

2019

Half-Year Report

Table of Contents

Introductory Notes	3
Consolidated Half-Year Management Report	4
Consolidated Half-Year Financial Statements – IFRS	20
Notes to the Consolidated Half-Year Financial Statements	26
Supplementary Financial Information	43
General Information	48
Additional Information	49

Introductory Notes

This half-year group report meets the requirements of German Accounting Standard No. 16 “Half-yearly Financial Reporting” (GAS 16). We prepared the financial data in the Half-Year Report section for SAP SE and its subsidiaries in accordance with International Financial Reporting Standards (IFRS). In doing so, we observed the IFRS both as issued by the International Accounting Standards Board (IASB) and as endorsed by the European Union (EU). This does not apply to numbers expressly identified as non-IFRS. For additional IFRS and non-IFRS information, see the [Supplementary Financial Information](#) section.

This half-year group report complies with the legal requirements in accordance with the German Securities Trading Act (Wertpapierhandelsgesetz, WpHG) for a half-year financial report, and comprises the consolidated half-year management report, condensed consolidated half-year financial statements, and the responsibility statement in accordance with the German Securities Trading Act, section 115 (2).

This half-year financial report updates our consolidated financial statements 2018, presents significant events and transactions of the first half of 2019, and updates the forward-looking information contained in our Management Report 2018. This half-year financial report only includes half-year numbers, our quarterly numbers are available in the Quarterly Statement. Both the 2018 consolidated financial statements and the 2018 management report are part of our Integrated Report 2018, which is available at www.sapintegratedreport.com.

All of the information in this half-year group report is unaudited. This means the information has been subject neither to any audit nor to any review by an independent auditor.

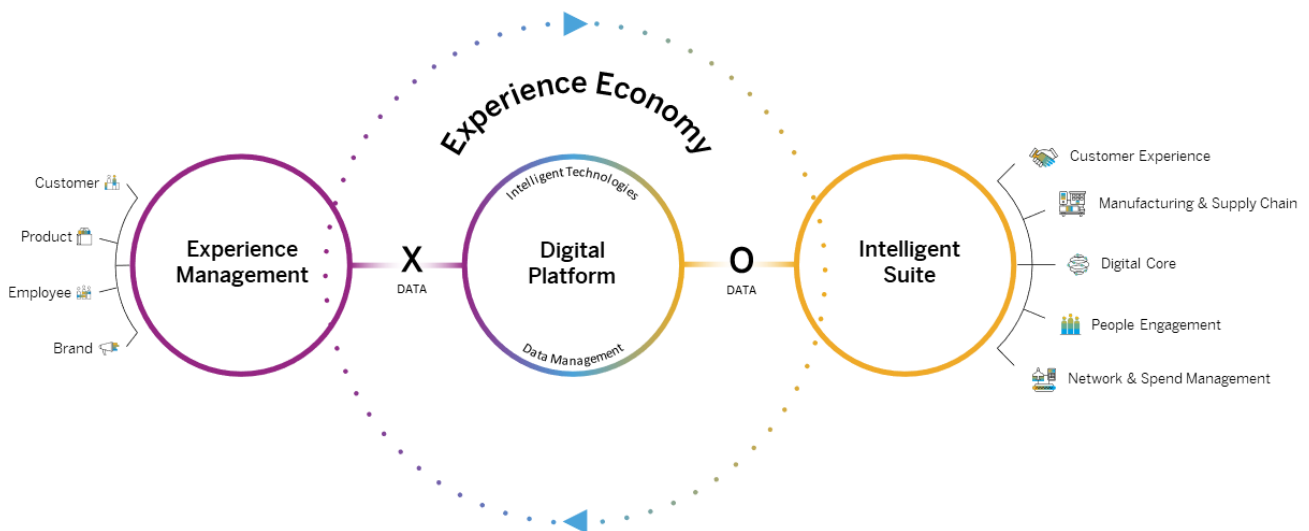
Consolidated Half-Year Management Report

Strategy and Business Model

SAP's strategy is to be "The Experience Company powered by the Intelligent Enterprise." This strategy represents an expansion of the Intelligent Enterprise to include a new category, called Experience Management. Experience Management focuses on obtaining and

tapping into the value of outside-in customer, employee, product, and brand feedback in real time to continuously improve the experiences businesses deliver. For a detailed description, see our [Integrated Report 2018](#).

Intelligent Enterprise Framework



Products, Research & Development, and Services

Our integrated end-to-end portfolio enables an intelligent enterprise by offering business value, data-driven innovation, rich customer insights, and embedded intelligence. Our software, technologies, and services address the three core elements of the intelligent enterprise – digital platform, intelligent suite, and intelligent technologies – for the 25 industries we serve.

In January 2019, SAP extended its portfolio with the acquisition of Qualtrics International Inc. (Qualtrics). A market leader in the experience management (XM) software category, Qualtrics provides solutions that enable organizations to thrive in today's experience economy. The acquisition allows us to combine experience data (X-data) from Qualtrics with operational data (O-data) from SAP to help businesses deliver exceptional customer, employee, product and brand experiences.

This chapter presents a snapshot of innovation in SAP product development and services during the first half of 2019 and is intended to supplement the [SAP Integrated Report 2018](#).

Intelligent Suite

Network and Spend Management

In the first half of 2019, we focused on strengthening the already tight integration between our network and spend management solutions and the digital core, to deliver end-to-end value chain processing and help customers better manage the three primary categories of spending.

SAP Ariba

We announced partnerships with Barclaycard Commercial Payments and American Express in 2019, establishing new payment and financing options on the SAP Ariba network. Further innovation in the first half of this year includes updates to the following solution extension:

- **SAP Process Mining by Celonis** delivers enhanced procure-to-pay automation features. A procurement operations desk capability was launched to support shared service operators. In addition, new supply chain functionality was introduced to help advanced packaging and handling units better manage material shipments.

SAP Concur

SAP Concur innovation in the first half of 2019 includes the following:

- The **Concur TripLink** Web service is now connected with HRS, a global hotel solutions provider, enabling users to view corporate booking information through the Web and on mobile devices.
- The **Triplix from Concur** Web service delivered shortcuts for Siri, the Apple iOS virtual assistant, so that detailed travel plans can be generated for users who have visual impairments or for those on the go.
- The **Expense Pay Global** Web service introduced Western Union as a payment processing partner, opening up a pay solution for public sector customers in the United States.
- The **Expenselt** mobile app employs machine learning and image recognition to capture receipts and enable real-time processing on the mobile device.
- The **Concur Invoice** solution has similarly adopted machine learning capabilities, courtesy of SAP Leonardo technology, to deliver improved accuracy.

SAP Fieldglass

SAP Fieldglass Candidate Link is a new mobile application that enables recruiters to quickly learn about candidate availability, allowing candidates to track opportunities and respond from their mobile devices. The application features a virtual assistant, to give users a more interactive and conversational experience.

People Engagement

SAP SuccessFactors

In the first half of 2019, we enriched the SAP SuccessFactors HCM Suite with three new solutions to unlock a new chapter of employee XM worldwide – **SAP Qualtrics Employee Engagement**, **SAP Qualtrics Employee Lifecycle**, and **SAP Qualtrics Employee Benefits Optimizer**.

SAP also combined the power of X-data and O-data by joining forces with Thrive Global to launch the **Thrive XM Index** – a pioneering diagnostic tool that recognizes and measures companies that deliver a meaningful people experience, coupled with strong business performance.

Digital Core

SAP S/4HANA

The SAP business suite supports the intelligent enterprise with emerging technologies to drive next-generation business practices.

SAP S/4HANA innovation with machine learning in the first half of 2019 includes the following capabilities:

- **Intelligent Accruals Management** provides automated conversion of purchase-order data into posted accruals, allowing customers to close their books faster.
- **Defect Code Proposal** uses machine learning to help quality management technicians perform their daily checks faster, with increased data quality and automated defect categorization based on free-text entry.
- **Financial Journal Entry with Intelligent Robotic Process Automation** is designed to collect, extract, and validate financial journal data from e-mails and make mass uploads to SAP S/4HANA.

Manufacturing and Supply Chain

In April 2019, we announced a partnership with Uber Technologies, Inc., an American multinational transportation

network company, to help increase visibility and transparency for providers and consumers in the freight industry. By integrating Uber Freight app technology into the **SAP Logistics Business Network** – an offering built on SAP Cloud Platform and SAP HANA Data Management – SAP gives customers access to transportation rates from Uber's digitally activated carrier network. Users can get real-time quotes and secure guaranteed freight capacity, greatly simplifying load management and execution.

Customer Experience

SAP C/4HANA

A year since its launch, SAP C/4HANA, our customer experience suite, has proven to be a key growth driver for SAP. Innovation in the first half of 2019 includes the following:

- **Qualtrics capabilities** have been integrated into the SAP C/4HANA suite – specifically within the commerce, marketing, sales, and service offerings. These capabilities enable an intelligent enterprise to gain live feedback, customer sentiment, and actionable insights at every step of the customer journey and deliver personalized customer experiences. For example, by utilizing Qualtrics, the SAP Commerce Cloud solution now helps intelligent enterprises to absorb customer feedback and make their Web sites and mobile apps easier to use. Online customers are then more likely to complete their purchases and less inclined to abandon shopping carts.
- **SAP C/4HANA Foundation** is a technology layer designed to infuse SAP C/4HANA with openness and extensibility, enabling SAP customers to rapidly implement new business models, provide an engaging customer experience, and keep operational costs low.
- The **SAP Litmos** and **SAP Litmos, CX edition** solutions delivered updates designed to develop sales and customer service mastery to our mobile-friendly, agile learning platform.

Digital Platform

SAP HANA

SAP HANA remains an integral part of the digital platform at the heart of every intelligent enterprise. Innovation in this space in the first half of 2019 includes the delivery of the following:

- **Hexagonal grid clustering for spatial analytics** is a way to process geospatial data, so that the user can visualize things such as escape routes that avoid hazards in emergency situations, or the optimal paths for utility pipelines that avoid restricted areas. With SAP HANA, developers can use a single SQL query to process millions of geo-coordinates in seconds and cluster them effectively.
- **Native storage extension** is designed to support large SAP HANA installations at a lower total cost of ownership (TCO), by giving customers cost-effective storage for, and ready access to, vast reservoirs of data that are still needed in the enterprise, but seldom used, without fully loading that data into memory. In addition, SAP opened a new chapter in our 30-year collaboration with Intel, as SAP HANA was unveiled as the first database platform optimized for the new Intel Optane DC persistent memory technology.

SAP Cloud Platform

SAP Cloud Platform continues to evolve as a business technology platform, enabling customers to easily extend and integrate SAP software. Our multi-cloud strategy gives customers the freedom to

choose infrastructure from market-leading hyperscalers without getting locked in to a specific vendor.

Innovation in the first half of 2019 includes the following:

- **SAP Cloud Platform Extension Factory** allows customers and partners to create cloud-native software extensions for the intelligent enterprise.
- **SAP Cloud Platform enterprise trial** offers customers a consumption-based account to explore the entire SAP Cloud Platform services portfolio.
- **SAP Cloud Platform Estimator** makes it faster and easier for prospective customers to create customized cost estimates.

In addition, the **SAP Application Programming Interface (API) Business Hub** now offers over 950 APIs, more than 1,800 Core Data Services (CDS) views, and over 1,200 integration artifacts, helping customers to significantly reduce their implementation and integration efforts.

Intelligent Technologies

SAP Analytics Cloud

The SAP Analytics Cloud solution uses business intelligence (BI), planning, and predictive analytics to deliver capabilities such as simulation and automated discovery in BI, as well as storytelling and predicted forecasts in planning. **SAP Analytics Cloud, analytics designer** is a new capability that enables the development of customized analytic applications based on existing content, templates, or user stories. By making it easier for users to create new analytic applications, we can extend the capabilities of existing systems of record and further integrate analytics with transactional data.

SAP Leonardo Artificial Intelligence

In 2018, SAP acquired Contextor SAS, a France-based pioneer in the design of robotic process automation (RPA). This acquisition led to the delivery of **SAP Intelligent Robotic Process Automation** in the first half of 2019, enabling us to expand our SAP Leonardo Artificial Intelligence (AI) portfolio. SAP Intelligent Robotic Process Automation combines the potency of machine learning technology with the chatbot-building capacity of SAP Conversational AI (CAI) and our strengthened capabilities in RPA, tightly integrated into the SAP digital core. This offering gives customers a complete automation suite where software robots mimic humans by replacing manual clicks, interpret text-heavy communications, and make process suggestions to users.

SAP Leonardo Internet of Things

In March 2019, we released **SAP Leonardo Internet of Things (IoT)**, a solution that connects people with processes and things. SAP gives customers the flexibility to choose the kind of connectivity, infrastructure, and device management solutions they want to use to bring their 'thing' data to SAP Leonardo IoT. SAP Leonardo IoT then correlates the customer's 'thing' data – from sensors or telemetry, for example – with business data, to help the customer better assess what is physically happening in their business.

SAP Digital Business Services

SAP Digital Business Services comprises a team of more than 22,500 employees serving customers in 180 countries. Our focus is to enable an intelligent enterprise in the experience economy by being the trusted partner for our customers and the SAP ecosystem. To help SAP customers thrive, we provide tools and guidance across

three categories – continuous success, premium success, and project success.

Continuous Success

We work to expedite the customer's time to value on SAP technology, delivering **SAP Enterprise Support** and **SAP Preferred Success** services tailored for on-premise, hybrid, and cloud implementations.

Premium Success

SAP MaxAttention was completely redesigned as **New SAP MaxAttention** in 2018 and enhancements continued into 2019. This revamped program helps customers turn ideas into value-based predictable outcomes with precise business and technical guidance – from innovation to operation. **SAP ActiveAttention**, on the other hand, is a premium-level engagement program, similar to New SAP MaxAttention, but designed for smaller businesses.

Project Success

During 2018 and 2019, we standardized our portfolio of services to ensure project success. Many of these offerings are described in the [SAP Integrated Report 2018](#), and we strengthened this portfolio in 2019 by incorporating the well-established **SAP Innovative Business Solutions**, to help customers develop tailored, intelligent applications.

Intelligent Tools

Our range of intelligent tools helps customers accelerate the adoption of, and maximize investment from, their SAP solutions. Most of these tools are described in the [SAP Integrated Report 2018](#), with the following added to our portfolio in 2019:

- **ABAP Test Cockpit** enables customers to plan for efficient custom code adaptation, while simplifying the process to remove obsolete code.
- **SAP S/4HANA Migration Cockpit** helps users move data from SAP or non-SAP systems and migrate from SAP ERP to SAP S/4HANA.

Acquisitions

In the first half of 2019, SAP acquired Qualtrics – a leading provider of experience management (XM) solutions. By combining Qualtrics products and SAP products, we aim to deliver an end-to-end experience and operational management system to our customers. For more information, see the [Products, Research and Development](#) section and [Note \(D.1\)](#) of the Notes to the Consolidated Half-Year Financial Statements.

Employees and Social Investments

Our people are key in enabling our customers to successfully become intelligent enterprises. For this reason, we strive to understand the needs of today's employees and how a 21st-century organization must evolve to keep attracting, retaining, and growing current and future talent. For a detailed description of our HR strategy, see [the Employees and Social Investments section](#) in our Integrated Report 2018.

We are passionate about developing deep and lasting relationships. It is all about experiences for our key stakeholders such as candidates, employees, managers, executives and alumni. At the end of the first half of 2019, the employee retention rate was still on a high level of 93.5% (compared to 94.3% at the end of the first half of 2018 and 93.9% at the end of the year 2018). We define retention as the ratio of the average number of employees minus the employees who voluntarily departed, to the average number of employees (in full-time equivalents or FTEs). Besides the aim to keep our high Employee Engagement Index between 84% and 86% also for 2019, one of SAP's non-financial goals is to foster an inclusive, bias-free workforce. Specifically, the SAP Executive Board continues its commitment to increase the percentage of women in management positions by 1% each year with a target of 30% by year-end 2022. The ratio of women in management positions continued its upward trajectory and reached 26.2% at the end of the first half of 2019, compared to 25.8% at the end of June 2018 and 25.7% at the end of 2018.

On June 30, 2019, we had 98,332 full-time equivalent (FTE) employees worldwide (June 30, 2018: 93,846; December 31, 2018: 96,498). For a breakdown of headcount by function and geography, see [Note \(BI\)](#) of the Notes to the Consolidated Half-Year Financial Statements.

Energy and Emissions

In June 2019, we published the latest version of our Global Environmental Policy, which illustrates SAP's commitment towards protecting the environment. The policy now includes our new goal to phase out single-use plastic by 2020.

Over the past several years, we have worked to better understand the connections between our energy consumption, its related cost, and the resulting environmental impact. Today, we measure and address our energy usage throughout SAP, as well as our greenhouse gas (GHG) emissions across our entire value chain. We have calculated that over the last three years, energy efficiency initiatives have contributed to a cumulative cost avoidance of €237.6 million compared to a business-as-usual extrapolation, €38.4 million of which have been avoided in 2019.

Our goal is to become carbon neutral by 2025. SAP's GHG emissions for the first half of 2019 totaled 185 kilotons of CO₂ compared to 175 kilotons in the first half of 2018. This increase is primarily due to an increase in our business flights.

To gain insight into our efficiency as we grow, we also measure our emissions per employee and per euro of revenue. During the first half of 2019, our GHG emissions (in tons) per employee was 3.2 (compared to 3.7 during the first half of 2018), and our GHG emissions (in grams) per euro revenue was 12.2 (compared to 14.7 during the first half of 2018) (rolling four quarters).

In recognition of the exemplary actions SAP has taken to embed sustainability across its business worldwide, SAP was included in various ratings and rankings. In the first half of 2019, SAP was once again ranked in the Euronext Vigeo index: Europe 120, which lists companies achieving the most advanced environmental, social and governance (ESG) performances. SAP was also once again granted the best ESG rating "AAA" by MSCI (Morgan Stanley Capital International).

Organization and Changes in Management

SAP Executive Board member Bernd Leukert, who co-led the SAP Digital Business Services organization together with Michael Kleinemeier, left SAP at the end of March 2019. The Supervisory Board decided to extend the Executive Board contract of Michael Kleinemeier through 2020.

In April 2019, Executive Board member Robert Enslin, who served as president of the Cloud Business Group, left SAP. Executive Board member Jennifer Morgan succeeded Robert Enslin as president of the Cloud Business Group, and Executive Board member Aaire Fox-Martin took over sole responsibility as president of the Board area Global Customer Operations.

Financial Performance: Review and Analysis

Economy and the Market

Global Economic Trends

The global economic growth momentum softened in the first half of 2019. According to the European Central Bank (ECB) in its most recent Economic Bulletin¹⁾, this was due to continued weakness in global manufacturing activity and in the service sector. The recent escalation of the trade dispute between the United States and China took its toll on the global economy as well.

In the Europe, Middle East, and Africa (EMEA) region, the euro area economy performed better than expected in the first quarter of 2019, says the ECB. However, global headwinds led to weaker growth afterwards. This slowdown in the euro area also weighed on economic growth in central and eastern European countries. The Russian economy still had to operate under international sanctions.

As for the Americas region, a partial federal government shutdown in the United States subdued domestic demand in that country at the beginning of the year, reports the ECB. The U.S. economy as a whole nevertheless grew more than expected in the first half of 2019. In Brazil, fiscal constraints and uncertainties about the implementation of a reform agenda weighed on investments since the beginning of the year.

The Asia Pacific Japan (APJ) region, the ECB reports, showed that while the Japanese economy grew more than expected in the first quarter, underlying growth momentum remained muted. In China, meanwhile, economic growth decelerated gradually in spite of expansionary policy measures and a positive net trade contribution as imports decreased more than exports.

The IT Market

By the middle of 2019, digital transformation had turned from a defensive concept for the sake of innovation into an offensive strategy for the sake of business, says International Data Corporation (IDC), a U.S.-based market research firm.²⁾ This is in line with what was anticipated by IDC in our 2018 annual report.

As of mid-2019, approximately one-quarter of the companies in an IDC maturity benchmark had reached one of the top two levels of digital maturity.²⁾ Nearly 50% had an integrated, long-term strategy for digital transformation. According to IDC, this means that companies showed greater clarity about what the future enterprise will look like and what it will take to compete in redefined industries.

Worldwide, adoption of the customized on-premise enterprise applications of the past few decades slowed further in the first half of 2019, while SaaS applications quickly became the new deployment model.³⁾ According to IDC, more and more companies purposefully used technologies such as cloud, social, mobile, Internet of Things (IoT), blockchain, Big Data, analytics, and cognitive computing as innovation accelerators.²⁾

IDC identifies this as a shift from experimentation to multiplied innovation, which we also described in earlier financial reports. In 2019, IDC explains, particular emphasis so far was on artificial intelligence and machine learning, which progressively automated tasks, activities, processes, and systems, and created human-machine learning networks.²⁾

Sources:

1) European Central Bank, Economic Bulletin, Issue 4/2019, Publication Date: June 20, 2019 (<https://www.ecb.europa.eu/pub/pdf/ecbu/eb201904.en.pdf>)

2) IDC MaturityScope: The Future Enterprise 1.0, Doc #US43646819, April 2019

3) IDC Perspective: Digital Transformation Requires a New Way of Thinking: DX Use Cases, SaaS, Intelligent ERP and Associated Technologies, and Innovation at Scale, Doc #US45042219, May 2019

Impact on SAP

SAP continues to benefit from the consistent strategy aimed at enabling customers to become intelligent enterprises. On top of a very strong first quarter in 2019, SAP had a solid second-quarter performance in the EMEA region, with cloud and software revenue increasing 9% (IFRS) and 8% (non-IFRS at constant currencies). Cloud revenue increased by 46% (IFRS) and 44% (non-IFRS at constant currencies), with Germany and Spain being highlights. In addition, SAP had strong software license revenue growth in Germany, France, and Italy.

The Company had a strong performance in the Americas region as well. Cloud and software revenue increased by 15% (IFRS) and 10% (non-IFRS at constant currencies). Cloud revenue grew by 36% (IFRS) and 30% (non-IFRS at constant currencies), with the United States, Canada, and Brazil being highlights. In addition, the United States had a solid quarter and Canada had a strong quarter in software license revenue.

In the APJ region, SAP had a solid performance despite trade-related macro headwinds. Cloud and software revenue was up by 8% (IFRS) and 6% (non-IFRS at constant currencies). Cloud revenue increased by 41% (IFRS) and 37% (non-IFRS at constant currencies), with Japan being a highlight. As for software license revenue, both Australia and India had a strong quarter.

Key Figures – SAP Group in the First Half of 2019 (IFRS)

€ millions, unless otherwise stated	Q1–Q2 2019	Q1–Q2 2018	Δ	Δ in %
Cloud	3,247	2,283	964	42
Software licenses	1,599	1,621	-22	-1
Software support	5,692	5,391	301	6
Cloud and software	10,538	9,295	1,243	13
Total revenue	12,722	11,260	1,462	13
Operating expense	-12,031	-9,192	-2,839	31
Operating profit	691	2,069	-1,378	-67
Operating margin (in %)	5.4	18.4	-13.0pp	NA
Profit after tax	475	1,426	-951	-67
Effective tax rate (in %)	29.7	28.9	0.8pp	NA
Earnings per share, basic (in €)	0.38	1.19	-0.81	-68

Operating Results (IFRS)

Revenue

Noteworthy is the successful cloud business in the first half of 2019. Our cloud revenue was €3,247 million (first half of 2018: €2,283 million), an increase of 42% compared to the same period in 2018, with the cloud revenue growth rates remaining on a high level.

Software licenses revenue was €1,599 million (first half of 2018: €1,621 million), a decrease of 1% compared to the same period in 2018.

Total revenue was €12,722 million (first half of 2018: €11,260 million), an increase of 13% compared to the same period in 2018.

Operating Expense

Our operating expenses increased by 31% to €12,031 million (first half of 2018: €9,192 million). The increase was mainly driven by a significant rise in restructuring expenses, and share-based compensation. SAP launched a company-wide restructuring program in January 2019. In the first half of 2019, restructuring expenses were €1,085 million, an increase of €1,063 million compared to the first half of 2018 (€22 million). For more information about restructuring, see the Notes to the Consolidated Half-Year Financial Statements, [Note \(B.4\)](#). Share-based payment expenses increased to €1,114 million (first half of 2018: €491 million). The rise in share-based compensation expenses is mainly due to a higher increase in SAP's share price in the first half of 2019 compared to the same period in 2018, and due to additional share-based compensation expenses related to the acquisition of Qualtrics. Personnel expenses rose by 22% while the number of full-time employees increased by more than 6,600, an increase of 7% compared to the prior-year period.

Operating Profit and Operating Margin

Operating profit decreased by 67% compared with the same period in the previous year to €691 million (first half of 2018: €2,069 million). This was mainly a result of the aforementioned expense increases and the impact from business combinations (for more information, see the [Business Combinations](#) section in this consolidated half-year management report).

Our operating margin decreased by 13.0pp to 5.4% (first half of 2018: 18.4%).

Profit After Tax and Earnings per Share

Profit after tax was €475 million (first half of 2018: €1,426 million), a decrease of 67%. Basic earnings per share was €0.38 (first half of 2018: €1.19), a decrease of 68%.

The effective tax rate was 29.7% (first half of 2018: 28.9%). The year-over-year increase in the effective tax rate mainly resulted from tax effects relating to almost unchanged non-deductible expenses on a lower profit before tax (IFRS) and changes in the regional allocation of income which were partly compensated by tax effects relating to changes in tax exempt income and taxes for prior years, as well as from the application of hyperinflation accounting.

Performance Against Outlook (Non-IFRS)

In this section, all discussion of the contribution to target achievement is based exclusively on non-IFRS measures. In contrast, the discussion of operating results in the previous section refers to IFRS figures only, so those figures are not expressly identified as IFRS figures.

We present, discuss, and explain the reconciliation from IFRS measures to non-IFRS measures in the [Supplementary Financial Information](#) section.

Guidance for 2019 (Non-IFRS)

For our guidance based on non-IFRS numbers, see the [Financial Targets and Prospects for 2019 \(Non-IFRS\)](#) section in this consolidated half-year management report.

Key Figures – SAP Group in the First Half of 2019 (Non-IFRS)

€ millions, unless otherwise stated	Non-IFRS			
	Q1-Q2 2019	Q1-Q2 2018	Δ in %	Δ in % (Constant Currency)
Cloud	3,299	2,299	43	37
Software licenses	1,599	1,621	-1	-3
Software support	5,692	5,391	6	3
Cloud and software	10,589	9,311	14	10
Total revenue	12,773	11,276	13	10
Operating expense	-9,490	-8,401	13	10
Operating profit	3,283	2,876	14	10
Operating margin (in %)	25.7	25.5	0.2pp	0.0pp
Profit after tax	2,397	2,039	18	NA
Effective tax rate (in %)	26.6	27.5	-0.9pp	NA
Earnings per share, basic (in €)	1.99	1.71	17	NA

Performance (Non-IFRS)

New cloud bookings increased by 23% (19% at constant currencies) to €818 million (first half of 2018: €667 million).

New cloud bookings excluding infrastructure as a service (IaaS) were up 31% (27% at constant currencies) as SAP focuses on higher-margin IaaS opportunities, in line with its strategy of closely partnering with the hyperscale IaaS providers.

Our cloud revenue (non-IFRS) was €3,299 million (first half of 2018: €2,299 million), an increase of 43% (37% at constant currencies) compared to the same period in 2018. Our cloud margin increased by 3.7pp to 67.1% (first half of 2018: 63.4%).

Cloud and software revenue (non-IFRS) was €10,589 million (first half of 2018: €9,311 million), an increase of 14%. On a constant currency basis, the increase was 10%. This increase was mainly driven by strong cloud revenue growth as mentioned before. Software licenses revenue decreased by 3% at constant currencies.

Total revenue (non-IFRS) was €12,773 million (first half of 2018: €11,276 million), an increase of 13%. On a constant currency basis, the increase was 10%.

Operating expense (non-IFRS) was €9,490 million (first half of 2018: €8,401 million), an increase of 13%. On a constant currency basis, the increase was 10%. Although cloud revenue rose by 43%, cost of cloud increased by only 29%. This illustrates the increasing profitability of our cloud business. Costs of software licenses and support increased moderately by 6%.

In total, operating expenses in the first half of 2019 increased compared to the first half of 2018, driven by higher research and

development cost as well as by increased general and administration cost.

Operating profit (non-IFRS) was €3,283 million (first half of 2018: €2,876 million), an increase of 14%. On a constant currency basis, the increase was 10%.

Operating margin (non-IFRS) was 25.7%, an increase of 0.2pp (first half of 2018: 25.5%). Operating margin (non-IFRS) on a constant currency basis remained stable at 25.6%.

Profit after tax (non-IFRS) was €2,397 million (first half of 2018: €2,039 million), an increase of 18%. Basic earnings per share (non-IFRS) was €1.99 (first half of 2018: €1.71), an increase of 17%.

The effective tax rate (non-IFRS) was 26.6% (first half of 2018: 27.5%). The year-over-year decrease in the effective tax rate mainly resulted from tax effects relating to changes in tax exempt income and taxes for prior years, as well as the application of hyperinflation accounting, which were partly compensated by changes in the regional allocation of income.

Business Combinations

We acquired several businesses during 2018 and in the first half of 2019 which, since their acquisition date, have contributed to our consolidated income statement but not in the comparison period.

The legal entities added by our significant acquisitions recognized the following:

- Cloud revenue in the first half 2019 of €163 million (IFRS) and of €215 million (non-IFRS)

- Operating profit in the first half 2019 of –€429 million (IFRS) and €21 million (non-IFRS)

For more information about the business combinations concluded in the first half of 2019, see the Notes to the Consolidated Half-Year Financial Statements, [Note \(D.1\)](#).

Divestments

At the beginning of 2019, we sold one content as a service (CaaS) business to a third party. This sale generated the following:

- A profit of €53 million in the first half of 2019, which is classified in our half-year 2019 consolidated income statement as other operating income
- Incremental employee-related expenses of €7 million in the first half 2019, which are classified in our half-year 2019 consolidated income statement as cost of research and development.

Additionally, SAP's performance in the first half of 2019 but not in the comparison period was also impacted by the adoption of IFRS 16 (see the Notes to the Consolidated Half-Year Financial Statements, [Note \(D.3\)](#)) and by a change in our estimate of the expected useful lives of certain computer hardware (for more information, see the Notes to the Consolidated Half-Year Financial Statements, [Note \(D.2\)](#).)

Segment Performance

At the end of the first half of 2019, SAP had three reportable segments: the Applications, Technology & Services segment, the Intelligent Spend Group segment, and the Customer and Experience Management segment.

For more information about our segment reporting, see the Notes to the Consolidated Half-Year Financial Statements, [Notes \(C.1\)](#) and [\(C.2\)](#).

Applications, Technology & Services Segment

€ millions, unless otherwise stated (Non-IFRS)	Q1–Q2 2019		Q1–Q2 2018	Δ in %	
	Actual Currency	Constant Currency	Actual Currency	Actual Currency	Constant Currency
Cloud revenue – SaaS/PaaS ¹⁾	1,163	1,125	849	37	33
Cloud gross margin – SaaS/PaaS ¹⁾ (in %)	62.4	62.5	58.9	3.5pp	3.7pp
Cloud revenue – IaaS ²⁾	327	315	217	51	45
Cloud gross margin – IaaS ²⁾ (in %)	26.9	26.1	10.3	16.6pp	15.8pp
Cloud revenue	1,490	1,440	1,066	40	35
Cloud gross margin (in %)	54.6	54.6	49.0	5.6pp	5.6pp
Segment revenue	10,375	10,104	9,529	9	6
Segment gross margin (in %)	71.3	71.3	72.0	–0.6pp	–0.7pp
Segment profit	4,092	3,968	3,721	10	7
Segment margin (in %)	39.4	39.3	39.0	0.4pp	0.2pp

¹⁾ Software as a service/platform as a service

²⁾ Infrastructure as a service

The Applications, Technology & Services segment recorded strong growth in our cloud revenue and solid growth in support revenue as well as in services revenue at constant currency basis. The SaaS/PaaS business in this segment grew by 33% on a constant currency basis year over year, driven by an ongoing strong demand in our cloud solutions. The IaaS business even grew by 45% on a constant currency basis year over year.

As a result of our ongoing efforts in leveraging our cloud infrastructure, our SaaS/PaaS gross margin increased by 3.7pp at constant currencies. Our IaaS gross margin even increased by 15.8pp at constant currencies compared to the first half of 2018. As a result, the overall cloud gross margin improved by 5.6pp at constant currencies to 54.6%.

Intelligent Spend Group Segment

€ millions, unless otherwise stated (Non-IFRS)	Q1–Q2 2019		Q1–Q2 2018	Δ in %	
	Actual Currency	Constant Currency	Actual Currency	Actual Currency	Constant Currency
Cloud revenue – SaaS/PaaS ¹⁾	1,293	1,229	1,014	28	21
Cloud gross margin – SaaS/PaaS ¹⁾ (in %)	78.1	78.0	77.4	0.8pp	0.6pp
Cloud revenue	1,293	1,229	1,014	28	21
Cloud gross margin (in %)	78.1	78.0	77.4	0.8pp	0.6pp
Segment revenue	1,526	1,451	1,233	24	18
Segment gross margin (in %)	69.5	69.3	69.0	0.5pp	0.3pp
Segment profit	314	293	229	37	28
Segment margin (in %)	20.6	20.2	18.5	2.0pp	1.6pp

¹⁾ Software as a service/platform as a service

In the first half of 2019, cloud revenue growth was 21% and segment revenue growth was 18% at constant currencies. A positive cloud gross margin development of 0.6pp at constant currencies supported the segment margin increase of 1.6pp at

constant currencies compared to the first half of 2018. With approximately US\$3.3 trillion in global commerce transacted annually in more than 180 countries, the Intelligent Spend Group is the largest commerce platform in the world.

Customer and Experience Management Segment

€ millions, unless otherwise stated (Non-IFRS)	Q1–Q2 2019		Q1–Q2 2018	Δ in %	
	Actual Currency	Constant Currency	Actual Currency	Actual Currency	Constant Currency
Cloud revenue – SaaS/PaaS ¹⁾	510	486	210	>100	>100
Cloud gross margin – SaaS/PaaS ¹⁾ (in %)	75.8	75.3	67.4	8.4pp	7.8pp
Cloud revenue	510	486	210	>100	>100
Cloud gross margin (in %)	75.8	75.3	67.4	8.4pp	7.8pp
Segment revenue	667	636	338	97	88
Segment gross margin (in %)	75.5	75.1	76.9	–1.4pp	–1.8pp
Segment profit	–10	–13	–5	78	>100
Segment margin (in %)	–1.5	–2.0	–1.6	0.2pp	–0.4pp

¹⁾ Software as a service/platform as a service

The Customer and Experience Management segment recorded strong growth in total revenue of 88% at constant currencies in the first half of 2019. The positive development was mainly influenced by the strong growth in cloud revenue of 131% at constant currencies.

We acquired several businesses during 2018 and in the first half of 2019 which, since their acquisition date, have contributed

to our consolidated income statement but not in the comparison period. The legal entities added by our significant acquisitions recognized €215 million in cloud revenue and €24 million in operating profit within the segment in the first half of 2019. The acquisition of Callidus and Qualtrics in combination with SAP's cloud strategy result in an increasing cloud revenue share compared to software licenses and support revenue.

Reconciliation of Cloud Revenues and Margins

€ millions, unless otherwise stated		Q1-Q2 2019		Q1-Q2 2018	Δ in %	
		Actual Currency	Constant Currency	Actual Currency	Actual Currency	Constant Currency
Cloud revenue – SaaS/PaaS ¹⁾	Intelligent Spend Group segment	1,293	1,229	1,014	28	21
	Other ³⁾	1,678	1,616	1,068	57	51
	Total	2,971	2,845	2,082	43	37
Cloud revenue – IaaS ²⁾		327	315	217	51	45
Cloud revenue		3,299	3,161	2,299	43	37
Cloud gross margin – SaaS/PaaS ¹⁾ (in %)	Intelligent Spend Group segment	78.1	78.0	77.4	0.8pp	0.6pp
	Other ³⁾	66.4	66.3	61.0	5.4pp	5.3pp
	Total	71.5	71.4	69.0	2.5pp	2.4pp
Cloud gross margin – IaaS ²⁾ (in %)		26.9	26.1	10.3	16.6pp	15.8pp
Cloud gross margin (in %)		67.1	66.9	63.4	3.7pp	3.4pp

¹⁾ Software as a service/platform as a service

²⁾ Infrastructure as a service

³⁾ Other includes the Applications, Technology & Services segment, the Customer and Experience Management segment, and miscellaneous. The individual revenue and margin numbers for the Applications, Technology & Services segment and the Customer and Experience Management segment are disclosed on the previous pages.

Finances and Assets (IFRS)

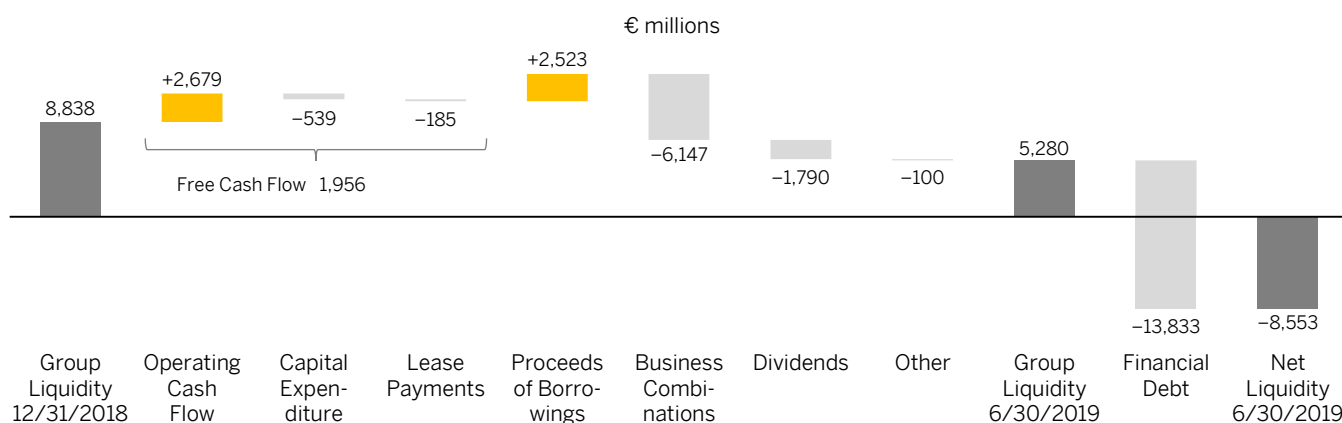
Cash Flow

€ millions	Q1-Q2 2019	Q1-Q2 2018	Δ
Net cash flows from operating activities	2,679	2,985	-10%
Capital expenditure	-539	-818	-34%
Payments of lease liabilities	-185	0	
Free cash flow	1,956	2,167	-10%
Free cash flow (as a percentage of total revenue)	15	19	-4pp
Free cash flow (as a percentage of profit after tax)	412	152	+260pp
Days sales outstanding (DSO, in days)	70	68	2

The decrease in operating cash flow resulted mainly from higher payments for income taxes (€412 million increase year-over-year),

Group Liquidity

Group Liquidity Development



Group Liquidity = cash and cash equivalent plus current time deposits and debt securities

Other = mainly purchase and sales of equity or debt instruments of other entities, proceeds from sales of non-current assets, and effects of foreign currency rates on cash and cash equivalents

Net Liquidity = group liquidity minus financial debt – for more information see our 2018 integrated report

higher payments related to restructuring (€183 million increase year-over-year), and higher share-based payments (234 million increase year over year).

Instead of investing in the expansion of our data centers, there was a strong focus on improving capacity utilization in the first half of 2019, resulting in a decrease in capital expenditure.

To avoid an impact on free cash flow from the new lease accounting rules (IFRS 16), since January 1, 2019, we calculate free cash flow as net cash flows from operating activities minus purchases of intangible assets and property, plant, and equipment without acquisitions (capital expenditure) and minus repayments of lease liabilities.

DSO for receivables is defined as the average number of days from the raised invoice to the cash receipt from the customer (rolling 12 months).

Liquidity and Financial Position

€ millions	6/30/2019	12/31/2018	Δ
Cash and cash equivalents	5,168	8,627	-3,459
Current time deposits and debt securities	112	211	-99
Group liquidity	5,280	8,838	-3,558
Financial debt	-13,833	-11,331	-2,502
Net liquidity	-8,553	-2,493	-6,060
Goodwill	28,801	23,736	+5,065
Total assets	57,707	51,502	+6,206
Total equity	27,641	28,877	-1,236
Equity ratio (total equity as a percentage of total assets)	48	56	-8pp

In the first half of 2019, our liquidity decreased due to the purchase price payment related to the acquisition of Qualtrics on January 23, 2019.

Competitive Intangibles

The resources that are the basis for our current as well as future success do not appear in the Consolidated Statements of Financial Position. This is apparent from a comparison of the market capitalization of SAP SE with the carrying amount of our equity. With €148.4 billion at the end of the first half of 2019, the market capitalization of our equity (based on all outstanding shares) is more than five times higher than its carrying amount.

Some of the most important competitive intangibles that influence our market value include: customer capital, our employees and their knowledge and skills, our ecosystem of partners, software we developed ourselves, our ability to innovate, the brands we have built up – in particular, the SAP brand itself – and our organization.

SAP was recognized as the world's 16th most valuable brand in the 2019 BrandZ Global Top 100 Most Valuable Brands ranking. The ranking estimates SAP's brand value at US\$58 billion, an increase of 4% in brand value for SAP year over year.

Risk Management and Risks

We have comprehensive risk-management structures in place that are intended to enable us to recognize and analyze risks early and to take the appropriate action as well as to mitigate any risks that materialize as presented in the Risk Management and Risks chapter in our Integrated Report 2018 and our Annual Report on Form 20-F for 2018. For changes in our Litigation, Claims, and Legal Contingencies since our last Integrated Report, see [Note \(G.1\)](#) in the Notes to the Consolidated Half-Year Financial Statements. We do not see any relevant changes to our assessment of the risk factors since the release of the Integrated Report 2018 and Annual Report on Form 20-F for 2018. We do not believe the risks we have identified jeopardize our ability to continue as a going concern.

Expected Developments and Opportunities

Future Trends in the Global Economy

According to the European Central Bank's (ECB) most recent Economic Bulletin¹⁾, global economic growth is projected to decelerate in the second half of 2019. This weakening may be due to political uncertainty, further trade tensions between the United States and China, and a rising threat of protectionism and vulnerabilities in emerging markets. However, recent policy measures are expected to provide some support from 2020 onward and stabilize the global economy at relatively low levels over the medium term.

Regarding the Europe, Middle East, and Africa (EMEA) region, the ECB expects employment gains and increasing wages to underpin the resilience of the euro area economy after a weaker third quarter of 2019. In central and eastern Europe, growth is projected to moderate in the second half of the year and cool even further due to the slowdown in the euro area. The outlook for the Russian economy depends on developments in global oil markets and on fiscal and structural policies, and is expected to decelerate in the medium term.

As for the Americas region, the ECB projects a sizeable procyclical fiscal stimulus in the United States which might provide impetus in the second half of the year. In Brazil, growth is expected to strengthen, supported by accommodative financial conditions.

For the Asia Pacific Japan (APJ) region, the ECB predicts that economic activity in Japan will resume its path of moderate growth. A consumption tax hike is scheduled for October 2019 in Japan, which could provide a temporary boost over the summer months, but provide a negative impact thereafter. China is expected to continue its orderly transition to a more balanced, but weaker growth path that is less dependent on investment and exports.

Economic Trends – Year-Over-Year GDP Growth

%	2018	2019p	2020p
World	3.6	3.3	3.6
Advanced economies	2.2	1.8	1.7
Emerging market and developing economies	4.5	4.4	4.8
Europe, the Middle East, and Africa (EMEA)			
Euro area	1.8	1.3	1.5
Germany	1.5	0.8	1.4
Emerging and developing Europe	3.6	0.8	2.8
Middle East, North Africa, Afghanistan, and Pakistan	1.8	1.5	3.2
Sub-Saharan Africa	3.0	3.5	3.7
Americas			
United States	2.9	2.3	1.9
Canada	1.8	1.5	1.9
Latin America and the Caribbean	1.0	1.4	2.4
Asia Pacific Japan (APJ)			
Japan	0.8	1.0	0.5
Emerging and developing Asia	6.4	6.3	6.3
China	6.6	6.3	6.1

p = projection

Source: International Monetary Fund (IMF), World Economic Outlook April 2019, Growth Slowdown, Precarious Recovery (<https://www.imf.org/~media/Files/Publications/WEO/2019/April/English/text.aspx?la=en>), p. 24.

The IT Market: Outlook for 2019 and Beyond

Technology and data are the “lifeblood” of the “digital enterprise of the future”, which International Data Corporation (IDC), a US-based market research firm, describes in one of its most recent publications.²⁾ Characteristically, such a “digital enterprise of the future” according to IDC has built out and monetized its data, implemented platform-based revenue models, participates in the sharing economy, and optimizes contextualized offerings and dynamic pricing.²⁾ As a result, it can scale operations and innovate much faster than traditional businesses. This is in line with our 2018 annual report outlook and with our continued strategy to help our customers become “Intelligent Enterprises.”

According to IDC, global investment in digital transformation initiatives could almost double in the next five years.³⁾ IDC thus expects US\$6.1 trillion of direct investment in hardware, software, and services from 2019 to 2022, with a compound annual growth rate (CAGR) of 17.5% for the years 2017 through 2022 (compared to a 1.5% CAGR for non-digital transformation investments).⁴⁾ IDC also forecasts that by 2020, 55% of organizations (46% in 2018) will have an integrated digital strategy with a single road map and enterprise-wide technology architecture, and that 30% of G2000 companies will spend at least 10% of their revenues to fuel their digital strategies.³⁾

IDC further predicts that by 2022, 90% of all new applications will feature microservices architectures, and 35% of all production apps will be cloud-native.³⁾ By 2023, 65% of G2000 organizations could have refreshed their core business systems and created completely new business processes. For this purpose, IDC reports, they are

likely to use cloud platforms and ubiquitous artificial intelligence based upon curated data sets, advanced analytics, and machine learning.³⁾

Sources:

1) European Central Bank, Economic Bulletin, Issue 4/2019, Publication Date: June 20, 2019 (<https://www.ecb.europa.eu/pub/pdf/ecbu/eb201904.en.pdf>)

2) IDC MaturityScape: The Future Enterprise 1.0, Doc #US43646819, April 2019

3) IDC Perspective: Digital Transformation Requires a New Way of Thinking: DX Use Cases, SaaS, Intelligent ERP and Associated Technologies, and Innovation at Scale, Doc #US45042219, May 2019

4) IDC Perspective: Organizing the Organization for the Future Enterprise: Digital at Scale, Part 3: Executing Digital Transformation – Achieving Goals and Creating Capabilities, Doc #US45073418, April 2019

Impact on SAP

Despite growing geopolitical uncertainties and trade war discussions, SAP expects to benefit further from the digitalization of the global economy.

The strategy to enable customers to become intelligent enterprises continues to resonate well in the market, and our combination of technologies such as artificial intelligence, blockchain, and Internet of Things (IoT) around the digital core is unique. Very fast growth in the cloud and a strong adoption of our core solution SAP S/4 HANA shows that we are consistently expanding our reach and, with the acquisition of Qualtrics in January 2019, SAP has become the undisputed leader in the emerging, rapidly-growing Experience Management software category.

In addition to the continued rapid revenue growth, our targeted significant expansion of profitability shows our commitment to operational excellence.

All of the above is reflected in the raise of our 2019 outlook and 2020 and 2023 ambitions.

On this basis, we consider ourselves well-prepared for the future and expect profitable growth in 2019 and beyond. Balanced in terms of regions as well as industries, we remain well-positioned with our product offering to offset individual fluctuations in the global economy and IT market. SAP expects to outperform the global economy and the IT industry again in 2019 in terms of revenue growth.

Financial Targets and Prospects for 2019 (Non-IFRS)

Revenue and Operating Profit Targets and Prospects for 2019

SAP has updated its 2019 outlook. This update reflects the results of the first quarter 2019 and the Company’s new initiatives to accelerate its operational excellence and value creation. SAP continues to expect:

- Non-IFRS cloud revenue in a range of €6.7 billion to €7.0 billion at constant currencies (2018: €5.03 billion), up 33% to 39% at constant currencies.
- Non-IFRS cloud and software revenue in a range of €22.4 billion to €22.7 billion at constant currencies (2018: €20.66 billion), up 8.5% to 10% at constant currencies.

SAP now expects:

- Non-IFRS operating profit in a range of €7.85 billion to €8.05 billion at constant currencies (2018: €7.16 billion), up 9.5% to 12.5% at constant currencies (previously: €7.7 billion to €8.0 billion, up 7.5% to 11.5% at constant currencies).

While SAP's full year 2019 business outlook is at constant currencies, actual currency reported figures are expected to be impacted by currency exchange rate fluctuations as the Company progresses through the year. For the Q3 and full year 2019 expected currency impacts, see the table below.

Expected Currency Impact Based on June 2019 Level for the Rest of the Year		
In percentage points	Q3	Q1 – Q4
Cloud	+2pp to +4pp	+3pp to +5pp
Cloud and software	+1pp to +3pp	+1pp to +3pp
Operating profit	+2pp to +4pp	+1pp to +3pp

In addition, SAP expects total revenues to increase strongly, at a rate lower than operating profit. The cloud and software revenue guidance above assumes a mid-single-digit decline in software license revenue.

Considering our restructuring program, we expect a deceleration of our organic headcount growth for the full year 2019. Including our acquisitions, we expect our headcount to grow but at a lower rate than in 2018. We continuously strive for profit expansion in all of our operating segments.

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

Non-IFRS Measures

€ millions	Estimated Amounts for Full Year 2019	Q1–Q2 2019	Q1–Q2 2018
Revenue adjustments	70–120	51	16
Acquisition-related charges	650–750	341	278
Share-based payment expenses	1,650–1,900	1,114	491
Restructuring	950–1,100	1,085	22

Due to an increase in share price, we have adjusted our guidance for total Share-based payment expenses. Share-based payment expenses are now projected to be between €1,650 million and €1,900 million for the full year 2019.

Mainly due to an increase in the expected participation rate in the voluntary and early retirement programs in Germany, we have adjusted our guidance for total restructuring cost. Restructuring expenses are now projected to be between €950 million and €1,100 million for the full year. In the course of the whole restructuring program, we now expect more than 4,000 employees to leave SAP. Our prediction of €750 million to €850 million in annual cost savings as of 2020 remains unchanged. For more information about our restructuring program, see the Notes to the Consolidated Half-Year Financial Statements, [Note \(B.4\)](#).

The Company continues to expect a full year 2019 effective tax rate (IFRS) of 26.5% to 27.5% (2018: 27.0%) and an effective tax rate (non-IFRS) of 26.0% to 27.0% (2018: 26.3%).

Impact of the New Accounting Standard IFRS 16 'Leases'

As of January 1, 2019, SAP changed its accounting policies to adopt IFRS 16 'Leases'. Under the IFRS 16 adoption method chosen by SAP, prior years are not restated to conform to the new policies. Consequently, the year-over-year expenses and profit in 2019 will be impacted by the new policies.

Unchanged from our Integrated Report 2018, the Company still expects the full year 2019 impact of the policy change on operating expenses and profit to be as follows:

- The adoption of IFRS 16 is expected to have a favorable impact on operating profit in 2019, since a portion of the costs that were previously classified as rental expenses are classified as interest expense and thus recorded outside operating profit. Based on the SAP Group's leases as of January 1, 2019 and the insights gained during the first half of the year, operating profit is expected to increase by substantially less than €0.1 billion. The actual impact on our profits depends not only on the lease agreements in effect at the time of adoption but also on new lease agreements entered into or terminated in 2019.
- IFRS 16 also has an impact on how lease payments are presented in the cash flow statement. This will result in an increase in cash flow from operating activities and a decline in cash flow from financing activities. Cash flow from operating activities is expected to increase by approximately €0.3 billion to €0.4 billion. Cash flow from financing activities will decrease by the same amount.
- As of January 1, 2019, we changed our free cash flow definition to avoid effects resulting from the adoption of IFRS 16. This change is described in the [Cash Flow](#) section in this Consolidated Half-Year Management Report.

For more information about the adoption of IFRS 16, see the Notes to the Consolidated Half-Year Financial Statements, [Notes \(D.2\)](#) and [\(D.3\)](#).

Medium Term Prospects

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

We continue to 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. In April 2019, SAP updated its 2020 ambition previously provided in January 2019. This update reflects SAP's new initiatives to accelerate its operational excellence and value creation:

In 2020, SAP continues to expect the following:

- €8.6 billion to €9.1 billion in non-IFRS cloud revenue (2018: €5.03 billion)
- €28.6 billion to €29.2 billion in non-IFRS total revenue (2018: €24.74 billion)
- The share of more predictable revenue (defined as the total of cloud revenue and software support revenue) in a range of 70% to 75% (2018: 65%)

In 2020, SAP now expects the following:

- €8.8 billion to €9.1 billion in non-IFRS operating profit (previously: €8.5 billion to €9.0 billion; 2018: €7.16 billion).

The midpoints of the 2020 total revenue and operating profit ranges now imply an operating margin of 31.0%.

We further continue to expect that, by 2020, our Intelligent Spend Group offerings will contribute slightly less than 40% and our other Software as a Service/Platform as a Service (SaaS/PaaS)

cloud offerings slightly more than 50% of cloud revenue. Both offerings are expected to each generate, in 2020, cloud revenues that are significantly higher than the cloud revenue generated from our Infrastructure as a service (IaaS) cloud offerings. We continue to expect our revenue growth trajectory through 2020 to be driven by continued strong growth in the cloud and continued growth in our software support revenue. We continue to expect 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 continue to strive to significantly improve, over the next few years, the profitability of our cloud business. In 2019, we continue to expect to see the benefits from previous efficiency-based investments, and thus an increasing cloud gross margin. We continue to expect these profitability improvements to accelerate in the following years.

We continue to 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. We continue to expect that, in 2020, the gross margin from our Intelligent Spend Group offerings will be higher than 80% (2018: 78%). We continue to expect that, in 2020, the gross margin from our other SaaS/PaaS offerings will reach approximately 70% (2018: 60%), and expand to about 80% over the course of the two years thereafter. We continue to expect that, in 2020, the gross margin from our IaaS offerings will reach between 30% and 35% (2018: 13%). We continue to expect the cloud gross margin to be approximately 71% by 2020. We continue to expect the 2020 gross margin for our software licenses and support to remain at a similar level to 2018 (2018: 87%). In addition, we continue to expect our 2020 services gross margin to be slightly higher than in 2018 (2018: 23%).

As we look to increase our profitability through 2020, we continue to expect our cost ratios (cost as a percentage of total revenue) to develop as follows through 2020: Research and development is expected to remain close to current levels. Sales and marketing as well as general and administration are expected to decline slightly.

In 2020 we do not expect significant restructuring expenses and acquisition related charges that are lower than in 2019. Therefore, we expect our IFRS operating profit to increase strongly in 2020 at a rate higher than the growth of our non-IFRS operating profit.

In April 2019, we also updated the 2023 ambition, reflecting SAP's new initiatives to accelerate its operational excellence and value creation.

The update did not affect our revenue ambitions. For these, over the period from 2018 through 2023, SAP continues to expect to:

- More than triple its non-IFRS cloud revenue (2018: €5.03 billion)
- Grow to more than €35 billion in non-IFRS total revenue (2018: €24.74 billion)
- Approach a share of more predictable revenue of 80% (2018: 65%)

Over the same period, pursuant to the April 2019 ambition update, SAP now expects to:

- Reach a non-IFRS cloud gross margin of 75%
- Increase the non-IFRS operating margin by one percentage point per year on average, representing a total expansion of approximately 500 basis points

SAP's 2023 non-IFRS operating margin ambition replaced its former 2023 ambition of growing non-IFRS operating profit at a compound annual growth rate of 7.5% to 10% (2018: €16 billion).

Goals for Liquidity, Finance, and Investments

On June 30, 2019, we had negative net liquidity. We believe that our liquid assets combined with our undrawn credit facilities are sufficient to meet our operating financing needs in the second half of 2019 as well, 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.

In 2019, compared to 2018 we expect higher cash outflows for restructuring (approximately additional €550 million to €750 million), share-based payments (approximately additional €400 million more mainly due to Qualtrics and an increase in share price), and tax-related cash outflows (approximately additional €600 million). In contrast, we expect operating cash flow to benefit from the cash flow reclassification due to IFRS 16 by an amount of €300 million to €400 million.

Considering all these effects, we expect operating cash flow in 2019 to come in slightly lower than 2018. Free cash flow (as redefined in response to IFRS 16) is expected to decrease moderately following the decrease of operating cash flow partly balanced by an expected decrease of capital expenditures. For 2020, we expect a significant year-over-year increase in both operating cash flow and free cash flow, mainly due to decreased cash outflows for restructuring and a profitable growth of our operating business.

We intend to repay €750 million in Eurobonds in November 2019. In addition, we might repay portions of the Qualtrics related €2.5 billion acquisition term loan. In June 2019, we repaid a first tranche of a €50 million promotional loan with KfW and we intend to repay further tranches in the second half year.

Our capital expenditures, other than from business combinations, consist primarily of the purchase of IT infrastructure (data centers, etc.) and the construction of new buildings. We have updated our expectations for capital expenditures for 2019 and 2020. For the full year 2019 we expect total capital expenditures of less than €1.2 billion, thereof approximately €605 million for IT Infrastructure and approximately €275 million from construction activities. The capital expenditures for 2020 are expected to stay at a similar level as in 2019, thereof €270 million from construction activities.

Non-Financial Goals 2019 and Ambitions for 2020

In addition to our financial goals, we also focus on two non-financial 2020 targets: customer loyalty and employee engagement. These targets remain unchanged compared to what we disclosed in our Integrated Report 2018. For a detailed description of our non-financial goals 2019 and ambitions for 2020, see our [Integrated Report 2018](#).

Premises on Which Our Outlook and Prospects Are 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.

Among the premises on which this outlook is based are those presented concerning economic development and the assumption that there will be no further major acquisitions in 2019 or 2020.

Opportunities

We have comprehensive opportunity-management structures in place that are intended to enable us to recognize and analyze opportunities early and to take the appropriate action. The opportunities remain largely unchanged compared to what we disclosed in our [Integrated Report 2018](#).

Consolidated Half-Year Financial Statements – IFRS

Primary Half-Year Financial Statements	20–24
Notes to the Half-Year Financial Statements	25
(IN.1) Basis for Preparation	25
Section A – Customers	26
(A.1) Revenue.....	26
(A.2) Trade and Other Receivables.....	26
Section B – Employees	27
(B.1) Employee Headcount.....	27
(B.2) Employee Benefits Expenses.....	27
(B.3) Share-Based Payments.....	27
(B.4) Restructuring.....	28
Section C – Financial Results	29
(C.1) Results of Segments.....	29
(C.2) Reconciliation of Segment Measures to Income Statement	32
(C.3) Income Taxes	32
(C.4) Hyperinflation Accounting.....	32
Section D – Invested Capital	33
(D.1) Business Combinations.....	33
(D.2) Property, Plant, and Equipment.....	34
(D.3) Adoption of IFRS 16.....	34
Section E – Capital Structure, Financing, and Liquidity	36
(E.1) Total Equity.....	36
(E.2) Liquidity.....	37
Section F – Management of Financial Risk Factors	38
(F.1) Financial Risk Factors and Risk Management, and Fair Value Disclosures on Financial Instruments	38
Section G – Other Disclosures	39
(G.1) Litigation, Claims, and Legal Contingencies.....	39
(G.2) Related Party Transactions.....	39
(G.3) Events After the Reporting Period.....	39
(G.4) Scope of Consolidation.....	40

Consolidated Income Statement of SAP Group (IFRS) – Half Year

€ millions, unless otherwise stated	Notes	Q1-Q2 2019	Q1-Q2 2018	Δ in %
Cloud ²⁾		3,247	2,283	42
Software licenses		1,599	1,621	-1
Software support		5,692	5,391	6
Software licenses and support		7,291	7,012	4
Cloud and software		10,538	9,295	13
Services		2,184	1,965	11
Total revenue	(A.1), (C.2)	12,722	11,260	13
Cost of cloud ²⁾		-1,237	-941	31
Cost of software licenses and support		-1,069	-1,001	7
Cost of cloud and software		-2,306	-1,942	19
Cost of services		-1,845	-1,600	15
Total cost of revenue		-4,151	-3,542	17
Gross profit		8,571	7,718	11
Research and development		-2,114	-1,761	20
Sales and marketing		-3,833	-3,314	16
General and administration		-895	-548	63
Restructuring	(B.4)	-1,085	-22	>100
Other operating income/expense, net		48	-5	<-100
Total operating expenses		-12,031	-9,192	31
Operating profit (loss)		691	2,069	-67
Other non-operating income/expense, net		-44	-91	-51
Finance income		286	185	55
Finance costs		-258	-157	64
Financial income, net		29	28	3
Profit (loss) before tax	(C.2)	675	2,006	-66
Income tax expense		-201	-580	-65
Profit (loss) after tax		475	1,426	-67
Attributable to owners of parent		455	1,425	-68
Attributable to non-controlling interests		20	0	>100
Earnings per share, basic (in €)¹⁾		0.38	1.19	-68
Earnings per share, diluted (in €)¹⁾		0.38	1.19	-68

¹⁾ For the six months ended June 30, 2019 and 2018, the weighted average number of shares was 1,194 million (diluted 1,194 million) and 1,193 million (diluted: 1,194 million), respectively (treasury stock excluded).

²⁾ In 2019, we renamed "cloud subscription and support" revenue and "cost of cloud subscription and support" to "cloud" revenue and "cost of cloud" without changing the content of these line items.

Due to rounding, numbers may not add up precisely.

Consolidated Statements of Comprehensive Income of SAP Group (IFRS) – Half Year

€ millions	Q1–Q2 2019	Q1–Q2 2018
Profit after tax	475	1,426
Items that will not be reclassified to profit or loss		
Remeasurements on defined benefit pension plans, before tax	6	2
Income taxes relating to remeasurements on defined benefit pension plans	-5	-1
Remeasurements on defined benefit pension plans, net of tax	1	1
Other comprehensive income for items that will not be reclassified to profit or loss, net of tax	1	1
Items that will be reclassified subsequently to profit or loss		
Gains (losses) on exchange differences on translation, before tax	180	557
Reclassification adjustments on exchange differences on translation, before tax	0	0
Exchange differences, before tax	180	557
Income taxes relating to exchange differences on translation	0	0
Exchange differences, net of tax	180	557
Gains (losses) on cash flow hedges/cost of hedging, before tax	-8	-12
Reclassification adjustments on cash flow hedges/cost of hedging, before tax	9	-19
Cash flow hedges/cost of hedging, before tax	1	-31
Income taxes relating to cash flow hedges/cost of hedging	0	9
Cash flow hedges/cost of hedging, net of tax	1	-22
Other comprehensive income for items that will be reclassified to profit or loss, net of tax	181	536
Other comprehensive income, net of tax	181	537
Total comprehensive income	656	1,962
Attributable to owners of parent	636	1,962
Attributable to non-controlling interests	20	0

Due to rounding, numbers may not add up precisely.

Consolidated Statement of Financial Position of SAP Group (IFRS)

as at 6/30/2019 and 12/31/2018

€ millions	Notes	2019	2018 ¹⁾
Cash and cash equivalents		5,168	8,627
Other financial assets		402	448
Trade and other receivables		6,074	6,362
Other non-financial assets	(A.2)	1,212	889
Tax assets		696	293
Total current assets		13,551	16,620
Goodwill		28,801	23,736
Intangible assets		4,730	3,227
Property, plant, and equipment	(D.2)	5,405	3,553
Other financial assets		1,990	1,536
Trade and other receivables		142	118
Other non-financial assets	(A.2)	1,406	1,301
Tax assets		379	397
Deferred tax assets		1,303	1,014
Total non-current assets		44,156	34,881
Total assets		57,707	51,502
€ millions		2019	2018 ¹⁾
Trade and other payables		1,472	1,491
Tax liabilities		379	611
Financial liabilities	(E.2)	2,183	1,125
Other non-financial liabilities		3,669	4,120
Provisions	(B.4)	952	110
Contract liabilities		5,558	3,028
Total current liabilities		14,213	10,486
Trade and other payables		8	129
Tax liabilities		545	495
Financial liabilities	(E.2)	14,067	10,553
Other non-financial liabilities		675	501
Provisions		337	270
Deferred tax liabilities		121	102
Contract liabilities		99	88
Total non-current liabilities		15,853	12,138
Total liabilities		30,066	22,624
Issued capital		1,229	1,229
Share premium		545	543
Retained earnings		25,972	27,407
Other components of equity		1,415	1,234
Treasury shares		-1,580	-1,580
Equity attributable to owners of parent		27,581	28,832
Non-controlling interests		60	45
Total equity	(E.1)	27,641	28,877
Total equity and liabilities		57,707	51,502

¹⁾ Under the adoption method we chose for IFRS 16, prior years are not restated to conform to the new policies. See the Notes to the Consolidated Half-Year Financial Statements, [Note \(D.3\)](#).

Due to rounding, numbers may not add up precisely.

Consolidated Statements of Changes in Equity of SAP Group (IFRS)

€ 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		
12/31/2017	1,229	570	24,769	508	-1,591	25,484	31	25,515
Adoption of IFRS 15			83			83		83
Adoption of IFRS 9			135	-160		-25		-25
1/1/2018	1,229	570	24,987	347	-1,591	25,542	31	25,572
Profit after tax			1,425			1,425	0	1,426
Other comprehensive income			1	536		537		537
Comprehensive income			1,426	536		1,962	0	1,962
Share-based payments		-40				-40		-40
Dividends			-1,671			-1,671	-4	-1,675
Reissuance of treasury shares under share-based payments		13			11	24		24
Shares to be issued			7			7		7
Hyperinflation			-39			-39		-39
Changes in non-controlling interests							17	17
6/30/2018	1,229	543	24,711	883	-1,580	25,786	44	25,829
€ 12/31/2018	1,229	543	27,407	1,234	-1,580	28,832	45	28,877
Adoption of IFRS 16			-70			-70		-70
1/1/2019	1,229	543	27,337	1,234	-1,580	28,762	45	28,807
Profit after tax			455			455	20	475
Other comprehensive income			1	181		181		181
Comprehensive income			456	181		636	20	656
Share-based payments		3				3		3
Dividends			-1,790			-1,790	-5	-1,795
Hyperinflation			-30			-30		-30
€ 6/30/2019	1,229	545	25,972	1,415	-1,580	27,581	60	27,641

Due to rounding, numbers may not add up precisely.

Consolidated Statement of Cash Flows of SAP Group (IFRS)

	€ millions	Q1–Q2 2019	Q1–Q2 2018 ¹⁾
Profit (loss) after tax		475	1,426
Adjustments to reconcile profit (loss) after tax to net cash flows from operating activities:			
Depreciation and amortization		897	635
Share-based payment expense		1,114	491
Income tax expense		201	580
Financial income, net		-29	-28
Decrease/increase in allowances on trade receivables		-9	-43
Other adjustments for non-cash items		-55	4
Decrease/increase in trade and other receivables		354	1,409
Decrease/increase in other assets		-390	-380
Increase/decrease in trade payables, provisions, and other liabilities		-2	-842
Increase/decrease in contract liabilities		2,363	1,240
Share-based payments		-832	-598
Interest paid		-176	-101
Interest received		45	54
Income taxes paid, net of refunds		-1,277	-865
Net cash flows from operating activities		2,679	2,985
Business combinations, net of cash and cash equivalents acquired		-6,147	-1,995
Proceeds from sales of subsidiaries or other businesses		61	0
Purchase of intangible assets or property, plant, and equipment		-539	-818
Proceeds from sales of intangible assets or property, plant, and equipment		35	32
Purchase of equity or debt instruments of other entities		-579	-526
Proceeds from sales of equity or debt instruments of other entities		469	1,079
Net cash flows from investing activities		-6,700	-2,228
Dividends paid		-1,790	-1,671
Dividends paid on non-controlling interests		-2	-4
Proceeds from borrowings		2,523	1,498
Repayments of borrowings		-29	-146
Payments of lease liabilities		-185	0
Net cash flows from financing activities		517	-323
Effect of foreign currency rates on cash and cash equivalents		45	70
Net decrease/increase in cash and cash equivalents		-3,459	504
Cash and cash equivalents at the beginning of the period		8,627	4,011
Cash and cash equivalents at the end of the period		5,168	4,515

¹⁾ Under the adoption method we chose for IFRS 16, prior years are not restated to conform to the new policies. For more information, see the Notes to the Consolidated Half-Year Financial Statements, [Note \(D.3\)](#).

Due to rounding, numbers may not add up precisely.

Notes to the Consolidated Half-Year Financial Statements

(IN.1) Basis for Preparation

General Information About Consolidated Half-Year Financial Statements

The registered seat of SAP SE is in Walldorf, Germany (Commercial Register of the Lower Court of Mannheim HRB 719915). The accompanying condensed Consolidated Half-Year Financial Statements of SAP SE and its subsidiaries (collectively, “we,” “us,” “our,” “SAP,” “Group,” and “Company”) have been prepared in accordance with the International Financial Reporting Standards (IFRS) and in particular in compliance with International Accounting Standard (IAS) 34. In this context, IFRS includes all standards issued by the International Accounting Standards Board (IASB) and related interpretations issued by the IFRS Interpretations Committee (IFRS IC). The variances between the applicable IFRS standards as issued by the IASB and the standards as used by the European Union are not relevant to these financial statements.





Certain information and disclosures normally included in the notes to annual financial statements prepared in accordance with IFRS have been condensed or omitted. We believe that the disclosures made are adequate and that the information gives a true and fair view.

Our business activities are influenced by certain seasonal effects. Historically, our overall revenue tends to be highest in the fourth quarter. Interim results are therefore not necessarily indicative of results for a full year.

Amounts reported in previous years have been reclassified if appropriate to conform to the presentation in this half-year report.


These unaudited condensed Consolidated Half-Year Financial Statements should be read in conjunction with SAP’s audited Consolidated IFRS Financial Statements for the Year Ended December 31, 2018, included in our Integrated Report 2018 and our Annual Report on Form 20-F for 2018.

Due to rounding, numbers presented throughout these Consolidated Half-Year Financial Statements may not add up precisely to the totals we provide and percentages may not precisely reflect the absolute figures.

Amounts disclosed in our Consolidated Half-Year Financial Statements that are taken directly from our  Consolidated Income Statements or our  Consolidated Statements of Financial Position are marked by the symbols  and , respectively.

Accounting Policies, Management Judgments and Sources of Estimation Uncertainty


How We Present Our Accounting Policies, Judgments, and Estimates

To ease the understanding of our financial statements, we changed the presentation of the accounting policies, management judgments, and sources of estimation uncertainty (hereafter: accounting policies, judgments, and estimates) in our 2018 Consolidated Financial Statements. We presented the accounting policies, judgments, and estimates on a given subject together with other disclosures related to the same subject in the Note that dealt with this subject. For easier identification of our accounting policies, judgments, and estimates, the respective disclosures were marked with the symbol  and framed by a light gray box.

We continue this approach in this half-year report. We describe however, only material changes of our accounting policies, judgments, and estimates in relation to our 2018 Consolidated Financial Statements in this report.

Changes of our accounting policies, judgments, and estimates that do not relate to a specific subject are presented in the following section.

The following table provides an overview of where our accounting policies, management judgments, and estimates are disclosed:

Note	 Accounting Policies, Judgments, and Estimates
(IN.1)	Basis for Preparation
(A.1)	Revenue
(D.2)	Property, Plant, and Equipment
(D.3)	Adoption of IFRS 16

New Accounting Standards

For information about the estimated financial impacts of the adoption of IFRS 16, see [Notes \(D.2\)](#) and [\(D.3\)](#).

Section A – Customers

This section discusses disclosures related to contracts with our customers. These consist of revenue breakdowns and information about our trade receivables. For more information, see the Notes to the 2018 Consolidated Financial Statements, [Section A – Customers](#).

(A.1) Revenue

In the first half of 2019, there were no significant changes in our revenue accounting policies. For more information about our revenue accounting policies, see [Note \(A.1\)](#) to our 2018 Consolidated Financial Statements.

Geographic Information

Accounting Policy

The amounts for revenue by region in the following tables are based on the location of customers.

Cloud Revenue by Region

€ millions	Q1–Q2 2019	Q1–Q2 2018
EMEA	967	671
Americas	1,868	1,333
APJ	412	280
SAP Group	3,247	2,283

Cloud and Software Revenue by Region

€ millions	Q1–Q2 2019	Q1–Q2 2018
EMEA	4,629	4,207
Americas	4,230	3,586
APJ	1,680	1,503
SAP Group	10,538	9,295

Total Revenue by Region

€ millions	Q1–Q2 2019	Q1–Q2 2018
Germany	1,783	1,617
Rest of EMEA	3,754	3,445
EMEA	5,537	5,062
United States	4,245	3,573
Rest of Americas	957	851
Americas	5,202	4,424
Japan	526	443
Rest of APJ	1,457	1,331
APJ	1,983	1,774
SAP Group	12,722	11,260

For information about the breakdown of revenue by segment and segment revenue by region, see [Note \(C.1\)](#).

(A.2) Trade and Other Receivables

€ millions	6/30/2019		
	Current	Non-Current	Total
Trade receivables, net	5,893	32	5,925
Other receivables	181	110	291
Total	6,074	142	6,216

€ millions	12/31/2018		
	Current	Non-Current	Total
Trade receivables, net	6,182	6	6,188
Other receivables	181	112	293
Total	6,363	118	6,480

Section B – Employees

This section provides financial insights into our employee benefit arrangements. It should be read in conjunction with the compensation disclosures for key management personnel in [Note \(G.6\)](#) to our 2018 Consolidated Financial Statements as well as SAP's [Compensation Report](#). For more information regarding this topic, see the Notes to our 2018 Consolidated Financial Statements, [Section B – Employees](#).

(B.1) Employee Headcount

On June 30, 2019, the breakdown of our full-time equivalent employee numbers by function and by region was as shown in the table below. The increase in headcount in the SAP Group to 98,332 employees is mainly due to the acquisition of Qualtrics as well as organic growth of full-time equivalents especially within the services function.

Number of Employees (in Full-Time Equivalents)

Full-time equivalents	6/30/2019				6/30/2018			
	EMEA	Americas	APJ	Total	EMEA	Americas	APJ	Total
Cloud and software	6,390	4,530	5,260	16,180	6,128	4,113	5,051	15,291
Services	8,302	5,766	5,772	19,839	7,924	5,561	5,370	18,855
Research and development	12,486	5,378	8,805	26,668	11,866	5,534	8,681	26,081
Sales and marketing	9,966	10,223	5,118	25,307	9,791	9,621	4,962	24,374
General and administration	3,120	2,064	1,239	6,424	2,814	1,922	1,096	5,832
Infrastructure	2,240	1,022	651	3,913	1,976	902	534	3,413
SAP Group (6/30)	42,504	28,983	26,844	98,332	40,498	27,653	25,694	93,846
Thereof acquisitions ¹⁾	338	1,638	137	2,113	638	952	434	2,024
SAP Group (six months' end average)	42,538	29,283	26,784	98,605	39,722	27,025	25,219	91,965

¹⁾ Acquisitions closed between January 1 and June 30 of the respective year

(B.2) Employee Benefits Expenses

Employee Benefits Expense

€ millions	Q1–Q2 2019	Q1–Q2 2018
Salaries	4,853	4,337
Social security expenses	781	697
Share-based payment expenses	1,114	491
Pension expenses	193	175
Employee-related restructuring expenses	1,069	20
Termination benefits	29	21
Employee benefits expense	8,039	5,741

(B.3) Share-Based Payments

The allocations of expenses for share-based payments to the various expense items are as follows:

Share-Based Payments

€ millions	Q1–Q2 2019	Q1–Q2 2018
Cost of cloud and software	81	46
Cost of services	144	80
Research and development	252	123
Sales and marketing	327	185
General and administration	311	57
Share-based payments	1,114	491

For more information about our share-based payments and a detailed description of our share-based payment plans, see [Note \(B.3\)](#) in our Notes to the 2018 Consolidated Financial Statements.

Restricted Stock Unit Plan Including Move SAP Plan (RSU Plan)

In the first half of 2019, we granted (including share units granted to Qualtrics employees) 8.2 million (first half of 2018: 7.8 million)

share units to retain and motivate global executives and employees, who make a significant sustained impact to our business success.

Own SAP Plan (Own)

The number of shares purchased by our employees under this plan was 2.6 million in the first half of 2019 (first half of 2018: 2.6 million). The plan enables employees to purchase shares at preferred conditions and build value by becoming an SAP shareholder.

(B.4) Restructuring

€ millions	Q1-Q2 2019	Q1-Q2 2018
Employee-related restructuring expenses	-1,069	-20
Onerous contract-related restructuring expenses and restructuring-related impairment losses	-16	-1
Restructuring expenses	-1,085	-22

To further increase our focus on our key strategic growth areas, SAP launched a company-wide restructuring program to further simplify company structures and processes and to ensure that its organizational setup, skillsets, and resource allocation all continue to meet evolving customer demand. The main features of the restructuring plan were announced on January 29, 2019. Restructuring expenses are projected to be between €950 million and €1,100 million, the vast majority of which was already recognized in the first two quarters of 2019.

In the first half of 2019, approximately 1,400 employees left the company under the plan. The cash outflow due to restructuring was €233 million.

As at June 30, 2019, the restructuring provisions, which are almost exclusively presented in current provisions, amount to €868 million. Restructuring expenses primarily include employee benefits that result from severance payments for employee terminations.

If not presented separately, these restructuring expenses would break down in our income statements as follows:

Restructuring Expenses by Functional Area

€ millions	Q1-Q2 2019	Q1-Q2 2018
Cost of cloud and software	-127	-3
Cost of services	-169	-8
Research and development	-443	-1
Sales and marketing	-281	-9
General and administration	-64	0
Restructuring expenses	-1,085	-22

Section C – Financial Results

This section provides insight into the financial results of SAP's reportable segments and of SAP overall, as far as not already covered by previous sections. This includes segment results and income taxes. For more information, see the Notes to the 2018 Consolidated Financial Statements, [Section C – Financial Results](#).

(C.1) Results of Segments

General Information

SAP has four operating segments that are regularly reviewed by our Executive Board, which is responsible for assessing the performance of our Company and for making resource allocation decisions as our Chief Operating Decision Maker (CODM). The operating segments are largely organized and managed separately according to their product and service offerings, notably whether the products and services relate to our business network activities, customer and experience management solutions, or communication offerings, or cover other areas of our business.

For more information about our segments, see [Note \(C.1\)](#) to our 2018 Consolidated Financial Statements.

In the first half of 2019, the following changes to the composition of our operating segments occurred:

- The former SAP Business Network segment was renamed to Intelligent Spend Group without any changes in the composition of this segment.
- On January 23, 2019, we acquired Qualtrics and changed the structure of our former Customer Experience segment. The Qualtrics business was combined with our existing customer experience solutions into a new business unit called Customer and Experience Management. As a result, the former Customer Experience segment was renamed to Customer and Experience Management, and comprises on-premise and cloud-based products that run front-office functions across the customer experience and experience data.
- In 2018, revenues for one individual offering were reflected in the former Customer Experience segment, and related research and development costs were part of the Applications, Technology & Services segment. Effective January 1, 2019, we changed this allocation in our management reporting and consequently, in our segment reporting: Revenues for this offering are now presented in the Applications, Technology & Services segment.
- Further, we expanded the scope of our non-reportable Digital Interconnect segment. It now comprises complete communication channels, including our messaging services combined with newly added telephony, video chat, and routing (which were formerly part of the Applications, Technology & Services segment and the former Customer Experience segment).

The segment information for prior periods has been restated to conform with these changes to our reportable segments.

In the first half of 2019, there were no significant changes in our segment accounting policies. For a detailed overview of our segment accounting policies, judgments, and sources for management reporting, see [Note \(C.1\)](#) to our 2018 Consolidated Financial Statements.

Applications, Technology & Services

€ millions	Q1-Q2 2019		Q1-Q2 2018
	Actual Currency	Constant Currency	Actual Currency
Cloud – SaaS/PaaS ¹⁾	1,163	1,125	849
Cloud – IaaS ²⁾	327	315	217
Cloud	1,490	1,440	1,066
Software licenses	1,491	1,460	1,496
Software support	5,684	5,541	5,386
Software licenses and support	7,174	7,001	6,881
Cloud and software	8,665	8,441	7,947
Services	1,710	1,663	1,582
Total segment revenue	10,375	10,104	9,529
Cost of cloud – SaaS/PaaS ¹⁾	-437	-421	-349
Cost of cloud – IaaS ²⁾	-239	-233	-195
Cost of cloud	-677	-654	-544
Cost of software licenses and support	-955	-933	-911
Cost of cloud and software	-1,632	-1,587	-1,455
Cost of services	-1,341	-1,312	-1,216
Total cost of revenue	-2,973	-2,899	-2,671
Segment gross profit	7,402	7,205	6,858
Other segment expenses	-3,311	-3,237	-3,138
Segment profit (loss)	4,092	3,968	3,721

¹⁾ Software as a service/platform as a service

²⁾ Infrastructure as a service

Intelligent Spend Group

€ millions	Q1-Q2 2019		Q1-Q2 2018
	Actual Currency	Constant Currency	Actual Currency
Cloud – SaaS/PaaS ¹⁾	1,293	1,229	1,014
Cloud	1,293	1,229	1,014
Software licenses	0	0	0
Software support	8	8	8
Software licenses and support	8	7	8
Cloud and software	1,301	1,237	1,022
Services	225	214	210
Total segment revenue	1,526	1,451	1,233
Cost of cloud – SaaS/PaaS ¹⁾	-283	-270	-229
Cost of cloud	-283	-270	-229
Cost of software licenses and support	-4	-4	-3
Cost of cloud and software	-287	-274	-233
Cost of services	-179	-172	-150
Total cost of revenue	-466	-446	-382
Segment gross profit	1,060	1,005	850
Other segment expenses	-746	-712	-622
Segment profit (loss)	314	293	229

¹⁾ Software as a service/platform as a service

Customer and Experience Management

€ millions	Q1-Q2 2019		Q1-Q2 2018
	Actual Currency	Constant Currency	Actual Currency
Cloud – SaaS/PaaS ¹⁾	510	486	210
Cloud	510	486	210
Software licenses	100	97	125
Software support	0	0	0
Software licenses and support	100	97	125
Cloud and software	610	583	335
Services	57	53	3
Total segment revenue	667	636	338
Cost of cloud – SaaS/PaaS ¹⁾	-123	-120	-68
Cost of cloud	-123	-120	-68
Cost of software licenses and support	-10	-10	-10
Cost of cloud and software	-133	-130	-79
Cost of services	-30	-28	1
Total cost of revenue	-163	-158	-78
Segment gross profit	503	478	260
Other segment expenses	-513	-490	-265
Segment profit (loss)	-10	-13	-5

¹⁾ Software as a service/platform as a service

Segment Revenue by Region

€ millions	Applications, Technology & Services			Intelligent Spend Group			Customer and Experience Management			Total Reportable Segments		
	Q1-Q2 2019		Q1-Q2 2018	Q1-Q2 2019		Q1-Q2 2018	Q1-Q2 2019		Q1-Q2 2018	Q1-Q2 2019		Q1-Q2 2018
	Actual Currency	Constant Currency	Actual Currency	Actual Currency	Constant Currency	Actual Currency	Actual Currency	Constant Currency	Actual Currency	Actual Currency	Constant Currency	Actual Currency
EMEA	5,009	4,950	4,682	270	260	222	204	201	158	5,483	5,411	5,062
Americas	3,659	3,501	3,297	1,085	1,024	880	397	371	133	5,141	4,896	4,310
APJ	1,708	1,654	1,551	171	167	130	66	64	47	1,944	1,885	1,728
Total segment revenue	10,375	10,104	9,529	1,526	1,451	1,233	667	636	338	12,568	12,191	11,100

For a breakdown of revenue by region for the SAP Group, see [Note \(A.1\)](#).

(C.2) Reconciliation of Segment Measures to Income Statement

€ millions	Q1-Q2 2019		Q1-Q2 2018
	Actual Currency	Constant Currency	Actual Currency
Applications, Technology & Services	10,375	10,104	9,529
Intelligent Spend Group	1,526	1,451	1,233
Customer and Experience Management	667	636	338
Total segment revenue for reportable segments	12,568	12,191	11,100
Other revenue	205	197	177
Adjustment for currency impact	0	385	0
Adjustment of revenue under fair value accounting	-51	-51	-16
■ Total revenue	12,722	12,722	11,260
Applications, Technology & Services	4,092	3,968	3,721
Intelligent Spend Group	314	293	229
Customer and Experience Management	-10	-13	-5
Total segment profit for reportable segments	4,396	4,248	3,944
Other revenue	205	197	177
Other expenses	-1,319	-1,280	-1,245
Adjustment for currency impact	0	117	0
Adjustment for			
Revenue under fair value accounting	-51	-51	-16
Acquisition-related charges	-341	-341	-278
Share-based payment expenses	-1,114	-1,114	-491
■ Restructuring	-1,085	-1,085	-22
■ Operating profit	691	691	2,069
■ Other non-operating income/expense, net	-44	-44	-91
■ Financial income, net	29	29	28
■ Profit before tax	675	675	2,006

(C.3) Income Taxes

There have been no significant changes in contingent liabilities from income tax-related litigation for which no provision has been recognized compared to *Note (C.5)* in our Consolidated Financial Statements for 2018, which is included in our Integrated Report 2018.

(C.4) Hyperinflation Accounting

We apply hyperinflation accounting for our subsidiaries in Venezuela and Argentina, by restating the financial statements of the respective subsidiaries for the current period to account for changes in the general purchasing power of the local currency based on relevant price indices at the reporting date. Most significantly impacted by this accounting are equity (retained earnings and other comprehensive income) (a decrease of €23 million versus a decrease of €26 million in the first half of 2018) and contract liabilities (an increase of €33 million versus an increase of €70 million in the first half of 2018). The impact on our revenues and operating profit is immaterial.

Section D – Invested Capital

This section highlights the non-current assets including investments that form the basis of our operating activities. Additions in invested capital include separate asset acquisitions or business combinations. Further, we disclose information about the adoption of IFRS 16. For more information, see our Notes to the 2018 Consolidated Financial Statements, [Section D – Invested Capital](#).

(D.1) Business Combinations

We acquire businesses in specific areas of strategic interest to us, particularly to broaden our product and service portfolio.

Prior-year acquisitions are described in our 2018 Consolidated Financial Statements.

Acquisition of Qualtrics

On January 23, 2019, we concluded the acquisition of Qualtrics, following satisfaction of applicable regulatory and other approvals (also see [Note \(G.9\)](#) of our 2018 Consolidated Financial Statements).

Qualtrics is a leading provider of experience management (XM) solutions. By combining Qualtrics products and SAP products, we aim to deliver an end-to-end experience and operational management system to our customers.

We acquired 100% of the Qualtrics shares for approx. US\$35 per share, representing consideration transferred in cash of approximately US\$7.1 billion. In addition to the cash payments, SAP will also incur liabilities and post-closing expenses relating to assumed share-based payment awards amounting to approximately US\$0.9 billion.

The operating results and assets and liabilities of Qualtrics are reflected in our consolidated financial statements from January 23, 2019, onward.

Financial Impact as of the Acquisition Date

€ millions	Qualtrics Consideration Transferred
Cash paid	6,212
Liabilities incurred	237
Total consideration transferred	6,449

The liabilities incurred relate to the earned portion of unvested share-based payment awards. These liabilities were incurred by replacing, upon acquisition, equity-settled share-based payment awards held by employees of Qualtrics with cash-settled share-based payment awards, which are subject to forfeiture. The respective liabilities represent the portion of the replacement awards that relates to pre-acquisition services provided by the acquiree's employees and were measured at the fair value determined under IFRS 2 as required by IFRS 3.

The following table summarizes the preliminary values of identifiable assets acquired and liabilities assumed in connection with the acquisition of Qualtrics, as of the acquisition date.

Recognized Amounts of Identifiable Assets Acquired and Liabilities Assumed

€ millions	Qualtrics Contribution
Cash and cash equivalents	127
Other financial assets	1
Trade and other receivables	36
Other non-financial assets	20
Property, plant, and equipment	74
Intangible assets	1,803
Thereof acquired technology	575
Thereof customer relationship and other intangibles	1,226
Thereof software and database licenses	2
Total identifiable assets	2,061
Trade and other payables	85
Financial liabilities	54
Current and deferred tax liabilities	267
Provisions and other non-financial liabilities	39
Contract liabilities	127
Total identifiable liabilities	572
Total identifiable net assets	1,489
Goodwill	4,960
Total consideration transferred	6,449

The initial accounting for the Qualtrics business combination is incomplete because we are still obtaining the information necessary to identify and measure, for example, intangibles and tax-related assets and liabilities (deferred taxes from investments in subsidiaries, unused tax losses). It is also not yet possible to provide final detailed information about each class of acquired receivables or contingent liabilities. Accordingly, the amounts recognized in our half-year financial statements for these items are provisional as of June 30, 2019.

In general, the goodwill arising from our acquisitions consists largely of the synergies and the know-how and technical skills of the acquired businesses' workforces.

Qualtrics goodwill is attributed to expected synergies from the acquisition, particularly in the following areas:

- Cross-selling opportunities to existing SAP customers across all regions, using SAP's sales organization
- Creating new offerings by combining Qualtrics products and SAP products to deliver an end-to-end experience and operational management system to the customers
- Improved profitability in Qualtrics sales and operations

The allocation of the goodwill resulting from the Qualtrics acquisition to our operating segments depends on how our operating segments actually benefit from the synergies of the Qualtrics business combination. We have not yet completed the identification of those benefits.

For more information about our segments and about the changes in our segment structure, see [Note \(C.1\)](#).

Impact of the Business Combination on Our Half-Year Financial Statements

The amounts of revenue and profit or loss of the Qualtrics legal entities acquired in 2019 since the acquisition date included in the consolidated income statements for the reporting period are as follows:

Impact on SAP's Half-Year Financials

€ millions	Q1-Q2 2019 as Reported	Contribution of Qualtrics
Revenue	12,722	165
Profit after tax	475	-301

Had Qualtrics been consolidated as of January 1, 2019, our revenue and profit after tax for the reporting period would not have been materially different.

(D.2) Property, Plant, and Equipment

Changed Estimates of Useful Lives

At the beginning of 2019, we changed our estimate of the expected useful lives of certain computer hardware. This change from four to five years is still within the range of two to six years that was disclosed in the 2018 Integrated Report. This change reduces our actual and expected depreciation expense by:

- €49 million in the first half 2019 (thereof €35 million in cost of cloud)
- €93 million in the full year 2019 (thereof €71 million in cost of cloud)

Property, Plant, and Equipment (Summary)

€ millions	6/30/2019	12/31/2018
Property, plant, and equipment excluding leases	3,575	3,553
Right-of-use assets	1,830	-
Total	5,405	3,553

(D.3) Adoption of IFRS 16

Accounting Policies, Judgments, and Estimates

On January 1, 2019, we adopted IFRS 16 'Leases.' Using the modified retrospective transition approach requires that the cumulative effect of initially applying the standard be recognized as an adjustment to the opening balance of retained earnings on the date of initial application. The prior-year figures were not adjusted. The new standard significantly impacts the lease accounting by lessees as, in general, all leases need to be recognized on the lessee's balance sheet. A lessee recognizes a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. The nature of expenses related to those leases has now changed because we recognize depreciation expense for right-of-use assets and interest expense on lease liabilities. These changes apply to leases that had previously been classified as operating leases under IAS 17. We have used practical expedients offered by the standard (such as non-capitalization of short-term leases and low-value leases, and the use of hindsight when determining the lease term if the contract contains options to extend or terminate the lease). For measuring our right-of-use assets for pre-existing leases, we have applied the retrospective approach for our larger leases (primarily facility leases), while smaller leases were measured at an amount equal to the lease liability and adjusted by the amount of any prepaid or accrued lease payments existing immediately prior to the date of initial application.

Upon IFRS 16 adoption, lease liabilities from pre-existing leases were discounted at the incremental borrowing rates as at January 1, 2019. The weighted average discount rate applied to the lease liabilities on January 1, 2019, was 2.5%.

Leases are shown as follows in the balance sheet as at June 30, 2019, and in the income statement for the first half of the year:

Leases in the Balance Sheet

€ millions	6/30/2019
Right-of-use assets	
Right-of-use assets – land and buildings	1,525
Right-of-use assets – data centers	273
Right-of-use assets – cars and other	32
Total right-of-use assets	1,830
⌘ Non-current assets	44,156
Right-of-use assets as % of non-current assets	4
Lease Liabilities	
Current lease liabilities	358
⌘ Current financial liabilities	2,183
Current lease liabilities as % of current financial liabilities	16
Non-current lease liabilities	1,725
⌘ Non-current financial liabilities	14,067
Non-current lease liabilities as % of non-current financial liabilities	12

Leases in the Income Statement

€ millions	Q1–Q2 2019
Lease expenses within operating profit	
Depreciation of right-of-use assets	179
Lease expenses within finance income, net	
Interest expense on lease liabilities	26

IFRS 16 also affects SAP's cash flow statement for the first six months of 2019: operating cash flow increased by €185 million and cash flow from financing activities decreased by €185 million. For more information, see the [Cash Flow](#) section in the Consolidated Half-Year Management Report.

The adjustments to the opening balances resulting from the initial application of IFRS 16 as at January 1, 2019, were as follows:

- Property, plant, and equipment – increased by €1.9 billion
- Deferred tax assets – increased by €0.4 billion
- Trade and other payables – decreased by €0.1 billion
- Financial liabilities – increased by €2.1 billion
- Deferred tax liabilities – increased by €0.4 billion

The net impact on retained earnings on January 1, 2019, was a decrease of €0.1 billion.

Section E – Capital Structure, Financing and Liquidity

This section provides information related to how SAP manages its capital structure. Our capital management is based on a high equity ratio, modest financial leverage, a well-balanced maturity profile, and deep debt capacity. For more information, see our Notes to the 2018 Consolidated Financial Statements, [Section E – Capital Structure, Financing, and Liquidity](#).

(E.1) Total Equity

Number of Shares

millions	Issued Capital	Treasury Shares
12/31/2017	1,228.5	-35.1
Reissuance under share-based payments	0	0.2
6/30/2018	1,228.5	-34.9
12/31/2018	1,228.5	-34.9
6/30/2019	1,228.5	-34.9

Other Components of Equity

€ millions	Exchange Differences	Cash Flow Hedges	Total
1/1/2018	330	18	347
Other comprehensive income ¹⁾	557	-22	536
6/30/2018	887	-4	883
12/31/2018	1,239	-5	1,234
Other comprehensive income ¹⁾	180	1	181
6/30/2019	1,419	-4	1,415

¹⁾ The exchange differences in other comprehensive income include the effect from hyperinflation accounting for our subsidiaries in Venezuela and Argentina.

(E.2) Liquidity

€ millions	6/30/2019				
	Nominal Volume		Carrying Amount		
	Current	Non-Current	Current	Non-Current	Total
Bonds	1,400	8,864	1,404	8,801	10,205
Private placement transactions	0	1,017	0	1,056	1,056
Bank loans	52	2,500	52	2,493	2,545
Financial debt	1,452	12,381	1,456	12,350	13,806
Financial liabilities			2,183	14,067	16,250
Financial debt as % of Financial liabilities			67	88	85

€ millions	12/31/2018				
	Nominal Volume		Carrying Amount		
	Current	Non-Current	Current	Non-Current	Total
Bonds	750	9,512	759	9,445	10,204
Private placement transactions	0	1,011	0	1,041	1,041
Bank loans	9	49	9	49	58
Financial debt	759	10,572	768	10,536	11,303
Financial liabilities			1,125	10,553	11,678
Financial debt as % of Financial liabilities			68	100	97

Section F – Risk Management and Fair Value Disclosures

This section discusses financial risk factors and risk management. In our half-year report, this includes the transfers between levels of the fair value hierarchy. For more information, particularly about our risk management related to foreign currency exchange rate risk, interest rate risk, equity price risk, credit risk, liquidity risk, and so on, see the Notes to the 2018 Consolidated Financial Statements, [Section F – Risk Management and Fair Value Disclosures](#).

(F.1) Financial Risk Factors, Financial Risk Management, and Fair Value Disclosures on Financial Instruments

In the second quarter of 2019, the fair value estimate for SAP's investment in Looker Data Sciences Inc. (Looker) was adjusted to reflect the estimated exit value based on Google LLC's (Google) announcement on June 6, 2019, that Google had entered into a definitive agreement to acquire Looker. The closing of this transaction is subject to regulatory approvals. The adjustment resulted in gains recognized in finance income from financial assets at fair value through profit and loss of €45 million. The investment in Looker is held through our interest in Sapphire Ventures Fund II, L.P., a consolidated venture investment fund.

A detailed overview of our other financial instruments, financial risk factors, the management of financial risks, and the determination of fair value as well as the classification of our other financial instruments into the fair value hierarchy of IFRS 13 are presented in [Notes \(F.1\)](#) and [\(F.2\)](#) in our 2018 Consolidated Financial Statements.

We do not disclose the fair value of our financial instruments as of June 30, 2019, for the following reasons:

- For a large number of our financial instruments, their carrying amounts are a reasonable approximation of their fair values, and
- For those financial instruments where the carrying amount differs from fair value, there was no material change in the relation between carrying amount and fair value since December 31, 2018.

Section G – Other Disclosures

This section provides additional disclosures on miscellaneous topics, including information pertaining to other litigation, claims and legal contingencies, and related party transactions. For more information, see the Notes to the 2018 Consolidated Financial Statements, [Section G – Other Disclosures](#).

(G.1) 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. We will continue to vigorously defend against all claims and lawsuits against us. We currently believe that resolving the claims and lawsuits pending as of June 30, 2019, will neither individually nor in the aggregate have a material adverse effect on our business, financial position, profit, or cash flows. Consequently, the provisions recorded for these claims and lawsuits as of June 30, 2019, are neither individually nor in the aggregate material to SAP.

Among the claims and lawsuits are the following classes (for more information about these classes, see our Integrated Report 2018, Notes to the Consolidated Financial Statements, [Note \(G.4\)](#)).

Intellectual Property-Related Litigation and Claims

There have been no significant changes to the amount of provisions recorded for intellectual property-related litigation and claims compared to the amounts disclosed in our Integrated Report 2018, Notes to the Consolidated Financial Statements, [Note \(G.4\)](#). There have also been no significant changes in contingent liabilities from intellectual property-related litigation and claims for which no provision has been recognized.

For the individual cases of intellectual property-related litigation and claims disclosed in our Integrated Report 2018, there were no significant developments in the first half of 2019.

Tax-Related Litigation

There have been no significant changes in contingent liabilities from non-income tax-related litigation for which no provision has been recognized compared to [Note \(G.4\)](#) in our Consolidated Financial Statements for 2018, which is included in our Integrated Report 2018.

For more information about income tax-related litigation, see [Note \(C.3\)](#).

Anti-Bribery and Export Control Matters

SAP received communications alleging conduct that may violate anti-bribery laws (including the U.S. Foreign Corrupt Practices Act (FCPA)) in Brazil, Indonesia, South Africa, and other countries. Further, we voluntarily self-disclosed potential export controls and economic sanctions violations. The investigations are ongoing and neither the outcome of the investigations nor the date when substantiated findings will be available is predictable at this point in time. SAP enhanced its anti-corruption compliance program as well as its export control compliance program throughout the last months. We continue to be fully committed to anti-bribery laws and

export restriction controls and will continue full cooperation with all parties involved.

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, as at June 30, 2019, no provisions have been recognized for these potential violations in our consolidated financial statements. It is currently also not practicable to estimate the financial effect of any contingent liabilities that may result from these potential violations.

For more information, see our Integrated Report 2018, Notes to the Consolidated Financial Statements, [Note \(G.4\)](#).

(G.2) Related Party Transactions

Certain Executive Board and Supervisory Board members of SAP SE currently hold (or have held within the last year) positions of significant responsibility with other entities (for more information, see our Integrated Report 2018, Notes to the Consolidated Financial Statements, [Note \(G.5\)](#)). We have relationships with certain of these entities in the ordinary course of business.

During the reporting period, we had no related party transactions that had a material effect on our business, financial position, or results in the reporting period.

For more information about related party transactions, see our Integrated Report 2018, Notes to the Consolidated Financial Statements, [Note \(G.7\)](#).

(G.3) Events After the Reporting Period

No events that have occurred since June 30, 2019, have a material impact on the Company's Consolidated Half-Year Financial Statements.

Release of the Consolidated Half-Year Financial Statements

The Executive Board of SAP SE approved these consolidated half-year financial statements on July 17, 2019, for submission to the Audit Committee of the Supervisory Board and for subsequent issuance.

(G.4) Scope of Consolidation

	Total
12/31/2018	265
Additions	19
Disposals	-11
06/30/2019	273

The additions in the first half of 2019 relate to legal entities added in connection with acquisitions and foundations. The disposals are mainly due to liquidations and mergers of legal entities.

For more information about our business combinations and the effect on our Consolidated Financial Statements, see [Note \(D.1\)](#) and our Integrated Report 2018.

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles for half-year financial reporting, the Consolidated Half-Year Financial Statements give a true and fair view of the assets, liabilities, financial position, and profit or loss of the SAP Group, and the Consolidated Half-Year Management Report of the SAP Group includes a fair review of the development and performance of the business and the position of the SAP Group, together with a description of the material opportunities and risks associated with the expected development of the SAP Group for the remaining months of the financial year.

Walldorf, July 17, 2019
SAP SE
Walldorf, Baden
The Executive Board

Bill McDermott

Adaire Fox-Martin

Christian Klein

Michael Kleinemeier

Jennifer Morgan

Luka Mucic

Jürgen Müller

Stefan Ries

Supplementary Financial Information

Financial and Non-Financial Key Facts (IFRS and Non-IFRS)

€ millions, unless otherwise stated	Q1 2018	Q2 2018	Q3 2018	Q4 2018	TY 2018	Q1 2019	Q2 2019
Revenues							
Cloud (IFRS)	1,070	1,213	1,304	1,406	4,993	1,555	1,692
Cloud (non-IFRS)	1,072	1,227	1,315	1,413	5,027	1,581	1,717
% change – yoy	18	32	40	42	33	48	40
% change constant currency – yoy	31	40	41	40	38	41	35
Software licenses (IFRS)	625	996	937	2,089	4,647	650	948
Software licenses (non-IFRS)	625	996	937	2,089	4,647	650	948
% change – yoy	-10	-9	-9	1	-5	4	-5
% change constant currency – yoy	-2	-5	-8	8	0	1	-6
Software support (IFRS)	2,656	2,735	2,765	2,825	10,981	2,838	2,854
Software support (non-IFRS)	2,656	2,735	2,765	2,826	10,982	2,838	2,854
% change – yoy	-3	0	3	3	1	7	4
% change constant currency – yoy	5	7	6	3	5	4	2
Software licenses and support (IFRS)	3,281	3,731	3,702	4,914	15,628	3,489	3,802
Software licenses and support (non-IFRS)	3,281	3,731	3,702	4,914	15,629	3,489	3,802
% change – yoy	-4	-2	0	2	-1	6	2
% change constant currency – yoy	4	3	2	5	4	3	0
Cloud and software (IFRS)	4,351	4,944	5,007	6,320	20,622	5,044	5,495
Cloud and software (non-IFRS)	4,353	4,958	5,017	6,327	20,655	5,070	5,520
% change – yoy	1	4	8	9	6	16	11
% change constant currency – yoy	9	10	10	11	10	12	8
Total revenue (IFRS)	5,261	5,999	6,020	7,428	24,708	6,091	6,631
Total revenue (non-IFRS)	5,262	6,014	6,031	7,434	24,741	6,118	6,656
% change – yoy	0	4	8	9	5	16	11
% change constant currency – yoy	9	10	10	13	11	12	8
Share of more predictable revenue (IFRS, in %)	71	66	68	57	65	72	69
Share of more predictable revenue (non-IFRS, in %)	71	66	68	57	65	72	69
Profits							
Operating profit (loss) (IFRS)	1,025	1,044	1,236	2,399	5,703	-136	827
Operating profit (loss) (non-IFRS)	1,235	1,640	1,742	2,545	7,163	1,467	1,816
% change – yoy	3	4	6	8	6	19	11
% change constant currency – yoy	14	12	11	8	10	13	8
Profit (loss) after tax (IFRS)	708	718	972	1,691	4,088	-108	582
Profit (loss) after tax (non-IFRS)	868	1,171	1,358	1,802	5,199	1,080	1,317
% change – yoy	-2	5	12	-16	-3	25	12
Margins							
Cloud gross margin (IFRS, in %)	59.3	58.3	58.6	58.2	58.6	61.2	62.6
Cloud gross margin (non-IFRS, in %)	63.2	63.6	63.5	62.1	63.1	66.2	67.9
Software license and support gross margin (IFRS, in %)	85.7	85.8	86.0	88.3	86.6	84.6	86.0
Software license and support gross margin (non-IFRS, in %)	86.4	87.0	87.1	88.7	87.4	85.7	87.1
Cloud and software gross margin (IFRS, in %)	79.2	79.0	78.9	81.6	79.8	77.4	78.8
Cloud and software gross margin (non-IFRS, in %)	80.7	81.2	80.9	82.8	81.5	79.6	81.1
Gross margin (IFRS, in %)	68.5	68.6	68.3	72.9	69.8	66.5	68.2
Gross margin (non-IFRS, in %)	70.2	71.5	71.0	74.0	71.8	69.5	71.4
Operating margin (IFRS, in %)	19.5	17.4	20.5	32.3	23.1	-2.2	12.5
Operating margin (non-IFRS, in %)	23.5	27.3	28.9	34.2	29.0	24.0	27.3
AT&S segment – Cloud gross margin (in %)	49.1	48.8	48.1	46.9	48.2	53.2	55.9
AT&S segment – Segment gross margin (in %)	71.2	72.6	72.4	75.2	73.1	70.1	72.5
AT&S segment – Segment margin (in %)	36.5	41.3	41.8	46.8	42.1	36.3	42.3

€ millions, unless otherwise stated	Q1 2018	Q2 2018	Q3 2018	Q4 2018	TY 2018	Q1 2019	Q2 2019
ISG segment – Cloud gross margin (in %)	77.4	77.4	78.4	78.0	77.8	78.0	78.2
ISG segment – Segment gross margin (in %)	68.7	69.3	69.1	69.2	69.1	69.2	69.7
ISG segment – Segment margin (in %)	16.7	20.3	23.0	20.4	20.2	21.6	19.6
CXM segment – Cloud gross margin (in %)	65.4	68.7	67.6	63.1	66.2	74.9	76.6
CXM segment – Segment gross margin (in %)	75.9	77.5	75.1	79.9	77.6	75.5	75.5
CXM segment – Segment margin (in %)	-6.5	1.7	5.6	24.6	9.7	-2.3	-0.8
Key Profit Ratios							
Effective tax rate (IFRS, in %)	28.3	29.5	24.1	26.9	27.0	23.2	28.6
Effective tax rate (non-IFRS, in %)	27.6	27.5	24.0	26.7	26.3	26.1	27.0
Earnings per share, basic (IFRS, in €)	0.59	0.60	0.81	1.41	3.42	-0.10	0.48
Earnings per share, basic (non-IFRS, in €)	0.73	0.98	1.14	1.51	4.35	0.90	1.09
Order Entry							
New cloud and software order entry	1,346	2,332	2,221	4,533	10,432	1,579	2,404
% change – yoy	1	8	11	15	11	17	3
% change constant currency – yoy	10	12	12	18	14	13	1
New cloud bookings	245	421	411	736	1,814	324	494
% change – yoy	14	24	36	25	25	32	17
% change constant currency – yoy	25	29	37	23	28	26	15
Orders – number of cloud deals (in transactions)	2,376	3,032	3,375	6,055	14,839	2,956	3,609
Share of cloud orders greater than €5 million based on total cloud order entry volume (in %)	20	32	28	33	30	26	26
Share of cloud orders smaller than €1 million based on total cloud order entry volume (in %)	39	31	35	28	32	39	33
Orders – number of on-premise software deals (in transactions)	13,549	14,538	13,794	16,649	58,530	12,229	12,522
Share of orders greater than €5 million based on total software order entry volume (in %)	18	29	22	35	29	28	28
Share of orders smaller than €1 million based on total software order entry volume (in %)	50	41	42	33	39	42	36
Liquidity and Cash Flow							
Net cash flows from operating activities	2,578	407	499	819	4,303	2,802	-122
Capital expenditure	-427	-391	-328	-312	-1,458	-359	-180
Payments of lease liabilities	NA	NA	NA	NA	NA	-78	-106
Free cash flow	2,151	16	171	506	2,844	2,365	-409
% of total revenue (IFRS)	41	0	3	7	12	39	-6
% of profit after tax (IFRS)	304	2	18	30	70	-2,198	-70
Group liquidity, gross	8,270	4,688	4,738	8,838	8,838	7,673	5,280
Group debt	-7,723	-7,660	-7,521	-11,331	-11,331	-13,866	-13,833
Group liquidity, net	546	-2,972	-2,784	-2,493	-2,493	-6,193	-8,553
Days sales outstanding (DSO, in days) ¹⁾	68	68	68	70	70	69	70
Financial Position							
Cash and cash equivalents	7,598	4,516	4,507	8,627	8,627	7,332	5,168
Goodwill	20,856	23,406	23,523	23,736	23,736	29,108	28,801
Total assets	45,463	45,491	45,631	51,502	51,502	60,693	57,707
Contract liabilities (current)	5,046	4,867	3,600	3,028	3,028	6,068	5,558
Equity ratio (total equity in % of total assets)	56	57	59	56	56	48	48
Non-Financials							
Number of employees (quarter end) ²⁾	91,120	93,846	94,989	96,498	96,498	98,659	98,332
Employee retention (in %, rolling 12 months)	94.4	94.3	94.1	93.9	93.9	93.8	93.5
Women in management (in %, quarter end)	25.6	25.8	25.9	25.7	25.7	26.0	26.2
Greenhouse gas emissions (in kilotons)	100	75	65	70	310	110	75

¹⁾ 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.

²⁾ In full-time equivalents.

Due to rounding, numbers may not add up precisely.

Reconciliation from Non-IFRS Numbers to IFRS Numbers – Half Year

	Q1–Q2 2019					Q1–Q2 2018			Δ in %		
	IFRS	Adj.	Non-IFRS	Currency Impact	Non-IFRS Constant Currency	IFRS	Adj.	Non-IFRS	IFRS	Non-IFRS	Non-IFRS Constant Currency ¹⁾
Revenue Numbers											
Cloud	3,247	51	3,299	-138	3,161	2,283	16	2,299	42	43	37
Software licenses	1,599	0	1,599	-33	1,565	1,621	0	1,621	-1	-1	-3
Software support	5,692	0	5,692	-143	5,549	5,391	0	5,391	6	6	3
Software licenses and support	7,291	0	7,291	-177	7,114	7,012	0	7,012	4	4	1
Cloud and software	10,538	51	10,589	-315	10,274	9,295	16	9,311	13	14	10
Services	2,184	0	2,184	-70	2,114	1,965	0	1,965	11	11	8
Total revenue	12,722	51	12,773	-385	12,389	11,260	16	11,276	13	13	10
Operating Expense Numbers											
Cost of cloud	-1,237	151	-1,086			-941	100	-841	31	29	
Cost of software licenses and support	-1,069	79	-990			-1,001	71	-930	7	6	
Cost of cloud and software	-2,306	231	-2,075			-1,942	171	-1,771	19	17	
Cost of services	-1,845	146	-1,699			-1,600	86	-1,514	15	12	
Total cost of revenue	-4,151	377	-3,774			-3,542	257	-3,285	17	15	
Gross profit	8,571	428	8,999			7,718	273	7,992	11	13	
Research and development	-2,114	257	-1,857			-1,761	127	-1,635	20	14	
Sales and marketing	-3,833	496	-3,337			-3,314	319	-2,995	16	11	
General and administration	-895	325	-570			-548	67	-481	63	19	
Restructuring	-1,085	1,085	0			-22	22	0	>100	NA	
Other operating income/expense, net	48	0	48			-5	0	-5	<-100	<-100	
Total operating expenses	-12,031	2,540	-9,490	267	-9,223	-9,192	791	-8,401	31	13	10
Profit Numbers											
Operating profit (loss)	691	2,592	3,283	-117	3,166	2,069	807	2,876	-67	14	10
Other non-operating income/expense, net	-44	0	-44			-91	0	-91	-51	-51	
Finance income	286	0	286			185	0	185	55	55	
Finance costs	-258	0	-258			-157	0	-157	64	64	
Financial income, net	29	0	29			28	0	28	3	3	
Profit (loss) before tax	675	2,592	3,267			2,006	807	2,813	-66	16	
Income tax expense	-201	-669	-870			-580	-194	-774	-65	12	
Profit (loss) after tax	475	1,923	2,397			1,426	613	2,039	-67	18	
Attributable to owners of parent	455	1,923	2,378			1,425	613	2,038	-68	17	
Attributable to non-controlling interests	20	0	20			0	0	0	>100	>100	
Key Ratios											
Operating margin (in %)	5.4		25.7		25.6	18.4		25.5	-12.9pp	0.2pp	0.0pp
Effective tax rate (in %)²⁾	29.7		26.6			28.9		27.5	0.8pp	-0.9pp	
Earnings per share, basic (in €)	0.38		1.99			1.19		1.71	-68	17	

¹⁾ Constant-currency period-over-period changes are calculated by comparing the current year's non-IFRS constant-currency numbers with the non-IFRS number of the previous year's respective period.

²⁾ The difference between our effective tax rate (IFRS) and effective tax rate (non-IFRS) in the first half of 2019 mainly results from tax effects of share-based payment expenses, restructuring expenses and acquisition-related charges.

Due to rounding, numbers may not add up precisely.

Non-IFRS Adjustments Actuals and Estimates – Half Year

€ millions	Estimated Amounts for Full Year 2019	Q1–Q2 2019	Q1–Q2 2018
Operating profit (loss) (IFRS)		691	2,069
Revenue adjustments	70–120	51	16
Adjustment for acquisition-related charges	650–750	341	278
Adjustment for share-based payment expenses	1,650–1,900	1,114	491
Adjustment for restructuring	950–1,100	1,085	22
Operating expense adjustments		2,540	791
Operating profit (loss) adjustments		2,592	807
Operating profit (loss) (non-IFRS)		3,283	2,876

Non-IFRS-Adjustments by Functional Areas – Half Year

€ millions	Q1–Q2 2019					Q1–Q2 2018				
	IFRS	Acqui- sition- Related	SBP ¹⁾	Restruc- turing	Non-IFRS	IFRS	Acqui- sition- Related	SBP ¹⁾	Restruc- turing	Non- IFRS
Cost of cloud and software	-2,306	150	81	0	-2,075	-1,942	126	46	0	-1,771
Cost of services	-1,845	3	144	0	-1,699	-1,600	5	80	0	-1,514
Research and development	-2,114	5	252	0	-1,857	-1,761	3	123	0	-1,635
Sales and marketing	-3,833	169	327	0	-3,337	-3,314	134	185	0	-2,995
General and administration	-895	14	311	0	-570	-548	10	57	0	-481
Restructuring	-1,085	0	0	1,085	0	-22	0	0	22	0
Other operating income/expense, net	48	0	0	0	48	-5	0	0	0	-5
Total operating expenses	-12,031	341	1,114	1,085	-9,490	-9,192	278	491	22	-8,401

¹⁾ Share-based payments

Due to rounding, numbers may not add up precisely.

Revenue by Region (IFRS and Non-IFRS) – Half Year

€ millions	Q1–Q2 2019					Q1–Q2 2018			Δ in %		
	IFRS	Adj.	Non-IFRS	Currency Impact	Non-IFRS Constant Currency	IFRS	Adj.	Non-IFRS	IFRS	Non-IFRS	Non-IFRS Constant Currency ¹⁾
Cloud Revenue by Region											
EMEA	967	0	967	-15	952	671	0	671	44	44	42
Americas	1,868	51	1,919	-112	1,807	1,333	16	1,349	40	42	34
APJ	412	0	412	-12	401	280	0	280	48	48	43
Cloud revenue	3,247	51	3,299	-138	3,161	2,283	16	2,299	42	43	37
Cloud and Software Revenue by Region											
EMEA	4,629	0	4,629	-26	4,603	4,207	0	4,207	10	10	9
Americas	4,230	51	4,281	-247	4,034	3,586	16	3,602	18	19	12
APJ	1,680	0	1,680	-42	1,637	1,503	0	1,503	12	12	9
Cloud and software revenue	10,538	51	10,589	-315	10,274	9,295	16	9,311	13	14	10
Total Revenue by Region											
Germany	1,783	0	1,783	-1	1,782	1,617	0	1,617	10	10	10
Rest of EMEA	3,754	0	3,754	-28	3,726	3,445	0	3,445	9	9	8
Total EMEA	5,537	0	5,537	-30	5,507	5,062	0	5,062	9	9	9
United States	4,245	51	4,296	-272	4,024	3,573	16	3,589	19	20	12
Rest of Americas	957	0	957	-33	925	851	0	851	12	12	9
Total Americas	5,202	51	5,253	-305	4,949	4,424	16	4,440	18	18	11
Japan	526	0	526	-28	497	443	0	443	19	19	12
Rest of APJ	1,457	0	1,457	-22	1,435	1,331	0	1,331	9	9	8
Total APJ	1,983	0	1,983	-50	1,933	1,774	0	1,774	12	12	9
Total revenue	12,722	51	12,773	-385	12,389	11,260	16	11,276	13	13	10

¹⁾ Constant-currency period-over-period changes are calculated by comparing the current year's non-IFRS constant-currency numbers with the non-IFRS number of the previous year's respective period.

Due to rounding, numbers may not add up precisely.

General Information

Forward-Looking Statements

This half-year 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, many of which are beyond our control. 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. We describe these risks and uncertainties in the [Risk Management and Risks](#) section, respectively in the there-mentioned sources.

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, the [Risk Management and Risks](#) section, the [Expected Developments and Opportunities](#) section, and other forward-looking information appearing in other parts of this half-year financial report. To fully consider the factors that could affect our future financial results, both our Integrated Report 2018 and our Annual Report on Form 20-F for December 31, 2018, should be considered, as well as all of our other filings with the 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), the European Central Bank (ECB), and the International Monetary Fund (IMF). This type of data represents only the estimates of IDC, 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, 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 Management and Risks](#) 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.

All of the information in this report relates to the situation as at June 30, 2019, or the half year ended on that date unless otherwise stated.

Non-IFRS Financial Information

This half-year report contains non-IFRS measures as well as financial data prepared in accordance with IFRS. We present and discuss the reconciliation of these non-IFRS measures to the respective IFRS measures in the [Supplementary Financial Information](#) section. For more information about non-IFRS measures, see our Web site www.sap.com/investors/sap-non-ifrs-measures.

Additional Information

Financial Calendar

October 21, 2019

Third-quarter 2019 earnings release, telephone conference

November 12, 2019

Special Capital Markets Day, New York

January 28, 2020

Fourth-quarter and full-year 2019 preliminary earnings release, telephone conference

May 20, 2020

Annual General Meeting of Shareholders, Mannheim, Germany

Investor Services

Additional information about this half-year report is available online at www.sap.com/investors, including the official quarterly statement, a presentation about the quarterly results, and a recording of the conference call for financial analysts.

The "Financial Reports" tab contains the following publications:

- SAP Integrated Report (IFRS, PDF, www.sapintegratedreport.com)
- SAP Annual Report on Form 20-F (IFRS, PDF)
- SAP SE Statutory Financial Statements and Review of Operations (HGB, German only, PDF)
- Half-Year Report (IFRS, PDF)
- Quarterly Statements (IFRS, PDF)

www.sap.com/investors is also the place to look for in-depth information about stock, debt, and corporate governance; financial and event news; and various services designed to help investors find the information they need fast (see "Investor Services"). These include an e-mail and text message news service, and a Twitter feed.

For sustainability reasons and faster distribution, SAP decided to refrain from printing reports.

Only a limited number of the Excerpt from the Integrated Report was printed for the Annual General Meeting of Shareholders.

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