sell for the account of the holder and/or beneficial owner any or all of the deposited ordinary shares and apply such distributions and sale proceeds in payment of such taxes (including applicable interest and penalties) or charges, with the holder and the beneficial owner thereof remaining fully liable for any deficiency.

Fees and Other Payments Payable by the Depository to SAP

In connection with the ADR program, the Depository has agreed to make certain payments to SAP and waive certain costs of providing ADR administrative and reporting services, including reporting of ADR program activity, distribution of information to investors and managing the ADR program. For the period beginning November 25, 2016 and ending November 24, 2017, the Depository made direct and indirect payments to SAP in an aggregate amount of US \$1,654,643.18 related to the ADR program.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

None.

ITEM 15. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Disclosure controls and procedures are controls and other procedures of SAP that are designed to ensure that information required to be disclosed by SAP in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by SAP in the reports that it files or submits under the Exchange Act is accumulated and communicated to SAP management, including SAP's principal executive and financial officers (i.e. SAP's chief executive officer (CEO) and chief financial officer (CFO)), or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. SAP's management evaluated, with the participation of SAP's CEO and CFO the effectiveness of SAP's disclosure controls and procedures as of December 31, 2017. The evaluation was led by SAP's Global Governance Risk & Compliance function, including dedicated "SOX Champions" in all of SAP's major entities and business units with the participation of process owners, SAP's key corporate senior management, senior management of each business group, and as indicated above under the supervision of

SAP's CEO and CFO. Based on the foregoing, SAP's management, including SAP's CEO and CFO, concluded that as of December 31, 2017, SAP's disclosure controls and procedures were effective.

Management's Annual Report on Internal Control Over Financial Reporting

The management of SAP is responsible for establishing and maintaining adequate internal control over financial reporting as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. SAP's internal control over financial reporting is a process designed under the supervision of SAP's CEO and CFO to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

SAP's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2017. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in "Internal Control — Integrated Framework (2013)".

Based on the assessment under these criteria, SAP management has concluded that, as of December 31, 2017, the Company's internal control over financial reporting was effective.

KPMG, our independent registered public accounting firm, has issued its audit report on the effectiveness of SAP's internal control over financial reporting, which is included in [Item 18. Financial Statements](#), "Report of Independent Registered Public Accounting Firm."

Changes in Internal Control Over Financial Reporting

On January 1, 2018, SAP adopted IFRS 15, the new accounting standard on revenue from contracts with customers. In anticipation of this adoption we made, in 2017, changes to our processes of recording revenue, including enhancements of the level of automation of these processes. These new processes as well as the migration from the prior processes to these new processes resulted in several changes in our internal controls over our revenue recognition and revenue accounting processes.

Beyond that, there were no changes in our internal control framework that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 16. [RESERVED]

ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

Our Supervisory Board has determined that Erhard Schipporeit is an "audit committee financial expert", as defined by the regulations of the Commission issued pursuant to Section 407 of the Sarbanes-Oxley Act of 2002 and meeting the requirements of Item 16A. He is "independent", as such term is defined in Rule 10A-3 under the Exchange Act.

ITEM 16B. CODE OF ETHICS

In 2003, SAP adopted a Code of Business Conduct that applies to all employees (including all personnel in the accounting and controlling departments), managers and the members of SAP's Executive Board (including our CEO and CFO). Our Code of Business Conduct constitutes a "code of ethics" as defined in Item 16.B of Form 20-F. Our Code of Business Conduct sets standards for all dealings with customers, partners, competitors and suppliers and includes, among others, regulations with regard to confidentiality, loyalty, preventing conflicts of interest, preventing bribery, data protection and privacy and avoiding anti-competitive practices. International differences in culture, language, and legal and social systems make the adoption of uniform Codes of Business Conduct across an entire global company challenging. As a result, SAP has set forth a master code containing minimum standards. In turn, each company within the SAP Group has been required to adopt a similar code that meets at least these minimum standards, but may also include additional or more stringent rules of conduct. Newly acquired companies also are required to meet the minimum standards set forth in the Code of Business Conduct. SAP amends its Code of Business Conduct as necessary, including in February 2012 and most recently in December 2016. We have made our amended Code of Business Conduct publicly available by posting the full text on our Web site under <http://www.sap.com/corporate-en/investors/governance/policies-statutes.epx>.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Audit Fees, Audit Related Fees, Tax Fees and All Other Fees

Refer to [Note \(31\)](#) to our Consolidated Financial Statements for information on fees charged by our independent registered public accounting firm, KPMG, for audit services and other professional services.

Audit Committee's Pre-Approval Policies and Procedures

As required under German law, our shareholders appoint our external independent auditors to audit our financial statements, based on a proposal that is legally required to be submitted by the Supervisory Board. The Supervisory Board's proposal is based on a recommendation by the Audit Committee. See also the description in "[Item 10. Additional Information – Corporate Governance](#)".

In 2002 our Audit Committee adopted a policy with regard to the pre-approval of audit and non-audit services to be provided by our external independent auditors. This policy, which is designed to assure that such engagements do not impair the independence of our auditors, was amended and expanded in 2003, 2007 and 2009 (changes in 2009 only related to information requirements). The policy requires prior approval of the Audit Committee for all services to be provided by our external independent auditors for any entity of the SAP Group. With regard to non-audit services the policy distinguishes among three categories of services:

- "Prohibited services:" This category includes services that our external independent auditors must not be engaged to perform. These are services that are not permitted by applicable law or that would be inconsistent with maintaining the auditors' independence.
- "Services requiring universal approval:" Services of this category may be provided by our external independent auditors up to a certain aggregate amount in fees per year that is determined by the Audit Committee.

- “Services requiring individual approval:” Services of this category may only be provided by our external independent auditors if they have been individually (specifically) pre-approved by the Audit Committee or an Audit Committee member who is authorized by the Audit Committee to make such approvals.

Our Chief Accounting Officer or individuals empowered by him review all individual requests to engage our external independent auditors as a service provider in accordance with this policy and determines the category to which the requested service belongs. All requests for engagements with expected fees over a specified limit are additionally reviewed by our CFO. Based on the determination of the category the request is (i) declined if it is a “prohibited service,” (ii) approved if it is a “service requiring universal approval” and the maximum aggregate amount fixed by the Audit Committee has not been reached or (iii) forwarded to the Audit Committee for individual approval if the “service requires individual approval” or is a “service requiring universal approval” and the maximum aggregate amount fixed by the Audit Committee has been exceeded.

Our Audit Committee’s pre-approval policies also include information requirements to ensure the Audit Committee is kept aware of the volume of engagements involving our external independent auditors that were not individually pre-approved by the Audit Committee itself.

Substantially all of the work performed to audit our Consolidated Financial Statements was performed by our principal accountant’s full-time, permanent employees.

ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

Rule 10A-3 of the Exchange Act requires that all members of our audit committee be independent, subject to certain exceptions. In accordance with German law, the Audit Committee consists of both employee and shareholder elected members. Rule 10A-3

provides an exception for an employee of a foreign private issuer such as SAP who is not an executive officer of that issuer and who is elected to the supervisory board or audit committee of that issuer pursuant to the issuer’s governing law. In this case, the employee is exempt from the independence requirements of Rule 10A-3 and is permitted to sit on the audit committee.

We rely on this exemption. Our Audit Committee includes two employee representatives, Panagiotis Bissiritsas and Martin Duffek, who were appointed to our Supervisory Board pursuant to the Agreement on the Involvement of Employees in SAP SE (see “*Item 6. Directors, Senior Management and Employees*.” for details). We believe that our reliance on this exemption does not materially adversely affect the ability of our Audit Committee to act independently and to satisfy the other requirements of Rule 10A-3.

ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

At the Annual General Meeting of Shareholders on June 4, 2013, the Executive Board was authorized to acquire, on or before June 3, 2018, up to 120 million shares of SAP. The authorization from June 4, 2013 replaced the authorization from June 8, 2010.

The authorization is subject to the provision that the shares to be purchased, together with any other shares already acquired and held by SAP, do not account for more than 10% of SAP’s capital stock.

We did not purchase any ADRs in 2017. The following table sets out information concerning repurchases of SAPs ordinary shares. Consistent with our capital allocation priorities, we executed a €500 million share buyback in the second half of 2017. The maximum number of SAP shares that SAP could additionally purchase under existing repurchase programs was 87,751,434 as of December 31, 2017.

Period	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share (in €)	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans and Programs	(d) Maximum Number of Shares that May Yet Be Purchased Under these Plans and Programs
January 1/1/17 – 1/31/17	0	—	0	92,970,033
February 2/1/17 – 2/28/17	0	—	0	92,971,055
March 3/1/17 – 3/31/17	0	—	0	92,971,055
April 4/1/17 – 4/30/17	0	—	0	93,200,898
May 5/1/17 – 5/31/17	0	—	0	93,200,898
June 6/1/17 – 6/30/17	0	—	0	93,200,898
July 7/1/17 – 7/31/17	0	—	0	93,200,898
August 8/1/17 – 8/31/17	2,803,658	89.17	2,803,658	90,397,240
September 9/1/17 – 9/30/17	417,500	91.99	417,500	89,979,740
October 10/1/17 – 10/31/17	1,622,258	94.27	1,622,258	88,357,482
November 11/1/17 – 11/30/17	606,048	96.79	606,048	87,751,434
December 12/1/17 – 12/31/17	0	—	0	87,751,434
Total	5,449,464	91.75	5,449,464	

ITEM 16F. CHANGES IN REGISTRANT'S CERTIFYING ACCOUNTANT

Not applicable.

ITEM 16G. DIFFERENCES IN CORPORATE GOVERNANCE PRACTICES

The following summarizes the principal ways in which our corporate governance practices differ from the New York Stock Exchange (NYSE) corporate governance rules applicable to U.S. domestic issuers (the NYSE Rules).

Introduction

SAP is incorporated under the laws of the European Union and Germany, with securities publicly traded on markets in Germany, including the Frankfurt Exchange and in the United States on the NYSE.

The NYSE Rules permit foreign private issuers to follow applicable home country corporate governance practices in lieu of the NYSE corporate governance standards, subject to certain exceptions. Foreign private issuers electing to follow home country corporate governance rules are required to disclose the

principal differences in their corporate governance practices from those required under the NYSE Rules. This Item 16G summarizes the principal ways in which SAP's corporate governance practices differ from the NYSE Rules applicable to domestic issuers.

Legal Framework

The primary sources of law relating to the corporate governance of a European Company are the Council Regulation (EC) No. 2157/2001 on the Statute for a European Company (the "SE Regulation"), the German Act on the Implementation of Council Regulation No. 2157/2001 of October 8, 2001 on the Statute for a European Company (Gesetz zur Ausführung der Verordnung (EG) Nr. 2157/2001 des Rates vom 8. Oktober 2001 über das Statut der Europäischen Gesellschaft (SE) – SE-Ausführungsgesetz; "SE-AG") of December 22, 2004, and the German Stock Corporation Act (Aktiengesetz). Additionally, the European Regulation (EU) No 596/2014 of the European Parliament and the Council on market abuse (the "MAR"), the German Securities Trading Act (Wertpapierhandelsgesetz), the German Securities Purchase and Take Over Act (Wertpapiererwerbs- und Übernahmegesetz), the Stock Exchange Admission Regulations, the German Commercial Code (Handelsgesetzbuch) and certain other German statutes contain corporate governance rules applicable to SAP. In addition to these mandatory rules, the German Corporate Governance Code ("GCGC") summarizes the mandatory statutory corporate governance principles found in the German Stock Corporation Act and other provisions of German law. Further, the GCGC contains supplemental recommendations

and suggestions for standards on responsible corporate governance intended to reflect generally accepted best practices.

The German Stock Corporation Act requires the executive and the supervisory board of publicly listed companies like SAP to declare annually that the recommendations set forth in the GCGC have been and are being complied with or which of the recommendations have not been or are not being complied with and why not. SAP has disclosed and reasoned deviations from a few of the GCGC recommendations in its Declaration of Implementation on a yearly basis since 2003. Declarations from 2012 forward are available on the SAP website.

Significant Differences

We believe the following to be the significant differences between applicable European and German corporate governance practices, as SAP has implemented them, and those applicable to domestic companies under the NYSE Rules.

SAP SE is a European Company With a Two-Tier Board System

SAP is governed by three separate bodies: (i) the Supervisory Board, which counsels, supervises and controls the Executive Board; (ii) the Executive Board, which is responsible for the management of SAP; and (iii) the General Meeting of Shareholders. The rules applicable to these governing bodies are defined by European and German law and by SAP's Articles of Incorporation. This corporate structure differs from the unitary board of directors established by the relevant laws of all U.S. states and the NYSE Rules. Under the SE Regulation and the German Stock Corporation Act, the Supervisory Board and Executive Board are separate and no individual may be a member of both boards. See "[Item 10. Additional Information – Corporate Governance](#)" for additional information on the corporate structure.

Director Independence Rules

The NYSE Rules require that a majority of the members of the board of directors of a listed issuer and each member of its nominating, corporate governance, compensation and audit committee be "independent." As a foreign private issuer, SAP is not subject to the NYSE board, compensation committee and corporate governance committee independence requirements but instead can elect to follow its home country rules. With

respect to the audit committee, SAP is required to satisfy Rule 10A-3 of the Exchange Act, which provides certain exemptions from the audit committee independence requirements in the case of employee board representatives. The NYSE Rules stipulate that no director qualifies as "independent" unless the board of directors has made an affirmative determination that the director has no material direct or indirect relationship with the listed company. However, under the NYSE Rules a director may still be deemed independent even if the director or a member of a director's immediate family has received during a 12 month period within the prior three years up to \$120,000 in direct compensation. In addition, a director may also be deemed independent even if a member of the director's immediate family works for the company's auditor in a non-partner capacity and not on the company's audit.

By contrast, the German Stock Corporation Act and the GCGC require that the Supervisory Board ensure that its members collectively have the knowledge, competencies and professional experience required to properly perform their duties. Additionally, the GCGC recommends that the Supervisory Board should implement and adhere to concrete director independence criteria, specify what it considers to be appropriate numbers of shareholders' representatives and Supervisory Board members generally which are independent within the meaning of Section 5.4.2 of the Code, and determine annually whether such numbers have been met. According to this definition, a Supervisory Board member are not to be considered independent in particular if s/he has personal or business relations with the company, its executive bodies, a controlling shareholder or an enterprise associated with any of the preceding persons and entities which could cause a substantial and sustained conflict of interest. The members of the Supervisory Board must ensure that they have enough time to perform their board duties and must carry out their duties carefully and in the company's best interests. They must be loyal to SAP in their conduct, and the GCGC recommends that they should not accept appointment to governing bodies of, or exercise advisory functions at, companies that are in significant competition with SAP. The GCGC further recommends that each member of the Supervisory Board should inform the Supervisory Board of any conflicts of interest, and that material and sustained conflicts of interest involving a member of the Supervisory Board should result in the termination of that member's Supervisory Board mandate. Supervisory Board members must disclose any planned conclusion of advisory or other service agreements or contracts for work with SAP, or loan agreements between them or persons closely related to them and SAP to the Supervisory Board promptly. Such agreements require the consent of the Supervisory Board. The Supervisory Board may grant its permission for any such transaction only if it is based on terms and conditions that are standard for the type of transaction in question and if the transaction is not contrary to SAP's interest.

SAP complies with the director independence requirements and recommendations described above. In particular, the Supervisory Board of SAP SE determined in fiscal year 2017 that all nine shareholders' representatives on the Supervisory Board are independent within the meaning of Section 5.4.2 of the GCGC, and that also considering the employee representatives the Supervisory Board has what it considers to be an adequate number of independent members.

Section 5.3.2 of the GCGC recommends that the chairperson of the Audit Committee of the Supervisory Board should have specific knowledge and experience in applying accounting principles and internal control procedures, and should be independent, and not be a former member of the Executive Board whose term of office ended less than two years ago. Furthermore, the chairperson of the Audit Committee should not simultaneously chair the Supervisory Board as a whole. Mr. Erhard Schipporeit who is the Chairman of SAP's Audit Committee meets these recommendations. However, applicable European and German corporate law does not require the Supervisory Board to make an affirmative determination for each individual member that is independent or that a majority of Supervisory Board members or the members of a specific committee are independent. As described above, the GCGC only recommends that the Supervisory Board determines the independence of its members.

The NYSE independence requirements are closely linked with risks specific to unitary boards of directors that are customary for U.S. companies. In contrast, the two-tier board structure requires a strict separation of the executive board and supervisory board. In addition, the supervisory board of a European Company formed by conversion from a large German stock corporation which was subject to the principle of employee codetermination as outlined in the German Co-Determination Act of 1976 (Mitbestimmungsgesetz) is subject to at least the same level of employee participation which formerly existed in the German stock corporation that was converted to an SE. The terms of employee participation with regard to the Supervisory Board of SAP SE are, among others, set out in the Agreement on the Involvement of Employees in SAP SE. As a result, the Supervisory Board of SAP SE consists of 18 members, of which nine are representatives of SAP SE's shareholders elected at the Annual General Meeting and nine members are representatives of the European employees. Only a shareholders' representative may be elected as chairperson of the Supervisory Board. In case of a tied vote, the vote of the chairperson and, in the event that the chairperson does not participate in passing the resolution, the vote of the deputy chairperson, provided that he or she is a shareholders' representative, will be decisive (casting vote). This board structure creates a different system of checks and balances,

including employee participation, and cannot be directly compared with a unitary board system.

Audit Committee Independence

As a foreign private issuer, the NYSE Rules require SAP to establish an Audit Committee that satisfies the requirements of Rule 10A-3 of the Exchange Act with respect to audit committee independence. SAP is in compliance with these requirements. The Chairman of SAP's Audit Committee and Prof. Dr. Klaus Wucherer meet the independence requirements of Rule 10A-3 of the Exchange Act. The other two Audit Committee members, Panagiotis Bissiritsas and Martin Duffek, are employee representatives who are eligible for the exemption provided by Rule 10 A-3 (b) (1) (iv) (C) (see "[Item 16D. Exemptions from the listing standards for audit committees](#)" for details).

The Audit Committee independence requirements are similar to the Board independence recommendations of the GCGC. See the section above under "[Director Independence Rules](#)." Nonetheless, SAP meets the NYSE Rules on audit committee independence applicable to foreign private issuers.

Rules on Non-Management Board Meetings are Different

Section 303 A.03 of the NYSE Rules stipulates that the non-management board of each listed issuer must meet at regularly scheduled executive sessions without the management. Under applicable European and German corporate law and the GCGC the Supervisory Board is entitled but not required to exclude Executive Board members from its meetings. The Supervisory Board exercises this right generally during its meetings.

Rules on Establishing Committees Differ

Pursuant to Section 303 A.04 and 303 A.05 of the NYSE Rules listed companies are required to set up a Nominating/Corporate Governance Committee and a Compensation Committee, each composed entirely of independent directors and having a written charter specifying the committee's purpose and responsibilities. In addition, each committee's performance must be reviewed annually. Applicable European and German corporate law does not mandate the creation of specific supervisory board committees. The GCGC recommends that the Supervisory Board establish

an Audit Committee and a Nomination Committee. SAP has the following committees, which are in compliance with the GCGC: General and Compensation Committee, Audit Committee, Technology and Strategy Committee, Finance and Investment Committee, Nomination Committee, Special Committee and People and Organization Committee (See "[Item 10. Additional Information – Corporate Governance](#)" for more information).

Rules on Shareholders' Compulsory Approval are Different

Section 312 of the NYSE Rules requires U.S. companies to seek shareholder approval of all equity-compensation plans, including certain material revisions thereto (subject to certain exemptions as described in the rules), issuances of common stock, including convertible stock, if the common stock has, or will have upon issuance, voting power of or in excess of 20% of the then outstanding common stock, and issuances of common stock if they trigger a change of control.

According to applicable European law, the German Stock Corporation Act and other applicable German laws, shareholder approval is required for a broad range of matters, such as amendments to the articles of association, certain significant corporate transactions (including inter-company agreements and material restructurings), the offering of stock options and similar equity compensation to its Executive Board members or its employees by a way of a conditional capital increase or by using treasury shares (including significant aspects of such an equity compensation plan as well as the exercise thresholds), the issuance of new shares, the authorization to purchase the corporation's own shares, and other essential issues, such as transfers of all, or substantially all, of the assets of the stock corporation, including shareholdings in subsidiaries.

Specific Principles of Corporate Governance

Under the NYSE Rules Section 303A.09 listed companies must adopt and disclose corporate guidelines. Since October 2007, SAP has applied, with few exceptions, the recommended corporate governance standards of the GCGC rather than company-specific principles of corporate governance. The GCGC recommendations differ from the NYSE Standards primarily as outlined in this Item 16G.

Specific Code of Business Conduct

NYSE Rules Section 303 A.10 requires listed companies to adopt and disclose a code of business conduct and ethics for directors, officers and employees, and to disclose promptly any waivers of the code for directors or executive officers. Although not required under applicable European and German law, SAP has adopted a Code of Business Conduct, which is equally applicable to employees, managers and members of the Executive Board. SAP complies with the requirement to disclose the Code of Business Conduct and any waivers of the code with respect to directors and executive officers. See "[Item 16B. Code of Ethics](#)" for details.

PART III

ITEM 17. FINANCIAL STATEMENTS

Not applicable.

ITEM 18. FINANCIAL STATEMENTS

The Consolidated Financial Statements are included herein on pages F-1 through F-77.

The following are filed as part of this report:

- Report of Independent Registered Public Accounting Firm.
- Consolidated Financial Statements
 - Consolidated Income Statements for the years ended December 31, 2017, 2016, and 2015.
 - Consolidated Statements of Comprehensive Income for the years ended December 31, 2017, 2016 and 2015.
 - Consolidated Statements of Financial Position as of December 31, 2017 and 2016.
 - Consolidated Statements of Changes in Equity for the years ended December 31, 2017, 2016 and 2015.
 - Consolidated Statements of Cash Flows for the years ended December 31, 2017, 2016 and 2015.
 - Notes to the Consolidated Financial Statements.

ITEM 19. EXHIBITS

The following documents are filed as exhibits to this report:

- 1 Articles of Incorporation (Satzung) of SAP SE, effective as of May 12, 2016 (English translation).¹
- 2.1 Form of global share certificate for ordinary shares (English translation).²
Certain instruments which define rights of holders of long-term debt of SAP SE and its subsidiaries are not being filed because the total amount of securities authorized under each such instrument does not exceed 10% of the total consolidated assets of SAP SE and its subsidiaries. SAP SE and its subsidiaries hereby agree to furnish a copy of each such instrument to the Securities and Exchange Commission upon request.
- 4.1.1 Amended and Restated Deposit Agreement dated as of November 25, 2009, by and among SAP SE, Deutsche Bank Trust Company Americas as Depositary, and all owners and holders from time to time of American Depository Receipts issued thereunder.³
- 4.1.2 Amendment No. 1 dated March 18, 2016 to the Amended and Restated Deposit Agreement, by and among SAP SE, Deutsche Bank Trust Company Americas as Depositary, and all owners and holders from time to time of American Depository Receipts issued thereunder, including the form of American Depository Receipt.⁴
- 4.10 Agreement and Plan of Merger dated January 29, 2018 by and among Callidus Software Inc. SAP America, Inc., and Emerson One Acquisition Corp.⁽⁵⁾
- 8 For a list of our subsidiaries see [Note \(33\)](#) to our Consolidated Financial Statements in “[Item 18. Financial Statements](#)”.
- 12.1 Certification of Bill McDermott, Chief Executive Officer, required by Rule 13a-14(a) or Rule 15d-14(a).
- 12.2 Certification of Luka Mucic, Chief Financial Officer, required by Rule 13a-14(a) or Rule 15d-14(a).
- 13.1 Certification of Bill McDermott, Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 13.2 Certification of Luka Mucic, Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 15 Consent of Independent Registered Public Accounting Firm.
- 101.INS XBRL Instance Document
- 101.SCH XBRL Taxonomy Schema Linkbase Document
- 101.CAL XBRL Taxonomy Calculation Linkbase Document
- 101.DEF XBRL Taxonomy Definition Linkbase Document
- 101.LAB XBRL Taxonomy Labels Linkbase Document
- 101.PRE XBRL Taxonomy Presentation Linkbase Document

¹ Incorporated by reference to Exhibit 4.1 to SAP SE's Form S-8 Registration Statement filed with the SEC on September 1, 2016.

² Incorporated by reference to Exhibit 2.1 to SAP SE's 2014 Annual Report on Form 20-F filed with the SEC on March 20, 2015.

³ Incorporated by reference to Exhibit 99.(a)(2) of Post Effective Amendment #1 to SAP SE's Registration Statement on Form F-6 filed on November 25, 2009.

⁴ Incorporated by reference to Exhibit 99.(a)(2) of Post Effective Amendment #2 to SAP SE's Registration Statement on Form F-6 filed on March 18, 2016.

⁵ Incorporated by reference to Exhibit 2.1 to Callidus Software Inc.'s Current Report on Form 8-K filed with the Commission on January 30, 2018.

Signatures

The Registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this report on its behalf.

SAP SE

(Registrant)

By: /s/ BILL MCDERMOTT

Name: Bill McDermott

Title: Chief Executive Officer

Dated: February 28, 2018

By: /s/ LUKA MUCIC

Name: Luka Mucic

Title: Chief Financial Officer

Dated: February 28, 2018

SAP SE AND SUBSIDIARIES

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Report of Independent registered public accounting firm

To the Shareholders and Supervisory Board of SAP SE:

Opinions on the Consolidated Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated statements of financial position of SAP SE and subsidiaries (the Company) as of December 31, 2017 and 2016, and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2017, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2017, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Basis for Opinion

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable

assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG AG Wirtschaftsprüfungsgesellschaft

We have served as the Company's auditor since 2002.

Mannheim, Germany
February 21, 2018

SAP SE AND SUBSIDIARIES

Consolidated Financial Statements

CONSOLIDATED INCOME STATEMENTS OF SAP GROUP

for the years ended December 31,

millions, unless otherwise stated	Notes	(Unaudited) 2017 ⁽¹⁾ US\$	2017 €	2016 €	2015 €
Cloud subscriptions and support		4,531	3,769	2,993	2,286
Software licenses		5,857	4,872	4,860	4,835
Software support		13,114	10,908	10,571	10,093
Software licenses and support		18,971	15,780	15,431	14,928
Cloud and software		23,502	19,549	18,424	17,214
Services		4,702	3,911	3,638	3,579
Total revenue	(5)	28,205	23,461	22,062	20,793
Cost of cloud subscriptions and support		-1,995	-1,660	-1,313	-1,022
Cost of software licenses and support		-2,686	-2,234	-2,182	-2,291
Cost of cloud and software		-4,681	-3,893	-3,495	-3,313
Cost of services		-3,796	-3,158	-3,089	-2,932
Total cost of revenue		-8,477	-7,051	-6,583	-6,245
Gross profit		19,728	16,410	15,479	14,548
Research and development		-4,030	-3,352	-3,044	-2,845
Sales and marketing		-8,324	-6,924	-6,265	-5,782
General and administration		-1,292	-1,075	-1,005	-1,048
Restructuring	(6)	-219	-182	-28	-621
Other operating income/expense, net		1	1	-3	1
Total operating expenses		-22,341	-18,584	-16,928	-16,541
Operating profit		5,864	4,877	5,135	4,252
Other non-operating income/expense, net	(8)	-44	-36	-234	-256
Finance income		557	463	230	241
Finance costs		-334	-278	-268	-246
Financial income, net	(9)	223	185	-38	-5
Profit before tax		6,043	5,026	4,863	3,991
Income tax expense	(10)	-1,167	-970	-1,229	-935
Profit after tax		4,876	4,056	3,634	3,056
Attributable to owners of parent		4,830	4,018	3,646	3,064
Attributable to non-controlling interests		46	38	-13	-8
Earnings per share, basic (in respective currency)	(11)	4.03	3.36	3.04	2.56
Earnings per share, diluted (in respective currency)	(11)	4.03	3.35	3.04	2.56

(1) The 2017 figures have been translated solely for the convenience of the reader at an exchange rate of US\$1.2022 to €1.00, the Noon Buying Rate certified by the Federal Reserve Bank of New York on December 31, 2017.

The accompanying Notes are an integral part of these Consolidated Financial Statements.

SAP SE AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME OF SAP GROUP

for the years ended December 31,

€ millions	Notes	2017	2016	2015
Profit after tax		4,056	3,634	3,056
Items that will not be reclassified to profit or loss				
Remeasurements on defined benefit pension plans, before tax	29	-10	-19	
Income taxes relating to remeasurements on defined benefit pension plans	(10)	-7	2	2
Remeasurements on defined benefit pension plans, net of tax	22	-8	-17	
Other comprehensive income for items that will not be reclassified to profit or loss, net of tax		22	-8	-17
Items that will be reclassified subsequently to profit or loss				
Gains (losses) on exchange differences on translation, before tax		-2,730	865	1,845
Reclassification adjustments on exchange differences on translation, before tax		0	-1	0
Exchange differences, before tax		-2,730	864	1,845
Income taxes relating to exchange differences on translation	(10)	-2	-25	16
Exchange differences, net of tax	(20)	-2,732	839	1,861
Gains (losses) on remeasuring available-for-sale financial assets, before tax		114	-18	181
Reclassification adjustments on available-for-sale financial assets, before tax		-250	-26	-53
Available-for-sale financial assets, before tax	(26)	-136	-44	128
Income taxes relating to available-for-sale financial assets	(10)	1	1	-2
Available-for-sale financial assets, net of tax	(20)	-135	-43	125
Gains (losses) on cash flow hedges, before tax		81	-24	-59
Reclassification adjustments on cash flow hedges, before tax		-41	8	74
Cash flow hedges, before tax	(25)	39	-15	15
Income taxes relating to cash flow hedges	(10)	-10	4	-4
Cash flow hedges, net of tax	(20)	29	-11	11
Other comprehensive income for items that will be reclassified to profit or loss, net of tax		-2,838	785	1,997
Other comprehensive income, net of tax		-2,816	777	1,980
Total comprehensive income		1,240	4,410	5,036
Attributable to owners of parent		1,202	4,423	5,044
Attributable to non-controlling interests		38	-13	-8

The accompanying Notes are an integral part of these Consolidated Financial Statements.

SAP SE AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION OF SAP GROUP
as at December 31,

millions	Notes	(Unaudited) 2017 ⁽¹⁾ US\$	2017 €	2016 €
Cash and cash equivalents		4,822	4,011	3,702
Other financial assets	(12)	1,190	990	1,124
Trade and other receivables	(13)	7,092	5,899	5,924
Other non-financial assets	(14)	871	725	581
Tax assets		367	306	233
Total current assets		14,343	11,930	11,564
Goodwill	(15)	25,576	21,274	23,311
Intangible assets	(15)	3,567	2,967	3,786
Property, plant, and equipment	(16)	3,567	2,967	2,580
Other financial assets	(12)	1,388	1,155	1,358
Trade and other receivables	(13)	141	118	126
Other non-financial assets	(14)	746	621	532
Tax assets		533	443	450
Deferred tax assets	(10)	1,228	1,022	571
Total non-current assets		36,748	30,567	32,713
Total assets		51,090	42,497	44,277
Trade and other payables	(17)	1,383	1,151	1,281
Tax liabilities		718	597	316
Financial liabilities	(17)	1,877	1,561	1,813
Other non-financial liabilities	(17)	4,744	3,946	3,699
Provisions	(18)	221	184	183
Deferred income	(19)	3,331	2,771	2,383
Total current liabilities		12,275	10,210	9,674
Trade and other payables	(17)	143	119	127
Tax liabilities		565	470	365
Financial liabilities	(17)	6,051	5,034	6,481
Other non-financial liabilities	(17)	604	503	461
Provisions	(18)	364	303	217
Deferred tax liabilities	(10)	288	240	411
Deferred income	(19)	95	79	143
Total non-current liabilities		8,112	6,747	8,205
Total liabilities		20,386	16,958	17,880
Issued capital		1,477	1,229	1,229
Share premium		685	570	599
Retained earnings		29,808	24,794	22,302
Other components of equity		610	508	3,346
Treasury shares		-1,913	-1,591	-1,099
Equity attributable to owners of parent		30,667	25,509	26,376
Non-controlling interests		37	31	21
Total equity	(20)	30,704	25,540	26,397
Total equity and liabilities		51,090	42,497	44,277

(1) The 2017 figures have been translated solely for the convenience of the reader at an exchange rate of US\$1.2022 to €1.00, the Noon Buying Rate certified by the Federal Reserve Bank of New York on December 31, 2017.

The accompanying Notes are an integral part of these Consolidated Financial Statements.

SAP SE AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY OF SAP GROUP

for the years ended December 31,

€ millions	Equity Attributable to Owners of Parent						Non-Controlling Interests	Total Equity
	Issued Capital	Share Premium	Retained Earnings	Other Components of Equity	Treasury Shares	Total		
Notes	(20)	(20)	(20)		(20)			
January 1, 2015	1,229	614	18,317	564	-1,224	19,499	34	19,534
Profit after tax			3,064			3,064	-8	3,056
Other comprehensive income			-17	1,997		1,980		1,980
Comprehensive income			3,047	1,997		5,044	-8	5,036
Share-based payments			-136			-136		-136
Dividends			-1,316			-1,316		-1,316
Reissuance of treasury shares under share-based payments			80		100	180		180
Other changes			-4			-4	2	-2
December 31, 2015	1,229	558	20,043	2,561	-1,124	23,267	28	23,295
Profit after tax			3,646			3,646	-13	3,634
Other comprehensive income			-8	785		777		777
Comprehensive income			3,638	785		4,423	-13	4,410
Share-based payments			16			16		16
Dividends			-1,378			-1,378		-1,378
Reissuance of treasury shares under share-based payments			25		25	50		50
Other changes			-2			-2	6	4
December 31, 2016	1,229	599	22,302	3,346	-1,099	26,376	21	26,397
Hyperinflation			-17			-17		-17
January 1, 2017	1,229	599	22,285	3,346	-1,099	26,359	21	26,380
Profit after tax			4,018			4,018	38	4,056
Other comprehensive income			22	-2,838		-2,816		-2,816
Comprehensive income			4,040	-2,838		1,202	38	1,240
Share-based payments			-43			-43		-43
Dividends			-1,499			-1,499	-66	-1,565
Purchase of treasury shares					-500	-500		-500
Reissuance of treasury shares under share-based payments			13		8	22		22
Changes in non-controlling interests			-33			-33	35	2
Other changes			2			2	2	4
December 31, 2017	1,229	570	24,794	508	-1,591	25,509	31	25,540

The accompanying Notes are an integral part of these Consolidated Financial Statements.

SAP SE AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS OF SAP GROUP

for the years ended December 31,

millions	Notes	(Unaudited) 2017 ⁽¹⁾ US\$	2017 €	2016 €	2015 €
Profit after tax		4,876	4,056	3,634	3,056
Adjustments to reconcile profit after tax to net cash flow from operating activities:					
Depreciation and amortization	(15)	1,529	1,272	1,268	1,289
Income tax expense	(10)	1,167	970	1,229	935
Financial income, net	(9)	-223	-185	38	5
Decrease/increase in sales and bad debt allowances on trade receivables		-38	-32	51	45
Other adjustments for non-cash items		-41	-34	39	-2
Decrease/increase in trade and other receivables		-371	-309	-675	-844
Decrease/increase in other assets		-427	-355	-248	-313
Decrease/increase in trade payables, provisions, and other liabilities		468	389	513	757
Decrease/increase in deferred income		863	718	368	218
Interest paid		-241	-200	-190	-172
Interest received		105	88	79	82
Income taxes paid, net of refunds		-1,601	-1,332	-1,477	-1,420
Net cash flows from operating activities		6,065	5,045	4,628	3,638
Business combinations, net of cash and cash equivalents acquired		-350	-291	-106	-39
Cash receipts from derivative financial instruments related to business combinations		0	0	0	266
Total cash flows for business combinations, net of cash and cash equivalents acquired		-350	-291	-106	226
Purchase of intangible assets and property, plant, and equipment		-1,533	-1,275	-1,001	-636
Proceeds from sales of intangible assets or property, plant, and equipment		116	97	63	68
Purchase of equity or debt instruments of other entities		-3,503	-2,914	-1,549	-1,871
Proceeds from sales of equity or debt instruments of other entities		3,933	3,272	793	1,880
Net cash flows from investing activities		-1,337	-1,112	-1,799	-334
Dividends paid	(21)	-1,802	-1,499	-1,378	-1,316
Dividends paid on non-controlling interests		-54	-45	0	0
Purchase of treasury shares	(20)	-601	-500	0	0
Proceeds from reissuance of treasury shares		0	0	27	64
Proceeds from borrowings		33	27	400	1,748
Cash receipts from swap contracts		0	0	43	0
Total cash flows from proceeds from borrowings		33	27	443	1,748
Repayments of borrowings		-1,673	-1,391	-1,800	-3,852
Transactions with non-controlling interests		2	2	3	0
Net cash flows from financing activities		-4,095	-3,406	-2,705	-3,356
Effect of foreign currency rates on cash and cash equivalents		-262	-218	167	135
Net decrease/increase in cash and cash equivalents		371	309	291	83
Cash and cash equivalents at the beginning of the period	(21)	4,451	3,702	3,411	3,328
Cash and cash equivalents at the end of the period	(21)	4,822	4,011	3,702	3,411

(1) The 2017 figures have been translated solely for the convenience of the reader at an exchange rate of US\$1.2022 to €1.00, the Noon Buying Rate certified by the Federal Reserve Bank of New York on December 31, 2017.

The accompanying Notes are an integral part of these Consolidated Financial Statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(1) General Information About Consolidated Financial Statements

The registered seat of SAP SE is in Walldorf, Germany (Commercial Register of the Lower Court of Mannheim HRB 719915). The accompanying Consolidated Financial Statements for 2017 of SAP SE and its subsidiaries (collectively, "we," "us," "our," "SAP," "Group," and "Company") have been prepared in accordance with International Financial Reporting Standards (IFRS).

We have applied all standards and interpretations that were effective on and endorsed by the European Union (EU) as at December 31, 2017. There were no standards or interpretations as at December 31, 2017, impacting our Consolidated Financial Statements for the years ended December 31, 2017, 2016, and 2015, that were effective but not yet endorsed. Therefore, our Consolidated Financial Statements comply with both IFRS as issued by the International Accounting Standards Board (IASB) and with IFRS as endorsed by the EU.

Our Executive Board approved the Consolidated Financial Statements on February 21, 2018, for submission to our Supervisory Board.

All amounts included in the Consolidated Financial Statements are reported in millions of euros (€ millions) except where otherwise stated. As figures were rounded, numbers presented throughout this document may not add up precisely to the totals we provide and percentages may not precisely reflect the absolute figures.

(2) Scope of Consolidation

Entities Consolidated in the Financial Statements

	Total
December 31, 2015	255
Additions	8
Disposals	-18
December 31, 2016	245
Additions	10
Disposals	-28
December 31, 2017	227

The additions relate to legal entities added in connection with acquisitions and foundations. The disposals are mainly due to mergers and liquidations of legal entities.

(3) Summary of Significant Accounting Policies

(3a) Bases of Measurement

The Consolidated Financial Statements have been prepared on the historical cost basis except for the following:

- Derivative financial instruments, available-for-sale financial assets, and liabilities for cash-settled share-based payments are measured at fair value.
- Post-employment benefits are measured at present value of the defined benefit obligations less fair value of plan assets.
- Monetary assets and liabilities denominated in foreign currencies are translated at period-end exchange rates.

Where applicable, information about the methods and assumptions used in determining the respective measurement bases is disclosed in the Notes specific to that asset or liability.

(3b) Relevant Accounting Policies Business Combinations and Goodwill

We decide on a transaction-by-transaction basis whether to measure the non-controlling interest in the acquiree at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition-related costs are accounted as expense in the periods in which the costs are incurred and the services are received, with the expense being classified as general and administration expense.

Foreign Currencies

Income and expenses and operating cash flows of our foreign subsidiaries that use a functional currency other than the euro are translated at average rates of foreign exchange (FX) computed on a monthly basis. Exchange differences resulting

Exchange Rates

Equivalent to €1		Middle Rate as at December 31		Annual Average Exchange Rate		
		2017	2016	2017	2016	2015
U.S. dollar	USD	1.1993	1.0541	1.1315	1.1045	1.1071
Pound sterling	GBP	0.8872	0.8562	0.8770	0.8206	0.7255
Japanese yen	JPY	135.01	123.40	126.85	119.77	134.12
Swiss franc	CHF	1.1702	1.0739	1.1159	1.0886	1.0688
Canadian dollar	CAD	1.5039	1.4188	1.4705	1.4606	1.4227
Australian dollar	AUD	1.5346	1.4596	1.4794	1.4850	1.4753

With effect from January 1, 2017, we have applied hyperinflationary accounting in accordance with IAS 29 for our subsidiary in Venezuela, the impact of which has not been material to us.

Revenue Recognition

Classes of Revenue

We derive our revenue from fees charged to our customers for (a) the use of our hosted cloud offerings, (b) licenses to our on-premise software products, and (c) standardized and premium support services, consulting, customer-specific on-premise software development agreements, training, and other services.

Cloud and software revenue, as presented in our Consolidated Income Statements, is the sum of our cloud subscriptions and support revenue, our software licenses revenue, and our software support revenue.

- Revenue from cloud subscriptions and support represents fees earned from providing customers with the following:
 - Software-as-a-Service (SaaS), that is, a right to use software functionality in a cloud-based-infrastructure (hosting) provided by SAP, where the customer does not have the right to terminate the hosting contract and take possession of the software to run it on the customer's own IT infrastructure or by a third-party hosting provider, or
 - Platform-as-a-Service (PaaS), that is, access to a cloud-based infrastructure to develop, run, and manage applications, or
 - Infrastructure-as-a-Service (IaaS), that is, hosting and related application management services for software hosted by SAP, where the customer has the right to take possession of the software, or

from foreign currency transactions are recognized in other non-operating income/expense, net.

The exchange rates of key currencies affecting the Company were as follows:

- Additional premium cloud subscription support beyond the regular support that is embedded in the basic cloud subscription fees, or
- Business Network Services, that is, connecting companies in a cloud-based-environment to perform business processes between the connected companies.
- Software licenses revenue represents fees earned from the sale or license of software to customers for use on the customer's premises, in other words, where the customer has the right to take possession of the software for installation on the customer's premises (on-premise software). Software licenses revenue includes revenue from both the sale of our standard software products and customer-specific on-premise software development agreements.
- Software support revenue represents fees earned from providing customers with standardized support services which comprise unspecified future software updates, upgrades, and enhancements as well as technical product support services for on-premise software products. We do not sell separately technical product support or unspecified software upgrades, updates, and enhancements. Additionally, control for these components transfers simultaneously over time. Accordingly, we do not distinguish within software support revenue or within cost of software support the amounts attributable to technical support services and unspecified software upgrades, updates, and enhancements.

Services revenue as presented in our Consolidated Income Statements represents fees earned from providing customers with the following:

- Professional services, that is, consulting services that primarily relate to the installation and configuration of our cloud subscriptions and on-premise software products

- Premium support services, that is, high-end support services tailored to customer requirements
- Training services
- Messaging services (primarily transmission of electronic text messages from one mobile phone provider to another)
- Payment services in connection with our travel and expense management offerings.

We account for out-of-pocket expenses invoiced by SAP and reimbursed by customers as cloud subscriptions and support, software support, or services revenue, depending on the nature of the service for which the out-of-pocket expenses were incurred.

Timing of Revenue Recognition

We do not start recognizing revenue from customer arrangements before evidence of an arrangement exists, the amount of revenue and associated costs can be measured reliably, collection of the related receivable is probable, and the delivery has occurred or the services have been rendered. If, for any of our product or service offerings, we determine at the outset of an arrangement that the amount of revenue cannot be measured reliably, we conclude that the inflow of economic benefits associated with the transaction is not probable, and we defer revenue recognition until the arrangement fee becomes due and payable by the customer. If, at the outset of an arrangement, we determine that collectability is not probable, we conclude that the inflow of economic benefits associated with the transaction is not probable, and we defer revenue recognition until the earlier of when collectability becomes probable or payment is received. If a customer is specifically identified as a bad debtor at a later point in time, we stop recognizing revenue from the customer except to the extent of the fees that have already been collected.

In general, we invoice fees for standard software upon contract closure and delivery. Periodic fixed fees for cloud subscription services and software support services are mostly invoiced yearly or quarterly in advance. Fees based on actual transaction volumes for cloud subscriptions and fees charged for non-periodical services are invoiced as the services are delivered.

Cloud subscriptions and support revenue is recognized as the services are performed. Where a periodic fixed fee is agreed for the right to continuously access and use a cloud offering for a certain term, the fee is recognized ratably over the term covered by the fixed fee. Fees that are based on actual transaction volumes are recognized as the transactions occur. In general, our cloud subscriptions and support contracts include certain set-up activities. If these set-up activities have stand-alone value, they are accounted for as distinct deliverables, with the respective revenue being classified as service revenue and recognized as the set-up activity is performed. If we conclude that such set-up activities are not distinct deliverables, we do not account for them separately.

Revenue from the sale of perpetual licenses of our standard on-premise software products is recognized upon delivery of the software, that is, when the customer has access to the software. Occasionally, we license on-premise software for a specified period of time, revenue from such time-based licenses is also recognized upon delivery of the software.

In general, our on-premise software license agreements include neither acceptance-testing provisions nor rights to return the software. If an arrangement allows for customer acceptance-testing of the software, we defer revenue until the earlier of customer acceptance or when the acceptance right lapses. If an arrangement allows for returning the software, we defer recognition of software revenue until the right to return expires.

We usually recognize revenue from on-premise software arrangements involving resellers on evidence of sell-through by the reseller to the end customer, because the inflow of the economic benefits associated with the arrangements to us is not probable before sell-through has occurred.

Software licenses revenue from customer-specific on-premise software development agreements that qualify for revenue recognition by reference to the stage of completion of the contract activity is recognized using the percentage-of-completion method based on contract costs incurred to date as a percentage of total estimated contract costs required to complete the development work.

Under our standardized support services, our performance obligation is to stand ready to provide technical product support and unspecified updates, upgrades, and enhancements on a when-and-if-available basis. Consequently, we recognize support revenue ratably over the term of the support arrangement.

We recognize services revenue as the services are rendered. Usually, our professional services contracts and premium support services contracts do not involve significant production, modification, or customization of software, and the related revenue is recognized as the services are provided using the percentage-of-completion method of accounting. For messaging services, we measure the progress of service rendering based on the number of messages successfully processed and delivered except for fixed-price messaging arrangements, for which revenue is recognized ratably over the contractual term of the arrangement. Revenue from our training services is recognized when the customer consumes the respective classroom training. For on-demand training services, whereby our performance obligation is to stand ready and provide the customer with access to the training courses and learning content services, revenue is recognized ratably over the contractual term of the arrangement.

Measurement of Revenue

Revenue is recognized net of returns and allowances, trade discounts, and volume rebates.

Our contributions to resellers that allow our resellers to execute qualified and approved marketing activities are recognized as an offset to revenue, unless we obtain a separate identifiable benefit for the contribution and the fair value of that benefit is reasonably estimable.

Multiple-Element Arrangements

We combine two or more customer contracts with the same customer and account for the contracts as a single arrangement if the contracts are negotiated as a package or otherwise linked.

We account for the different goods and services promised under our customer contracts as separate units of account (distinct deliverables) unless:

- The contract involves significant production, modification, or customization of the cloud subscription or on-premise software; and
- The services are not available from third-party vendors and are therefore deemed essential to the cloud subscription or on-premise software.

Goods and services that do not qualify as distinct deliverables are combined into one unit of account (combined deliverables).

The portion of the transaction fee allocated to one distinct deliverable is recognized in revenue separately under the policies applicable to the respective deliverable. For combined deliverables consisting of cloud offerings or on-premise software and other services, the allocated portion of the transaction fee is recognized using the percentage-of-completion method, as outlined above, or over the cloud subscription term, if applicable, depending on which service term is longer.

We allocate the total transaction fee of a customer contract to the distinct deliverables under the contract based on their fair values. The allocation is done relative to the distinct deliverables' individual fair values unless the residual method is applied as outlined below. Fair value is determined by company-specific objective evidence of fair value, which is the price charged consistently when that element is sold separately or, for elements not yet sold separately, the price established by our management if it is probable that the price will not change before the element is sold separately. Where company-specific objective evidence of fair value and third-party evidence of selling price cannot be established due to lacking stand-alone sales or lacking pricing consistency, we determine the fair value of a distinct deliverable by estimating its stand-alone selling price. Company-specific objective evidence of fair value and estimated stand-alone selling prices (ESP) for our major products and services are determined as follows:

- We derive the company-specific objective evidence of fair value for our renewable support services from the rates charged to renew the support services annually after an initial period. Such renewal rates generally represent a fixed percentage of the discounted software license fee charged to the customer. The majority of our customers renew their annual support service contracts at these rates.
- Company-specific objective evidence of fair value for our service offerings is derived from our consistently priced historic sales.
- Company-specific objective evidence of fair value can generally not be established for our cloud subscriptions. ESP for these offerings is determined based on the rates agreed for the individual contract to apply if and when the subscription arrangement renews. We determine ESP by considering multiple factors which include, but are not limited to, the following:
 - Substantive renewal rates stipulated in the cloud arrangement; and
 - Gross margin expectations and expected internal costs of the respective cloud business model.
- For our on-premise software offerings, company-specific objective evidence of fair value can generally not be established and representative stand-alone selling prices are not discernible from past transactions. We therefore apply the residual method to multiple-element arrangements that include on-premise software. Under this method, the transaction fee is allocated to all undelivered elements in the amount of their respective fair values and the remaining amount of the arrangement fee is allocated to the delivered element. With this policy, we have considered the guidance provided by Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Subtopic 985-605 (Software Revenue Recognition), where applicable, as authorized by IAS 8 (Accounting Policies, Changes in Accounting Estimates and Errors).

We also consider FASB ASC 985-605 in our accounting for options that entitle the customer to purchase, in the future, additional on-premise software or services. We allocate revenue to future incremental discounts whenever customers are granted a material right, that is, the right to license additional on-premise software at a higher discount than the one given within the initial software license arrangement, or to purchase or renew services at rates below the fair values established for these services. We also consider whether future purchase options included in arrangements for cloud subscription deliverables constitute a material right.

Cost of Cloud and Software

Cost of cloud and software includes the costs incurred in producing the goods and providing the services that generate cloud and software revenue. Consequently, this line item primarily includes employee expenses relating to these services.

amortization of acquired intangibles, fees for third-party licenses, shipping, ramp-up costs, and depreciation of our property, plant, and equipment (for example, of our data centers in which we host our cloud solutions).

Cost of Services

Cost of services includes the costs incurred in providing the services that generate service revenue, such as consulting and training activities, messaging, as well as certain application management services for our customers and our partners.

Research and Development

Research and development includes the costs incurred by activities related to the development of software solutions (new products, updates, and enhancements) including resource and hardware costs for the development systems.

Research and development costs are expensed as incurred as not all criteria stipulated by the IFRS have been cumulatively met to allow for capitalization of material development expenses.

Sales and Marketing

Sales and marketing includes costs incurred for the selling and marketing activities related to our software and cloud solutions as well as our service portfolio.

General and Administration

General and administration includes costs related to finance and administrative functions, human resources, and general management as long as they are not directly attributable to one of the other operating expense line items.

Accounting for Uncertainties in Income Taxes

We measure current and deferred tax liabilities and assets for uncertainties in income taxes based on our best estimate of the most likely amount payable to or recoverable from the tax authorities, assuming that the tax authorities will examine the amounts reported to them and have full knowledge of all relevant information.

Share-Based Payments

Share-based payments cover cash-settled and equity-settled awards issued to our employees. The respective expenses are recognized as employee benefits expenses and classified in our Consolidated Income Statements according to the activities that the employees owning the awards perform.

Under certain programs, we grant our employees discounts on purchases of SAP shares. Since those discounts are not dependent on future services to be provided by our employees, the discount is recognized as an expense when the discounts are granted.

Where we economically hedge our exposure to cash-settled awards, changes in the fair value of the respective hedging

instruments are also recognized as employee benefits expenses in profit or loss. The fair values of hedging instruments are based on market data reflecting current market expectations.

For more information about our share-based payments, see [Note \(27\)](#).

Financial Assets

Our financial assets comprise cash and cash equivalents (highly liquid investments with original maturities of three months or less), loans and receivables, acquired equity and debt investments, and derivative financial instruments (derivatives) with positive fair values. Financial assets are only classified as financial assets at fair value through profit or loss if they are held for trading, as we do not designate financial assets at fair value through profit or loss. All other financial assets are classified as loans and receivables if we do not designate them as available-for-sale financial assets.

Regular-way purchases and sales of financial assets are recorded as at the trade date.

Among the other impairment indicators in IAS 39 (Financial Instruments: Recognition and Measurement), for an investment in an equity security, objective evidence of impairment includes a significant (more than 20%) or prolonged (a period of more than nine months) decline in its fair value. Impairment losses on financial assets are recognized in financial income, net. For available-for-sale financial assets, which are non-derivative financial assets that are not assigned to loans and receivables or financial assets at fair value through profit or loss, impairment losses directly reduce an asset's carrying amount, while impairments on loans and receivables are recorded using allowance accounts. Such allowance accounts are always presented together with the accounts containing the asset's cost in other financial assets. Account balances are written off against the respective allowance after all collection efforts have been exhausted and the likelihood of recovery is considered remote.

Derivatives

Derivatives Not Designated as Hedging Instruments

Many transactions constitute economic hedges, and therefore contribute effectively to the securing of financial risks but do not qualify for hedge accounting under IAS 39. To hedge currency risks inherent in foreign-currency denominated and recognized monetary assets and liabilities, we do not designate our held-for-trading derivative financial instruments as accounting hedges, because the profits and losses from the underlying transactions are recognized in profit or loss in the same periods as the profits or losses from the derivatives.

In addition, we occasionally have contracts that contain foreign currency embedded derivatives that are required to be accounted for separately.

Derivatives Designated as Hedging Instruments

We use derivatives to hedge foreign currency risk or interest rate risk and designate them as cash flow or fair value hedges if they qualify for hedge accounting under IAS 39. For more information about our hedges, see [Note \(25\)](#).

Cash Flow Hedge

In general, we apply cash flow hedge accounting to the foreign currency risk of highly probable forecasted transactions and interest rate risk on variable rate financial liabilities.

With regard to foreign currency risk, hedge accounting relates to the spot price and the intrinsic values of the derivatives designated and qualifying as cash flow hedges, while gains and losses on the interest element and on those time values excluded from the hedging relationship as well as the ineffective portion of gains or losses are recognized in profit or loss as they occur.

Fair Value Hedge

We apply fair value hedge accounting for certain of our fixed rate financial liabilities.

Valuation and Testing of Effectiveness

The effectiveness of the hedging relationship is tested prospectively and retrospectively. Prospectively, we apply the critical terms match for our foreign currency hedges, as currencies, maturities, and the amounts are identical for the forecasted transactions and the spot element of the forward exchange rate contract or intrinsic value of the currency options, respectively. For interest rate swaps, we also apply the critical terms match, as the notional amounts, currencies, maturities, basis of the variable legs or fixed legs, respectively, reset dates, and the dates of the interest and principal payments are identical for the debt instrument and the corresponding interest rate swaps. Therefore, over the life of the hedging instrument, the changes in the designated components of the hedging instrument will offset the impact of fluctuations of the underlying hedged items.

The method of testing effectiveness retrospectively depends on the type of the hedge as described further below:

Cash Flow Hedge

Retrospectively, effectiveness is tested on a cumulative basis applying the dollar offset method by using the hypothetical derivative method. Under this approach, the change in fair value of a constructed hypothetical derivative with terms reflecting the relevant terms of the hedged item is compared to the change in the fair value of the hedging instrument employing its relevant terms. The hedge is deemed highly effective if the results are within the range 80% to 125%.

Fair Value Hedge

Retrospectively, effectiveness is tested using statistical methods in the form of a regression analysis, by which the

validity and extent of the relationship between the change in value of the hedged items as the independent variable and the fair value change of the derivatives as the dependent variable is determined. The hedge is deemed highly effective if the determination coefficient between the hedged items and the hedging instruments exceeds 0.8 and the slope coefficient lies within a range of -0.8 to -1.25.

Trade and Other Receivables

Trade receivables are recorded at invoiced amounts less sales allowances and allowances for doubtful accounts. We record these allowances based on a specific review of all significant outstanding invoices. When analyzing the recoverability of our trade receivables, we consider the following factors:

- First, we consider the financial solvency of specific customers and record an allowance for specific customer balances when we believe it is probable that we will not collect the amount due according to the contractual terms of the arrangement.
- Second, we evaluate homogenous portfolios of trade receivables according to their default risk, primarily based on the age of the receivable and historical loss experience, but also taking into consideration general market factors that might impact our trade receivable portfolio. We record a general bad debt allowance to record impairment losses for a portfolio of trade receivables when we believe that the age of the receivables indicates that it is probable that a loss has occurred and we will not collect some or all of the amounts due.

Account balances are written off, that is, charged off against the allowance after all collection efforts have been exhausted and the likelihood of recovery is considered remote.

In our Consolidated Income Statements, expenses from recording bad debt allowances for a portfolio of trade receivables as well as bad debt allowances for specific customer balances are classified as other operating income/expense, net. Sales allowances are recorded as an offset to the respective revenue item in our Consolidated Income Statements.

Included in trade receivables are unbilled receivables related to fixed-fee and time-and-material consulting arrangements for contract work performed to date.

Other Non-Financial Assets

Other non-financial assets are recorded at amortized cost. The capitalized contract cost mainly results from the capitalization of direct and incremental cost incurred when obtaining a customer cloud subscription contract. We amortize these assets on a straight-line basis over the period of providing the cloud subscriptions to which the assets relate.

Goodwill and Intangible Assets

We classify intangible assets according to their nature and use in our operations. Software and database licenses consist

primarily of technology for internal use, whereas acquired technology consists primarily of purchased software to be incorporated into our product offerings and in-process research and development (IPRD). Customer relationship and other intangibles consist primarily of customer contracts and acquired trademark licenses.

All our purchased intangible assets other than goodwill have finite useful lives. They are initially measured at acquisition cost and subsequently amortized either based on expected consumption of economic benefits or on a straight-line basis over their estimated useful lives ranging from two to 20 years.

Amortization for acquired in-process research and development project assets starts when the projects are complete and the developed software is taken to the market. We typically amortize these intangibles over five to seven years.

Amortization expenses of intangible assets are classified as cost of cloud and software, cost of services, research and development, sales and marketing, and general and administration, depending on the use of the respective intangible assets.

The annual goodwill impairment test is performed at the level of our operating segments since there are no lower levels in SAP at which goodwill is monitored for internal management purposes. The test is performed at the same time for all operating segments.

Property, Plant, and Equipment

Property, plant, and equipment are carried at acquisition cost plus the fair value of related asset retirement costs if any and if reasonably estimable, less accumulated depreciation.

Property, plant, and equipment are depreciated over their expected useful lives, generally using the straight-line method.

Useful Lives of Property, Plant, and Equipment

Buildings	Predominantly 25 to 50 years
Leasehold improvements	Based on the term of the lease contract
Information technology equipment	2 to 6 years
Office furniture	4 to 20 years
Automobiles	4 to 5 years

Impairment of Goodwill and Non-Current Assets

Impairment losses, if any, are presented in other operating income/expense, net in profit or loss.

Liabilities

Financial Liabilities

Financial liabilities include trade and other payables, bank loans, issued bonds, private placements, and other financial liabilities that comprise derivative and non-derivative financial liabilities. They are classified as financial liabilities at amortized cost and at fair value through profit or loss. The latter include only those financial liabilities that are held for trading, as we do not designate financial liabilities at fair value through profit or loss.

Customer funding liabilities are funds we draw from and make payments on behalf of our customers for customers' employee expense reimbursements, related credit card payments, and vendor payments. We present these funds in cash and cash equivalents and record our obligation to make these expense reimbursements and payments on behalf of our customers as customer funding liabilities.

Expenses and gains/losses on financial liabilities mainly consist of interest expense, which is recognized based on the effective interest method.

Provisions

Provisions are recorded when:

- We have a present obligation (legal or constructive) as a result of a past event;
- It is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and
- A reliable estimate can be made of the amount of the obligation.

We regularly adjust provisions as further information becomes available or as circumstances change. Non-current provisions are reported at the present value of their expected settlement amounts as at the reporting date. Discount rates are regularly adjusted to current market interest rates.

The employee-related provisions include, amongst others, long-term employee benefits. They are secured by pledged reinsurance coverage and are offset against the settlement amount of the secured commitment.

A provision for restructuring is recognized when a detailed and formal restructuring plan has been approved and the restructuring has been announced or has commenced.

Post-Employment Benefits

The discount rates used in measuring our post-employment benefit assets and liabilities are derived from rates available on high-quality corporate bonds and government bonds for which the timing and amounts of payments match the timing and the amounts of our projected pension payments. The assumptions used to calculate pension liabilities and costs are disclosed in

Note (18a). Net interest expense and other expenses related to defined benefit plans are recognized as employee benefits expenses and classified in our Consolidated Income Statements according to the activities that the employees owning the awards perform.

Since our domestic defined benefit pension plans primarily consist of an employee-financed post-retirement plan that is fully financed with qualifying insurance policies, current service cost may become a credit as a result of adjusting the defined benefit liability's carrying amount to the fair value of the qualifying plan assets. Such adjustments are recorded in service cost.

Deferred Income

Deferred income is recognized as cloud subscriptions and support revenue, software licenses revenue, software support revenue, or services revenue, depending on the reason for the deferral, once the basic applicable revenue recognition criteria have been met. These criteria are met, for example, when the services are performed or when the discounts that relate to a material right granted in a purchase option are applied.

(3c) Management Judgments and Sources of Estimation Uncertainty

The preparation of the Consolidated Financial Statements requires management to make judgments, estimates, and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, revenues, and expenses, as well as disclosure of contingent assets and liabilities.

We base our judgments, estimates, and assumptions on historical and forecast information, as well as on regional and industry economic conditions in which we or our customers operate, changes to which could adversely affect our estimates. Although we believe we have made reasonable estimates about the ultimate resolution of the underlying uncertainties, no assurance can be given that the final outcome of these matters will be consistent with what is reflected in our assets, liabilities, revenues, and expenses. Actual results could differ from original estimates.

The accounting policies that most frequently require us to make judgments, estimates, and assumptions, and therefore are critical to understanding our results of operations, include the following:

- Revenue recognition
- Valuation of trade receivables
- Accounting for share-based payments
- Accounting for income taxes
- Accounting for business combinations
- Subsequent accounting for goodwill and intangible assets
- Accounting for legal contingencies

- Recognition of internally generated intangible assets from development

Our management periodically discusses these critical accounting policies with the Audit Committee of the Supervisory Board.

Revenue Recognition

As described in the Revenue Recognition section of *Note (3b)*, we do not recognize revenue before the amount of revenue can be measured reliably, collection of the related receivable is probable, and the delivery has occurred or the services have been rendered. The determination of whether the amount of revenue can be measured reliably or whether the fees are collectible is inherently judgmental, as it requires estimates as to whether and to what extent subsequent concessions may be granted to customers and whether the customer is expected to pay the contractual fees. The timing and amount of revenue recognition can vary depending on what assessments have been made.

The application of the percentage-of-completion method requires us to make estimates about total revenue, total cost to complete the project, and the stage of completion. The assumptions, estimates, and uncertainties inherent in determining the stage of completion affect the timing and amounts of revenue recognized.

In the accounting for our multiple-element arrangements, we have to determine the following:

- Which contracts with the same customer are to be accounted for as one single arrangement
- Which deliverables under one contract are distinct and thus to be accounted for separately
- How to allocate the total arrangement fee to the distinct deliverables

The determination of whether different contracts with the same customer are to be accounted for as one arrangement involves the use of judgment, as it requires us to evaluate whether the contracts are negotiated together or linked in any other way. The timing and amount of revenue recognition can vary depending on whether two contracts are accounted for separately or as one single arrangement.

Under a multiple-element arrangement including a cloud subscription or on-premise software, and other deliverables, we do not account for the cloud subscription or on-premise software, and the other deliverables separately if one of the other deliverables (such as consulting services) is deemed to be essential to the functionality of the cloud subscription or on-premise software. The determination of whether an undelivered element is essential to the functionality of the delivered element requires the use of judgment. The timing and amount of revenue recognition can vary depending on how that judgment is

exercised, because revenue may be recognized over a longer service term.

In the area of allocating the transaction fee to the different deliverables under the respective customer contract, judgment is required in the determination of an appropriate fair value and estimated stand-alone selling prices (ESP) measurement, which may impact the timing and amount of revenue recognized depending on the following:

- Whether an appropriate measurement of fair value or ESP can be demonstrated for undelivered elements
- The approaches used to establish fair value or ESP

Additionally, our revenue for on-premise software contracts would be significantly different if we applied a revenue allocation policy other than the residual method.

Valuation of Trade Receivables

Detailed information related to the accounting of Trade and Other Receivables can be found in [Note \(3b\)](#). As described within this section, we account for impairments of trade receivables by recording sales allowances and allowances for doubtful accounts on an individual receivable basis and on a portfolio basis. The assessment of whether a receivable is collectible involves the use of judgment and requires the use of assumptions about customer defaults that could change significantly. Judgment is required when we evaluate available information about a particular customer's financial situation to determine whether it is probable that a credit loss will occur and the amount of such loss is reasonably estimable and thus an allowance for that specific account is necessary. Basing the general allowance for the remaining receivables on our historical loss experience likewise requires the use of judgment, as history may not be indicative of future development. Changes in our estimates about the allowance for doubtful accounts could materially impact reported assets and expenses, and our profit could be adversely affected if actual credit losses exceed our estimates.

Accounting for Share-Based Payments

We use certain assumptions in estimating the fair values for our share-based payments, including expected share price volatility and expected option life (which represents our estimate of the average amount of time remaining until the options are exercised or expire unexercised). In addition, the final payout for plans also depends on the achievement of performance indicators and on our share price on the respective exercise dates. Changes to these assumptions and outcomes that differ from these assumptions could require material adjustments to the carrying amount of the liabilities we have recognized for these share-based payments. The fair value of the share units granted under the Long-Term Incentive 2016 Plan are dependent on our performance against a group of peer companies (Peer Group Index), the volatility, and the expected correlation between the price of the index and our share price.

For the purpose of determining the estimated fair value of our share options, we believe expected volatility is the most sensitive assumption. Regarding future payout under our cash-settled plans, the SAP share price is the most relevant factor. With respect to our Long-Term Incentive 2016 Plan, we believe that future payout will be significantly impacted not only by our share price but also by the relative performance against the Peer Group Index. Changes in these factors could significantly affect the estimated fair values as calculated by the valuation model, and the future payout. For more information, see [Note \(27\)](#).

Accounting for Income Taxes

We are subject to changing tax laws in multiple jurisdictions within the countries in which we operate. Our ordinary business activities also include transactions where the ultimate tax outcome is uncertain due to different interpretation of tax laws, such as those involving revenue sharing and cost reimbursement arrangements between SAP Group entities. In addition, the amount of income taxes we pay is generally subject to ongoing audits by domestic and foreign tax authorities. As a result, judgment is necessary in determining our worldwide income tax provisions. We make our estimates about the ultimate resolution of our tax uncertainties based on current tax laws and our interpretation thereof. Changes to the assumptions underlying these estimates and outcomes that differ from these assumptions could require material adjustments to the carrying amount of our income tax provisions.

The assessment whether a deferred tax asset is impaired requires management judgment, as we need to estimate future taxable profits to determine whether the utilization of the deferred tax asset is probable. In evaluating our ability to utilize our deferred tax assets, we consider all available positive and negative evidence, including the level of historical taxable income and projections for future taxable income over the periods in which the deferred tax assets are recoverable. Our judgment regarding future taxable income is based on assumptions about future market conditions and future profits of SAP. Changes to these assumptions and outcomes that differ from these assumptions could require material adjustments to the carrying amount of our deferred tax assets.

For more information about income taxes, see [Note \(10\)](#).

Accounting for Business Combinations

In our accounting for business combinations, judgment is required in determining whether an intangible asset is identifiable, and should be recorded separately from goodwill. Additionally, estimating the acquisition date fair values of the identifiable assets acquired and liabilities assumed involves considerable management judgment. The necessary measurements are based on information available on the acquisition date and are based on expectations and assumptions that have been deemed reasonable by

management. These judgments, estimates, and assumptions can materially affect our financial position and profit for several reasons, including the following:

- Fair values assigned to assets subject to depreciation and amortization affect the amounts of depreciation and amortization to be recorded in operating profit in the periods following the acquisition.
- Subsequent negative changes in the estimated fair values of assets may result in additional expense from impairment charges.
- Subsequent changes in the estimated fair values of liabilities and provisions may result in additional expense (if increasing the estimated fair value) or additional income (if decreasing the estimated fair value).

Subsequent Accounting for Goodwill and Intangible Assets

Judgment is required in determining the following:

- The useful life of an intangible asset, as this is based on our estimates regarding the period over which the intangible asset is expected to produce economic benefits to us
- The amortization method, as IFRS requires the straight-line method to be used unless we can reliably determine the pattern in which the asset's future economic benefits are expected to be consumed by us

Both the amortization period and the amortization method have an impact on the amortization expense that is recorded in each period.

In making impairment assessments for our goodwill and intangible assets, the outcome of these tests is highly dependent on management's assumptions regarding future cash flow projections and economic risks, which require significant judgment and assumptions about future developments. They can be affected by a variety of factors, including:

- Changes in business strategy
- Internal forecasts
- Estimation of weighted-average cost of capital

Changes to the assumptions underlying our goodwill and intangible assets impairment assessments could require material adjustments to the carrying amount of our recognized goodwill and intangible assets as well as the amounts of impairment charges recognized in profit or loss.

The outcome of goodwill impairment tests may also depend on the allocation of goodwill to our operating segments. This allocation involves judgment as it is based on our estimates regarding which operating segments are expected to benefit from the synergies of business combinations.

For more information about goodwill and intangible assets, see [Note \(15\)](#).

Accounting for Legal Contingencies

As described in [Note \(23\)](#), we are currently involved in various claims and legal proceedings. We review the status of each significant matter at least quarterly and assess our potential financial and business exposures related to such matters. Significant judgment is required in the determination of whether a provision is to be recorded and what the appropriate amount for such provision should be. Notably, judgment is required in the following:

- Determining whether an obligation exists
- Determining the probability of outflow of economic benefits
- Determining whether the amount of an obligation is reliably estimable
- Estimating the amount of the expenditure required to settle the present obligation

Due to uncertainties relating to these matters, provisions are based on the best information available at the time.

At the end of each reporting period, we reassess the potential obligations related to our pending claims and litigation and adjust our respective provisions to reflect the current best estimate. In addition, we monitor and evaluate new information that we receive after the end of the respective reporting period but before the Consolidated Financial Statements are authorized for issue to determine whether this provides additional information regarding conditions that existed at the end of the reporting period. Changes to the estimates and assumptions underlying our accounting for legal contingencies and outcomes that differ from these estimates and assumptions could require material adjustments to the carrying amounts of the respective provisions recorded as well as additional provisions. For more information about legal contingencies, see [Notes \(18b\)](#) and [\(23\)](#).

Recognition of Internally Generated Intangible Assets from Development

We believe that determining whether internally generated intangible assets from development are to be recognized as intangible assets requires significant judgment, particularly in the following areas:

- Determining whether activities should be considered research activities or development activities
- Determining whether the conditions for recognizing an intangible asset are met requires assumptions about future market conditions, customer demand, and other developments.
- The term "technical feasibility" is not defined in IFRS, and therefore determining whether the completion of an asset is technically feasible requires judgment and a company-specific approach.
- Determining the future ability to use or sell the intangible asset arising from the development and the determination of the probability of future benefits from sale or use

- Determining whether a cost is directly or indirectly attributable to an intangible asset and whether a cost is necessary for completing a development

These judgments impact the total amount of intangible assets that we present in our balance sheet as well as the timing of recognizing development expenses in profit or loss.

(3d) New Accounting Standards Adopted in the Current Period

No new accounting standards adopted in 2017 had a material impact on our Consolidated Financial Statements.

(3e) New Accounting Standards Not Yet Adopted

The standards and interpretations (relevant to the Group) that are issued, but not yet effective, up to the date of issuance of the Group's financial statements are disclosed below. The Group intends to adopt these standards, if applicable, when they become effective:

IFRS 15 (Revenue from Contracts with Customers)

On May 28, 2014, the IASB issued IFRS 15. The new revenue recognition standard is effective for us starting January 1, 2018. In preparing for the adoption of IFRS 15, we produced, over the last years, new IFRS 15-based revenue recognition policies and adjusted relevant business processes to these new policies. These efforts were part of a project established across SAP's finance and business functions. This project also covered the implementation of a new SAP-based revenue accounting and reporting solution and a global roll-out and training approach for all of the relevant stakeholder groups in SAP. Additionally, we started to implement internal controls over the application of the new policies and processes.

IFRS 15 permits two possible transition methods for the adoption of the new guidance: (1) retrospectively to each prior reporting period presented in accordance with IAS 8 (Accounting Policies, Changes in Accounting Estimates and Errors), or (2) retrospectively with the cumulative effect of initially applying the standard recognized as an adjustment to the opening balance of retained earnings on the date of the initial application (cumulative catch-up approach). Additionally, IFRS 15 allows, for its initial application, the use of certain practical expedients. Effective January 1, 2018, we started to apply the new standard retrospectively, using the cumulative catch-up approach and the practical expedient to apply the new standard only to contracts that were not completed as of January 1, 2018. This practical expedient affects both the transition adjustment amount recognized in retained earnings and our future revenues and expenses as outlined further below.

There are several differences between our new IFRS 15-based policies and our respective previous accounting policies as they

are described in *Note (3b)*. The most significant differences are as follows:

Customer Options for Additional Software License Copies

The most notable revenue impact relates to the accounting for options for the purchase of additional copies of already licensed on-premise software where those options provide a material right to the customer (Material Right Additional Copy Options). Under our previous policies, we adhered to the guidance under previous U.S. GAAP to not account for these options. In contrast, IFRS 15 provides that such options are accounted for as a separate performance obligation. The transaction price portion allocated to a Material Right Additional Copy Option is recognized in software revenue upon exercise or forfeiture of the option, which will usually be later than the timing under our previous policies.

For those contracts from years before 2018 that include Material Right Additional Copy Options and that were not completed (as this term is defined in IFRS 15) before January 1, 2018, we will recognize, in the opening statement of financial position for 2018, contract liabilities reflecting the amounts allocated, under our new IFRS 15 policies, to those Material Right Additional Copy Options that were not executed before January 1, 2018. We expect these contract liabilities to approximately amount to €0.1 billion, of which substantially less than €0.1 billion are estimated to be recognized in revenue in 2018 with such revenue being classified as software revenue.

The amounts of contract liabilities recognized, in the opening statement of financial position for 2018, for Material Right Additional Copy Options will be impacted by our use of the practical expedient outlined above, as we will only recognize such contract liabilities for Material Right Additional Copy Options that were granted in contracts that were not completed before January 1, 2018.

We currently estimate that our business practices will change in the light of this new accounting policy in a way that Material Right Additional Copy Options are only provided rarely. Thus, we do not expect a material impact on our 2018 and future years' revenue and profit from future grants of Material Right Additional Copy Options.

Assets for Cost of Obtaining Customer Contracts

The most noticeable expense impact relates to the accounting for cost of obtaining customer contracts. Under our previous accounting policies, we only recognized as an asset those costs of obtaining a customer contract that were both incremental and directly related to the individual contract (that is, paid to sales personnel directly involved in obtaining the customer contract). This resulted in capitalizing certain amounts of sales commissions paid to our sales staff for obtaining cloud subscription contracts, and not capitalizing sales commissions

paid for obtaining on-premise software and support contracts, because the terms of our on-premise software sales commissions refer directly only to the software licenses sold and not to the support contracts sold therewith. In contrast, under our IFRS 15 policies, we capitalize all incremental costs of obtaining a customer contract that are expected to be recovered, regardless of whether they are direct or not. Due to this change in policy, we will capitalize, after adoption of IFRS 15, higher amounts of cost of obtaining cloud subscription and service contracts than we did under our previous policies. In addition, we will start capitalizing incremental costs of obtaining on-premise support contracts with the resulting assets to be amortized over the expected life (including anticipated renewals) of the support contract obtained.

For the incremental sales commissions paid for obtaining customer contracts from years before 2018 that were not completed before January 1, 2018, we will recognize, in the opening statement of financial position for 2018, assets reflecting the amounts of sales commissions that qualify for capitalization under IFRS 15 but which did not qualify for capitalization under our previous policies as far as these amounts are to be amortized in periods starting on or after January 1, 2018. We expect these assets to amount to €0.1 billion. The amount of sales commission capitalized in the opening statement of financial position for 2018 will be impacted by our use of the practical expedient outlined above, as we will only apply the new IFRS 15 capitalization policies assets to sales commissions paid for obtaining contracts that were not completed before January 1, 2018. The changes to our policies for capitalization of sales commissions will result, in 2018, in a reduction of our total cost of sales and marketing. We estimate this reduction to amount to €0.2 billion, which reflects the amounts capitalized in 2018, net of expenses from amortization of the amounts capitalized either in the opening statement of financial position for 2018 or during 2018. The actual cost reduction amount will depend on our 2018 on-premise order entry, our sales compensation plans and changes thereto, as well as our future business and go-to-market practices. It may thus differ significantly from our current estimate.

Other IFRS 15-Based Policy Changes Impacting Profit or Loss

Further differences between our new IFRS 15-based policies and our respective previous accounting policies include the following:

- In contrast to our previous policies, we will no longer identify onerous contracts on the level of the individual performance obligation but rather, consider the economic benefits and respective cost of all performance obligations under the same contract and include, as economic benefits, anticipated highly probable renewals of renewable performance obligations. Consequently, we expect to recognize

provisions for onerous contracts more rarely and at lower amounts than under our previous policies. In our opening statement of financial position for 2018, we will adjust the provisions for onerous contracts recognized on December 31, 2017, to the amounts appropriate under our new IFRS 15-based policies.

- For certain of our customer-specific on-premise software development agreements, we will recognize revenue and the related cost at the point in time when the software is ultimately delivered to the customer whereas, under our previous policies, we recognized the revenues and costs from such contracts over time as the software was developed. For those contracts from years before 2018 affected by this policy change that were not completed before January 1, 2018, we will recognize, in the opening statement of financial position for 2018, contract liabilities reflecting the amount allocated, under our new IFRS 15 policies, to the obligation to deliver the software. We will also recognize, for these contracts, assets from the direct and recoverable costs incurred in satisfying the obligation to deliver the software.

We expect these changes to have an immaterial impact on our opening statement of financial position for 2018 and estimate that these changes will lead, in total, to additional revenue and operating expenses in 2018, each by substantially less than €0.1 billion.

All other differences between our new IFRS 15-based policies and our respective previous accounting policies are expected to be insignificant to our revenues and profits in 2018.

Presentation

Under our new IFRS 15-based policies, we no longer present, in our statements of financial position, items for deferred revenues. Instead, we present a customer contract as either a contract liability or a contract asset once either party to the contract has started to perform. Rights to consideration from customers are only presented as accounts receivable if the rights are unconditional.

We do not expect to recognize, neither in the opening statement of financial position for 2018 nor in 2018, material contract assets.

Under our previous policies, we recognized claims for prepayments from customers as trade receivables once the amounts were invoiced and the respective service had started. Simultaneously, we recognized respective deferred revenue items to be reversed into revenue as the prepaid goods or services were delivered. Under our new IFRS 15-based policies, we recognize trade receivables only as far as goods or services are delivered or prepayments from customers are due. Consequently, compared to the recognition of trade receivables

and deferred revenue under our previous policies, the following applies:

- Trade receivables and contract liabilities are recognized later, and contract liability amounts recognized are initially smaller where claims for prepayments are due after the respective service has started,
- Trade receivables and contract liabilities are recognized earlier where claims for prepayments are due before the respective service has started.

This change is of a presentation nature only and thus does not affect revenues and profits.

We currently expect this change in policy to increase the 2018 opening balance of both our trade receivables and our contract liabilities by approximately €0.6 billion to €0.7 billion as compared to our 2017 closing balances of trade receivables and deferred revenues.

The other IFRS 15-induced policy changes will additionally impact contract positions as outlined above.

Disclosures

It is not practicable to estimate whether any of the additional disclosures we will provide under IFRS 15 could be material to readers of our financial statements.

IFRS 9 (Financial Instruments)

On July 24, 2014, the IASB issued the fourth and final version of IFRS 9. We will adopt IFRS 9 on January 1, 2018. We will use the exceptions from full retrospective application and thus recognize the effect of the initial application as an adjustment to the opening balance of retained earnings.

We have reviewed our financial assets and liabilities and expect the following impacts:

Classification of financial assets

The majority of our debt investments, and all loans, trade and other financial receivables will satisfy the conditions for a classification at amortized cost. Thus, we will see a change in classification for those debt investments which we currently classify as available-for-sale financial assets. Under our new policies, investments in money market and similar funds will be classified as fair value through profit or loss (FVTPL). However, we do not expect these changes to have a material impact on our Consolidated Financial Statements.

Under our new policies, we classify the majority of our equity investments on January 1, 2018 as FVTPL. This change will most likely lead to an increase of volatility in profit and loss, as we have classified those investments as available-for-sale with unrealized gains and losses recorded in OCI in the past. Under our new policies, the equity investments not classified as FVTPL will be classified as fair value through other comprehensive

income (FVOCI), so that gains or losses realized on the sale (which were not material in the past) will no longer be transferred to profit or loss. Amounts attributable to available-for-sale financial assets accumulated in OCI so far will be reclassified to 2018 opening retained earnings. From 2018 onwards, the decision whether to classify new equity investments as FVTPL or FVOCI will be made on an investment-by-investment basis.

Financial liabilities

We have never designated any financial liabilities at FVTPL and have no current intention to do so. Also, none of our financial liabilities has been modified in the past. Thus, we do not expect a material impact on our financial liabilities, considering that the only significant changes that IFRS 9 will bring to the accounting for financial liabilities are that for liabilities designated as at FVTPL, changes in the fair value attributable to changes in the credit risk of the liability must be presented in other comprehensive income (OCI) and that modified financial liabilities are accounted for using the original effective interest rate instead with the one resulting from the modification.

Impairment

We will apply the simplified impairment approach of IFRS 9 and thus record lifetime expected credit losses on all trade receivables and contract assets. The default risk of our trade receivables is managed based on assessing the creditworthiness of customers through external ratings and our past experience with the customers concerned. Outstanding receivables are continuously monitored locally.

For bank balances, debt investments, and loans and other financial receivables not classified as FVTPL, we will apply the general IFRS 9 impairment approach under our new policies.

It is our policy to only invest in high-quality assets of issuers with a minimum rating of at least investment grade to minimize the risk of credit losses. As the premium for credit default swaps mainly depends on market participants' assessments of the creditworthiness of a debtor, we also closely observe the development of credit default swap spreads in the market to evaluate probable significant increases in credit risk to timely react to changes if these should manifest. Loans and other financial receivables are monitored based on borrower-specific information.

Despite the change from an incurred loss to an expected credit loss model, we do not expect our impairment allowances for trade receivables and other financial assets to be materially different from what they would be if we continued our current accounting policies.

Hedge accounting

We will apply the new hedge accounting requirements prospectively. The types of hedge accounting relationships that we currently designate meet the requirements of IFRS 9 and are

aligned with our risk management strategy. Thus, all existing hedge relationships that we have designated in effective hedging relationships in the past will still qualify for hedge accounting under our new policies. In contrast to our current policies where fair value changes related to the forward element and foreign currency basis spreads have been recognized in profit or loss immediately, the respective costs for forward contracts designated in an effective hedging relationship are recorded in other comprehensive income under our new policies. Thus, the forward element and foreign currency basis spreads are recorded as cost of hedging in other comprehensive income. However, this is not expected to have a material impact on our Consolidated Financial Statements.

Disclosures

IFRS 9 will require extensive new disclosures. Our assessment included an analysis to identify data gaps against current processes, and we are in the process of implementing the system and controls that we believe will be necessary to gather the necessary data to be able to provide the required disclosures where they are material.

IFRS 16 (Leases)

On January 13, 2016, the IASB issued IFRS 16. We will adopt IFRS 16 as per its effective date of January 1, 2019, using the modified retrospective approach. The new standard will significantly impact especially the lease accounting by lessees as, in general, all leases need to be recognized on a company's balance sheet (represented by right-of-use assets and lease liabilities). We plan to use practical expedients offered by the standard (such as short-term leases, low-value leases, and no separation of non-lease components of a contract). Due to the adoption of IFRS 16, we expect the total assets and total liabilities to increase, as right-of-use assets / lease liabilities will have to be recorded for those items that were previously "off balance sheet"; operating profit is also expected to increase, as costs that were treated as rental expenses in the past will have to be presented as interest expense going forward. As the effects of applying IFRS 16 will depend on the lease agreements in effect at the time of adoption, the IFRS 16 impact on our Consolidated Financial Statements cannot be estimated reliably.

(4) Business Combinations

On September 24, 2017, SAP announced that it had entered into an agreement to acquire U.S.-based Gigya, Inc., a market leader for customer identity and access management solutions. The transaction closed on November 1, 2017, following receipt of regulatory approvals.

The majority of the purchase price for our acquisitions was allocated to goodwill and intangible assets. For more information, see [Note \(15\)](#).

There were no significant acquisitions in 2016.

(5) Revenue

For detailed information about our revenue recognition policies, see [Note \(3\)](#).

For revenue information by geographic region, see [Note \(28\)](#).

Revenue from construction contracts (contract revenue) is mainly included in software revenue and services revenue depending on the type of contract. In 2017, revenue of €317 million was recognized for all our construction contracts (2016: €280 million, 2015: €292 million). The status of our construction contracts in progress at the end of the reporting period accounted for under IAS 11 (Construction Contracts) was as follows:

Construction Contracts in Progress

€ millions	2017	2016	2015
Aggregate cost recognized (multi-year)	435	527	294
Recognized result (+ profit/- loss; multi-year)	-104	-174	20
Gross amounts due to customers	30	78	41

Recognized losses stated for 2017 and 2016 predominantly resulted from strategic customer co-innovation projects.

(6) Restructuring

Restructuring Expenses

€ millions	2017	2016	2015
Employee-related restructuring expenses	180	33	610
Onerous contract-related restructuring expenses	2	-5	11
Restructuring expenses	182	28	621

The increase in restructuring expenses was mainly caused by a restructuring program executed in the Digital Business Services (DBS) board area in 2017 which went hand-in-hand with the DBS transformation. The transformation was prompted by changing service requirements, as an increasing amount of software deployments are moving to the cloud.

Restructuring provisions primarily include employee benefits that result from severance payments for employee terminations and onerous contract costs. Prior-year restructuring provisions relate to restructuring activities incurred in connection with organizational changes and the integration of employees of our acquisitions in previous years.

If not presented separately in our income statement, restructuring expenses would break down by functional area as follows:

Restructuring Expenses by Functional Area

€ millions	2017	2016	2015
Cost of cloud and software	55	3	80
Cost of services	118	7	218
Research and development	9	7	156
Sales and marketing	2	10	147
General and administration	-2	1	20
Restructuring expenses	182	28	621

(7) Employee Benefits Expense and Number of Employees

Employee Benefits Expense

€ millions	2017	2016	2015
Salaries	8,693	7,969	7,483
Social security expense	1,281	1,135	1,067
Share-based payment expense	1,120	785	724
Pension expense	312	270	258
Employee-related restructuring expense	180	33	610
Termination benefits outside of restructuring plans	57	37	28
Employee benefits expense	11,643	10,229	10,170

Pension expense includes the amounts recorded for our defined benefit and defined contribution plans as described in [Note \(18a\)](#). Expenses for local state pension plans are included in social security expense.

The number of employees in the following table is broken down by function and by the regions EMEA (Europe, Middle East, and Africa), Americas (North America and Latin America), and APJ (Asia Pacific Japan).

Number of Employees

Full-time equivalents	December 31, 2017				December 31, 2016				December 31, 2015			
	EMEA	Amer- icas	APJ	Total	EMEA	Amer- icas	APJ	Total	EMEA	Amer- icas	APJ	Total
Cloud and software	5,869	3,895	4,719	14,482	6,406	4,184	5,412	16,002	6,095	3,920	4,976	14,991
Services	7,536	4,878	4,965	17,379	6,535	4,119	3,967	14,621	6,482	3,812	3,574	13,868
Research and development	11,349	5,250	8,273	24,872	10,525	4,860	7,977	23,363	9,676	4,233	7,029	20,938
Sales and marketing	9,196	9,169	4,854	23,219	8,542	8,999	4,435	21,977	7,683	7,766	3,974	19,422
General and administration	2,676	1,781	1,047	5,504	2,629	1,746	1,018	5,393	2,434	1,653	937	5,024
Infrastructure	1,732	855	501	3,087	1,584	788	454	2,827	1,535	783	425	2,743
SAP Group (December 31)	38,357	25,827	24,359	88,543	36,222	24,696	23,265	84,183	33,906	22,166	20,914	76,986
Thereof acquisitions	149	133	7	289	37	172	0	209	73	0	0	73
SAP Group (months' end average)	37,512	25,459	24,029	86,999	34,932	23,532	22,145	80,609	33,561	21,832	19,788	75,180

Due to reorganizations within our Digital Business Services in 2017, employees were partially reallocated from cloud and software to services. Information for the current year is therefore not fully comparable to prior years.

share price and additional grants in 2017 under Move SAP. For more information about our share-based payments, see [Note \(27\)](#).

Allocation of Share-Based Payment Expense

The operating cost line items in our income statement include the following share-based payment expenses:

Share-Based Payments

€ millions	2017	2016	2015
Cost of cloud and software	115	89	74
Cost of services	158	101	113
Research and development	269	190	166
Sales and marketing	442	292	260
General and administration	135	113	111
Share-based payments	1,120	785	724
Thereof cash-settled share-based payments	963	678	637
Thereof equity-settled share-based payments	157	107	87

The increase in share-based payment expenses in 2017 compared to the prior year is mainly due to an increase in SAP's

(8) Other Non-Operating Income/Expense, Net

Other Non-Operating Income/Expense, Net

€ millions	2017	2016	2015
Foreign currency exchange gain/loss, net	-12	-210	-230
Thereof from financial assets/liabilities at fair value through profit or loss	180	-38	-12
Thereof from loans and receivables	96	26	-213
Thereof from financial liabilities at amortized cost	-317	-174	-2
Miscellaneous income/expense, net	-24	-23	-26
Other non-operating income/expense, net	-36	-234	-256

(9) Financial Income, Net

Financial Income, Net

€ millions	2017	2016	2015
Finance income	463	230	241
Thereof available-for-sale financial assets (equity)	382	164	176
Finance costs	-278	-268	-246
Thereof interest expense from financial liabilities at amortized cost	-89	-108	-135
Thereof interest expense from derivatives	-116	-114	-72
Financial income, net	185	-38	-5

The increase in financial income in 2017 is mainly due to higher gains from the disposal of equity instruments by our Sapphire investment funds.

(10) Income Taxes

On December 22, 2017, a comprehensive U.S. tax reform, the Tax Cuts and Jobs Act, was enacted. As a result, deferred tax assets and liabilities as at December 31, 2017, were remeasured using the reduced U.S. federal corporate income tax rate of 21% (previously 35%). Besides that, the one-time transition tax for the mandatory income inclusion on accumulated foreign earnings was taken into account.

Tax Expense According to Region

€ millions	2017	2016	2015
Current tax expense			
Germany	922	853	859
Foreign	716	537	408
Total current tax expense	1,638	1,390	1,267
Deferred tax income			
Germany	-584	-38	-74
Foreign	-84	-123	-258
Total deferred tax income	-668	-161	-332
Total income tax expense	970	1,229	935

Major Components of Tax Expense

€ millions	2017	2016	2015
Current tax expense/income			
Tax expense for current year	1,623	1,412	1,278
Taxes for prior years	15	-22	-11
Total current tax expense	1,638	1,390	1,267
Deferred tax expense/income			
Origination and reversal of temporary differences	-891	-403	-428
Unused tax losses, research and development tax credits, and foreign tax credits	223	242	96
Total deferred tax income	-668	-161	-332
Total income tax expense	970	1,229	935

The increase in current tax expense and deferred tax income mainly results from an intra-group transfer of intellectual property rights to SAP SE.

Total deferred tax income includes a benefit of €227 million (2016: expense of €3 million; 2015: expense of €12 million) related to changes in tax laws and tax rates, mainly due to the U.S. tax reform.

Total deferred tax income also includes an expense of €120 million (2016: benefit of €8 million; 2015: benefit of €11 million) related to the write-down of previously recognized deferred tax assets which are partly offset by the reversal of a previous write-down of deferred tax assets.

Profit Before Tax

€ millions	2017	2016	2015
Germany	2,785	3,109	3,161
Foreign	2,241	1,754	830
Total	5,026	4,863	3,991

The following table reconciles the expected income tax expense, computed by applying our combined German tax rate of 26.4% (2016: 26.4%; 2015: 26.4%), to the actual income tax expense. Our 2017 combined German tax rate includes a corporate income tax rate of 15.0% (2016: 15.0%; 2015: 15.0%), plus a solidarity surcharge of 5.5% (2016: 5.5%; 2015: 5.5%) thereon, and trade taxes of 10.6% (2016: 10.6%; 2015: 10.6%).

Relationship Between Tax Expense and Profit Before Tax

€ millions, unless otherwise stated	2017	2016	2015
Profit before tax	5,026	4,863	3,991
Tax expense at applicable tax rate of 26.4% (2016: 26.4%; 2015: 26.4%)	1,326	1,284	1,055
Tax effect of:			
Foreign tax rates	-402	-105	-126
Changes in tax laws and tax rates	-212	3	12
Non-deductible expenses	82	78	61
Tax exempt income	-95	-106	-103
Withholding taxes	131	112	115
Research and development and foreign tax credits	-26	-36	-31
Prior-year taxes	-39	-43	-55
Reassessment of deferred tax assets, research and development tax credits, and foreign tax credits	185	43	43
Other	20	-1	-36
Total income tax expense	970	1,229	935
Effective tax rate (in %)	19.3	25.3	23.4

Recognized Deferred Tax Assets and Liabilities

€ millions	2017	2016
Share-based payments	164	207
Other provisions and obligations	408	517
Deferred income	77	118
Carryforwards of unused tax losses	187	378
Research and development and foreign tax credits	166	235
Other	75	102
Total deferred tax assets	1,831	1,868
Deferred tax liabilities		
Intangible assets	617	1,162
Property, plant, and equipment	92	66
Other financial assets	104	158
Trade and other receivables	125	125
Pension provisions	9	7
Share-based payments	1	3
Other provisions and obligations	29	122
Deferred income	22	39
Other	50	26
Total deferred tax liabilities	1,049	1,708
Total deferred tax assets, net	782	160

The increase in deferred tax assets for intangible assets mainly results from an intra-group transfer of intellectual property rights to SAP SE.

The decrease in deferred tax liabilities for intangible assets mainly results from the remeasurement due to the U.S. tax reform.

Recognized Deferred Tax Assets and Liabilities

€ millions	2017	2016
Deferred tax assets		
Intangible assets	563	81
Property, plant, and equipment	10	32
Other financial assets	12	18
Trade and other receivables	57	72
Pension provisions	112	108

Items Not Resulting in a Deferred Tax Asset

€ millions	2017	2016	2015
Unused tax losses			
Not expiring	375	338	279
Expiring in the following year	9	32	95
Expiring after the following year	535	649	704
Total unused tax losses	919	1,019	1,078
Deductible temporary differences			
	524	33	122
Unused research and development and foreign tax credits			
Not expiring	38	33	34
Expiring in the following year	2	1	0
Expiring after the following year	34	30	20
Total unused tax credits	74	64	54

€263 million (2016: €309 million; 2015: €429 million) of the unused tax losses relate to U.S. state tax loss carryforwards.

In 2017, subsidiaries that suffered a tax loss in either the current or the preceding period recognized deferred tax assets in excess of deferred tax liabilities amounting to €79 million (2016: €189 million; 2015: €129 million), because it is probable that sufficient future taxable profit will be available to allow the benefit of the deferred tax assets to be utilized.

We have not recognized a deferred tax liability on approximately €13.21 billion (2016: €10.81 billion) for undistributed profits of our subsidiaries, because we are in a position to control the timing of the reversal of the temporary difference and it is probable that such differences will not reverse in the foreseeable future.

Total Income Taxes

€ millions	2017	2016	2015
Income taxes recorded in profit	970	1,229	935
Income taxes recorded in share premium	-4	-5	-14
Income taxes recorded in other comprehensive income that will not be reclassified to profit and loss			
Remeasurements on defined benefit pension plans	7	-2	-2
Income taxes recorded in other comprehensive income that will be reclassified to profit and loss			
Available-for-sale financial assets	-1	-1	2
Cash flow hedges	10	-4	4
Exchange differences	2	25	-16
Total	984	1,242	909

We are subject to ongoing tax audits by domestic and foreign tax authorities. Currently, we are in dispute mainly with the German and only a few foreign tax authorities. The German dispute is in respect of intercompany financing matters and certain secured capital investments, while the few foreign disputes are in respect of intercompany financing matters and the deductibility of intercompany royalty payments and intercompany services. In all cases, we expect that a favorable outcome can only be achieved through litigation. For all of these matters, we have not recorded a provision as we believe that the tax authorities' claims have no merit and that no adjustment is warranted. If, contrary to our view, the tax authorities were to prevail in their arguments before the court, we would expect to have an additional tax expense (including related interest expenses and penalties) of approximately €1,884 million (2016: €1,749 million) in total.

(11) Earnings per Share

Earnings per Share

€ millions, unless otherwise stated	2017	2016	2015
Profit attributable to equity holders of SAP SE	4,018	3,646	3,064
Issued ordinary shares ¹⁾	1,229	1,229	1,229
Effect of treasury shares ¹⁾	-31	-30	-32
Weighted average shares outstanding, basic ¹⁾	1,197	1,198	1,197
Dilutive effect of share-based payments ¹⁾	1	1	2
Weighted average shares outstanding, diluted ¹⁾	1,198	1,199	1,198
Earnings per share, basic, attributable to equity holders of SAP SE (in €)	3.36	3.04	2.56
Earnings per share, diluted, attributable to equity holders of SAP SE (in €)	3.35	3.04	2.56

¹⁾ Number of shares in millions

(12) Other Financial Assets

Other Financial Assets

€ millions	2017			2016		
	Current	Non-Current	Total	Current	Non-Current	Total
Loans and other financial receivables	793	260	1,054	834	266	1,100
Debt investments	39	0	39	195	0	195
Equity investments	0	827	827	1	952	953
Available-for-sale financial assets	39	827	865	196	952	1,148
Derivatives	158	36	194	94	102	196
Investments in associates	0	32	32	0	38	38
Total	990	1,155	2,145	1,124	1,358	2,482

Loans and Other Financial Receivables

Loans and other financial receivables mainly consist of time deposits, investments in pension assets for which the corresponding liability is included in employee-related obligations (see [Note \(17c\)](#)), other receivables, and loans to employees and third parties. The major part of our loans and other financial receivables is concentrated in Germany.

As at December 31, 2017, there were no loans and other financial receivables past due but not impaired. We have no indications of impairments of loans and other financial receivables that are not past due and not impaired as at the reporting date. For general information about financial risk and the nature of risk, see [Note \(24\)](#).

Available-for-Sale Financial Assets

Our available-for-sale financial assets consist of debt investments in bonds of mainly financial and non-financial corporations and municipalities, and equity investments in listed and unlisted securities, mainly held in the United States.

For more information about fair value measurement with regard to our equity investments, see [Note \(26\)](#).

Derivatives

Detailed information about our derivative financial instruments is presented in [Note \(25\)](#).

(13) Trade and Other Receivables

Trade and Other Receivables

€ millions	2017			2016		
	Current	Non-Current	Total	Current	Non-Current	Total
Trade receivables, net	5,809	1	5,810	5,823	2	5,825
Other receivables	90	116	207	101	124	225
Total	5,899	118	6,017	5,924	126	6,050

Carrying Amounts of Trade Receivables

€ millions	2017	2016
Gross carrying amount	6,047	6,114
Sales allowances charged to revenue	-163	-200
Allowance for doubtful accounts charged to expense	-74	-89
Carrying amount trade receivables, net	5,810	5,825

The changes in the allowances for doubtful accounts charged to expense were immaterial in all periods presented.

Aging of Trade Receivables

€ millions	2017	2016
Not past due and not individually impaired	4,185	4,313
Past due but not individually impaired		
Past due 1 to 30 days	695	541
Past due 31 to 120 days	459	493
Past due 121 to 365 days	266	305
Past due over 365 days	95	84
Total past due but not individually impaired	1,515	1,422
Individually impaired, net of allowances	110	90
Carrying amount of trade receivables, net	5,810	5,825

For more information about financial risk and how we manage it, see [Notes \(24\)](#) and [\(25\)](#).

(14) Other Non-Financial Assets

Other Non-Financial Assets

€ millions	2017			2016		
	Current	Non-Current	Total	Current	Non-Current	Total
Prepaid expenses	264	123	387	257	107	364
Other tax assets	209	0	209	123	0	123
Capitalized contract cost	199	497	696	139	424	563
Miscellaneous other assets	54	0	54	62	0	62
Total	725	621	1,346	581	532	1,113

Prepaid expenses primarily consist of prepayments for operating leases, support services, and software royalties.

(15) Goodwill and Intangible Assets

Goodwill and Intangible Assets

€ millions	Goodwill	Software and Database Licenses	Acquired Technology/ IPRD	Customer Relationship and Other Intangibles	Total
Historical cost					
January 1, 2016	22,792	727	2,796	5,033	31,348
Foreign currency exchange differences	566	7	71	135	779
Additions from business combinations	57	0	41	22	120
Other additions	0	74	0	21	95
Retirements/disposals	0	-17	-1	-92	-110
December 31, 2016	23,415	791	2,907	5,119	32,232
Foreign currency exchange differences	-2,249	-22	-278	-523	-3,072
Additions from business combinations	208	0	51	73	332
Other additions	0	93	0	10	103
Retirements/disposals	0	-53	-688	-62	-803
December 31, 2017	21,374	809	1,992	4,617	28,792
Accumulated amortization					
January 1, 2016	103	526	1,812	1,938	4,379
Foreign currency exchange differences	1	5	54	59	119
Additions amortization	0	74	321	351	746
Retirements/disposals	0	-16	-1	-92	-109
December 31, 2016	104	589	2,186	2,256	5,135
Foreign currency exchange differences	-4	-16	-208	-219	-447
Additions amortization	0	79	254	327	660
Retirements/disposals	0	-51	-688	-58	-797
December 31, 2017	100	601	1,544	2,306	4,551
Carrying amount					
December 31, 2016	23,311	202	721	2,863	27,097
December 31, 2017	21,274	208	448	2,311	24,241

Other additions to software and database licenses in 2017 and 2016 were individually acquired from third parties and include cross-license agreements and patents.

Significant Intangible Assets

€ millions, unless otherwise stated	Carrying Amount		Remaining Useful Life (in years)
	2017	2016	
Sybase – Customer relationships	226	325	4 to 6
SuccessFactors – Customer relationships	261	353	8
Ariba – Customer relationships	366	483	1 to 10
hybris – Customer relationships	83	106	10
Concur – Acquired technologies	261	296	4
Concur – Customer relationships	1,073	1,281	13 to 17
Total significant intangible assets	2,270	2,844	

Goodwill Impairment Testing

SAP had two operating segments at the end of 2017. For more information about our segments, see [Note \(28\)](#).

The carrying amount of goodwill has been allocated for impairment testing purposes to those operating segments expected to benefit from goodwill.

Goodwill by Operating Segment

€ millions	Applications, Technology & Services	SAP Business Network	Other	Total
December 31, 2016	15,839	7,439	34	23,311
December 31, 2017	14,657	6,617	0	21,274

The key assumptions on which management based its cash flow projections for the period covered by the underlying business plans are as follows:

Key Assumption	Basis for Determining Values Assigned to Key Assumption
Budgeted revenue growth	Revenue growth rate achieved in the current fiscal year, adjusted for an expected increase in SAP's addressable cloud and database markets; expected growth in the established software applications and analytics markets. Values assigned reflect our past experience and our expectations regarding an increase in the addressable markets.
Budgeted operating margin	Operating margin budgeted for a given budget period equals the operating margin achieved in the current fiscal year, increased by expected efficiency gains. Values assigned reflect past experience, except for efficiency gains.
Pre-tax discount rates	Our estimated cash flow projections are discounted to present value using pre-tax discount rates. Pre-tax discount rates are based on the weighted average cost of capital (WACC) approach.
Terminal growth rate	Our estimated cash flow projections for periods beyond the business plan were extrapolated using segment-specific terminal growth rates. These growth rates do not exceed the long-term average growth rates for the markets in which our segments operate.

Key Assumptions and Detailed Planning Period

Percent, unless otherwise stated	Applications, Technology & Services		SAP Business Network	
	2017	2016	2017	2016
Budgeted revenue growth (average of the budgeted period)	4.8	6.7	14.9	15.0
Pre-tax discount rate	10.6	10.4	11.9	11.7
Terminal growth rate	2.9	2.0	3.0	3.0
Detailed planning period (in years)	3	4	9	9

Applications, Technology & Services

The recoverable amount of the segment has been determined based on a value-in-use calculation. The calculation uses cash flow projections based on actual operating results and a group-wide business plan approved by management.

We believe that no reasonably possible change in any of the above key assumptions would cause the carrying amount of our Applications, Technology & Services segment to exceed the recoverable amount.

SAP Business Network

The recoverable amount of the segment has been determined based on fair value less costs of disposal calculation. The fair value measurement was categorized as a level 3 fair value based on the inputs used in the valuation technique. The cash flow

projections are based on actual operating results and specific estimates covering a detailed planning period and the terminal growth rate thereafter. The projected results were determined based on management's estimates and are consistent with the assumptions a market participant would make. The segment operates in a relatively immature area with significant growth rates projected for the near future. We therefore have a longer and more detailed planning period than one would apply in a more mature segment.

We are using a target operating margin of 33% (2016: 34%) for the segment at the end of the budgeted period as a key assumption, which is within the range of expectations of market participants (for example, industry analysts).

The recoverable amount exceeds the carrying amount by €8,143 million (2016: €6,404 million).

The following table shows amounts by which the key assumptions would need to change individually for the recoverable amount to be equal to the carrying amount:

Sensitivity to Change in Assumptions

	SAP Business Network	
	2017	2016
Budgeted revenue growth (change in percentage points)	-8.6	-6.9
Pre-tax discount rate (change in percentage points)	5.6	4.4
Target operating margin at the end of the budgeted period (change in percentage points)	-17	-15

(16) Property, Plant, and Equipment

Property, Plant, and Equipment

€ millions	Land and Buildings	Other Property, Plant, and Equipment	Advance Payments and Construction in Progress	Total
Net Value				
December 31, 2016	1,137	1,297	146	2,580
December 31, 2017	1,162	1,592	213	2,967

Total additions (other than from business combinations) amounted to €1,196 million (2016: €933 million) and relate

primarily to the replacement and purchase of IT infrastructure (data centers, and so on).

(17) Trade and Other Payables, Financial Liabilities, and Other Non-Financial Liabilities

(17a) Trade and Other Payables

Trade and Other Payables

€ millions	2017			2016		
	Current	Non-Current	Total	Current	Non-Current	Total
Trade payables	952	0	952	1,015	0	1,015
Advance payments received	58	0	58	145	0	145
Miscellaneous other liabilities	141	119	260	120	127	247
Trade and other payables	1,151	119	1,270	1,280	127	1,407

Miscellaneous other liabilities mainly include deferral amounts for free rent periods and liabilities related to government grants.

(17b) Financial Liabilities

Financial Liabilities

	2017										2016		
	Nominal Volume				Carrying Amount			Nominal Volume				Carrying Amount	
	Current	Non- Current	Current	Non- Current	Total	Current	Non- Current	Current	Non- Current	Total			
Bonds	1,150	4,000	1,149	3,997	5,147	1,000	5,150	996	5,151	6,147			
Private placement transactions	125	965	125	1,005	1,130	420	1,240	418	1,298	1,717			
Bank loans	24	0	24	0	24	16	0	16	0	16			
Financial debt	1,299	4,965	1,298	5,002	6,301	1,435	6,390	1,430	6,450	7,880			
Derivatives	NA	NA	57	29	86	NA	NA	152	43	194			
Other financial liabilities	NA	NA	205	2	208	NA	NA	231	-12	219			
Financial liabilities			1,561	5,034	6,595				1,813	6,481	8,294		

Financial liabilities are unsecured, except for the retention of title and similar rights customary in our industry. Effective interest rates on our financial debt (including the effects from interest rate swaps) were 1.29% in 2017, 1.25% in 2016, and 1.30% in 2015.

For an analysis of the contractual cash flows of our financial liabilities based on maturity, see [Note \(24\)](#). For information about the risk associated with our financial liabilities, see [Note \(25\)](#). For information about fair values, see [Note \(26\)](#).

Bonds

	Maturity	Issue Price	Coupon Rate	Effective Interest Rate	Nominal Volume (in respective currency in millions)	2017		2016	
						Carrying Amount (in € millions)	Carrying Amount (in € millions)		
Eurobond 2 – 2010	2017	99.780%	3.50% (fix)	3.59%	€500	0	0	496	496
Eurobond 6 – 2012	2019	99.307%	2.125% (fix)	2.29%	€750	768	768	776	776
Eurobond 7 – 2014	2018	100.000%	0.000% (var.)	0.08%	€750	750	750	749	749
Eurobond 8 – 2014	2023	99.478%	1.125% (fix)	1.24%	€1,000	995	995	994	994
Eurobond 9 – 2014	2027	99.284%	1.75% (fix)	1.86%	€1,000	991	991	990	990
Eurobond 10 – 2015	2017	100.000%	0.000% (var.)	0.11%	€500	0	0	500	500
Eurobond 11 – 2015	2020	100.000%	0.000% (var.)	0.07%	€650	649	649	648	648
Eurobond 12 – 2015	2025	99.264%	1.00% (fix)	1.13%	€600	594	594	594	594
Eurobond 13 – 2016	2018	100.000%	0.000% (var.)	0.03%	€400	400	400	400	400
Eurobonds						5,147		6,147	

All of our Eurobonds are listed for trading on the Luxembourg Stock Exchange.

Private Placement Transactions

	Maturity	Coupon Rate	Effective Interest Rate	Nominal Volume (in respective currency in millions)	2017 Carrying Amount (in € millions)	2016 Carrying Amount (in € millions)
U.S. private placements						
Tranche 2 – 2010	2017	2.95% (fix)	3.03%	US\$200	0	189
Tranche 4 – 2011	2018	3.43% (fix)	3.50%	US\$150	125	141
Tranche 5 – 2012	2017	2.13% (fix)	2.16%	US\$242.5	0	229
Tranche 6 – 2012	2020	2.82% (fix)	2.86%	US\$290	241	278
Tranche 7 – 2012	2022	3.18% (fix)	3.22%	US\$444.5	382	439
Tranche 8 – 2012	2024	3.33% (fix)	3.37%	US\$323	289	334
Tranche 9 – 2012	2027	3.53% (fix)	3.57%	US\$100	93	107
Private placements					1,130	1,717

The U.S. private placement notes were issued by one of our subsidiaries that has the U.S. dollar as its functional currency.

(17c) Other Non-Financial Liabilities

Other Non-Financial Liabilities

€ millions	2017			2016		
	Current	Non-Current	Total	Current	Non-Current	Total
Share-based payment liabilities	815	340	1,154	602	309	911
Other employee-related liabilities	2,565	163	2,728	2,545	152	2,697
Other taxes	568	0	568	552	0	552
Other non-financial liabilities	3,947	503	4,450	3,699	461	4,160

For more information about our share-based payments, see [Note \(27\)](#).

Other taxes mainly comprise payroll tax liabilities and value-added tax liabilities.

Other employee-related liabilities mainly relate to vacation obligations, bonus and sales commission obligations, as well as employee-related social security obligations.

(18) Provisions

Provisions

€ millions	2017			2016				
	Current		Non- Current	Total	Current		Non- Current	Total
Pension plans and similar obligations (see Note (18a))	0	136	136	0	140	140		
Other provisions (see Note (18b))	184	167	351	183	77	260		
Total	184	303	487	183	217	400		

(18a) Pension Plans and Similar Obligations

Defined Benefit Plans

The measurement dates for our domestic and foreign benefit plans are December 31.

Present Value of the Defined Benefit Obligations (DBO) and the Fair Value of the Plan Assets

€ millions	Domestic Plans		Foreign Plans		Other Post-Employment Plans		Total	
	2017	2016	2017	2016	2017	2016	2017	2016
Present value of the DBO	857	854	382	369	118	98	1,357	1,321
Thereof fully or partially funded plans	857	854	336	324	78	74	1,271	1,252
Thereof unfunded plans	0	0	46	45	40	24	86	69
Fair value of the plan assets	848	843	319	290	56	48	1,223	1,181
Net defined benefit liability (asset)	9	11	63	79	62	50	134	140
Amounts recognized in the Consolidated Statement of Financial Position:								
Non-current other financial assets	0	0	1	0	1	0	2	0
Non-current provisions	-9	-11	-64	-79	-63	-50	-136	-140

€794 million (2016: €789 million) of the present value of the DBO of our domestic plans relate to plans that provide for lump-sum payments not based on final salary, and €329 million (2016: €316 million) of the present value of the defined benefit obligations of our foreign plans relate to plans that provide for annuity payments not based on final salary.

The following weighted average assumptions were used for the actuarial valuation of our domestic and foreign pension liabilities as well as other post-employment benefit obligations as at the respective measurement date:

Actuarial Assumptions

Percent	Domestic Plans			Foreign Plans			Other Post-Employment Plans		
	2017	2016	2015	2017	2016	2015	2017	2016	2015
Discount rate	2.3	2.1	2.7	0.8	0.6	0.7	3.9	4.0	4.0
Future salary increases	2.5	2.5	2.5	1.7	1.7	1.7	5.0	6.0	6.3
Future pension increases	2.0	2.0	2.0	0.1	0	0	0	0.0	0.0
Employee turnover	2.0	2.0	2.0	16.2	10.3	10.3	8.2	8.6	8.7
Inflation	2.0	2.0	2.0	1.4	1.4	1.4	1.0	1.1	1.0

The sensitivity analysis table shows how the present value of all defined benefit obligations would have been influenced by reasonably possible changes to above actuarial assumptions. The sensitivity analysis table presented below considers change

in discount rate assumption, holding all other actuarial assumptions constant. A reasonably possible change in all other actuarial assumptions would not materially influence the present value of all defined benefit obligations.

Sensitivity Analysis

€ millions	Domestic Plans			Foreign Plans			Other Post-Employment Plans			Total		
	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015
Present value of all defined benefit obligations if:												
Discount rate was 50 basis points higher	806	800	678	357	344	311	114	93	79	1,277	1,237	1,068
Discount rate was 50 basis points lower	912	913	775	411	398	359	123	101	87	1,446	1,412	1,221

Total Expense of Defined Benefit Pension Plans

€ millions	Domestic Plans			Foreign Plans			Other Post-Employment Plans			Total		
	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015
Current service cost	11	7	10	22	21	21	15	10	9	48	38	40
Interest expense	18	19	17	2	3	3	4	3	3	24	25	23
Interest income	-18	-20	-17	-2	-2	-3	-2	-1	-2	-22	-23	-22
Past service cost	0	0	0	0	0	0	2	0	0	2	0	0
Total expense	11	6	10	22	22	21	19	12	10	52	40	41
Actual return on plan assets	-17	97	-76	19	1	0	3	2	2	5	100	-74

Our investment strategy on domestic benefit plans is to invest all contributions in stable insurance policies.

Our investment strategies for foreign benefit plans vary according to the conditions in the country in which the respective benefit plans are situated. Generally, a long-term investment horizon has been adopted for all major foreign

benefit plans. Although our policy is to invest in a risk-diversified portfolio consisting of a mix of assets, both the defined benefit obligation and plan assets can fluctuate over time, which exposes the Group to actuarial and market (investment) risks. Depending on the statutory requirements in each country, it might be necessary to reduce any underfunding by addition of liquid assets.

Plan Asset Allocation

€ millions	2017		2016	
	Quoted in an Active Market	Not Quoted in an Active Market	Quoted in an Active Market	Not Quoted in an Active Market
Asset category				
Equity investments	105	0	118	0
Corporate bonds	122	0	90	0
Government bonds	10	0	5	0
Real estate	54	0	49	0
Insurance policies	5	873	0	864
Cash and cash equivalents	9	0	11	0
Others	45	0	44	0
Total	350	873	317	864

Our expected contribution in 2018 to our domestic and foreign defined benefit pension plans is immaterial. The weighted duration of our defined benefit plans amounted to 13 years as at December 31, 2017, and 14 years as at December 31, 2016.

Total future benefit payments from our defined benefit plans as at December 31, 2017, are expected to be €1,670 million (2016: €1,583 million). Of this amount, 80% has maturities of over five years, and 68% relates to domestic plans.

Defined Contribution Plans/State Plans

We also maintain domestic and foreign defined contribution plans. Amounts contributed by us under such plans are based

on a percentage of the employees' salaries or on the amount of contributions made by employees. Furthermore, in Germany and some other countries, we make contributions to public pension plans that are operated by national or local government or a similar institution.

Total Expense of Defined Contribution Plans and State Plans

€ millions	2017	2016	2015
Defined contribution plans	260	234	218
State plans	527	484	429
Total expense	787	718	647

(18b) Other Provisions

Other Provisions

€ millions	1/1/ 2017	Addition	Accretion	Utilization	Release	Currency Impact	12/31/ 2017
Employee-related provisions	74	160	0	-42	-1	-3	188
Customer-related provisions	96	48	0	-77	-5	-5	57
Restructuring provisions	49	182	0	-163	0	0	68
Miscellaneous other provisions	41	0	1	-2	0	-2	38
Total other provisions	260	390	1	-284	-6	-10	351

Employee-related provisions primarily comprise obligations for time credits, severance payments, jubilee expenses, and semiretirement. The increase in the employee-related provisions mainly results from restructuring-related termination benefits which were transformed into time credits. While most of these employee-related provisions could be claimed within

the next 12 months, we do not expect the related cash outflows within this time period.

Customer-related provisions mainly include expected contract losses. The associated cash outflows are substantially short-term in nature. Furthermore, obligations resulting from

customer-related litigation and claims are included. The related cash outflows are uncertain.

For more information about our restructuring plans, see [Note \(6\)](#). Restructuring provisions comprise contract termination costs, including those relating to the termination of lease contracts. The cash outflows associated with employee-related restructuring costs are substantially short-term in nature. Utilization of the portion of the facility-related restructuring provisions depends on the remaining term of the associated lease.

Miscellaneous other provisions comprise intellectual property-related provisions which relate to litigation matters further described in [Note \(23\)](#) as well as facility-related onerous contract provisions and renovation and restoration obligations. The timing of the associated cash outflows is dependent on the remaining term of the underlying contract.

(19) Deferred Income

Deferred income consists mainly of prepayments made by our customers for cloud subscriptions and support; software support and services; fees from multiple-element arrangements allocated to undelivered elements; and amounts recorded in purchase accounting at fair value for obligations to perform under acquired customer contracts in connection with acquisitions.

(20) Total Equity

Issued Capital

SAP SE has issued no-par value bearer shares with a calculated nominal value of €1 per share. All of the shares issued are fully paid.

Number of Shares

millions	Issued Capital	Treasury Shares
January 1, 2015	1,229	-33
Reissuance of treasury shares under share-based payments	0	2
December 31, 2015	1,229	-31
Reissuance of treasury shares under share-based payments	0	1
December 31, 2016	1,229	-30
Purchase of treasury shares	0	-5
Reissuance of treasury shares under share-based payments	0	0
December 31, 2017	1,229	-35

Authorized Shares

The Articles of Incorporation authorize the Executive Board to increase the issued capital as follows:

- By up to a total amount of €250 million by issuing new no-par value bearer shares against contributions in cash until May 19, 2020 (Authorized Capital I). The issuance is subject to the statutory subscription rights of existing shareholders.
- By up to a total amount of €250 million by issuing new no-par value bearer shares against contributions in cash or in kind until May 19, 2020 (Authorized Capital II). Subject to the consent of the Supervisory Board, the Executive Board is authorized to exclude the shareholders' statutory subscription rights in certain cases.

Contingent Shares

SAP SE's share capital is subject to a contingent capital increase which may be effected only to the extent that the holders or creditors of convertible bonds or stock options issued or guaranteed by SAP SE or any of its directly or indirectly controlled subsidiaries under certain share-based payments exercise their conversion or subscription rights, and no other methods for servicing these rights are used. As at December 31, 2017, €100 million, representing 100 million shares, was still available for issuance (2016: €100 million).

Other Components of Equity

€ millions	Exchange Differences	Available-for-Sale Financial Assets	Cash Flow Hedges	Total
January 1, 2015	362	211	-8	564
Other comprehensive income for items that will be reclassified to profit or loss, net of tax	1,861	125	11	1,997
December 31, 2015	2,222	336	3	2,561
Other comprehensive income for items that will be reclassified to profit or loss, net of tax	839	-43	-11	785
December 31, 2016	3,062	292	-8	3,345
Other comprehensive income for items that will be reclassified to profit or loss, net of tax	-2,732	-135	29	-2,838
December 31, 2017	330	157	21	508

Treasury Shares

By resolution of SAP SE's General Meeting of Shareholders held on June 4, 2013, the authorization granted by the General Meeting of Shareholders on June 8, 2010, regarding the acquisition of treasury shares was revoked to the extent it had not been exercised at that time, and replaced by a new authorization of the Executive Board of SAP SE to acquire, on or before June 3, 2018, shares of SAP SE representing a pro rata amount of capital stock of up to €120 million in aggregate, provided that the shares purchased under the authorization, together with any other shares in the Company previously acquired and held by, or attributable to, SAP SE do not account for more than 10% of SAP SE's issued share capital. Based on this authorization, we bought back five million of our shares in the total amount of €500 million in 2017. Although treasury shares are legally considered outstanding, there are no dividend or voting rights associated with shares held in treasury. We may redeem or resell shares held in treasury, or we may use treasury shares for the purpose of servicing option or conversion rights under the Company's share-based payment plans. Also, we may use shares held in treasury as consideration in connection with mergers with, or acquisitions of, other companies.

Dividends

The total dividend available for distribution to SAP SE shareholders is based on the profits of SAP SE as reported in its

statutory financial statements prepared under the accounting rules in the German Commercial Code (*Handelsgesetzbuch*). For the year ended December 31, 2017, the Executive Board intends to propose that a dividend of €1.40 per share (that is, an estimated total dividend of €1,671 million), be paid from the profits of SAP SE.

Dividends per share for 2016 and 2015 were €1.25 and €1.15 respectively and were paid in the succeeding year.

(21) Additional Capital Disclosures

Capital Structure Management

The primary objective of our capital structure management is to maintain a strong financial profile for investor, creditor, and customer confidence, and to support the growth of our business. We seek to maintain a capital structure that will allow us to cover our funding requirements through the capital markets at reasonable conditions, and in so doing, ensure a high level of independence, confidence, and financial flexibility.

SAP SE's long-term credit rating is "A2" by Moody's with stable outlook, and "A" by Standard & Poor's with positive outlook.

Capital Structure

	12/31/2017		12/31/2016		Δ in %
	€ millions	% of Total Equity and Liabilities	€ millions	% of Total Equity and Liabilities	
Equity	25,540	60	26,397	60	-3
Current liabilities	10,210	24	9,674	22	6
Non-current liabilities	6,747	16	8,205	19	-18
Liabilities	16,958	40	17,880	40	-5
Total equity and liabilities	42,497	100	44,277	100	-4

In 2017, we repaid €1,000 million in Eurobonds and US\$442.5 million in U.S. private placements at maturity. Thus, the ratio of total financial debt to total equity and liabilities decreased by three percentage points to 15% at the end of 2017 (18% as at December 31, 2016).

Total financial debt consists of current and non-current bank loans, bonds, and private placements. The changes in our financial debts are reconciled to the cash flows from liabilities arising from financing activities below. For more information about our financial debt, see [Note \(17\)](#).

Reconciliation of Liabilities Arising from Financing Activities

€ millions	12/31/2016	Cash Flows	Business Combinations	Foreign Currency	Fair Value Changes	Other	12/31/2017
Current financial debt	-1,435	1,372	1	54	0	-1,290	-1,299
Non-current financial debt	-6,390	-8	0	144	0	1,289	-4,965
Financial debt (nominal volume)	-7,826	1,364	1	197	0	-1	-6,264
Basis adjustment	-86	0	0	-7	31	0	-62
Transaction costs	32	0	0	0	0	-7	26
Financial debt (carrying amount)	-7,880	1,364	1	191	31	-7	-6,301
Accrued interest	-45	0	0	2	0	9	-34
Assets held to hedge financial debt	47	0	0	1	-24	0	24
Total liabilities from financing activities	-7,878	1,364	1	194	7	2	-6,311

Reconciliation of Liabilities Arising from Financing Activities

€ millions	12/31/2015	Cash Flows	Business Combinations	Foreign Currency	Fair Value Changes	Other	12/31/2016
Current financial debt	-567	547	-6	4	0	-1,413	-1,435
Non-current financial debt	-8,607	852	-2	-46	0	1,413	-6,390
Financial debt (nominal volume)	-9,175	1,400	-8	-42	0	0	-7,826
Basis adjustment	-64	0	0	5	-27	0	-86
Transaction costs	44	0	0	0	0	-11	32
Financial debt (carrying amount)	-9,195	1,400	-8	-37	-27	-11	-7,880
Accrued interest	-45	0	0	1	0	-1	-45
Assets held to hedge financial debt	100	-43	0	-3	-6	0	47
Total liabilities from financing activities	-9,141	1,357	-8	-40	-33	-12	-7,878

While we continuously monitor the ratios presented in and below the capital structure table above, we actively manage our liquidity and structure of our financial indebtedness based on the ratios group liquidity and net liquidity.

Group Liquidity

€ millions	2017	2016	Δ
Cash and cash equivalents	4,011	3,702	309
Current investments	774	971	-196
Group liquidity	4,785	4,673	112
Current financial debt	-1,299	-1,435	136
Net liquidity 1	3,486	3,238	248
Non-current financial debt	-4,965	-6,390	1,425
Net liquidity 2	-1,479	-3,153	1,673

Distribution Policy

Our general intention is to remain in a position to return liquidity to our shareholders by distributing annual dividends totaling more than 40% (2016: 35%) of our profit after tax and by potentially repurchasing treasury shares in future.

In 2017, we distributed €1,499 million (€1.25 per share) in dividends for 2016 compared to €1,378 million paid in 2016 for 2015 and €1,316 million paid in 2015 for 2014. Aside from the distributed dividend, in 2017, we also returned €500 million to our shareholders by repurchasing treasury shares.

As a result of our equity-settled share-based payments transactions (as described in [Note \(27\)](#)), we have commitments to grant SAP shares to employees. We intend to meet these commitments by reissuing treasury shares or to fulfill these obligations through an agent who administers the equity-settled programs and therefore purchases shares on the open market.

(22) Other Financial Commitments

Other Financial Commitments

€ millions	2017	2016
Operating leases	1,459	1,578
Contractual obligations for acquisition of property, plant, and equipment and intangible assets	207	227
Other purchase obligations	934	650
Purchase obligations	1,141	877
Investments in venture capital funds	182	167
Total	2,782	2,623

Our operating leases relate primarily to the lease of office space, hardware, and vehicles, with remaining non-cancelable lease terms between less than one year and 31 years. On a limited scale, the operating lease contracts include escalation clauses (based, for example, on the consumer price index) and renewal options. The contractual obligations for acquisition of property, plant, and equipment and intangible assets relate primarily to the construction of new and existing facilities and to the purchase of hardware, software, patents, office equipment, and vehicles. The remaining obligations relate mainly to marketing, consulting, maintenance, license agreements, cloud services and other third-party agreements. Historically, the majority of such purchase obligations have been realized.

SAP invests and holds interests in other entities that manage investments in venture capital funds. On December 31, 2017, total commitments to make such investments amounted to €342 million (2016: €308 million), of which €161 million had been drawn (2016: €141 million). By investing in such venture capital funds, we are exposed to the risks inherent in the business areas in which the entities operate. Our maximum exposure to loss is the amount invested plus unavoidable future capital contributions.

Maturities of Other Financial Commitments

€ millions	December 31, 2017		
	Operating Leases	Purchase Obligations	Investments in Venture Capital Funds
Due 2018	322	662	182
Due 2019 to 2022	778	386	0
Due thereafter	358	93	0
Total	1,459	1,141	182

Our rental and operating lease expenses were €532 million, €458 million, and €386 million for the years 2017, 2016, and 2015, respectively.

(23) Litigation, Claims, and Legal Contingencies

We are subject to a variety of claims and lawsuits that arise from time to time in the ordinary course of our business, including proceedings and claims that relate to companies we have acquired, claims that relate to customers demanding indemnification for proceedings initiated against them based on their use of SAP software, and claims that relate to customers being dissatisfied with the products and services that we have delivered to them. We will continue to vigorously defend against all claims and lawsuits against us. We currently believe that resolving the claims and lawsuits pending as at December 31, 2017, will neither individually nor in the aggregate have a material adverse effect on our business, financial position, profit, or cash flows. The provisions recorded for these claims and lawsuits as at December 31, 2017, are neither individually nor in the aggregate material to SAP.

However, the outcome of litigation and claims is intrinsically subject to considerable uncertainty. Management's view of these matters may also change in the future. Actual outcomes of litigation and claims may differ from the assessments made by management in prior periods, which could result in a material impact on our business, financial position, profit, cash flows, or reputation. Most of the lawsuits and claims are of a very individual nature and claims are either not quantified by the claimants or the claim amounts quantified are, based on historical evidence, not expected to be a good proxy for the expenditure that would be required to settle the case concerned. The specifics of the jurisdictions where most of the claims are located further impair the predictability of the outcome of the cases. Therefore, it is not practicable to reliably estimate the financial effect that these lawsuits and claims would have if SAP were to incur expenditure for these cases.

Among the claims and lawsuits are the following classes:

Intellectual Property-Related Litigation and Claims

Intellectual property-related litigation and claims are cases in which third parties have threatened or initiated litigation claiming that SAP violates one or more intellectual property rights that they possess. Such intellectual property rights may include patents, copyrights, and other similar rights.

The carrying amount of the provisions recognized for intellectual property-related litigation and claims and the change in the carrying amount in the reporting period are disclosed in Note (18b). The expected timing of any resulting outflows of

economic benefits from these lawsuits and claims is uncertain and not estimable, as it depends generally on the duration of the legal proceedings and settlement negotiations required to resolve them. Uncertainties about the amounts result primarily from the unpredictability of the outcomes of legal disputes in several jurisdictions. For more information, see Note (3c).

Contingent liabilities exist from intellectual property-related litigation and claims for which no provision has been recognized. Generally, it is not practicable to estimate the financial impact of these contingent liabilities due to the uncertainties around the litigation and claims, as outlined above. The total amounts claimed by plaintiffs in those intellectual property-related lawsuits or claims in which a claim has been quantified were not material to us as at December 31, 2017 and 2016. Based on our past experience, most of the intellectual property-related litigation and claims tend to be either dismissed in court or settled out of court for amounts significantly below the originally claimed amounts and not material to our consolidated financial statements.

Individual cases of intellectual property-related litigation and claims include the following:

In February 2010, United States-based TecSec, Inc. (TecSec) instituted legal proceedings in the United States against SAP (including its subsidiary Sybase) and many other defendants. TecSec alleged that SAP's and Sybase's products infringe one or more of the claims in five patents held by TecSec. In its complaint, TecSec seeks unspecified monetary damages and permanent injunctive relief. The lawsuit is proceeding but only with respect to one defendant. The trial for SAP (including its subsidiary Sybase) has not yet been scheduled – the lawsuit for SAP (including its subsidiary Sybase) remains stayed.

In 2008, Wellogix, Inc. asserted trade secret misappropriation claims against SAP in U.S. federal court. Those claims were dismissed based on improper venue. In April 2010, SAP instituted legal proceedings (a declaratory judgment action) in the United States against Wellogix, Inc. and Wellogix Technology Licensing, LLC. The lawsuit sought a declaratory judgment that six patents owned by Wellogix were invalid or not infringed by SAP. The legal proceedings were stayed pending the outcome of six reexaminations filed by SAP with the United States Patent and Trademark Office (USPTO). All six reexaminations were decided in SAP's favor, the decisions were upheld on appeal, and the case has been dismissed. Wellogix re-asserted trade secret misappropriation claims against SAP. The court granted SAP's motion to dismiss based on improper venue for litigating the trade secret claims in the U.S. and Wellogix appealed that decision. The appeal was decided in SAP's favor and the claim was dismissed. In February 2015, SAP filed a declaratory judgment action in Frankfurt/Main, Germany, asking the German court to rule that SAP did not misappropriate any Wellogix trade secrets. That court likewise ruled in SAP's favor

and Wellogix has appealed that decision. The appeal is expected to conclude in 2018.

Customer-Related Litigation and Claims

Customer-related litigation and claims include cases in which we indemnify our customers against liabilities arising from a claim that our products infringe a third party's patent, copyright, trade secret, or other proprietary rights. Occasionally, consulting or software implementation projects result in disputes with customers. Where customers are dissatisfied with the products and services that we have delivered to them in routine consulting contracts or development arrangements, we may grant functions or performance guarantees.

The carrying amount of the provisions recorded for customer-related litigation and claims and the development of the carrying amount in the reporting period are disclosed in [Note \(18b\)](#). The expected timing or amounts of any resulting outflows of economic benefits from these lawsuits and claims is uncertain and not estimable, as they generally depend on the duration of the legal proceedings and settlement negotiations required to resolve the litigation and claims and the unpredictability of the outcomes of legal disputes in several jurisdictions. For more information, see [Note \(3c\)](#).

Contingent liabilities exist from customer-related litigation and claims for which no provision has been recognized. Generally, it is not practicable to estimate the financial impact of these contingent liabilities due to the uncertainties around these lawsuits and claims outlined above.

Tax-Related Litigation and Claims

We are subject to ongoing audits by domestic and foreign tax authorities. In respect of non-income taxes, we, like many other companies operating in Brazil, are involved in various proceedings with Brazilian tax authorities regarding assessments and litigation matters on intercompany royalty payments and intercompany services. The total potential amount in dispute related to these matters for all applicable years is approximately €102 million (2016: €106 million). We have not recorded a provision for these matters, as we believe that we will prevail.

For information about income tax-related litigation, see [Note \(10\)](#).

Legal Contingencies

SAP received communications alleging conduct that may violate anti-bribery laws (including the U.S. Foreign Corrupt Practices Act (FCPA)). The Legal Compliance and Integrity Office of SAP is conducting investigations with the assistance of an external law firm and voluntarily advised local authorities as well as the U.S. Securities and Exchange Commission (U.S. SEC) and the U.S. Department of Justice (U.S. DOJ). The investigations and dialogue with the local authorities and the U.S. SEC and U.S.

DOJ are ongoing. SAP is cooperating with both the external law firm engaged for the investigation and the authorities.

The alleged conduct may result in monetary penalties or other sanctions under the FCPA and/or other anti-bribery laws. In addition, SAP's ability to conduct business in certain jurisdictions could be negatively impacted. Given the early stage of the comprehensive and exhaustive investigations and the corresponding remediation activities, and considering the complexity of individual factors and the large number of open questions, it is impossible at this point in time to assess the risks.

We are implementing enhancements to our anti-corruption compliance program, including guidance and policy changes as well as additional internal controls related to compliance with international anti-bribery laws, and additional compliance staff. We continue to be fully committed to FCPA and other anti-bribery law compliance.

Furthermore, we are investigating allegations regarding conduct that certain independent SAP partners violated SAP contractual terms and sold SAP products and services in embargoed countries. These SAP partners presumably did not adhere to SAP's strict procedures for indirect business activities. To the extent any company independent from SAP chooses not to follow SAP's licensing procedures, SAP is ultimately limited in its ability to stop their activities. SAP devotes considerable resources to prevent and mitigate such activities should they occur. We are also investigating allegations regarding direct sales between SAP and certain customers, who may have engaged in unauthorized activities in embargoed countries. The investigations are being conducted by SAP's Legal Compliance and Integrity Office with the assistance of an external law firm.

In this context, SAP voluntarily self-disclosed potential export controls and economic sanctions violations to the U.S. Department of Justice and the U.S. Department of Treasury's Office of Foreign Assets Control (OFAC) in September 2017. At the same time, SAP provided notification to the U.S. Securities and Exchange Commission (U.S. SEC) and responded to an SEC comment letter on export restriction matters in October 2017. SAP has also provided disclosure to the U.S. Department of Commerce's Bureau of Industry and Security (BIS) based on the same alleged facts. Finally, pursuant to Section 219 of the U.S. Iran Threat Reduction and Syria Human Rights Act of 2012 and Section 13(r) of the U.S. Securities Exchange Act of 1934, SAP has filed the required Iran Notice with the SEC.

As a reaction to preliminary findings, SAP has taken remedial actions to terminate access to SAP products and services for certain end users and block additional business activities with these end users through SAP or SAP partners. We are implementing enhancements to our export control compliance program, including adding further capacity to the Export Control Compliance team with a particular focus on high-risk countries.

Given the early stage of the comprehensive and exhaustive investigations and the corresponding remediation activities, and considering the complexity of individual factors and the large number of open questions, it is impossible at this point in time to assess the risks.

For the reasons outlined above, it is impossible at this point in time to determine whether the potential anti-bribery law violations and the potential export restriction violations represent present obligations of SAP and, if so, to reliably estimate the amount of these obligations. As a consequence, no provisions have been recognized for these potential violations in our consolidated financial statements 2017. It is also not practicable to estimate the financial effect of any contingent liabilities that may result from these potential violations.

(24) Financial Risk Factors

We are exposed to various financial risks, such as market risks (including foreign currency exchange rate risk, interest rate risk, and equity price risk), credit risk, and liquidity risk.

Market Risk

a) Foreign Currency Exchange Rate Risk

As we are active worldwide, our ordinary operations are subject to risks associated with fluctuations in foreign currencies. Since the Group's entities mainly conduct their operating business in their own functional currencies, our risk of exchange rate fluctuations from ongoing ordinary operations is not considered significant. However, we occasionally generate foreign currency-

denominated receivables, payables, and other monetary items by transacting in a currency other than the functional currency. To mitigate the extent of the associated foreign currency exchange rate risk, the majority of these transactions are hedged as described in [Note \(25\)](#).

In rare circumstances, transacting in a currency other than the functional currency also leads to embedded foreign currency derivatives being separated and measured at fair value through profit or loss.

In addition, the intellectual property (IP) holders in the SAP Group are exposed to risks associated with forecasted intercompany cash flows in foreign currencies. These cash flows arise out of royalty payments from subsidiaries to the respective IP holder. The royalties are linked to the subsidiaries' external revenue. This arrangement leads to a concentration of the foreign currency exchange rate risk with the IP holders, as the royalties are mostly denominated in the subsidiaries' local currencies, while the functional currency of the IP holders with the highest royalty volume is the euro. The highest foreign currency exchange rate exposure of this kind relates to the currencies of subsidiaries with significant operations, for example the U.S. dollar, the pound sterling, the Japanese yen, the Swiss franc, and the Australian dollar.

Generally, we are not exposed to any significant foreign currency exchange rate risk with regard to our investing and financing activities, as such activities are normally conducted in the functional currency of the investing or borrowing entity. For more information, see [Note \(25\)](#).

b) Interest Rate Risk

We are exposed to economic interest rate risk as a result of our investing and financing activities mainly in euros and U.S. dollars.

€ millions	2017		2016	
	Cash Flow Risk	Fair Value Risk	Cash Flow Risk	Fair Value Risk
Investing activities	3,800	985	3,308	1,364
Financing activities	1,815	4,486	2,313	5,567

c) Equity Price Risk

We are exposed to equity price risk with regard to our investments in equity securities (2017: €827 million; 2016: €952 million) and our share-based payments (for the exposure from these plans, see [Note \(27\)](#)).

Credit Risk

To reduce the credit risk in investments, we arrange to receive rights to collateral for certain investing activities in the full amount of the investment volume, which we would be allowed to make use of only in the case of default of the counterparty to the investment. In the absence of other significant agreements to reduce our credit risk exposure, the total amounts recognized as cash and cash equivalents, current investments, loans and other

financial receivables, trade receivables, and derivative financial assets represent our maximum exposure to credit risks, except for the agreements mentioned above.

Liquidity Risk

The table below is an analysis of the remaining contractual maturities of all our financial liabilities held as at December 31, 2017. Financial liabilities for which repayment can be requested by the contract partner at any time are assigned to the earliest possible period. Variable interest payments were calculated

using the latest relevant interest rate fixed as at December 31, 2017. As we generally settle our derivative contracts gross, we show the pay and receive legs separately for all our currency and interest rate derivatives, whether or not the fair value of the derivative is negative. The cash outflows for the currency derivatives are translated using the applicable spot rate.

For more information about the cash flows for unrecognized but contractually agreed financial commitments, see [Note \(22\)](#).

Contractual Maturities of Non-Derivative Financial Liabilities

€ millions	Carrying Amount	Contractual Cash Flows						
		12/31/2017	2018	2019	2020	2021	2022	Thereafter
Trade payables	-952	-952	0	0	0	0	0	0
Financial liabilities	-6,508	-1,554	-834	-957	-58	-429	-3,102	
Total of non-derivative financial liabilities	-7,460	-2,506	-834	-957	-58	-429	-3,102	

€ millions	Carrying Amount	Contractual Cash Flows						
		12/31/2016	2017	2018	2019	2020	2021	Thereafter
Trade payables	-1,016	-1,016	0	0	0	0	0	0
Financial liabilities	-8,099	-1,739	-1,371	-835	-995	-62	-3,639	
Total of non-derivative financial liabilities	-9,115	-2,755	-1,371	-835	-995	-62	-3,639	

Contractual Maturities of Derivative Financial Liabilities and Financial Assets

€ millions	Carrying Amount	Contractual Cash Flows			Carrying Amount	Contractual Cash Flows	
		12/31/2017	2018	Thereafter		12/31/2016	2017
Derivative financial liabilities							
Currency derivatives not designated as hedging instruments	-84					-170	
Cash outflows		-3,909	-309			-3,160	-43
Cash inflows		3,857	292			3,025	0
Currency derivatives designated as hedging instruments	-1					-24	
Cash outflows		-75	0			-475	0
Cash inflows		74	0			442	0
Interest rate derivatives designated as hedging instruments	-1					0	
Cash outflows		-8	-15			0	0
Cash inflows		8	14			0	0
Total of derivative financial liabilities	-86	-53	-18		-194	-168	-43
Derivative financial assets							
Currency derivatives not designated as hedging instruments	41					35	
Cash outflows		-2,799	0			-1,902	0
Cash inflows		2,831	0			1,938	0
Currency derivatives designated as hedging instruments	29					12	
Cash outflows		-634	0			-241	0
Cash inflows		654	0			252	0
Interest rate derivatives designated as hedging instruments	24					47	
Cash outflows		-12	-43			-38	-83
Cash inflows		25	56			62	112
Total of derivative financial assets	93	65	13		95	71	29
Total of derivative financial liabilities and assets	8	12	-5		-99	-97	-14

(25) Financial Risk Management

We manage market risks (that is, foreign currency exchange rate risk, interest rate risk, and equity price risk), credit risk, and liquidity risk on a Group-wide basis through our global treasury department. Our risk management and hedging strategy is set by our treasury guideline and other internal guidelines, and is subject to continuous internal risk analysis. Derivative financial instruments are only purchased to reduce risks and not for speculation, which is defined as entering into derivative instruments without a corresponding underlying transaction.

Foreign Currency Exchange Rate Risk Management

We continuously monitor our exposure to currency fluctuation risks based on monetary items and forecasted transactions and pursue a Group-wide strategy to manage foreign currency

exchange rate risk, using derivative financial instruments, primarily foreign exchange forward contracts, as appropriate, with the primary aim of reducing profit or loss volatility. Most of the hedging instruments are not designated as being in a hedge accounting relationship. For more information, see [Note \(3a\)](#).

Currency Hedges Designated as Hedging Instruments (Cash Flow Hedges)

We enter into derivative financial instruments, primarily foreign exchange forward contracts, to hedge significant forecasted cash flows (royalties) from foreign subsidiaries denominated in foreign currencies with a defined set of hedge ratios and a hedge horizon of up to 12 months, which is also the maximum maturity of the foreign exchange derivatives we use.

For all years presented, no previously highly-probable transaction designated as a hedged item in a foreign currency cash flow hedge relationship ceased to be probable. Therefore,

we did not discontinue any of our cash flow hedge relationships. Also, we identified no ineffectiveness in all years reported. Generally, the cash flows of the hedged forecasted transactions are expected to occur and to be recognized in profit or loss monthly within a time frame of 12 months from the date of the statement of financial position.

Foreign Currency Exchange Rate Exposure

Our risk exposure is based on a sensitivity analysis considering the following:

- The SAP Group's entities generally operate in their functional currencies. In exceptional cases and limited economic environments, operating transactions are denominated in currencies other than the functional currency, leading to a foreign currency exchange rate risk for the related monetary instruments. Where material, this foreign currency exchange rate risk is hedged. Therefore, fluctuations in foreign currency exchange rates neither have a significant impact on profit nor on other comprehensive income with regard to our non-derivative monetary financial instruments and related income or expenses.
- Our free-standing derivatives designed for hedging foreign currency exchange rate risks almost completely balance the changes in the fair values of the hedged item attributable to exchange rate movements in the Consolidated Income Statements in the same period. As a consequence, the hedged items and the hedging instruments are not exposed to foreign currency exchange rate risks, and thereby have no effect on profit.

Consequently, we are only exposed to significant foreign currency exchange rate fluctuations with regard to the following:

- Derivatives held within a designated cash flow hedge relationship (excluding the interest element, which is not part of the assigned cash flow hedge relationships) affecting other comprehensive income
- Foreign currency embedded derivatives affecting other non-operating expense, net.

We calculate our sensitivity on an upward/downward shift of +/−10% of the foreign currency exchange rate between euro and all major currencies (2016 and 2015: upward/downward shift of +/−25% of the foreign currency exchange rate between euro and Brazilian real; +/−10% of the foreign currency exchange rate between euro and all other major currencies). If on December 31, 2017, 2016, and 2015, the foreign currency exchange rates had been higher/lower as described above, this would not have had a material effect on other non-operating expense, net and other comprehensive income.

Our foreign currency exposure (and our average/high/low exposure) as at December 31 was as follows:

Foreign Currency Exposure

€ billions	2017	2016
Year-end exposure toward all our major currencies	0.9	0.9
Average exposure	0.9	0.9
Highest exposure	1.0	1.0
Lowest exposure	0.9	0.8

Interest Rate Risk Management

The aim of our interest rate risk management is to reduce profit or loss volatility and optimize our interest result by creating a balanced structure of fixed and variable cash flows. We therefore manage interest rate risks by adding interest rate-related derivative instruments to a given portfolio of investments and debt financing.

Derivatives Designated as Hedging Instruments (Fair Value Hedges)

The majority of our investments are based on variable rates and/or short maturities (2017: 79%; 2016: 71%) while most of our financing transactions are based on fixed rates and long maturities (2017: 71%; 2016: 71%). To match the interest rate risk from our financing transactions to our investments, we use receiver interest rate swaps to convert certain fixed-rate financial liabilities to floating, and by this means secure the fair value of the swapped financing transactions. The desired fixed-floating mix of our net debt is set by the Treasury Committee. Including interest rate swaps, 49% (2016: 42%) of our total interest-bearing financial liabilities outstanding as at December 31, 2017, had a fixed interest rate.

None of the fair value adjustment from the receiver swaps, the basis adjustment on the underlying hedged items held in fair value hedge relationships, and the difference between the two recognized in financial income, net is material in any of the years presented.

Interest Rate Exposure

A sensitivity analysis is provided to show the impact of our interest rate risk exposure on profit or loss and equity in accordance with IFRS 7, considering the following:

- Changes in interest rates only affect the accounting for non-derivative fixed-rate financial instruments if they are recognized at fair value. Therefore, such interest rate changes do not change the carrying amounts of our non-derivative fixed-rate financial liabilities as we account for them at amortized cost. Investments in fixed-rate financial assets classified as available-for-sale were not material at each year end reported. Thus, we do not consider any fixed-rate instruments in the equity-related sensitivity calculation.

- Income or expenses recorded in connection with non-derivative financial instruments with variable interest rates are subject to interest rate risk if they are not hedged items in an effective hedge relationship. Thus, we take into consideration interest rate changes relating to our variable-rate financing and our investments in money market instruments in the profit-related sensitivity calculation.
- The designation of interest rate receiver swaps in a fair value hedge relationship leads to interest rate changes affecting financial income, net. The fair value movements related to the interest rate swaps are not reflected in the sensitivity calculation, as they offset the fixed interest rate payments for the bonds and private placements as hedged items. However, changes in market interest rates affect the amount of interest payments from the interest rate swap. As a consequence, those effects of market interest rates on interest payments are included in the profit-related sensitivity calculation.

Due to the different interest rate expectations for the U.S. dollar and the euro area, we base our sensitivity analyses on a yield curve upward shift of +100/+25 basis points (bps) for the U.S. dollar/euro area (2016 and 2015: +100/+50 bps for the U.S. dollar/euro area) and a yield curve downward shift of -25 bps for both the U.S. dollar/euro area (2016: -50 bps; 2015: -50 bps).

If, on December 31, 2017, 2016, and 2015, interest rates had been higher/lower as described above, this would not have had a material effect on financial income, net for our variable interest rate investments and would have had the following effects on financial income, net.

Interest Rate Sensitivity

€ millions	Effects on Financial Income, Net		
	2017	2016	2015
Derivatives held within a designated fair value hedge relationship			
Interest rates +100 bps in U.S. dollar area/+25 bps in euro area (2016 and 2015: +100/+50 bps for U.S. dollar/euro area)	-26	-46	-105
Interest rates -25 bps in U.S. dollar/euro area (2016 and 2015: -50 bps for U.S. dollar/euro area)	9	29	62
Variable-rate financing			
Interest rates +25 bps in euro area (2016 and 2015: +50 bps in euro area)	-5	-21	-39
Interest rates -25 bps in euro area (2016 and 2015: -50 bps in euro area)	0	0	19

Our interest rate exposure (and our average/high/low exposure) as at December 31 was as follows:

Interest Rate Risk Exposure

€ billions	2017				2016			
	Year-End	Average	High	Low	Year-End	Average	High	Low
Fair value interest rate risk								
From investments	0.04	0.12	0.31	0.03	0.20	0.08	0.20	0.03
Cash flow interest rate risk								
From investments (including cash)	3.80	3.78	4.10	3.52	3.31	3.59	4.38	3.03
From financing	1.81	1.94	2.31	1.80	2.31	2.94	3.31	2.31
From interest rate swaps	1.35	1.75	2.22	1.35	2.22	2.59	2.69	2.22

Equity Price Risk Management

Our listed equity investments are monitored based on the current market value that is affected by the fluctuations in the volatile stock markets worldwide. Unlisted equity investments are monitored based on detailed financial information provided

by the investees. The fair value of our listed equity investments depends on the equity prices, while the fair value of the unlisted equity investments is influenced by various unobservable input factors. An assumed 10% increase (decrease) in equity prices and respective unobservable inputs as at December 31, 2017, would have increased (decreased) the value of our marketable

equity investments and other comprehensive income by €56 million (€56 million) (2016: increased by €84 million (decreased by €81 million)).

We are exposed to equity price risk with regard to our share-based payments. In order to reduce resulting profit or loss volatility, we hedge certain cash flow exposures associated with these plans through the purchase of derivative instruments, but do not establish a designated hedge relationship. In our sensitivity analysis, we include the underlying share-based payments and the hedging instruments. Thus, we base the calculation on our net exposure to equity prices, as we believe that taking only the derivative instrument into account would not properly reflect our equity price risk exposure. An assumed 20% increase (decrease) in equity prices as at December 31, 2017, would have increased (decreased) our share-based payment expenses by €306 million (€291 million) (2016: increased by €281 million (decreased by €252 million); 2015: increased by €200 million (decreased by €198 million)).

Credit Risk Management

To mitigate the credit risk from our investing activities and derivative financial assets, we conduct all our activities only with approved major financial institutions and issuers that carry high external ratings, as required by our internal treasury guideline. Among its stipulations, the guideline requires that we invest only in assets from issuers with a minimum rating of at least "BBB flat". We only make investments in issuers with a lower rating in exceptional cases. Such investments were not material in 2017 and 2016. The weighted average rating of our financial assets is in the range A– to BBB+. We pursue a policy of cautious investments characterized by predominantly current investments, standard investment instruments, as well as a wide portfolio diversification by doing business with a variety of counterparties.

To further reduce our credit risk, we require collateral for certain investments in the full amount of the investment volume which we would be allowed to make use of in the case of default of the counterparty to the investment. As such collateral, we only accept bonds with at least investment grade rating level.

In addition, the concentration of credit risk that exists when counterparties are involved in similar activities by instrument, sector, or geographic area is further mitigated by diversification of counterparties throughout the world and adherence to an internal limit system for each counterparty. This internal limit system stipulates that the business volume with individual counterparties is restricted to a defined limit, which depends on the lowest official long-term credit rating available by at least one of the major rating agencies, the Tier 1 capital of the respective financial institution, or participation in the German Depositors' Guarantee Fund or similar protection schemes. We continuously monitor strict compliance with these counterparty limits. As the premium for credit default swaps mainly depends

on market participants' assessments of the creditworthiness of a debtor, we also closely observe the development of credit default swap spreads in the market to evaluate probable risk developments to timely react to changes if these should manifest.

The default risk of our trade receivables is managed separately, mainly based on assessing the creditworthiness of customers through external ratings and our past experience with the customers concerned. Outstanding receivables are continuously monitored locally. For more information, see [Note \(3\)](#). The impact of default on our trade receivables from individual customers is mitigated by our large customer base and its distribution across many different industries, company sizes, and countries worldwide. For more information about our trade receivables, see [Note \(13\)](#). For information about the maximum exposure to credit risk, see [Note \(24\)](#).

Liquidity Risk Management

Our liquidity is managed by our global treasury department with the primary aim of maintaining liquidity at a level that is adequate to meet our financial obligations.

Generally, our primary source of liquidity is funds generated from our business operations. Our global treasury department manages liquidity centrally for all subsidiaries. Where possible, we pool their cash surplus so that we can use liquidity centrally for our business operation, for subsidiaries' funding requirements, or to invest any net surplus in the market. With this strategy, we seek to optimize yields, while ensuring liquidity, by investing only with counterparties and issuers of high credit quality, as explained before. Hence, high levels of liquid assets and marketable securities provide a strategic reserve, helping keep SAP flexible, sound, and independent.

Apart from effective working capital and cash management, we have reduced the liquidity risk inherent in managing our day-to-day operations and meeting our financing responsibilities by arranging an adequate volume of available credit facilities with various financial institutions on which we can draw if necessary.

In order to retain high financial flexibility, on November 20, 2017, SAP SE entered into a €2.5 billion syndicated credit facility agreement with an initial term of five years plus two one-year extension options replacing its previous credit facility of €2.0 billion from 2013. The use of the facility is not restricted by any financial covenants. Borrowings under the facility bear interest of EURIBOR or LIBOR for the respective currency plus a margin of 17.0 basis points. We are also required to pay a commitment fee of 5.95 basis points per annum on the unused available credit. We have not drawn on the facility.

Additionally, as at December 31, 2017, and 2016, we had available lines of credit totaling €510 million and €499 million, respectively. There were immaterial borrowings outstanding under these lines of credit in all years presented.

(26) Fair Value Disclosures on Financial Instruments

Fair Value of Financial Instruments

We use various types of financial instruments in the ordinary course of business, which are classified as either: loans and receivables (L&R), available-for-sale (AFS), held-for-trading (HFT), or amortized cost (AC). For those financial instruments measured at fair value or for which fair value must be disclosed, we have categorized the financial instruments into a three-level fair value hierarchy depending on the inputs used to determine fair value and their significance for the valuation techniques.

Fair Values of Financial Instruments and Classification Within the Fair Value Hierarchy

€ millions	Category	December 31, 2017					
		Carrying Amount	Measurement Categories			Fair Value	
			At Amortized Cost	At Fair Value		Level 1	Level 2
Assets							
Cash and cash equivalents ¹⁾	L&R	4,011	4,011				
Trade and other receivables		6,017					
Trade receivables ¹⁾	L&R	5,810	5,810				
Other receivables ²⁾	—	207					
Other financial assets		2,145					
Available-for-sale financial assets							
Debt investments	AFS	39		39	39		39
Equity investments	AFS	827		827	87	8	732
Investments in associates ²⁾	—	32					827
Loans and other financial receivables							
Financial instruments related to employee benefit plans ²⁾	—	155					
Other loans and other financial receivables	L&R	899	899			899	899
Derivative assets							
Designated as hedging instrument							
FX forward contracts	—	29		29		29	29
Interest rate swaps	—	24		24		24	24
Not designated as hedging instrument							
FX forward contracts	HFT	41		41		41	41
Call options for share-based payments	HFT	90		90		90	90
Call option on equity shares	HFT	11		11		11	11

Fair Values of Financial Instruments and Classification Within the Fair Value Hierarchy

€ millions	Category	December 31, 2017					
		Carrying Amount	Measurement Categories			Fair Value	
			At Amortized Cost	At Fair Value		Level 1	Level 2
Liabilities							
Trade and other payables		-1,270					
Trade payables ¹⁾	AC	-952	-952				
Other payables ²⁾	—	-318					
Financial liabilities		-6,595					
Non-derivative financial liabilities							
Loans	AC	-24	-24			-24	-24
Bonds	AC	-5,147	-5,147		-5,335		-5,335
Private placements	AC	-1,130	-1,130		-1,136		-1,136
Other non-derivative financial liabilities	AC	-208	-208		-208		-208
Derivatives							
Designated as hedging instrument							
FX forward contracts	—	-1		-1		-1	-1
Interest rate swaps	—	-1		-1		-1	-1
Not designated as hedging instrument							
FX forward contracts	HFT	-84		-84		-84	-84
Total financial instruments, net		4,308	3,259	974	-5,209	-364	742
							-4,830

Fair Values of Financial Instruments and Classification Within the Fair Value Hierarchy

€ millions	Category	December 31, 2016					
		Carrying Amount	Measurement Categories			Fair Value	
			At Amortized Cost	At Fair Value		Level 1	Level 2
Assets							
Cash and cash equivalents ¹⁾	L&R	3,702	3,702				
Trade and other receivables		6,050					
Trade receivables ¹⁾	L&R	5,825	5,825				
Other receivables ²⁾	—	225					
Other financial assets		2,482					
Available-for-sale financial assets							
Debt investments	AFS	195		195	195		195
Equity investments	AFS	953		953	153	94	706
Investments in associates ²⁾	—	38					
Loans and other financial receivables							
Financial instruments related to employee benefit plans ²⁾	—	144					

Fair Values of Financial Instruments and Classification Within the Fair Value Hierarchy

€ millions	Category	December 31, 2016						
		Carrying Amount	Measurement Categories			Fair Value		
			At Amortized Cost	At Fair Value		Level 1	Level 2	
Other loans and other financial receivables	L&R	956	956			956	956	
Derivative assets								
Designated as hedging instrument								
FX forward contracts	—	12		12		12	12	
Interest rate swaps	—	47		47		47	47	
Not designated as hedging instrument								
FX forward contracts	HFT	35		35		35	35	
Call options for share-based payments	HFT	84		84		84	84	
Call option on equity shares	HFT	17		17		17	17	
Liabilities								
Trade and other payables			−1,408					
Trade payables ¹⁾	AC	−1,016	−1,016					
Other payables ²⁾	—	−392						
Financial liabilities			−8,294					
Non-derivative financial liabilities								
Loans	AC	−16	−16			−16	−16	
Bonds	AC	−6,147	−6,147			−6,374	−6,374	
Private placements	AC	−1,717	−1,717			−1,744	−1,744	
Other non-derivative financial liabilities	AC	−219	−219			−219	−219	
Derivatives								
Designated as hedging instrument								
FX forward contracts	—	−24		−24		−24	−24	
Interest rate swaps	—	0		0		0	0	
Not designated as hedging instrument								
FX forward contracts	HFT	−170		−170		−170	−170	
Total financial instruments, net		2,533	1,369	1,149	−6,026	−944	723	−6,248

¹⁾ We do not separately disclose the fair value for cash and cash equivalents, trade receivables, and accounts payable as their carrying amounts are a reasonable approximation of their fair values.

²⁾ Since the line items trade receivables, trade payables, and other financial assets contain both financial and non-financial assets or liabilities (such as other taxes or advance payments), the carrying amounts of non-financial assets or liabilities are shown to allow a reconciliation to the corresponding line items in the Consolidated Statements of Financial Position.

Fair Values of Financial Instruments Classified According to IAS 39

€ millions	Category	December 31, 2017		
		Carrying Amount	At Amortized Cost	At Fair Value
Financial assets				
At fair value through profit or loss	HFT	141		141
Available-for-sale	AFS	865		865
Loans and receivables	L&R	10,719	10,719	
Financial liabilities				
At fair value through profit or loss	HFT	-84		-84
At amortized cost	AC	-7,460	-7,460	

€ millions	Category	December 31, 2016		
		Carrying Amount	At Amortized Cost	At Fair Value
Financial assets				
At fair value through profit or loss	HFT	136		136
Available-for-sale	AFS	1,148		1,148
Loans and receivables	L&R	10,484	10,484	
Financial liabilities				
At fair value through profit or loss	HFT	-170		-170
At amortized cost	AC	-9,115	-9,115	

Determination of Fair Values

It is our policy that transfers between the different levels of the fair value hierarchy are deemed to have occurred at the beginning of the period of the event or change in circumstances that caused the transfer. A description of the valuation techniques and the inputs used in the fair value measurement is given below:

Financial Instruments Measured at Fair Value on a Recurring Basis

Type	Fair Value Hierarchy	Determination of Fair Value/Valuation Technique	Significant Unobservable Inputs	Interrelationship Between Significant Unobservable Inputs and Fair Value Measurement
Other financial assets				
Debt investments	Level 1	Quoted prices in an active market	NA	NA
Listed equity investments	Level 1	Quoted prices in an active market	NA	NA
	Level 2	Quoted prices in an active market deducting a discount for the disposal restriction derived from the premium for a respective put option.	NA	NA

Type	Fair Value Hierarchy	Determination of Fair Value/Valuation Technique	Significant Unobservable Inputs	Interrelationship Between Significant Unobservable Inputs and Fair Value Measurement
Unlisted equity investments	Level 3	Market approach. Comparable company valuation using revenue multiples derived from companies comparable to the investee.	Peer companies used (revenue multiples range from 3.4 to 7.8) Revenues of investees Discounts for lack of marketability (10% to 20%)	The estimated fair value would increase (decrease) if: The revenue multiples were higher (lower) The investees' revenues were higher (lower) The liquidity discounts were lower (higher).
		Market approach. Venture capital method evaluating a variety of quantitative and qualitative factors such as actual and forecasted results, cash position, recent or planned transactions, and market comparable companies.	NA	NA
		Last financing round valuations	NA	NA
		Liquidation preferences	NA	NA
		Net asset value/Fair market value as reported by the respective funds	NA	NA
Call options for share-based payment plans	Level 2	Monte Carlo model. Calculated considering risk-free interest rates, the remaining term of the derivatives, the dividend yields, the share price, and the volatility of our share.	NA	NA
Call option on equity shares	Level 3	Market approach. Company valuation using EBITDA multiples based on actual results derived from the investee.	EBITDA multiples used EBITDA of the investee	The estimated fair value would increase (decrease) if: The EBITDA multiples were higher (lower) The investees' EBITDA were higher (lower)

Type	Fair Value Hierarchy	Determination of Fair Value/Valuation Technique	Significant Unobservable Inputs	Interrelationship Between Significant Unobservable Inputs and Fair Value Measurement
Other financial assets/ Financial liabilities				
FX forward contracts	Level 2	Discounted cash flow using par-method. Expected future cash flows based on forward exchange rates are discounted over the respective remaining term of the contracts using the respective deposit interest rates and spot rates.	NA	NA
Interest rate swaps	Level 2	Discounted cash flow. Expected future cash flows are estimated based on forward interest rates from observable yield curves and contract interest rates, discounted at a rate that reflects the credit risk of the counterparty.	NA	NA

Financial Instruments Not Measured at Fair Value

Type	Fair Value Hierarchy	Determination of Fair Value/Valuation Technique
Financial liabilities		
Fixed-rate bonds (financial liabilities)	Level 1	Quoted prices in an active market
Fixed-rate private placements/ loans (financial liabilities)	Level 2	Discounted cash flows. Future cash outflows for fixed interest and principal are discounted over the term of the respective contracts using the market interest rates as of the reporting date.

For other non-derivative financial assets/liabilities and variable rate financial debt, it is assumed that their carrying value reasonably approximates their fair values.

Transfers Between Levels 1 and 2

Transfers of available-for-sale equity investments from Level 2 to Level 1 which occurred because disposal restrictions lapsed and deducting a discount for such restriction was no longer necessary were €360 million in 2017 (2016: €17 million), while transfers from Level 1 to Level 2 did not occur at all.

Level 3 Disclosures

The following table shows the reconciliation of fair values from the opening to the closing balances for our unlisted equity investments and call options on equity shares classified as Level 3 fair values:

Reconciliation of Level 3 Fair Values

€ millions	2017		2016
	Unlisted Equity Investments and Call Options on Equity Shares	Unlisted Equity Investments and Call Options on Equity Shares	
January 1		722	568
Transfers			
Into Level 3		0	18
Out of Level 3		-100	-18
Purchases		257	156
Sales		-102	-168
Gains/losses			
Included in financial income, net in profit and loss		26	96
Included in available-for-sale financial assets in other comprehensive income		28	48
Included in exchange differences in other comprehensive income		-89	22
December 31	742		722
Change in unrealized gains/losses in profit and loss for equity investments held at the end of the reporting period		0	0

Transfers out of Level 3 are due to initial public offerings of the respective investee. Changing the unobservable inputs to reflect reasonably possible alternative assumptions would not have a material impact on the fair values of our unlisted equity investments held as available-for-sale as of the reporting date.

(27) Share-Based Payments

SAP has granted awards under various cash-settled and equity-settled share-based payment plans to employees and executives. Most of these plans are described in detail below. SAP has other share-based payment plans not described below, which are individually and in aggregate, immaterial to our Consolidated Financial Statements.

a) Cash-Settled Share-Based Payments

Long-Term Incentive 2016 Plan (LTI 2016 Plan)

The purpose of the LTI 2016 Plan is to reward the annual achievement of the operating profit (non-IFRS, at constant currency), to ensure long-term retention of our Executive Board members, and to reward them for a long-term SAP share price performance as compared to its main peer group (Peer Group).

The virtual share program came into effect on January 1, 2016. A LTI tranche is granted annually and has a term of four years (2016–2017 tranches). Each grant starts with determining a grant amount in euros. The grant amount is based on the Executive Board members' contractual target amount and the operating profit target achievement for the previous year. The Supervisory Board sets the grant amount at a level between 80% and 120% of the contractual target amount, taking into

account the operating profit target achievement. This grant amount is converted into virtual shares, referred to as share units, by dividing the grant amount by the grant price. The grant price is the arithmetic mean of the XETRA closing prices of the SAP share on the 20 trading days following the publication of SAP's fourth-quarter results.

All share units granted in this way, comprising 60% Performance Share Units (PSUs) and 40% Retention Share Units (RSUs), have a vesting period of approximately four years. At the end of the vesting period, the corresponding share units are non-forfeitable. The payout price used for the settlement is the arithmetic mean of the XETRA closing prices of the SAP share on the 20 trading days following the publication of SAP's fourth-quarter results subsequent to the end of the vesting period. The payout price is capped at 300% of the grant price. The LTI tranche is cash-settled and paid in euros after the Annual General Shareholders' Meeting of the corresponding year.

The number of PSUs ultimately paid out changes depending on the performance of the SAP share – absolute and relative to the Peer Group Index. In contrast, the final number of RSUs is fixed. SAP's absolute share price performance is measured by comparing the grant price against the payout price. If the SAP share price performance equals the Peer Group Index performance over the same period, the performance factor is set at 100%. If the SAP share price performs better than the Peer Group Index (measured as difference between SAP share price performance and Peer Group Index performance), the performance factor is increased by the percentage point of the outperformance of the SAP share price. The percentage point is

doubled if, additionally, the payout price is higher than the grant price. The performance factor is capped at 150%. If the Peer Group Index performs better than the SAP share price, the performance factor is decreased by the percentage point of the outperformance of the Peer Group Index. All PSUs lapse if the performance factor is below 50%.

If an Executive Board member's service contract is terminated before the end of the third year following the year in which the share units were granted, both the RSUs and PSUs are forfeited in whole or in part, depending on the circumstances of the relevant resignation from office or termination of the service contract.

Long-Term Incentive 2015 Plan (LTI 2015 Plan)

Under the LTI 2015 Plan, we granted to members of our former Global Managing Board virtual shares, referred to as share units, between 2012 and 2015 (2012–2015 tranches).

At the end of the year in which the share units are granted, the share units vest. The share units are subject to a three-year holding period before payout. The payout depends on the number of vested share units and the SAP share price, which is set directly after the publication of SAP's fourth-quarter results for the last financial year of the respective three-year holding period.

SAP Stock Option Plan 2010 (SOP 2010)

Under the SOP 2010, we granted members of the Senior Leadership Team, Global Executives, and employees with an exceptional rating as well as high potentials between 2010 and 2015, and only in 2010 and 2011 members of the Executive Board, virtual stock options.

The grant base value was based on the average closing price of the SAP share over the five trading days prior to the Executive Board resolution date.

The options granted under the SOP 2010 give the employees the right to receive a certain amount of cash by exercising the options. After a three-year vesting period (four years for members of the Executive Board), the plan provides for 11

predetermined exercise dates every calendar year (one date per month except for April) until the rights lapse six years after the grant date (seven years for members of the Executive Board). Employees can exercise their options only if they are employed by SAP; if they leave the Company, the options forfeit. Executive Board members' options are non-forfeitable once granted – if the service agreement ends in the grant year, the number of options is reduced pro rata temporis. Any options not exercised up to the end of their term expire.

The exercise price is 110% of the grant base value (115% for members of the Executive Board), which is €39.03 (€40.80) for the 2010 tranche, €46.23 (€48.33) for the 2011 tranche, €49.28 for the 2012 tranche, €59.85 for the 2013 tranche, €60.96 for the 2014 tranche, and €72.18 for the 2015 tranche.

Monetary benefits will be capped at 100% of the exercise price (150% for members of the SAP Executive Board).

Restricted Stock Unit Plan Including Move SAP Plan (RSU Plan)

To retain and motivate executives and certain employees, we granted virtual shares representing a contingent right to receive a cash payment determined by the SAP share price (or SAP SE American Depository Receipts on the New York Stock Exchange) and the number of share units that ultimately vest.

Granted share units will vest in different tranches, either:

- Over a one-to-three-year service period only, or
- Over a one-to-three-year service period and upon achieving certain key performance indicators (KPIs).

The number of performance-based share units (PSUs) that will vest under the 2017 tranche was contingent upon achievement of the operating profit (non-IFRS, at constant currency) KPI target in 2017. Depending on performance, the number of PSUs vesting ranges between 0% and 200% of the number initially granted. Performance against the KPI target was 78.2% (2016: 85.1%) in 2017. All share units are paid out in cash upon vesting.

The valuation of our outstanding cash-settled plans was based on the following parameters and assumptions:

Fair Value and Parameters Used at Year End 2017 for Cash-Settled Plans

€, unless otherwise stated	LTI 2016 Plan (2016–2017 Tranches)	LTI 2015 Plan (2013–2015 Tranches)	SOP 2010 (2011–2015 Tranches)	RSU Plan (2014–2017 Tranches)
Weighted average fair value as at 12/31/2017	84.16	92.40	26.45	92.08
Information how fair value was measured at measurement date				
Option pricing model used	Monte Carlo	Other ¹⁾	Monte Carlo	Other ¹⁾
Share price	93.45	93.45	93.45	93.45
Risk-free interest rate, depending on maturity (in %)	-0.63 to -0.48	-0.81	-0.62 to -0.41	-0.70 to -0.32
Expected volatility (in %)	17.5 to 19.6	NA	21.1 to 34.5	NA
Expected dividend yield (in %)	1.38	1.38	1.38	1.38
Weighted average remaining life of awards outstanding as at 12/31/2017 (in years)	2.9	0.8	1.6	1.1

¹⁾ For these awards, the fair value is calculated by subtracting the net present value of expected future dividend payments, if any, until maturity of the respective award from the prevailing share price as of the valuation date.

Fair Value and Parameters Used at Year End 2016 for Cash-Settled Plans

€, unless otherwise stated	LTI 2016 Plan. (2016 Tranche)	LTI 2015 Plan (2012–2015 Tranches)	SOP 2010 (2010–2015 Tranches)	RSU Plan (2013–2016 Tranches)
Weighted average fair value as at 12/31/2016	74.54	81.10	20.94	81.34
Information how fair value was measured at measurement date				
Option pricing model used	Binomial	Other ¹⁾	Monte Carlo	Other ¹⁾
Share price	82.81	82.81	82.81	82.77
Risk-free interest rate, depending on maturity (in %)	-0.76	-0.80 to -0.84	-0.51 to -0.83	-0.36 to -0.84
Expected volatility (in %)	21.2	NA	22.3 to 51.0	NA
Expected dividend yield (in %)	1.45	1.45	1.46	1.45
Weighted average remaining life of options outstanding as at 12/31/2016 (in years)	3.0	1.4	2.4	1.2

¹⁾ For these awards, the fair value is calculated by subtracting the net present value of expected future dividend payments, if any, until maturity of the respective award from the prevailing share price as of the valuation date.

For SOP 2010, expected volatility of the SAP share price is based on a blend of implied volatility from traded options with corresponding lifetimes and exercise prices as well as historical volatility with the same expected life as the options granted.

For LTI 2016 Plan valuation, the Peer Group Index price on December 31, 2017, was US\$247.24 (2016: US\$179.57); the expected dividend yield of the index of 1.16% (2016: 1.24%), the expected volatility of the index of 16% to 17% (2016: 18%), and

the expected correlation of the SAP share price and the index price of 41% to 48% (2016: 39%) are based on historical data for the SAP share price and index price.

Expected remaining life of the options reflects both the contractual term and the expected, or historical, exercise behavior. The risk-free interest rate is derived from German government bonds with a similar duration. The SAP dividend yield is based on expected future dividends.

Changes in Numbers of Outstanding Awards Under Our Cash-Settled Plans

Thousands, unless otherwise stated	LTI 2016 Plan (2016–2017 Tranches)	LTI 2015 Plan (2012–2015 Tranches)	SOP 2010 (2010–2015 Tranches)	RSU Plan (2013–2017 Tranches)
12/31/2015	0	977	29,127	5,577
Granted	389	0	0	9,104
Adjustment based upon KPI target achievement	NA	0	NA	-66
Exercised	0	-294	-4,693	-2,659
Forfeited	-12	0	-1,059	-1,055
12/31/2016	377	684	23,375	10,901
Granted	295	0	0	7,835
Adjustment based upon KPI target achievement	NA	0	NA	-124
Exercised	0	-152	-7,769	-4,388
Forfeited	-41	0	-1,134	-704
12/31/2017	631	531	14,472	13,520
Outstanding awards exercisable as at				
12/31/2016	0	0	5,472	0
12/31/2017	0	0	4,948	0
Total carrying amount (in € millions) of liabilities as at				
12/31/2016	7	58	385	436
12/31/2017	22	51	354	708
Total intrinsic value of vested awards (in € millions) as at				
12/31/2016	2	58	154	0
12/31/2017	5	49	172	0
Weighted average share price (in €) for share options exercised in				
2016	NA	72.55	78.74	74.74
2017	NA	84.94	91.13	90.91
Total expense (in € millions) recognized in				
2015	0	28	187	193
2016	7	7	183	458
2017	14	9	221	712

b) Equity-Settled Share-Based Payments Own SAP Plan (Own)

Under the Own SAP Plan (Own) implemented in 2016, SAP offers its employees the opportunity to purchase, monthly, SAP shares without any holding period. Each eligible employee's investment is limited to a percentage of the employee's monthly base salary. SAP matches the employee investment by 40% and adds a subsidy of €20 per month for non-executives. For the participation in 2016, employees received a double matching

contribution as well as a double subsidy. This plan is not open to members of the Executive Board.

The number of shares purchased under this plan was 5.0 million in 2017 (2016: 1.4 million).

Share Matching Plan (SMP)

Under the SMP, SAP offered its employees the opportunity to purchase SAP shares at a discount of 40% between 2010 and 2015. The number of SAP shares an eligible employee could

purchase through the SMP was limited to a percentage of the employee's annual base salary. After a three-year holding period, the plan participants receive, from SAP, one free matching share for every three SAP shares acquired.

The terms for members of the Senior Leadership Team and Global Executives were different than those for other employees. Both groups did not receive a discount when purchasing the shares. However, after a three-year holding

period, they receive two free matching shares for every three SAP shares acquired. This plan was not open to members of the Executive Board.

The weighted average remaining life of free matching shares outstanding is 0.4 years as at December 31, 2017. The following table shows the parameters and assumptions used at grant date to determine the fair value of free matching shares, as well as the quantity of shares purchased and free matching shares:

Fair Value and Parameters at Grant Date for SMP

€, unless otherwise stated	2015
Grant date	6/5/2015
Fair value of granted awards	62.98
Information how fair value was measured at grant date	
Option pricing model used	Other ¹⁾
Share price	66.31
Risk-free interest rate (in %)	-0.08
Expected dividend yield (in %)	1.67
Weighted average remaining life of awards outstanding at year end (in years)	
Number of investment shares purchased (in thousands)	1,492

¹⁾ For these awards, the fair value is calculated by subtracting the net present value of expected future dividend payments, if any, until maturity of the respective award from the prevailing share price as of the valuation date.

Changes in Numbers of Outstanding Awards for Equity-Settled Plans

Thousands	SMP
12/31/2015	1,600
Exercised	-444
Forfeited	-105
12/31/2016	1,051
Exercised	-520
Forfeited	-19
12/31/2017	512

Recognized Expense for Equity-Settled Plans

€ millions	2017	2016	2015
Own	140	77	0
SMP	15	24	80

(28) Segment and Geographic Information

General Information

SAP has two operating segments that are regularly reviewed by the Executive Board, which is responsible for assessing the performance of the Company and for making resource allocation decisions as the Chief Operating Decision Maker (CODM). One is the Applications, Technology & Services segment and the other is the SAP Business Network segment. The segments are largely organized and managed separately according to their product and service offerings.

The Applications, Technology & Services segment derives its revenues primarily from the sale of software licenses, subscriptions to our cloud applications, and related services (mainly support services and various professional services and premium support services, as well as implementation services for our software products and education services on the use of our products).

The SAP Business Network segment derives its revenues mainly from transaction fees charged for the use of SAP's cloud-based collaborative business networks and from services relating to the SAP Business Network (including cloud applications, professional services, and education services). Within the SAP Business Network segment, we mainly market and sell the cloud offerings developed by SAP Ariba, SAP Fieldglass, and Concur.

On May 1, 2017, we changed the responsibilities within our Executive Board which also resulted in minor changes in our segment structure. In particular, the non-reportable segment comprising SAP's healthcare strategy as well as the non-reportable segment combining our SAP Anywhere, SAP Business One, and SAP Business ByDesign solutions are no longer operating segments, and their activities were included in the Applications, Technology & Services segment. We have retrospectively restated the revenue and results for the Applications, Technology & Services segment to reflect this change.

Revenue and Results of Segments

€ millions	Applications, Technology & Services				SAP Business Network				Total Reportable Segments		
	2017		2016		2017		2016		2017		2016
	Actual Currency	Constant Currency	Actual Currency	Constant Currency	Actual Currency	Constant Currency	Actual Currency	Constant Currency	Actual Currency	Actual Currency	Actual Currency
Cloud subscriptions and support – SaaS/PaaS ¹⁾	1,604	1,627	1,191	1,840	1,870	1,595	3,443	3,497	2,786		
Cloud subscriptions and support – IaaS ²⁾	328	334	209	0	0	0	328	334	209		
Cloud subscriptions and support	1,932	1,961	1,400	1,840	1,870	1,595	3,772	3,831	2,995		
Software licenses	4,872	4,983	4,864	-1	-1	0	4,871	4,982	4,864		
Software support	10,890	10,987	10,545	18	18	28	10,908	11,005	10,572		
Software licenses and support	15,762	15,970	15,409	17	18	27	15,780	15,987	15,436		
Cloud and software	17,694	17,931	16,809	1,857	1,887	1,622	19,551	19,818	18,431		
Services	3,447	3,472	3,321	404	413	303	3,851	3,885	3,624		
Total segment revenue	21,141	21,403	20,130	2,261	2,300	1,925	23,402	23,703	22,055		
Cost of cloud subscriptions and support – SaaS/PaaS ¹⁾	-684	-694	-457	-428	-435	-384	-1,112	-1,128	-840		
Cost of cloud subscriptions and support – IaaS ²⁾	-309	-312	-221	0	0	0	-309	-312	-221		
Cost of cloud subscriptions and support	-993	-1,006	-678	-428	-435	-384	-1,421	-1,440	-1,062		
Cost of software licenses and support	-2,007	-2,018	-1,964	-5	-5	-1	-2,012	-2,022	-1,965		

Revenue and Results of Segments

€ millions	Applications, Technology & Services				SAP Business Network		Total Reportable Segments			
	2017		2016		2017		2016		2017	
	Actual Currency	Constant Currency	Actual Currency	Actual Currency	Constant Currency	Actual Currency	Actual Currency	Constant Currency	Actual Currency	
Cost of cloud and software	-3,000	-3,023	-2,642	-433	-439	-385	-3,433	-3,463	-3,026	
Cost of services	-2,703	-2,722	-2,669	-293	-297	-246	-2,996	-3,019	-2,915	
Total cost of revenue	-5,703	-5,745	-5,311	-725	-737	-631	-6,429	-6,481	-5,942	
Segment gross profit	15,438	15,659	14,819	1,536	1,563	1,295	16,974	17,222	16,114	
Other segment expenses	-7,336	-7,418	-6,768	-1,151	-1,169	-954	-8,486	-8,586	-7,722	
Segment profit	8,102	8,241	8,051	385	394	341	8,488	8,636	8,392	

¹⁾ Software as a Service/Platform as a Service

²⁾ Infrastructure as a Service

Revenue and Results of Segments

€ millions	Applications, Technology & Services				SAP Business Network		Total Reportable Segments			
	2016		2015		2016		2015		2016	
	Actual Currency	Constant Currency	Actual Currency	Actual Currency	Constant Currency	Actual Currency	Actual Currency	Constant Currency	Actual Currency	
Cloud subscriptions and support – SaaS/PaaS ¹⁾	1,191	1,204	872	1,595	1,589	1,337	2,786	2,794	2,208	
Cloud subscriptions and support – IaaS ²⁾	209	213	91	0	0	0	209	213	91	
Cloud subscriptions and support	1,400	1,417	963	1,595	1,589	1,337	2,995	3,007	2,299	
Software licenses	4,864	4,895	4,837	0	0	-1	4,864	4,894	4,836	
Software support	10,545	10,627	10,062	28	28	31	10,572	10,654	10,093	
Software licenses and support	15,409	15,521	14,899	27	27	30	15,436	15,549	14,930	
Cloud and software	16,809	16,939	15,862	1,622	1,617	1,367	18,431	18,555	17,229	
Services	3,321	3,360	3,272	303	304	249	3,624	3,663	3,521	
Total segment revenue	20,130	20,298	19,134	1,925	1,920	1,616	22,055	22,219	20,750	
Cost of cloud subscriptions and support – SaaS/PaaS ¹⁾	-457	-458	-263	-384	-385	-336	-840	-843	-599	
Cost of cloud subscriptions and support – IaaS ²⁾	-221	-222	-189	0	0	0	-221	-222	-189	
Cost of cloud subscriptions and support	-678	-680	-452	-384	-385	-336	-1,062	-1,065	-788	
Cost of software licenses and support	-1,964	-1,978	-1,992	-1	-1	-1	-1,965	-1,979	-1,993	
Cost of cloud and software	-2,642	-2,658	-2,444	-385	-386	-337	-3,026	-3,044	-2,781	
Cost of services	-2,669	-2,718	-2,542	-246	-249	-183	-2,915	-2,967	-2,725	
Total cost of revenue	-5,311	-5,376	-4,985	-631	-635	-520	-5,942	-6,012	-5,506	
Segment gross profit	14,819	14,922	14,148	1,295	1,285	1,095	16,114	16,207	15,244	
Other segment expenses	-6,768	-6,868	-6,407	-954	-964	-779	-7,722	-7,833	-7,185	
Segment profit	8,051	8,054	7,742	341	321	317	8,392	8,374	8,059	

¹⁾ Software as a Service/Platform as a Service

²⁾ Infrastructure as a Service

Information about assets and liabilities and additions to non-current assets by segment are not regularly provided to our Executive Board. Goodwill by segment is disclosed in

Note (15).

Measurement and Presentation

Our management reporting system reports our intersegment services as cost reductions and does not track them as internal revenue. Intersegment services mainly represent utilization of human resources of one segment by another segment on a project basis. Intersegment services are charged based on internal cost rates including certain indirect overhead costs, excluding a profit margin.

Most of our depreciation and amortization expense affecting segment profits is allocated to the segments as part of broader infrastructure allocations and is thus not tracked separately on the operating segment level. Depreciation and amortization expense that is directly allocated to the operating segments is immaterial in all segments presented.

Our management reporting system produces a variety of reports that differ by the currency exchange rates used in the accounting for foreign-currency transactions and operations. Reports based on actual currencies use the same currency rates as are used in our financial statements. Reports based on constant currencies report revenues and expenses using

the average exchange rates from the previous year's corresponding period.

We use an operating profit indicator to measure the performance of our operating segments. However, the accounting policies applied in the measurement of operating segment revenue and profit differ as follows from the IFRS accounting principles used to determine the operating profit measure in our income statement:

The measurements of segment revenue and results include the recurring revenues that would have been recorded by acquired entities had they remained stand-alone entities but which are not recorded as revenue under IFRS due to fair value accounting for customer contracts in effect at the time of an acquisition.

The expenses measures exclude:

- Acquisition-related charges

Reconciliation of Revenue and Segment Results

€ millions	2017		2016		2015
	Actual Currency	Constant Currency	Actual Currency	Constant Currency	Actual Currency
Total segment revenue for reportable segments	23,402	23,703	22,055	22,219	20,750
Other revenue	62	62	12	12	55
Adjustment for currency impact	0	-301	0	-164	0
Adjustment of revenue under fair value accounting	-3	-3	-5	-5	-11
Total revenue	23,461	23,461	22,062	22,062	20,793
Total segment profit for reportable segments	8,488	8,636	8,392	8,374	8,059
Other revenue	62	62	12	12	55
Other expenses	-1,780	-1,777	-1,771	-1,781	-1,766
Adjustment for currency impact	0	-151	0	28	0
Adjustment for					
Revenue under fair value accounting	-3	-3	-5	-5	-11
Acquisition-related charges	-587	-587	-680	-680	-738
Share-based payment expenses	-1,120	-1,120	-785	-785	-724
Restructuring	-182	-182	-28	-28	-621
Operating profit	4,877	4,877	5,135	5,135	4,252
Other non-operating income/expense, net	-36	-36	-234	-234	-256
Financial income, net	185	185	-38	-38	-5
Profit before tax	5,026	5,026	4,863	4,863	3,991

Geographic Information

The amounts for revenue by region in the following tables are based on the location of customers. The regions in the following table are broken down into the regions EMEA (Europe, Middle

- Amortization expense and impairment charges for intangibles acquired in business combinations and certain stand-alone acquisitions of intellectual property (including purchased in-process research and development)
- Settlements of pre-existing relationships in connection with a business combination
 - Acquisition-related third-party expenses
- Share-based payment expenses
- Restructuring expenses

Certain activities are exclusively managed on corporate level, including finance, accounting, legal, human resources, and marketing. They are disclosed in the reconciliation under other revenue and other expenses, respectively.

East, and Africa), Americas (North America and Latin America), and APJ (Asia Pacific Japan).

Revenue by Region

€ millions	Cloud Subscriptions and Support Revenue			Cloud and Software Revenue		
	2017	2016	2015	2017	2016	2015
EMEA	1,029	703	507	8,759	8,193	7,622
Americas	2,321	2,000	1,579	7,666	7,366	6,929
APJ	419	290	200	3,124	2,865	2,663
SAP Group	3,769	2,993	2,286	19,549	18,424	17,214

Total Revenue by Region

€ millions	2017	2016	2015
Germany	3,352	3,034	2,771
Rest of EMEA	7,063	6,721	6,409
EMEA	10,415	9,755	9,181
United States	7,436	7,167	6,750
Rest of Americas	1,911	1,763	1,678
Americas	9,347	8,931	8,428
Japan	885	825	667
Rest of APJ	2,814	2,552	2,517
APJ	3,699	3,377	3,185
SAP Group	23,461	22,062	20,793

Non-Current Assets by Region

€ millions	2017	2016
Germany	3,739	2,655
Rest of EMEA	4,338	5,281
EMEA	8,077	7,936
United States	19,303	21,910
Rest of Americas	201	165
Americas	19,504	22,075
APJ	723	685
SAP Group	28,304	30,695

The table above shows non-current assets excluding financial instruments, deferred tax assets, post-employment benefit assets, and rights arising under insurance contracts.

For information about the breakdown of our number of employees by region, see [Note \(7\)](#).

(29) Board of Directors

Executive Board

Memberships on supervisory boards and other comparable governing bodies of enterprises, other than subsidiaries of SAP on December 31, 2017

Bill McDermott

Chief Executive Officer
Strategy, Governance, Digital Government, Business Development, Corporate Development, Global Corporate Affairs, Corporate Audit and Global Marketing

Board of Directors, ANSYS, Inc., Canonsburg, PA, United States
Board of Directors, Under Armour, Inc., Baltimore, MD, United States
Board of Directors, Dell Secure Works, Atlanta, GA, United States

Robert Enslin

Cloud Business Group
Concur, Ariba, Fieldglass (Sales, Development, Delivery), Customer Engagement and Commerce (CEC) and SuccessFactors (Development and Delivery), Industry Go-to-Market

Board of Directors, Discovery Limited, Johannesburg, South Africa (from May 1, 2017)
Board of Directors, Docker, Inc., San Francisco, CA, United States (from July 17, 2017)

Adaire Fox-Martin (from May 1, 2017)

Global Customer Operations (EMEA, MEE, and Greater China)
Global Sales, Regional Field Organizations, Line of Business Solutions Sales

Christian Klein (from January 1, 2018)

Chief Operating Officer
Global Business Operations
Digital Transformation, Business Process Simplification, IT Services, Portfolio & Pricing

Michael Kleinemeier

Digital Business Services
Global Consulting Delivery, Global and Regional Support and Premium Engagement, Maintenance Go-to-Market, Global User Groups, Mobile Services
Supervisory Board, innogy SE, Essen, Germany

Bernd Leukert

Products & Innovation
Global Development and Delivery of SAP Technology and Products, Strategic Innovation Initiatives, Design and User Experience

Supervisory Board, DFKI (Deutsches Forschungszentrum für Künstliche Intelligenz GmbH), Kaiserslautern, Germany
Supervisory Board, Bertelsmann SE & Co. KGaA, Gütersloh, Germany (from January 27, 2017)
Supervisory Board TomTom N.V., Amsterdam, the Netherlands (from September 1, 2017)

Jennifer Morgan (from May 1, 2017)

Global Customer Operations (Americas and APJ)
Global Sales, Regional Field Organizations, Line of Business Solutions Sales

Board of Directors, Bank of New York Mellon, New York, NY, United States

Luka Mucic

Chief Financial Officer
Global Finance and Administration including Investor Relations and Data Protection & Privacy

Stefan Ries

Chief Human Resources Officer, Labor Relations Director
HR Strategy, Business Transformation, Leadership Development, Talent Development

Supervisory Board, Rhein-Neckar Löwen GmbH, Kronau, Germany

Executive Board Members Who Left During 2017

Steve Singh (until April 30, 2017)

Supervisory Board

Memberships on supervisory boards and other comparable governing bodies of enterprises, other than subsidiaries of SAP on December 31, 2017

Prof. Dr. h.c. mult. Hasso Plattner^{2), 4), 6), 7), 8)}

Chairman

Margret Klein-Magar ^{1), 2), 4)}

Deputy Chairperson

Vice President, Head of SAP Alumni Relations

Chairperson of the Spokespersons' Committee of Senior Managers of SAP SE

Pekka Ala-Pietilä ^{4), 5), 6), 7)}

Chairman of the Board of Directors, Huhtamäki Oyj, Espoo, Finland

Board of Directors, Pöyry Plc, Vantaa, Finland (until March 9, 2017)

Chairman of the Board of Directors, CVON Group Limited, London, United Kingdom (until December 19, 2017)

Board of Directors, CVON Limited, London, United Kingdom (until December 19, 2017)

Chairman of the Board of Directors, CVON Innovation Services Oy, Turku, Finland (until December 19, 2017)

Board of Directors, CVON Future Limited, London, United Kingdom (until December 19, 2017)

Chairman of the Board of Directors, BMA Platform International Ltd., London, United Kingdom (until April 18, 2017)

Chairman of the Board of Directors, Sanoma Corporation, Helsinki, Finland

Chairman of the Board of Directors, Netcompany A/S, Copenhagen, Denmark (from October 31, 2017)

Panagiotis Bissiritsas ^{1), 3), 4), 5)}

Support Expert

Member of Works Council SAP SE

Martin Duffek ^{1), 3), 4), 8)}

Product Manager

Aicha Evans (from July 1, 2017) ^{2), 4)}

Senior Vice President and Chief Strategy Officer, Intel Corporation, Santa Clara, CA, United States

Prof. Anja Feldmann ^{4), 8)}

Professor at the Electrical Engineering and Computer Science Faculty at the Technische Universität Berlin (until December 31, 2017)

Director of Max-Planck-Institut für Informatik, Saarbrücken, Germany (from January 1, 2018)

Prof. Dr. Wilhelm Haarmann ^{2), 5), 7), 8)}

Attorney-at-Law, Certified Public Auditor, Certified Tax Advisor Linklaters LLP, Rechtsanwälte, Notare, Steuerberater, Frankfurt am Main, Germany

Andreas Hahn ^{1), 2), 4)}

Product Expert, IoT Standards, Member of Works Council SAP SE

Prof. Dr. Gesche Joost ^{4), 8)}

Professor for Design Research and Head of the Design Research Lab, University of Arts Berlin

Supervisory Board, ClearVAT Aktiengesellschaft, Berlin, Germany (until December 1, 2017)

Supervisory Board, Ottobock SE & Co. KG (in course of incorporation), Duderstadt, Germany (from October 24, 2017)

Supervisory Board, ING-DiBa AG, Frankfurt, Germany (from December 1, 2017)

Lars Lamadé ^{1), 2), 7), 8)}

Head of Sponsorships Europe and Asia

Supervisory Board, Rhein-Neckar Loewen GmbH, Kronau, Germany

Bernard Liautaud ^{2), 4), 6)}

Managing Partner Balderton Capital, London, United Kingdom

Board of Directors, nlyte Software Ltd., London, United Kingdom

Board of Directors, Talend SA, Suresnes, France

Board of Directors, Wonga Group Ltd., London, United Kingdom

Board of Directors, SCYTL Secure Electronic Voting SA, Barcelona, Spain

Board of Directors, Vestiaire Collective SA, Levallois-Perret, France

Board of Directors, Dashlane, Inc., New York, NY, United States

Board of Directors, Recorded Future, Inc., Cambridge, MA, United States

Board of Directors, eWise Group, Inc., Redwood City, CA, United States

Board of Directors, Qubit Digital Ltd., London, United Kingdom

Board of Directors, Stanford University, Stanford, CA, United States

Board of Directors, Opbeat Inc., San Francisco, CA, United States (until May 22, 2017)

Board of Directors, Aircall.io, New York City, NY, United States

Board of Directors, Virtuo Technologies, Paris, France (from July 26, 2017)

Christine Regitz ^{1), 4), 8)}

Vice President User Experience

Chief Product Expert

Dr. Erhard Schipporeit^{3), 5), 7)}

Independent Management Consultant

Supervisory Board, Talanx AG, Hanover, Germany
 Supervisory Board, Deutsche Börse AG, Frankfurt am Main, Germany
 Supervisory Board, HDI V.a.G., Hanover, Germany
 Supervisory Board, Hannover Rückversicherung SE, Hanover, Germany
 Supervisory Board, Fuchs Petrolub SE, Mannheim, Germany
 Supervisory Board, BDO AG, Hamburg, Germany
 Supervisory Board, RWE AG, Essen, Germany
 Chairman of the Supervisory Board, innogy SE, Essen, Germany (from January 1, 2018)

Robert Schuschnig-Fowler^{1), 5), 8)}

Account Manager, Senior Support Consultant
 Deputy Chairman of SAP SE Works Council Europe
 Member of Works Council SAP SE

Dr. Sebastian Sick^{1), 2), 5), 7)}

Head of Company Law Unit, Hans Böckler Foundation

Supervisory Board, Georgsmarienhütte GmbH, Georgsmarienhütte, Germany (until June 13, 2017)

Pierre Thiollet^{1), 4)}

Webmaster (P&I)
 Member of the SAP France Works Council
 Secretary of CHSCT (Hygiene, Security and Work Conditions Committee)

Prof. Dr.-Ing. Dr.-Ing. E. h. Klaus Wucherer³⁾

Managing Director of Dr. Klaus Wucherer Innovations- und Technologieberatung GmbH, Erlangen, Germany

Deputy Chairman of the Supervisory Board, HEITEC AG, Erlangen, Germany
 Deputy Chairman of the Supervisory Board, LEONI AG, Nuremberg, Germany (until May 11, 2017)
 Chairman of the Supervisory Board, Festo AG & Co. KG, Esslingen, Germany

Supervisory Board Members Who Left During 2017**Jim Hagemann Snabe** (until June 30, 2017)

Information as at December 31, 2017

- ¹⁾ Elected by the employees
- ²⁾ Member of the Company's General and Compensation Committee
- ³⁾ Member of the Company's Audit Committee
- ⁴⁾ Member of the Company's Technology and Strategy Committee
- ⁵⁾ Member of the Company's Finance and Investment Committee
- ⁶⁾ Member of the Company's Nomination Committee
- ⁷⁾ Member of the Company's Special Committee
- ⁸⁾ Member of the Company's People and Organization Committee

Allocating the fair value of the share-based payments to the respective years they are economically linked to, the total compensation of the Executive Board members for the years 2017, 2016, and 2015 was as follows:

Executive Board Compensation

€ thousands	2017	2016	2015
Short-term employee benefits	16,634	19,206	15,137
Share-based payment ¹⁾	25,723	23,942	10,365
Subtotal¹⁾	42,357	43,148	25,502
Post-employment benefits	1,312	2,398	1,278
Thereof defined-benefit	423	1,792	288
Thereof defined-contribution	889	606	990
Total¹⁾	43,669	45,546	26,780

¹⁾ Portion of total executive compensation allocated to the respective year

The share-based payment amounts disclosed above for 2017 and 2016 are based on the grant date fair value of the restricted share units (RSUs) and performance share units (PSUs), respectively, issued to Executive Board members during the year under the LTI 2016 Plan, effective January 1, 2016.

The Executive Board members already received, in 2012, the LTI grants for the years 2012 to 2015 subject to continuous service as member of the Executive Board in the respective years. Although these grants are compensation for the Executive Board members in the respective years, section 314 of the German Commercial Code (HGB) required them to be included in the total compensation number for the year of grant. Upon his appointment to the Executive Board in 2015, Michael Kleinemeier received a grant related to 2015. Vesting of the LTI grants is dependent on the respective Executive Board member's continuous service for the Company.

The share-based payment for 2015 as defined in section 314 of the German Commercial Code (HGB) amounts to €263,200 and

4,622 RSUs, respectively, based on the allocation for 2015 for Michael Kleinemeier, which was granted in 2015 in line with his appointment to the Executive Board.

Considering the grant date fair value of the RSUs allocated in 2015 instead of the economically allocated amount of share-based payments in the table above, the sum of short-term employee benefits and share-based payment amounts to €15,400,400 and the total Executive Board compensation amounts to €16,678,400.

Share-Based Payment for Executive Board Members

	2017	2016	2015
Number of RSUs granted	117,929	147,041	192,345
Number of PSUs granted	176,886	220,561	NA
Total expense in € thousands	19,068	14,233	22,310

In the table above, the share-based payment expense is the amount recorded in profit or loss under IFRS 2 (Share Based Payments) in the respective period.

The defined benefit obligation (DBO) for pensions to Executive Board members and the annual pension entitlement of the members of the Executive Board on reaching age 60 based on entitlements from performance-based and salary-linked plans were as follows:

Retirement Pension Plan for Executive Board Members

€ thousands	2017	2016	2015
DBO December 31	3,191	10,739	8,948
Annual pension entitlement	148	470	427

The total annual compensation of the Supervisory Board members is as follows:

Supervisory Board Compensation

€ thousands	2017	2016	2015
Total compensation	3,663	3,652	3,728
Thereof fixed compensation	3,135	3,135	3,250
Thereof committee remuneration	528	517	479

The Supervisory Board members do not receive any share-based payment for their services. As far as members who are employee representatives on the Supervisory Board receive share-based payment, such compensation is for their services

as employees only and is unrelated to their status as members of the Supervisory Board.

Payments to/DBO for Former Executive Board Members

€ thousands	2017	2016	2015
Payments	1,997	1,667	1,580
DBO December 31	39,993	33,935	32,758

SAP did not grant any compensation advance or credit to, or enter into any commitment for the benefit of, any member of the Executive Board or Supervisory Board in 2017, 2016, or 2015.

(30) Related Party Transactions

Certain Supervisory Board members of SAP SE currently hold, or held within the last year, positions of significant responsibility with other entities. We have relationships with certain of these entities in the ordinary course of business, whereby we buy and sell products, assets, and services at prices believed to be consistent with those negotiated at arm's length between unrelated parties.

Companies controlled by Hasso Plattner, chairman of our Supervisory Board and Chief Software Advisor of SAP, engaged in the following transactions with SAP: providing consulting services to SAP, receiving sport sponsoring from SAP, making purchases of SAP products and services.

Wilhelm Haarmann practices as a partner in the law firm Linklaters LLP in Frankfurt am Main, Germany. SAP occasionally purchased and purchases legal and similar services from Linklaters.

Occasionally, members of the Executive Board of SAP SE obtain services from SAP for which they pay a consideration consistent with those negotiated at arm's length between unrelated parties.

All amounts related to the abovementioned transactions were immaterial to SAP in all periods presented in these consolidated financial statements.

In total, we sold products and services to companies controlled by members of the Supervisory Board in the amount of €2 million (2016: €1 million), we bought products and services from such companies in the amount of €5 million (2016: €3 million), and we provided sponsoring and other financial support to such companies in the amount of €4 million (2016: €4 million). Outstanding balances at year end from transactions with such companies were €0 million (2016: €0 million) for amounts owed to such companies and €0 million (2016: €0 million) for amounts owed by such companies. All of these balances are unsecured and interest-free and settlement is expected to occur in cash. Commitments (the longest of which

is for six years) made by us to purchase further goods or services from these companies and to provide further sponsoring and other financial support amount to €21 million as at December 31, 2017 (2016: €28 million).

In total, we sold services to members of the Executive Board and the Supervisory Board in the amount of €0 million (2016: €0 million), and we received services from members of the Supervisory Board (including services from employee representatives on the Supervisory Board in their capacity as employees of SAP) in the amount of €1 million (2016: €1 million). Amounts owed to Supervisory Board members from these transactions were €0 million as at December 31, 2017 (2016: €0 million). All of these balances are unsecured and interest-free and settlement is expected to occur in cash.

For information about the compensation of our Executive Board and Supervisory Board members, see [Note \(29\)](#).

(31) Principal Accountant Fees and Services

At the Annual General Meeting of Shareholders held on May 10, 2017, our shareholders elected KPMG AG Wirtschaftsprüfungsgesellschaft as SAP's independent auditor for 2017. KPMG AG Wirtschaftsprüfungsgesellschaft has been the company's principal auditor since the fiscal year 2002. KPMG AG Wirtschaftsprüfungsgesellschaft and other firms in the global KPMG network charged the following fees to SAP for audit and other professional services related to 2017 and the previous years:

Fees for Audit and Other Professional Services

€ millions	2017			2016			2015		
	KPMG AG (Germany)	Foreign KPMG Firms	Total	KPMG AG (Germany)	Foreign KPMG Firms	Total	KPMG AG (Germany)	Foreign KPMG Firms	Total
Audit fees	3	7	10	3	6	9	3	6	9
Audit-related fees	0	0	0	0	1	1	0	0	0
Tax fees	0	0	0	0	0	0	0	0	0
All other fees	0	0	0	0	0	0	0	0	0
Total	3	7	10	3	7	10	3	6	9

Audit fees are the aggregate fees charged by KPMG for auditing our consolidated financial statements and the statutory financial statements of SAP SE and its subsidiaries. Audit-related fees are fees charged by KPMG for assurance and related services that are reasonably related to the performance of the audit or review of our financial statements and are not reported under audit fees.

(32) Events After the Reporting Period

On January 30, 2018, SAP announced that SAP America, Inc. has entered into an agreement to acquire Callidus Software Inc. The per share purchase price of \$36.00 represents a 21% premium over the 30-day volume weighted average price per share and a 28% premium over Callidus Software Inc.'s 90-day volume weighted average price per share. The per share price represents an enterprise value of approximately \$2.4 billion. SAP safeguards funding of the transaction with existing cash balances and an acquisition term loan and intends to refinance substantial portions of the purchase price with capital market transactions. The transaction is expected to close in the second

quarter of 2018, subject to approval from Callidus Software Inc. stockholders, clearances by the relevant regulatory authorities, and other customary closing conditions.

Callidus Software Inc. is a leader in cloud-based sales, marketing, learning, and customer experience solutions. Callidus Software Inc. offers a complete suite of solutions that identify the right leads, ensure proper territory and quota distribution, enable sales forces, automate configure price quote, and streamline sales compensation. Callidus Software Inc. is a synergistic addition to SAP's portfolio and significantly strengthens SAP's position in the customer relationship management (CRM) space.

Other than that, no events have occurred since December 31, 2017, that have a material impact on the Company's Consolidated Financial Statements.

(33) Subsidiaries and Other Equity Investments

Subsidiaries

Name and Location of Company	Ownership %	Total Revenue in 2017 ¹⁾ € thousands	Profit/Loss (-) After Tax for 2017 ¹⁾ € thousands	Total Equity as at 12/31/2017 ¹⁾ € thousands	Number of Employees as at 12/31/2017 ²⁾	Foot- note
Major Subsidiaries						
Ariba, Inc., Palo Alto, CA, United States	100.0	1,128,586	163,516	3,580,181	1,763	
Concur Technologies, Inc., Bellevue, WA, United States	100.0	1,455,188	130,063	7,069,785	3,339	
LLC SAP CIS, Moscow, Russia	100.0	468,361	8,711	51,613	826	
SAP (Schweiz) AG, Biel, Switzerland	100.0	818,999	-338,934	67,311	721	
SAP (UK) Limited, Feltham, United Kingdom	100.0	1,068,795	7,523	-65,176	1,678	10)
SAP America, Inc., Newtown Square, PA, United States	100.0	5,248,201	-344,644	13,008,339	7,801	
SAP Asia Pte Ltd, Singapore, Singapore	100.0	441,506	-28,550	-26,721	1,151	
SAP Australia Pty Ltd, Sydney, Australia	100.0	707,027	-82,950	68,050	1,257	
SAP Brasil Ltda, São Paulo, Brazil	100.0	572,099	-66,298	-62,107	1,762	
SAP Canada, Inc., Toronto, Canada	100.0	808,782	44,223	467,224	2,884	
SAP China Co., Ltd., Shanghai, China	100.0	892,266	-83,320	-117,810	5,185	
SAP Deutschland SE & Co. KG, Walldorf, Germany	100.0	3,950,051	621,834	1,442,856	4,513	7), 9)
SAP France, Levallois-Perret, France	100.0	1,120,814	170,321	1,579,837	1,531	
SAP Hungary Rendszerek, Alkalmazások és Termékek az Adatfeldolgozásban Informatikai Kft., Budapest, Hungary	100.0	89,454	1,748	17,104	845	
SAP India Private Limited, Bangalore, India	100.0	577,685	61,846	279,095	1,876	
SAP Industries, Inc., Newtown Square, PA, United States	100.0	633,506	39,032	542,364	328	
SAP Italia Sistemi Applicazioni Prodotti in Data Processing S.p.A., Vimercate, Italy	100.0	547,575	27,499	387,063	672	
SAP Japan Co., Ltd., Tokyo, Japan	100.0	900,807	74,045	99,896	1,182	
SAP Labs India Private Limited, Bangalore, India	100.0	432,654	46,791	99,112	7,451	
SAP Labs, LLC, Palo Alto, CA, United States	100.0	673,690	44,162	344,895	2,108	
SAP México S.A. de C.V., Mexico City, Mexico	100.0	382,974	17,577	6,627	777	12)
SAP Nederland B.V., 's-Hertogenbosch, the Netherlands	100.0	573,162	39,684	92,475	594	11)
SAP Service and Support Centre (Ireland) Limited, Dublin, Ireland	100.0	152,885	10,766	49,312	1,460	
SuccessFactors, Inc., South San Francisco, CA, United States	100.0	958,049	269,541	3,247,742	1,017	

Name and Location of Company	Owner-ship	Foot-note
	%	
Other Subsidiaries ³⁾		
"SAP Kazakhstan" LLP, Almaty, Kazakhstan	100.0	
110405, Inc., Newtown Square, PA, United States	100.0	
Abakus Europe Limited, London, United Kingdom	100.0	⁴⁾
Abakus Ukraine Limited Liability Company, Kiev, Ukraine	100.0	⁴⁾
Ambin Properties Proprietary Limited, Johannesburg, South Africa	100.0	
Ariba Czech s.r.o., Prague, Czech Republic	100.0	
Ariba India Private Limited, Gurgaon, India	100.0	
Ariba International Holdings, Inc., Wilmington, DE, United States	100.0	
Ariba International Singapore Pte Ltd, Singapore, Singapore	100.0	
Ariba International, Inc., Wilmington, DE, United States	100.0	
Ariba Slovak Republic s.r.o., Košice, Slovakia	100.0	
Ariba Software Technology Services (Shanghai) Co., Ltd., Shanghai, China	100.0	
Ariba Technologies India Private Limited, Bangalore, India	100.0	
Ariba Technologies Netherlands B.V., 's-Hertogenbosch, the Netherlands	100.0	¹¹⁾
Beijing Zhang Zhong Hu Dong Information Technology Co., Ltd., Beijing, China	0	⁵⁾
b-process, Paris, France	100.0	
Business Objects Holding B.V., 's-Hertogenbosch, the Netherlands	100.0	¹¹⁾
Business Objects Option LLC, Wilmington, DE, United States	100.0	
Business Objects Software Limited, Dublin, Ireland	100.0	
Christie Partners Holding C.V., 's-Hertogenbosch, the Netherlands	100.0	
ClearTrip Inc. (Mauritius), Ebene, Mauritius	57.9	
ClearTrip Inc., George Town, Cayman Islands	57.9	
Cleartrip MEA FZ LLC, Dubai, United Arab Emirates	57.9	
ClearTrip Private Limited, Mumbai, India	57.9	
CNQR Operations Mexico S. de. R.L. de. C.V., San Pedro Garza Garcia, Mexico	100.0	
Concur (Austria) GmbH, Vienna, Austria	100.0	
Concur (Canada), Inc., Toronto, Canada	100.0	
Concur (France) SAS, Paris, France	100.0	
Concur (Germany) GmbH, Frankfurt am Main, Germany	100.0	^{8), 9)}
Concur (Japan) Ltd., Bunkyo-ku, Japan	74.4	
Concur (New Zealand) Limited, Wellington, New Zealand	100.0	
Concur (Philippines) Inc., Makati City, Philippines	100.0	
Concur (Switzerland) GmbH, Zurich, Switzerland	100.0	
Concur Czech (s.r.o.), Prague, Czech Republic	100.0	
Concur Holdings (France) SAS, Paris, France	100.0	
Concur Holdings (Netherlands) B.V., Amsterdam, the Netherlands	100.0	¹¹⁾

Name and Location of Company	Owner-ship	Foot-note
	%	
Concur Technologies (Australia) Pty. Limited, Sydney, Australia		
Concur Technologies (Hong Kong) Limited, Hong Kong, China	100.0	
Concur Technologies (India) Private Limited, Bangalore, India	100.0	
Concur Technologies (Singapore) Pte Ltd, Singapore, Singapore	100.0	¹²⁾
Concur Technologies (UK) Limited, London, United Kingdom	100.0	¹⁰⁾
ConTgo Consulting Limited, London, United Kingdom	100.0	¹⁰⁾
ConTgo Limited, London, United Kingdom	100.0	¹⁰⁾
ConTgo Pty. Ltd., Sydney, Australia	100.0	
Crystal Decisions (Ireland) Limited, Dublin, Ireland	100.0	
Crystal Decisions Holdings Limited, Dublin, Ireland	100.0	
Crystal Decisions UK Limited, London, United Kingdom	100.0	
EssCubed Procurement Pty. Ltd., Johannesburg, South Africa	100.0	
Extended Systems, Inc., San Ramon, CA, United States	100.0	
Fedem Technology AS, Trondheim, Norway	100.0	
Fieldglass Europe Limited, London, United Kingdom	100.0	¹⁰⁾
Financial Fusion, Inc., San Ramon, CA, United States	100.0	
FreeMarkets Ltda., São Paulo, Brazil	100.0	
Gigya Australia Pty Ltd, Sydney, Australia	100.0	⁴⁾
Gigya Ltd., Tel Aviv, Israel	100.0	⁴⁾
Gigya UK Ltd, London, United Kingdom	100.0	^{4), 10)}
Gigya, Inc., Mountain View, CA, United States	100.0	⁴⁾
GlobalExpense Limited, London, United Kingdom	100.0	¹⁰⁾
Hipmunk, Inc., San Francisco, CA, United States	100.0	
hybris (US) Corp., Wilmington, DE, United States	100.0	
hybris GmbH, Munich, Germany	100.0	^{8), 9)}
Inxight Federal Systems Group, Inc., Wilmington, DE, United States	100.0	
LLC "SAP Labs", Moscow, Russia	100.0	
LLC "SAP Ukraine", Kiev, Ukraine	100.0	
Merlin Systems Oy, Espoo, Finland	100.0	
Multiposting Sp.z o.o., Warsaw, Poland	100.0	
Nihon Ariba K.K., Tokyo, Japan	100.0	
OutlookSoft Deutschland GmbH, Walldorf, Germany	100.0	
Plat.One Inc., Palo Alto, CA, United States	100.0	
Plat.One Lab Srl, Bogliasco, Italy	100.0	
Plateau Systems LLC, South San Francisco, CA, United States	100.0	
PT SAP Indonesia, Jakarta, Indonesia	99.0	
PT Sybase 365 Indonesia, Jakarta, Indonesia	100.0	
Quadrem Africa Pty. Ltd., Johannesburg, South Africa	100.0	
Quadrem Brazil Ltda., Rio de Janeiro, Brazil	100.0	
Quadrem Chile Ltda., Santiago de Chile, Chile	100.0	

Name and Location of Company	Owner-ship	Foot-note	Name and Location of Company	Owner-ship	Foot-note
	%			%	
Quadrem Colombia SAS, Bogotá, Colombia	100.0		SAP India (Holding) Pte Ltd, Singapore, Singapore	100.0	
Quadrem International Ltd., Hamilton, Bermuda	100.0		SAP International Panama, S.A., Panama City, Panama	100.0	
Quadrem Netherlands B.V., Amsterdam, the Netherlands	100.0	11)	SAP International, Inc., Miami, FL, United States	100.0	
Quadrem Overseas Cooperatief U.A., Amsterdam, the Netherlands	100.0		SAP Investments, Inc., Wilmington, DE, United States	100.0	
Quadrem Peru S.A.C., Lima, Peru	100.0		SAP Ireland Limited, Dublin, Ireland	100.0	
Ruan Lian Technologies (Beijing) Co., Ltd., Beijing, China	100.0		SAP Ireland US - Financial Services Designated Activity Company, Dublin, Ireland	100.0	
SAP (Beijing) Software System Co., Ltd., Beijing, China	100.0		SAP Israel Ltd., Ra'anana, Israel	100.0	12)
SAP Andina y del Caribe, C.A., Caracas, Venezuela	100.0	12)	SAP Korea Ltd., Seoul, South Korea	100.0	
SAP Argentina S.A., Buenos Aires, Argentina	100.0	12)	SAP Labs Bulgaria EOOD, Sofia, Bulgaria	100.0	
SAP Asia (Vietnam) Co., Ltd., Ho Chi Minh City, Vietnam	100.0		SAP Labs Finland Oy, Espoo, Finland	100.0	
SAP AZ LLC, Baku, Azerbaijan	100.0		SAP Labs France SAS, Mougin, France	100.0	
SAP Belgium NV/SA, Brussels, Belgium	100.0		SAP Labs Israel Ltd., Ra'anana, Israel	100.0	
SAP Beteiligungs GmbH, Walldorf, Germany	100.0		SAP Labs Korea, Inc., Seoul, South Korea	100.0	
SAP Bulgaria EOOD, Sofia, Bulgaria	100.0		SAP Latvia SIA, Riga, Latvia	100.0	
SAP Business Compliance Services GmbH, Siegen, Germany	100.0		SAP Malaysia Sdn. Bhd., Kuala Lumpur, Malaysia	100.0	
SAP Business Services Center Nederland B.V., 's-Hertogenbosch, the Netherlands	100.0	11)	SAP Malta Investments Ltd., Valletta, Malta	100.0	
SAP Chile Limitada, Santiago, Chile	100.0	12)	SAP MENA FZ L.L.C., Dubai, United Arab Emirates	100.0	
SAP China Holding Co., Ltd., Beijing, China	100.0		SAP Middle East and North Africa L.L.C., Dubai, United Arab Emirates	49.0	5), 12)
SAP Colombia S.A.S., Bogotá, Colombia	100.0	12)	SAP National Security Services, Inc., Newtown Square, PA, United States	100.0	
SAP Commercial Services Ltd., Valletta, Malta	100.0		SAP Nederland Holding B.V., 's-Hertogenbosch, the Netherlands	100.0	11)
SAP Costa Rica, S.A., San José, Costa Rica	100.0	12)	SAP New Zealand Limited, Auckland, New Zealand	100.0	
SAP ČR, spol. s r.o., Prague, Czech Republic	100.0		SAP Norge AS, Lysaker, Norway	100.0	
SAP Cyprus Limited, Nicosia, Cyprus	100.0		SAP North West Africa Ltd, Casablanca, Morocco	100.0	
SAP d.o.o., Zagreb, Croatia	100.0		SAP Österreich GmbH, Vienna, Austria	100.0	
SAP Danmark A/S, Copenhagen, Denmark	100.0		SAP Perú S.A.C., Lima, Peru	100.0	12)
SAP Dritte Beteiligungs- und Vermögensverwaltungs GmbH, Walldorf, Germany	100.0		SAP Philippines, Inc., Makati City, Philippines	100.0	
SAP East Africa Limited, Nairobi, Kenya	100.0	12)	SAP Polska Sp. z o.o., Warsaw, Poland	100.0	
SAP Egypt LLC, Cairo, Egypt	100.0		SAP Portals Europe GmbH, Walldorf, Germany	100.0	
SAP EMEA Inside Sales S.L., Barcelona, Spain	100.0		SAP Portals Holding Beteiligungs GmbH, Walldorf, Germany	100.0	
SAP Erste Beteiligungs- und Vermögensverwaltungs GmbH, Walldorf, Germany	100.0	8), 9)	SAP Portals Israel Ltd., Ra'anana, Israel	100.0	
SAP España – Sistemas, Aplicaciones y Productos en la Informática, S.A., Madrid, Spain	100.0		SAP Portugal – Sistemas, Aplicações e Produtos Informáticos, Sociedade Unipessoal, Lda., Porto Salvo, Portugal	100.0	
SAP Estonia OÜ, Tallinn, Estonia	100.0		SAP Projektverwaltungs- und Beteiligungs GmbH, Walldorf, Germany	100.0	
SAP Financial, Inc., Toronto, Canada	100.0		SAP Public Services Hungary Kft., Budapest, Hungary	100.0	
SAP Finland Oy, Espoo, Finland	100.0		SAP Public Services, Inc., Washington, DC, United States	100.0	
SAP Foreign Holdings GmbH, Walldorf, Germany	100.0		SAP Puerto Rico GmbH, Walldorf, Germany	100.0	8), 9), 12)
SAP France Holding, Levallois-Perret, France	100.0		SAP Retail Solutions Beteiligungsgesellschaft GmbH, Walldorf, Germany	100.0	
SAP Global Marketing, Inc., New York, NY, United States	100.0		SAP Romania SRL, Bucharest, Romania	100.0	
SAP Hellas S.A., Athens, Greece	100.0		SAP Saudi Arabia Software Services Ltd, Riyadh, Kingdom of Saudi Arabia	100.0	
SAP Holdings (UK) Limited, Feltham, United Kingdom	100.0	10)			
SAP Hong Kong Co., Ltd., Hong Kong, China	100.0				
SAP Hosting Beteiligungs GmbH, St. Leon-Rot, Germany	100.0	8), 9)			

Name and Location of Company	Owner-ship	Foot-note
	%	
SAP Saudi Arabia Software Trading Ltd, Riyadh, Kingdom of Saudi Arabia	75.0	
SAP Sechste Beteiligungs- und Vermögensverwaltungs GmbH, Walldorf, Germany	100.0	8), 9)
SAP Services s.r.o., Prague, Czech Republic	100.0	
SAP Siebte Beteiligungs- und Vermögensverwaltungs GmbH, Walldorf, Germany	100.0	8), 9)
SAP sistemi, aplikacije in produkti za obdelavo podatkov d.o.o., Ljubljana, Slovenia	100.0	
SAP Slovensko s.r.o., Bratislava, Slovakia	100.0	
SAP Software and Services LLC, Doha, Qatar	49.0	5)
SAP Svenska Aktiebolag, Stockholm, Sweden	100.0	12)
SAP System Application and Products Myanmar Ltd., Yangon, Myanmar	100.0	4)
SAP Systems, Applications and Products in Data Processing (Thailand) Ltd., Bangkok, Thailand	100.0	
SAP Taiwan Co., Ltd., Taipei, Taiwan	100.0	
SAP Technologies Inc., Palo Alto, CA, United States	100.0	
SAP Training and Development Institute FZCO, Dubai, United Arab Emirates	100.0	
SAP Türkiye Yazılım Üretim ve Ticaret A.Ş., Istanbul, Turkey	100.0	
SAP UAB, Vilnius, Lithuania	100.0	
SAP Ventures Investment GmbH, Walldorf, Germany	100.0	8), 9)
SAP Vierte Beteiligungs- und Vermögensverwaltungs GmbH, Walldorf, Germany	100.0	
SAP West Balkans d.o.o., Belgrade, Serbia	100.0	
SAP Zweite Beteiligungs- und Vermögensverwaltungs GmbH, Walldorf, Germany	100.0	8), 9)
SAP.io Fund, L.P., San Francisco, CA, United States	0	4); 6)
Sapphire SAP HANA Fund of Funds, L.P., Palo Alto, CA, United States	0	6)
Sapphire Ventures Fund I, L.P., Palo Alto, CA, United States	0	6)
Sapphire Ventures Fund II, L.P., Palo Alto, CA, United States	0	6)
Sapphire Ventures Fund III, L.P., Palo Alto, CA, United States	0	4); 6)
SAPV (Mauritius), Ebene, Mauritius	0	6)
SuccessFactors (Philippines), Inc., Pasig City, Philippines	100.0	
SuccessFactors Asia Pacific Limited, Hong Kong, China	100.0	
SuccessFactors Cayman, Ltd., Grand Cayman, Cayman Islands	100.0	
Sybase 365 Ltd., Tortola, British Virgin Islands	100.0	
Sybase 365, LLC, San Ramon, CA, United States	100.0	
Sybase Angola, LDA, Luanda, Angola	100.0	
Sybase Iberia S.L., Madrid, Spain	100.0	
Sybase India Ltd., Mumbai, India	100.0	
Sybase International Holdings Corporation, LLC, San Ramon, CA, United States	100.0	
Sybase Philippines, Inc., Makati City, Philippines	100.0	

Name and Location of Company	Owner-ship	Foot-note
	%	
Sybase Software (India) Private Ltd., Mumbai, India	100.0	
Sybase, Inc., San Ramon, CA, United States	100.0	
Systems Applications Products (Africa Region) Proprietary Limited, Johannesburg, South Africa	100.0	
Systems Applications Products (Africa) Proprietary Limited, Johannesburg, South Africa	100.0	
Systems Applications Products (South Africa) Proprietary Limited, Johannesburg, South Africa	70.0	12)
Systems Applications Products Nigeria Limited, Victoria Island, Nigeria	100.0	12)
TomorrowNow, Inc., Bryan, TX, United States	100.0	
TRX Europe Limited, London, United Kingdom	100.0	10)
TRX Luxembourg, S.a.r.l., Luxembourg City, Luxembourg	100.0	
TRX Technologies India Private Limited, Raman Nagar, India	100.0	
TRX UK Limited, London, United Kingdom	100.0	10)
TRX, Inc., Bellevue, WA, United States	100.0	
Volume Integration, Inc., VA, United States	100.0	

¹⁾ These figures are based on our local IFRS financial statements prior to eliminations resulting from consolidation and therefore do not reflect the contribution of these companies included in the Consolidated Financial Statements. The translation of the equity into Group currency is based on period-end closing exchange rates, and on average exchange rates for revenue and net income/loss.

²⁾ As at December 31, 2017, including managing directors, in FTE.

³⁾ Figures for profit/loss after tax and total equity pursuant to HGB, section 285 and section 313 are not disclosed if they are of minor significance for a fair presentation of the profitability, liquidity, capital resources and financial position of SAP SE, pursuant to HGB, section 313 (2) sentence 3 no. 4 and section 286 (3) sentence 1 no. 1.

⁴⁾ Consolidated for the first time in 2017.

⁵⁾ Agreements with the other shareholders provide that SAP SE fully controls the entity.

⁶⁾ SAP SE does not hold any ownership interests in six structured entities, SAPV (Mauritius), Sapphire SAP HANA Fund of Funds, L.P., Sapphire Ventures Fund I, L.P., Sapphire Ventures Fund II, L.P., Sapphire Ventures Fund III, L.P., and SAP.io Fund, L.P. However, based on the terms of limited partnership agreements under which these entities were established, SAP SE is exposed to the majority of the returns related to their operations and has the current ability to direct these entities' activities that affect these returns, in accordance with IFRS 10 (Consolidated Financial Statements). Accordingly, the results of operations are included in SAP's consolidated financial statements.

⁷⁾ Entity whose personally liable partner is SAP SE.

⁸⁾ Entity with (profit and) loss transfer agreement.

⁹⁾ Pursuant to HGB, section 264 (3) or section 264b, the subsidiary is exempt from applying certain legal requirements to their statutory stand-alone financial statements including the requirement to prepare notes to the financial statements and a review of operations, the requirement of independent audit, and the requirement of public disclosure.

¹⁰⁾ Pursuant to sections 479A to 479C of the UK Companies Act 2006, the entity is exempt from having its financial statements audited on the basis that SAP SE has provided a guarantee of the entity's liabilities in respect of its financial year ended December 31, 2017.

¹¹⁾ Pursuant to article 2:403 of the Dutch Civil Code, the entity is exempt from applying certain legal requirements to their statutory stand-alone financial statements including the requirement to prepare the financial statements, the requirement of independent audit, and the requirement of public disclosure,

on the basis that SAP SE has provided a guarantee of the entity's liabilities in respect of its financial year ended December 31, 2017.

¹²⁾ Entity with support letter issued by SAP SE.

Other Equity Investments

Name and Location of Company	Ownership %	Name and Location of Company
Joint Arrangements and Investments in Associates		
China DataCom Corporation Limited, Guangzhou, China	28.30	innoWerft Technologie- und Gründerzentrum Walldorf Stiftung GmbH, Walldorf, Germany
Convergent, Inc., Denver, CO, United States	40.93	Integral Ad Science, Inc., New York, NY, United States
Procurement Negócios Eletrônicos S/A, Rio de Janeiro, Brazil	17.00	JFrog, Ltd., Netanya, Israel
StayNTouch Inc., Bethesda, MD, United States	44.72	Jibe, Inc., New York, NY, United States
Visage Mobile, Inc., Milwaukee, WI, United States	26.62	Kaltura, Inc., New York, NY, United States
Yapta, Inc., Seattle, WA, United States	47.01	Landlog Limited, Tokyo, Japan
		LeanData, Inc., Sunnyvale, CA, United States
		Local Globe VII, L.P., St. Peter Port, Guernsey, Channel Islands
		Local Globe VIII, L.P., St. Peter Port, Guernsey, Channel Islands
		Looker Data Sciences, Inc., Santa Cruz, CA, United States
		Mosaic Ventures I, L.P., London, United Kingdom
		MVP Strategic Partnership Fund GmbH & Co. KG, Munich, Germany
		Narrative Science, Inc., Chicago, IL, United States
		Nori, Inc., Santa Clara, CA, United States
		Notation Capital II, L.P., Brooklyn, NY, United States
		Notation Capital, L.P., Brooklyn, NY, United States
		On Deck Capital, Inc., New York, NY, United States
		OpenX Software Limited, Pasadena, CA, United States
		OpsRamp, Inc., San Jose, CA, United States
		Phoenix Labs Canada, ULC, Burnaby, BC, Canada
		Point Nine Annex GmbH & Co. KG, Berlin, Germany
		Point Nine Capital Fund II GmbH & Co. KG, Berlin, Germany
		Point Nine Capital Fund III GmbH & Co. KG, Berlin, Germany
		Point Nine Capital Fund IV GmbH & Co. KG, Berlin, Germany
		Portworx Inc., Los Altos, CA, United States
		Post for Systems, Cairo, Egypt
		PubNub, Inc., San Francisco, CA, United States
		Realize Corporation, Tokyo, Japan
		Reltio, Inc., Redwood Shores, CA, United States
		Ridge Ventures IV, L.P., San Francisco, CA, United States
		Rome2rio Pty. Ltd., Richmond, Australia
		Smart City Planning, Inc., Tokyo, Japan
		Socrata, Inc., Seattle, WA, United States
		SportsTech Fund, L.P., Palo Alto, CA, United States
		SportsTech Parallel Fund, L.P., Palo Alto, CA, United States
		Spring Mobile Solutions, Inc., Salt Lake City, UT, United States
		Storm Ventures V, L.P., Menlo Park, CA, United States
		SumoLogic, Inc., Redwood City, CA, United States
		SV Angel IV, L.P., San Francisco, CA, United States
		T3C Inc., Mountain View, CA, United States
		The Currency Cloud Group Limited, London, United Kingdom
		The SaaS Fund I, L.P., Palo Alto, CA, United States
		The SAVO Group Ltd., Chicago, IL, United States
		TidalScale, Inc., Campbell, CA, United States
		Upfront V, L.P., Santa Monica, CA, United States
		Wandera, Inc., San Francisco, CA, United States

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