

2015 ANNUAL REPORT  
COMBINED MANAGEMENT REPORT

# Reimagine Your Business



The Best-Run Businesses Run SAP®

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# Combined Management Report

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# General Information About This Management Report

## **BASIS OF PRESENTATION**

This combined group management report by the SAP Group (collectively, “we,” “us,” “our,” “SAP,” “Group,” or “Company”) and the management report of SAP SE have been prepared in accordance with sections 289, 315, and 315a of the German Commercial Code and German Accounting Standards (GAS) No. 17 and 20. The management report is also a management commentary complying with the International Financial Reporting Standards (IFRS) Practice Statement Management Commentary.

All of the information in this report relates to the situation as at December 31, 2015, or the fiscal year ended on that date, unless otherwise stated.

The report contains references to additional information in other parts of the SAP Integrated Report that is available online. This additional information is not part of the management report.

## **FORWARD-LOOKING STATEMENTS**

This management 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.

The words “aim,” “anticipate,” “assume,” “believe,” “continue,” “could,” “counting on,” “is confident,” “development,”

“estimate,” “expect,” “forecast,” “future trends,” “guidance,” “intend,” “may,” “might,” “outlook,” “plan,” “project,” “predict,” “seek,” “should,” “strategy,” “want,” “will,” “would,” and similar expressions as they relate to us are intended to identify such forward-looking statements. Such statements include, for example, those made in the *Operating Results* section, our quantitative and qualitative disclosures about market risk pursuant to the International Financial Reporting Standards (IFRS), namely IFRS 7 and related statements in our *Notes to the Consolidated Financial Statements* section, *Expected Developments and Opportunities* section; *Risk Management and Risks* section; and other forward-looking information appearing in other parts of this report. To fully consider the factors that could affect our future financial results, both this report and our Annual Report on Form 20-F 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), a provider of market information and advisory services for the information technology, telecommunications, and consumer technology markets; 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. In addition, although we believe that data from these sources is generally reliable, this type of data is imprecise. We caution readers not to place undue reliance on this data.

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# Overview of the SAP Group

- SAP is the global leader in business application and analytics software.
- SAP is the enterprise cloud company with the greatest number of users.
- The SAP Group includes subsidiaries in all major countries and employs approximately 77,000 people.

Founded in 1972, SAP today is the global leader in business application and analytics software in terms of market share and the market leader in digital commerce. Further, SAP is the enterprise cloud company with the greatest number of users and the fastest-growing major database company. Our continued growth over more than four decades is attributable to relentless innovation, a diverse portfolio, our ability to anticipate everchanging customer requirements, and a broad ecosystem of partners. With approximately 300,000 customers in over 180 countries, the SAP Group includes subsidiaries in all major countries and employs approximately 77,000 people.

SAP is headquartered in Walldorf, Germany; our legal corporate name is SAP SE. Our ordinary shares are listed on the Frankfurt Stock Exchange, the Berlin Stock Exchange and the Stuttgart Stock Exchange. The principal trading market for the ordinary shares is Xetra, the electronic dealing platform of Deutsche Börse AG. American Depositary Receipts (ADRs) representing SAP SE ordinary shares are listed on the New York Stock Exchange (NYSE), and currently each ADR represents one ordinary share. As at December 31, 2015, our market capitalization was €90.1 billion on the DAX and US\$97.2 billion on the NYSE. SAP is a member of Germany's DAX, the Dow Jones EURO STOXX 50, and the Dow Jones Sustainability Index.

Our company culture puts our customers' success at the center of everything we do. With our vision to help the world run better

and improve people's lives, and with Run Simple as our operating principle, we focus on helping our customers master complexity, and innovate and transform to become a sustainable digital business.

We derive our revenue from fees charged to our customers for the use of our cloud solutions, for licensing of on-premise software products and solutions, and transaction fees for activity on our business networks. Additional sources of revenue are support, professional services, development, training, and other services.

As at December 31, 2015, SAP SE directly or indirectly controlled a worldwide group of 255 subsidiaries in more than 180 countries to distribute our products, solutions, and services. Distributorship agreements are in place with independent resellers in many countries.

Our subsidiaries perform tasks such as sales and marketing, consulting, research and development, cloud delivery, customer support, training, or administration. For a list of subsidiaries, associates, and other equity investments, see the Notes to the Consolidated Financial Statements section, *Note (34)*.

# Strategy and Business Model

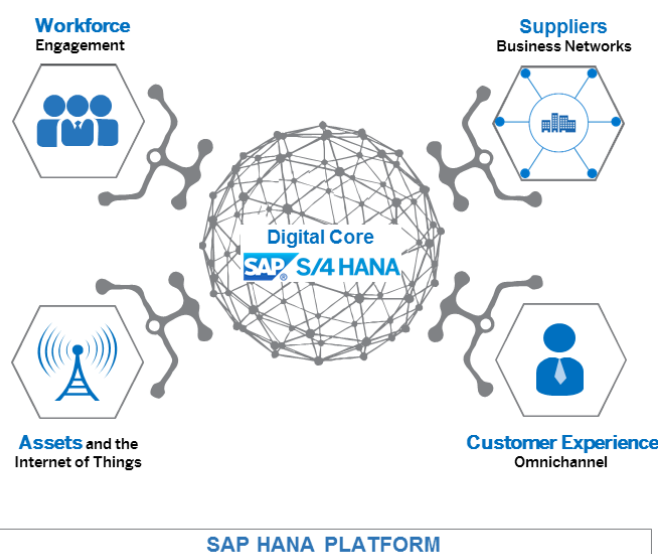
- SAP offers a portfolio of solutions built around SAP HANA providing organizations with what they need to become sustainable digital businesses.
- Our business helps create long-term value by addressing customers' current and future needs.
- We use both financial and non-financial indicators to measure our success.

## HELPING OUR CUSTOMERS REIMAGINE THEIR BUSINESSES

The world is experiencing unprecedented change that is transforming both our use of technology and society more broadly. People are connected in ways like never before. Entire industries have been disrupted by innovations that have brought the once unimaginable within reach. Technology trends such as hyperconnectivity, cloud computing, and Big Data go hand-in-hand with social and business trends that are changing how we live and work. Rapid urbanization, the sharing economy, enormous demographic change, and resource scarcity are demanding that leaders of tomorrow adapt to a world in which the pace of change continues to accelerate.

To remain competitive – and create a sustainable competitive advantage – businesses today must become sustainable digital businesses. In fact, experts across industries know that in the new digital economy, only the most adaptive businesses will prevail. SAP provides what is needed to become a digital business. Our enduring vision is to help the world run better and improve people's lives. Our vision is not just relevant in this time of change and disruption – it is essential.

Complexity has become a problem of staggering proportions and stands in the way of digital transformation and innovation. It is what keeps companies from turning the trends of our time – from the explosion of data to a rapidly growing middle class – into business opportunities. Becoming a digital business means that companies must first cut through this complexity, as simplicity is a prerequisite for innovation. Companies must make their digital strategy a core part of their business strategy.



We enable organizations to tackle complexity by unlocking their ability to Run Simple. This principle guides everything we do and powers our customers' transformation into digital businesses. We offer what is required to support this transformation – our deep experience as a leader in enterprise software for more than 40 years; our solutions and services; and our global reach, which includes a base of approximately 300,000 customers across 25 distinct industries; and an ecosystem of thousands of partners.

Our digital approach is built on two critical elements – our SAP Cloud portfolio and the SAP HANA platform. And our strategy to become THE cloud company powered by SAP HANA refers not

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just to our own transformation but that of our customers – and their customers.

SAP Cloud powered by SAP HANA simplifies consumption and the user experience, while SAP HANA simplifies the IT landscape. SAP HANA enables business processes and analytics to run on the same platform, something that was simply not conceivable even five years ago.

With the release of SAP S/4HANA in 2015, our next-generation business suite, we have brought a new level of performance and simplicity to core business processes. And SAP HANA Cloud Platform is facilitating the development of a much broader and richer landscape of applications to support our customers' needs.

With these capabilities, SAP partners with companies on every aspect of their digital transformation, helping them run better and improving people's lives. As they become digital businesses, our customers are becoming more sustainable organizations by improving how they serve their customers, engaging and developing their workforce, increasing transparency of their suppliers' social performance, using resources more efficiently, and interacting with local communities. Our global business networks expand the world that our customers operate in, connecting them with a vast ecosystem of partners that creates more efficient, powerful, and simpler ways of managing such key functions as procurement, travel, and workforce management.

Furthermore, we connect all of these realms to core business processes, such as finance and logistics, for a seamless and simplified customer experience. And we provide deep industry expertise to help our customers design an IT strategy that best supports their business strategy. While each of these capabilities would bring value on its own, together they set us apart – we are unique in our ability to guide customers on all essential elements of their digital transformation, enabling them to reimagine their business and then realize their vision for the future.

SAP has big ambitions. We measure our success across both financial and non-financial indicators: revenue growth, profitability, customer loyalty, and employee engagement. And we are creating value for our customers by helping them to navigate a changed world so that they can find business opportunities across social, environmental, and economic dimensions.

With our broad portfolio of solutions, we are convinced that we can position our customers for greater success in the digital world. SAP can help our customers better serve their customers with the sophisticated experiences they have come to expect; reach new markets as the world's cities expand; find new customers as millions of people join the modern economy; and innovate in the face of resource scarcity and ever changing technologies. Most of all, we can help them understand and

capitalize on the ways that technology and societal trends intersect, so that – along with SAP – they can not only become better organizations, but also help create a better world.

## **CREATING SOCIETAL IMPACT BY ENABLING OUR CUSTOMERS TO INNOVATE**

As a software company that serves many of the world's leading organizations, we have enormous opportunity to impact people and society by helping our customers innovate, run more efficiently, improve their IT security, and offer new products and services. For example, when major manufacturers gain greater transparency into their energy usage and create more efficient supply chains, they create a more positive impact on society while minimizing impact on environment. When banks offer mobile banking services to people who lack opportunities, they address inequality and promote economic growth. When healthcare companies utilize data in new and faster ways, they help patients gain access to potentially life-saving treatments.

In addition, at SAP and within our ecosystem, we support job creation and economic prosperity through demand for highly qualified workers to develop, sell, implement, and enhance our software for our customers. As our customers grow their own businesses, they also create opportunities for others through new products and services as well as economic growth.

At the heart of realizing these possibilities is our ability to help our customers cut through complexity and direct their resources to the work that matters most: new innovations that help the world run better and improve people's lives. We work to create long-term value by addressing future needs as well as current ones, with the goal of helping to transform how people use software, conduct business, and live their lives.

To achieve our vision, SAP provides solutions and services to customers throughout the world based on our deep expertise in business processes across industries. As leader of the enterprise software market, we must continually adapt to new technology and business trends. For this reason, we rely on the people of SAP to drive our success – their intellectual and social capital provide us with key knowledge, expertise, and business relationships. Along with the financial capital of our investors, an engaged, highly skilled, and agile workforce is at the core of our business model.

Our organization must be as adaptable as our employees – and in recent years, we have made important shifts to our sales model to accommodate enormous changes in how companies use technology. In the past, our approach was focused on charging a one-time, upfront fee for a perpetual license to our software that is typically installed at the customer site. In addition, the customer usually concludes a support contract covering support, services, and software updates. As we have seen customer preferences evolve, we are increasingly delivering our solutions in the cloud through a software-as-a-service (SaaS) model. Depending on the solution, the customer

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pays either usage-based or periodic fees to use our software, which is hosted in the cloud, and accesses it over the Internet. Further, we receive transaction fees from business conducted over our business networks.

Despite these shifts, we still rely on the strengths of our direct sales organizations to drive most business development. As a global company, we set our sales go-to-market strategies at the global level, with our regional subsidiaries then adapting and executing them. Our customer-facing employees, in close collaboration with sales support and marketing, drive demand, build pipeline, and enhance relationships with customers. Our marketing efforts cover large enterprises as well as small and midsize enterprises, with our broad portfolio of solutions and services addressing the needs of customers of all sizes across industries. Additional e-commerce and digitally native offerings further enable a low-touch or no-touch customer journey.

Our business model aligns with and supports our business strategy and puts us in a strong position to drive future growth. By helping organizations transform into digital businesses, we see enormous potential to increase our share of their overall IT spend while providing them with greater value. As our technology unlocks simplicity for our customers, they, in turn, bring new advances to their customers in areas that directly impact people's lives.

## OUR GOALS FOR SUSTAINED BUSINESS SUCCESS

We have strong ambitions for sustainable business success, both for our company and for our customers. We believe the most important indicators to measure this success comprise both financial and non-financial indicators: growth, profitability, customer loyalty, and employee engagement.

**Growth:** SAP uses various revenue metrics to measure growth. We expect full-year 2016 non-IFRS cloud subscriptions and support revenue to be in a range of €2.95 billion to €3.05 billion at constant currencies (2015: €2.30 billion). Further, we expect full-year 2016 non-IFRS cloud and software revenue to increase by 6% to 8% at constant currencies (2015: €17.23 billion). Looking beyond 2016, we have raised our 2017 ambition to reflect the current currency exchange rate environment and excellent business momentum. Assuming a stable exchange rate environment going forward, SAP now expects non-IFRS cloud subscriptions and support revenue in a range of €3.8 billion to €4.0 billion in 2017. By 2017, SAP continues to expect its rapidly growing cloud subscriptions and support revenue to be close to software license revenue and is expected to exceed software license revenue in 2018. Non-IFRS total revenue is expected to reach €23.0 billion to €23.5 billion in 2017. Our high-level 2020 ambitions remain unchanged, with 2020 non-IFRS cloud subscriptions and support revenue expected to reach €7.5 billion to €8.0 billion and total revenue is expected to be in a range of €26 billion to €28 billion.

**Profitability:** SAP expects full-year 2016 non-IFRS operating profit to be in a range of €6.4 billion to €6.7 billion at constant currencies (2015: €6.35 billion). We expect non-IFRS operating profit to be in a range of €6.7 billion to €7.0 billion in 2017 and to be in a range of €8.0 billion to €9.0 billion in 2020.

**Customer loyalty:** SAP uses the Customer Net Promoter Score (NPS) as a key performance indicator (KPI) to measure customer loyalty. We aim to achieve a Customer NPS score of 25% in 2016 (2015: 22.4%). Due to changes in sampling, resulting from ongoing efforts to implement the survey process holistically in recently acquired entities, the 2015 score is not fully comparable with the prior year score.

**Employee engagement:** We use the employee engagement index to measure motivation and loyalty of our employees, how proud they are of our company, and how strongly they identify with SAP. We remain committed to achieving 82% employee engagement score in 2016 (2015: 81%).

These four corporate objectives affirm our commitment to innovation and sustainability, and help us deliver on our vision.

In addition to primary KPIs, which directly measure our performance on our four goals, we manage a number of secondary performance indicators, which influence the primary KPIs in a variety of ways. You can read about some of these relationships, such as the link between our employee engagement and profitability, in the SAP Integrated Report online.

Our main objectives are presented with more detail throughout the report. For more information on our strategic goals, see the *Performance Management System* section; *Expected Developments and Opportunities* section; *Customers* section; and *Employees and Social Investment* section.



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# Products, Research & Development, and Services

- In 2015, we unveiled SAP S/4HANA, a next-generation business suite designed to provide the digital core our customers need to run their entire business in a digitized world.
- Our Business Network Group includes SAP Ariba, Concur, and SAP Fieldglass solutions, all supporting the interaction of companies with the outside world.
- Our Global Service & Support organization guides companies at every stage of their digital transformation by accelerating innovation, driving simplification of business and IT, and ensuring business value is realized.

## **UNLOCKING THE POTENTIAL OF DIGITAL TRANSFORMATION**

For leading companies, the question is no longer whether they need to become a digital business, but how. The role of software has moved beyond enabling the realization of business strategy to becoming an intrinsic part of that strategy. In an increasingly complex landscape – with the amount of stored data doubling every 18 months – speed, innovation, and agility are the new differentiators. It is not just about doing yesterday's work faster. Companies in every industry must take a unified approach to managing every aspect of their business, and they need solutions whose innovation matches their own ambitions to grow and win in the market.

In 2015, we unveiled one of the most important products in our history: SAP S/4HANA, our next-generation business suite, designed to provide the digital core our customers need to run their entire business in the new digital world. We expect SAP S/4HANA to drive our business for years to come, enabling companies to integrate their core business processes with running their key operations, from their supply chain to their workforce. With SAP S/4HANA, we provide companies a full business platform to reimagine their businesses and achieve the

creation of their own next-generation products and services so critical in the digital economy.

SAP S/4HANA creates unique opportunities to simplify the IT landscape, helps reduce total cost of ownership with SAP HANA, and provides a simple and role-based user experience. Enterprises can now reduce their data footprint and work with larger data sets in one system to save hardware costs, operational costs, and time as well as reduce complexity.

After launching in February 2015, over 2,700 customers have chosen SAP S/4HANA, with approximately 100 customers live at the end of 2015.

## **DRIVING SIMPLICITY AND INNOVATION THROUGH SAP HANA AND SAP HANA CLOUD PLATFORM**

SAP HANA remains at the center of our strategy to help our customers transform their businesses. The SAP HANA platform combines database, data processing, integration, and application platform capabilities in-memory. By providing advanced capabilities such as predictive analytics on the same architecture, it further simplifies application development and processing across Big Data sources and structures.



The SAP HANA Vora engine adds a new dimension to these capabilities, allowing our customers to combine their business data with Big Data managed on Hadoop compute clusters. It simplifies ownership of Big Data and supports faster, interactive, and more precise decision making.

In addition to expanding our own portfolio, we are enabling others to develop a much broader landscape of applications through SAP HANA Cloud Platform, our strategic platform-as-a-service offering. Providing both ease and flexibility, this cloud platform allows our customers and partners to build, extend, run, and sell applications and services in the cloud. It includes infrastructure, data, and storage, as well as a toolbox of platform and application extension services. SAP HANA Cloud Platform also enables connectivity between SAP solutions, including on-premise software such as SAP Business Suite as well as software-as-a-service offerings such as SAP SuccessFactors solutions.

Building on our experience, we are developing a suite of SAP solutions for the Internet of Things (IoT). The functionalities of our SAP HANA Cloud Platform IoT services help accelerate development and deployment, as well as improve the ability to manage real-time IoT and machine-to-machine applications. To support the development of these new innovations, we continue to leverage our customer co-innovation framework, which helps us address the evolving digitization needs of our customers.

The road to becoming a digital business is unique to every organization. Our portfolio supports our customers wherever they are on their journey. We want to offer the broadest integration in the industry, with customers seamlessly connecting SAP and third-party software across a range of environments to reduce IT complexity. At the same time, our user experience provides both elegance and ease-of-use across multiple devices and interfaces. Customers also have the benefits of efficiency and flexibility through a variety of deployment models.

## LAUNCHING SAP S/4HANA

SAP S/4HANA represents a huge step forward in simplifying how applications are built, consumed, and deployed. It provides real-time, mission-critical industry-specific business processes across organizations and lines of business. As a basis, enterprises can now support end-to-end operations across key business functions through a fully digitized enterprise management solution named SAP S/4HANA Enterprise Management.

A prime example of our innovations is SAP S/4HANA Finance, a comprehensive solution for the office of the CFO. This solution brings enhanced functionality to a range of key areas – from financial planning and analysis to collaborative finance operations. It also provides our customers with seamless flexibility, with deployment either on premise or in the cloud.

Beyond SAP S/4HANA Finance, the on-premise edition of SAP S/4HANA drives business value in other areas such as materials management as well as sales and distribution, among others, taking full advantage of a simplified data model and a responsive user experience.

## INNOVATING FOR INDUSTRIES AND LINES OF BUSINESS

As the market leader in enterprise application software, we offer end-to-end solutions specific to 25 industries and 12 lines of business, localized by country and for companies of any size.

### Industries

| Industry Sector              | Industry Portfolio                             |
|------------------------------|------------------------------------------------|
| Consumer                     | SAP for Consumer Products                      |
|                              | SAP for Life Sciences                          |
|                              | SAP for Retail                                 |
|                              | SAP for Wholesale Distribution                 |
| Discrete manufacturing       | SAP for Aerospace & Defense                    |
|                              | SAP for Automotive                             |
|                              | SAP for High Tech                              |
|                              | SAP for Industrial Machinery & Components      |
| Energy and natural resources | SAP for Chemicals                              |
|                              | SAP for Mill Products                          |
|                              | SAP for Mining                                 |
|                              | SAP for Oil & Gas                              |
|                              | SAP for Utilities                              |
| Financial services           | SAP for Banking                                |
|                              | SAP for Insurance                              |
| Public services              | SAP for Defense & Security                     |
|                              | SAP for Healthcare                             |
|                              | SAP for Higher Education & Research            |
|                              | SAP for Public Sector                          |
| Services                     | SAP for Engineering, Construction & Operations |
|                              | SAP for Media                                  |
|                              | SAP for Professional Services                  |
|                              | SAP for Sports & Entertainment                 |
|                              | SAP for Telecommunications                     |
|                              | SAP for Travel & Transportation                |

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## Lines of Business

- Asset Management
- Commerce
- Finance
- Human Resources
- Manufacturing
- Marketing
- R&D/Engineering
- Sales
- Service
- Sourcing and Procurement
- Supply Chain
- Sustainability

In addition, we are building other functional innovations that serve each line of business. For example:

**Human capital management (HCM):** Our HCM solutions, including SAP SuccessFactors solutions, help organizations increase the value of their total workforce by developing, managing, engaging, and empowering their people. These solutions address the full range of HR needs, from hiring the right people and managing contingent workers to simplifying the way people work. We focus on delivering a simple and intuitive user experience through mobile device or desktop.

**Customer engagement and commerce (CEC):** Our CEC solutions comprise SAP and SAP Hybris software that serve the commerce, marketing, sales, and service lines of business, enabling business-to-business and business-to-consumer companies to provide real-time, consistent, contextual, and relevant experiences to their customers. Regardless of channel or device, these solutions deliver personalized engagement based on context and proven industry expertise and therefore go beyond traditional customer relationship management, which no longer meets the needs of today's consumer-driven market.

## PROVIDING USERS WITH FREEDOM, FLEXIBILITY, AND ELEGANT DESIGN

We believe digital transformation must include a focus on the user experience, as expectations by our customers – and their customers – have risen enormously in recent years. For many, mobile has become the technology of choice, providing simple, always-on access to information, processes, and services. To that end, key mobile services such as app creation and management, security, and extensibility are available as part of SAP HANA Cloud Platform, giving our customers simple access to the technologies that support new business models.

Providing an elegant, intuitive user experience, SAP Fiori has evolved since its introduction in 2013 into the new user experience (UX) for SAP software. It reflects a broader shift in software design that puts as much focus on how people actually use technology as on specific features and functions. SAP Fiori offers innovative new features such as improved contextual

interaction and action-oriented personal notifications. The updated design delivers improvements while staying consistent with our original UX principles of being role-based, responsive, simple, coherent, and delightful.

We were awarded the prestigious Red Dot Award for the SAP Fiori UX design concept in the Interaction Category in September 2015.

## DELIVERING GREATER VALUE THROUGH THE POWER OF BUSINESS NETWORKS

In today's hyperconnected business landscape, how companies interact with the outside world is undergoing profound change. At SAP, we are helping to lead this transformation through our business networks, which are helping drive innovation in key areas that impact an organization's core operations. Our business network strategy is to bring the world's vast network of partners, suppliers, and services to best-in-class solutions that fulfill the needs of specific lines of business – all within a few clicks. Moving far beyond basic automation, our network solutions are enabling new processes and outcomes for customers. They are also part of a new wave of solutions that are more consumer-friendly and business-ready than in the past.

We recognize that business applications today must deliver an effortless user experience while ensuring that information and data flow back into the business and across networks in a secure way. These applications serve to maintain compliance while enabling choice. They are designed for a more digital, highly mobile, and interconnected world, and help drive greater value for employees, organizations, and the vast networks of partners and individuals they rely on.

Today, our business network portfolio includes SAP Ariba, Concur, and SAP Fieldglass solutions. Each is a leading provider of cloud applications, services, and cloud networks through open platforms that connect internal business processes to a global ecosystem of partners.

The Ariba Network is a leading marketplace used by approximately two million companies to discover, connect, and collaborate over US\$740 billion in commerce every year. The network connects companies across the full commerce process – from sourcing through payment settlement. It also provides insights and technology to help companies improve their operations – and to connect and collaborate in new ways that are only possible in a networked environment.

Concur Travel & Expense is the world's leading travel and expense management system, with more than 32 million users. The Concur system goes beyond the basic automation of expense reports and provides visibility and insights that support better decision making for employee travel and spend, helping businesses to focus on what matters most.

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SAP Fieldglass solutions simplify the process of procuring and managing external workforce services. They provide visibility into service providers and non-employee workers and help improve compliance and cost control. As a centralized, single point of access to engage with more than 1.9 million external workers in approximately 130 countries, SAP Fieldglass solutions connect consultancies, staffing firms, independent contractors, and other service providers, so business users can procure services from anywhere in the world with just a few clicks. As an open platform, SAP Fieldglass also connects to financial, HR, payroll, and procurement systems.

Each of these three cloud network companies has made connecting to partners, suppliers, and services through an open platform a core part of their architecture and approach. Ultimately, we aim to go further, connecting all the world's networks. We are working to create platforms for networks and services that will further transform the business landscape – with the purpose of creating new outcomes, services and experiences that make businesses run more simply and with greater opportunities for innovation.

#### **PROVIDING REAL-TIME, ADVANCED ANALYTICS TO DRIVE BETTER DECISION MAKING**

The speed of the digital economy demands that companies make informed decisions faster than ever before, as data can become obsolete in a matter of seconds. SAP HANA has vastly increased the efficiency with which our customers can use analytics to drive decision making. With transactions and analytics combined into a single in-memory platform, our customers can access a “single source of truth” for real-time planning, execution, reporting, analysis, and predictive modeling on very large volumes of data.

In 2015, we further simplified our offering with the introduction of the SAP Cloud for Analytics solution, a software as a service that aims to bring all analytics capabilities together for a richer user experience.

Based on SAP Cloud for Analytics, we also launched SAP Digital Boardroom, a multifaceted solution that offers executive decision makers new ease and elegance in accessing company data in real time, and the ability to engage in what-if queries and create visualizations. Designed to provide far greater transparency to board members, executives, and other decision makers, fully automated business intelligence capabilities in the solution not only improve the quality and speed of reporting, but also facilitate greater trust through more effective collaboration and decision making.

Whether in the cloud, on premise, or a combination of the two, our analytics solutions enable our customers to access immediate, actionable intelligence. Even as data volumes grow exponentially, companies can simplify their business processes and gain insights to better manage every aspect of their organization – from integrated planning to risk and compliance.

Among other features, key analytics solutions from SAP support:

- **Trusted data discovery and agile visualization** to bring reliable data to life in real time through intuitive visualizations
- **Advanced analytics** to combine the power of predictive processing with intuitive modeling and advanced data visualization
- **Corporate performance management** to set and track measurable performance objectives through planning, budgeting, forecasting, and financial consolidation tools

#### **RESEARCH AND DEVELOPMENT**

With businesses shifting at an ever-accelerating pace towards digitalization and the cloud, leading our customers through change is more important than ever before. We do this every day by empowering our employees and collaborating with our customers to develop world-class software and next-generation solutions. SAP further strengthened our global research and development (R&D) efforts in 2015 by investing in our SAP Labs network and the new SAP Innovation Center Network.

Nearly all of our software products are developed at our 15 SAP Labs locations in 13 countries across the globe. This global reach means that we have access to leading talent worldwide; in addition, we can collaborate with top universities throughout the world and have access to major technology hubs as well as diverse and vibrant startup communities. By understanding trends in different regions, as well as the specific needs of our customers that operate there, SAP has a major strategic advantage in developing products and services for the future.

In addition to our SAP Labs, we also expanded from two SAP Innovation Center locations to an SAP Innovation Center Network of 10 locations across four continents. This network is a dedicated unit within our development organization that is responsible for identifying new markets for SAP and pioneering game-changing solutions using transformational technologies. Through the SAP Innovation Center Network, we can closely collaborate with customers, partners, and academia to explore trends such as machine learning and block chain, among others.

We have identified several key markets and opportunities that hold significant revenue potential and allow us to apply our unique capabilities. Currently, areas include future enterprise applications, personalized medicine, and smart cities. We are tackling a range of challenges facing these areas, from designing the future of business software to developing new approaches to treating cancer and helping decrease traffic congestion.

Our revitalized research organization has become an applied research entity with its main focus on machine learning for enterprise applications, personalized medicine, in-memory data management, and security. Our new research approach focuses sharply on potential business impact while collaborating with the best research institutions worldwide for selected topics.

Our innovation stems from many places, and we draw on the ideas of our customers, partners, startups, academia, and, most importantly, our own employees. Our overarching goal is to foster organic innovation and support the transformation of great ideas into profitable business. In support of this vision, we established a Company-wide “intrapreneurship” program that enables employees to develop their ideas in an internal incubator at SAP.

In addition to our employees, our customers provide us with unique insights about their business models and digitization challenges. We also work with customers on co-innovation and custom development projects. Our partners and their solutions enhance these efforts in a range of ways, such as at our SAP Co-Innovation Lab locations, which support engagements ranging from strategic alliances to key proofs of concept.

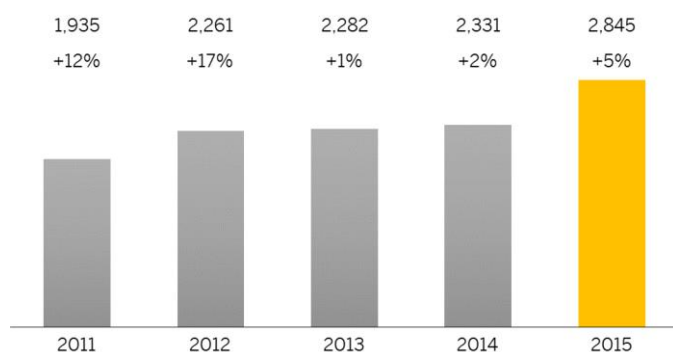
### R&D Investment

SAP's strong commitment to R&D is reflected in our expenditures: In 2015, we increased our R&D expense (IFRS) by €515 million, to €2,845 million (2014: €2,331 million). We spent 13.7% of total revenue on R&D in 2015 (2014: 13.3%). Our non-IFRS R&D expense as a portion of total operating expenses declined slightly from 18.5% to 18.3% year-over-year.

At the end of 2015, our total full-time equivalent (FTE) count in development work was 20,938 (2014: 18,908). Measured in FTEs, our R&D headcount was 27% of total headcount (2014: 25%). Total R&D expense not only includes our own personnel costs but also the external cost of works and services from the providers and cooperation partners we work with to deliver and enhance our products. We also incur external costs for translating, localizing, and testing products, for obtaining certification for them in different markets, patent attorney services and fees, strategy consulting, and the professional development of our R&D workforce.

### Research and Development (IFRS)

€ millions | change since previous year



### Patents

As a market leader in enterprise applications, SAP actively seeks intellectual property protection for innovations and proprietary

information. Our software innovations continue to strengthen our market position in business solutions and services. Our investment in R&D has resulted in numerous patents. As at December 31, 2015, SAP holds a total of more than 7,224 validated patents worldwide. Of these, 893 were granted and validated in 2015.

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

### GUIDING OUR CUSTOMERS THROUGH EVERY STEP OF THEIR DIGITAL TRANSFORMATION

In addition to creating new solutions for the digital era, we recognize that we must partner with our customers to help them make the most of these innovations based on their unique needs and goals. Through our worldwide service and support, we guide companies at every stage of their digital transformation. We focus on creating and delivering strategies for our customers' digital journey, accelerating innovation, driving simplification of business and IT, and ensuring that expected business value is realized and continuously optimized.

In 2015, we radically simplified how we engage with our customers and deliver services, greatly harmonizing our portfolio. Under the new SAP ONE Service approach, we also introduced a new commercial model providing one service portfolio, out of one global organization, and under one contract.

We see enormous potential for our customers to simplify their own businesses and seize new opportunities through SAP HANA, with SAP S/4HANA as their new digital core. For this reason, adoption of these innovations is a key pillar in our service and support strategy. To ensure the expected customer outcomes, we offer high-value services tailored to the various customer scenarios supporting the adoption of SAP S/4HANA:

- **System conversion:** Customers changing their current SAP system to SAP S/4HANA
- **Landscape transformation:** Customers consolidating their landscape or carving out selected entities or processes into a system running SAP S/4HANA
- **New implementation:** Customers migrating from a third-party legacy system or installation of SAP S/4HANA for a new customer

In mid-2015, we also introduced SAP Activate, an innovation adoption framework to further support the fast and effective implementation of SAP S/4HANA. Offering a unique combination of SAP Best Practices and guided configuration, the new methodology provides ready-to-run digitized business processes optimized for SAP S/4HANA. It allows customers to flexibly choose the approach for their business needs, from a new implementation to an integration to a migration scenario.

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As they continue on their path to digitization, we work with large enterprise customers to forge a co-engineering and co-innovation relationship, so that they can influence and shape existing SAP solutions while gaining early access to product innovation. We help define future software solution standards together with our customers in comprehensive engagements and serve as a trusted advisor during delivery of innovative solutions for the future.

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# Acquisitions

- Organic growth is the primary driver of our growth strategy.
- We anticipate targeted and “fill-in” technology and software acquisitions, but no significant business combinations.
- Sapphire Ventures continues to invest in the potential next generation of technology leaders worldwide.

## **FOCUSING ON ORGANIC GROWTH AND TARGETING “FILL-IN” TECHNOLOGY THROUGH ACQUISITIONS**

As SAP prepares itself for the new digital economy, we may make acquisitions that advance our strategic goals. In 2015, SAP acquired Multiposting, a French cloud-computing company with more than 80 employees that provides software for the automatic posting of jobs and internships on the Internet. Multiposting is based in Paris and a European leader in job posting solutions. With this acquisition, SAP plans to offer customers the best end-to-end cloud recruiting suite on the market, including the ability to efficiently post jobs to a global network of thousands of channels. The Multiposting solution will be available as part of the existing recruiting offering in our human capital management portfolio as well as in all its current forms – as a stand-alone product, as a Web service, and through import.

Organic growth is the primary driver of our growth strategy. We will invest in our own product development and technology innovation, improving the speed, number of projects, and innovations brought to market. We may also acquire targeted and “fill-in” technology and software to add to our broad solution offerings and improve coverage in key strategic markets. By doing so, we strive to best support our customers’ needs for simplified operations. We do not anticipate significant acquisitions in 2016 or 2017.

For more information about our acquisitions, see the Notes to the Consolidated Financial Statements section, *Note (4)*.

## **INVESTING IN THE NEXT GENERATION OF TECHNOLOGY LEADERS THROUGH VENTURE ACTIVITIES**

Through investments in venture capital funds managed by Sapphire Ventures (formerly called SAP Ventures), which comprises our consolidated investments in venture funds, SAP supports investments in entrepreneurs worldwide that aspire to

build industry-leading businesses. Over the past 19 years, Sapphire Ventures has invested in more than 130 companies on five continents. Some of these companies have been acquired by third parties or have become publicly listed companies.

Sapphire Ventures aims to invest in the next generation of global category technology leaders as well as early-stage venture capital funds in enterprise and consumer technology. Specifically, Sapphire Ventures pursues opportunities in which it can help fuel growth by adding expertise, relationships, geographic reach, and capital. It invests globally with a particular focus on emerging companies and early stage funds in Europe, Israel, and the United States, as well as in Brazil, China, and India.

SAP’s total commitment to Sapphire Ventures is US\$1.4 billion for use over the lifetime of its respective funds. Investments through the funds are currently ongoing.

For more information about our consolidated investment funds, see the Notes to the Consolidated Financial Statements section, *Note (34)*.

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# Partner Ecosystem

- We work closely with partners to build, service, and sell SAP solutions for customers.
- SAP has more than 13,000 partners worldwide.
- Partners engaged with nearly 90% of new SAP customers in 2015.

## WORKING TOGETHER TO EXTEND SAP'S REACH IN THE MARKETPLACE

SAP proudly works with a network of more than 13,000 partners worldwide that helps companies of all sizes tackle complexity, grow their business, and Run Simple. SAP partners extend our reach in the marketplace and accelerate our Company's growth, reaching thousands of new companies and millions of users each year. Our partner community plays an important role in our success, delivering expertise through pioneering solutions to provide our mutual customers tools to succeed in the developing digital and services-based economy.

Partners add tremendous value to both SAP and customers. They sell our software and cloud services, develop complementary software and solutions, and provide a broad portfolio of implementation and professional services that support customers across all geographies and industries.

Last year we saw outstanding growth in SAP's partnerships. For example, partners were responsible for nearly 90% of new SAP software customers. SAP Business One, one of our core ERP solutions for small and midsize enterprises (SMEs) and sold exclusively through partners, reached its 50,000th customer. Nearly 55% of all SAP S/4HANA software license deals were won by partners and our cloud revenue through partners reported triple-digit growth. Together with our strategic technology and service partners, we created a number of powerful and compelling joint solutions and services that help customers transform and run their businesses simpler.

In the past year, SAP made several transformational moves designed to increase our joint success in the market, including:

- **SAP SME Solutions:** More than 80% of SAP customers are small and midsize enterprises (SMEs), and we support the majority through our partner networks and other channels. To boost our reach, we introduced this SME-specific portfolio marketing approach and a Run Simple advertising and

demand generation campaign around our core ERP solutions for SMEs: SAP Business All-in-One, SAP Business ByDesign, and SAP Business One. As growing businesses transform in the digital economy, SAP has equipped partners with these and other tools, solutions, and programs they need to drive more demand in this important market.

- **SAP Anywhere debut:** Late in 2015, we launched SAP Anywhere, a revolutionary cloud solution that allows small businesses to connect with customers anytime, anywhere on any device. It is now available in China and is expected to be introduced in the United Kingdom and the United States in 2016. SAP Anywhere represents a new opportunity for partners. With our commitment to "SAP Anywhere, Everywhere," our partners can resell a complete cloud-based solution that manages marketing, sales, and e-commerce activities in one complete front-office system using real-time analytics.
- **SAP PartnerEdge program enhancements:** To build stronger relationships and increased business opportunities, SAP introduced the next generation of its flagship partner program in 2015. Among the improvements, we reduced the number of partner engagement options from more than 30 to just four – Run, Build, Service, and Sell – making it easier for partners to engage with SAP. We streamlined processes and relaunched the SAP PartnerEdge Web site to give partners easier access to resources and real-time visibility into their SAP business.

While reselling, implementation, and services are a large part of our ecosystem's effort, SAP partner innovation on our technology platforms is also essential to market penetration. Partners develop their own applications and solutions called SAP Solution Extensions, which can then be sold to customers and other partners. These partner-developed solutions are tested, validated, approved, and supported by SAP.

In addition, the SAP PartnerEdge program for Application Development, which grew to more than 1,100 active members in



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2015, encourages partners to build complementary solutions on top of our technology platforms – and quickly monetize those solutions through SAP e-commerce channels.

Partners also embed SAP technology within their offerings under an original equipment manufacturer (OEM) licensing agreement, giving customers SAP software functionality backed by partner industry knowledge and expertise.

2015 was a seminal year for our partner managed cloud business, where our partner recruitment and enablement success has expanded the number of customers benefiting from the flexibility, rapid time to value, and pay-as-you-go economics of a managed cloud with enterprise-class SAP solutions.

SAP will continue to drive business growth through partners in 2016, continuing to identify and recruit key partners and develop the innovative programs and initiatives that fuel our mutual success.

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# Customers

- SAP helps customers Run Simple for more sustainable business models.
- The Customer Engagement Initiative offers customers early insight into planned innovations, so they can influence new developments.
- We saw strong customer wins in every region.

## HELPING CUSTOMERS RUN SIMPLE

When SAP customers Run Simple, it improves their ability ultimately to become best-run businesses that create more sustainable business models – which, in turn, help us ensure our own long-term viability. That is why we strive to provide more than just software and services; we continually engage with our customers at every stage – not only during the sales and implementation phases, but also through the sharing of best practices and innovations.

One example of this strategy is our Customer Engagement Initiative. This program offers customers early insight into certain aspects of our planned innovations, so they can influence new developments. In addition, it offers customers the opportunity to network on topics of mutual interest. These networking opportunities take place at a variety of global events, including the SAPHIRE NOW, SAP Select, SAP Forum, and SAP TechEd conferences, as well as virtual events.

## CUSTOMER FOCUS REFLECTED IN CUSTOMER NET PROMOTER SCORE

Customer loyalty is one of our four Company-wide strategic objectives, along with growth, profitability, and employee engagement. In 2015, our combined on-premise and cloud Customer NPS is 22.4% (2014: 19.1%). Due to changes in sampling, resulting from ongoing efforts to implement the survey process holistically in recently acquired entities, the 2015 score is not fully comparable with the prior year's score.

Our goal continues to be to best support our customers' success and the success of SAP. For example, we are expanding on the insights provided by our surveys through root cause analysis to gain a better understanding of customer problems, why they happened, and what needs to be done to prevent those problems from happening again.

Our combined on-premise and cloud NPS target for 2016 is 25%, 2.6 percentage points above our 2015 achievement.

For more information about the Customer NPS, see the *Performance Management System* section and the *Non-Financial Notes* section of the SAP Integrated Report 2015 online.

## STRONG CUSTOMER DEMAND

Our strategy focuses on offering solutions and services to help customers Run Simple today and tomorrow. To do so, we offer a spectrum, from complete suites to applications that are lean, focused, quick to implement, and highly mobile. In 2015, we saw customers embrace this strategy by licensing or subscribing to the full range of SAP software, from comprehensive solutions for large enterprises to the latest mobile apps.

Some examples by region include the following customers:

## NORTH AMERICA AND LATIN AMERICA (AMERICAS) REGION

- **Adobe**, a multinational computer software company, has chosen the SAP Hybris Billing solution as its monetization and billing platform to support a new SaaS business model. Adobe seeks to support fast subscription-revenue growth on a flexible and scalable platform, while significantly reducing time to launch innovative and flexible offers and promotions.
- **American Airlines**, the world's largest airline, has selected several SAP SuccessFactors solutions, as well as the SAP HANA Enterprise Cloud service and SAP HANA Cloud Platform. The company's goal is to enhance service to its employees and reduce operating costs while remaining focused on its core business.
- **Eastman Kodak**, a technology company focused on imaging, selected the SAP S/4HANA suite to help reduce total cost of IT ownership. In addition, Kodak plans to establish an IT infrastructure to position its organization for future growth and innovation.
- **Hewlett Packard Enterprise Company (HPE)** has committed to and invested in implementing one of the largest installations of the SAP S/4HANA Finance solution for their

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internal foundational platform to support its digital transformation. With SAP S/4HANA, HPE aims to be better able to take advantage of real-time access to operational and financial data with the goal of improving the speed of decision making and operating more efficiently; reducing the time for financial close; and delivering actionable intelligence throughout its business. The aim is to ensure HPE becomes more competitive in the marketplace.

- **Stara**, a leader in agricultural machinery headquartered in Brazil, selected SAP HANA Cloud Portal, as well as SAP Cloud for Customer, SAP SuccessFactors Employee Central, and SAP SuccessFactors Talent Management solutions. Stara expects to simplify its business processes while improving sales efficiency through greater control of critical company information.

#### ASIA PACIFIC JAPAN (APJ) REGION

- **Boryung Pharmaceutical**, one of the leading pharmaceutical manufacturers in South Korea, selected SAP S/4HANA Finance for its simple user experience, simple business solution, simple data model, and shorter go-live time.
- La Trobe University in Australia went live with SAP S/4HANA Finance. As one of the first organizations globally to adopt SAP S/4HANA Finance, La Trobe University aims to benefit from instant insight across financial and operational processes to drive value through planning, analysis, prediction and simulation. They have a term for it; they call it “Brilliant Basics”.
- Lenovo Group, a multinational computer technology company, is expanding its HANA footprint by moving data from all systems to the SAP HANA platform.
- PetroChina, China’s largest oil producer, has implemented SAP Business Warehouse powered by SAP HANA and SAP BusinessObjects Business Intelligence solutions. Since the system went live in late July, HR reporting performance is three to ten times faster than before, which has empowered HR director-level management to make strategic decisions based on Big Data analysis.
- **St Barbara**, an Australian-based, ASX-listed gold producer and explorer, selected the SAP SuccessFactors Performance & Goals solution. The solution has enabled St Barbara to replace its paper-based performance management process with a cloud-based solution that also supports its offshore locations.

#### EUROPE, MIDDLE EAST, AND AFRICA (EMEA) REGION

- **ArcelorMittal**, the world’s leading steel and mining company, selected SAP S/4HANA to streamline business processes, improve productivity, and decrease costs. The company seeks to enhance its position by serving an increasingly strong innovation agenda around the world.
- **Bosch Group**, a leading global supplier of technology and services, has chosen SAP S/4HANA to rebuild its IT infrastructure, seeking a simplified and harmonized landscape that helps them offer connected services to customers.

- **City Football Group (CFG)** is the owner of a number of soccer-related businesses including Manchester City Football Club and New York City Football Club. CFG and its clubs will implement a wide variety of cloud-based solutions powered by SAP HANA with the aim of simplifying their worldwide operations, scaling their business, increasing productivity, and enhancing the fan experience.
- E.ON Group has chosen the limited runtime edition of SAP HANA; SAP Mobile Platform; and SAP SuccessFactors HCM Suite. The company, which is splitting into two entities, seeks to streamline its system landscape, replace homegrown software, and reduce its on-premise footprint.
- **Hydro**, a global aluminium company based in Norway, selected SAP S/4HANA to “replatform” and renew its IT system landscape. With the suite, Hydro expects to have access to real time information, thereby running at optimal efficiency and safety, which are key elements of its strategic vision.

#### HELPING CUSTOMERS INVEST

To help companies invest in SAP solutions and associated services and hardware, SAP Payment services offers customers payment plans. SAP Payment services can help preserve liquidity, provide an alternative to credit from customers’ existing banking relationships, and balance their budgetary priorities, while giving them the flexibility to choose their preferred solution.

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# Performance Management System

- In addition to our primary financial and non-financial measures, we use several other performance measures.
- We use planning and control processes to manage the compilation of our key measures.
- Our management additionally uses non-IFRS financial information to get more transparency on our past performance and our anticipated future results.

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

## MEASURES WE USE TO MANAGE OUR FINANCIAL PERFORMANCE

### Changes to Income Statement Structure

Starting with the first quarter of 2015, we modified our overall income statement structure. We reclassified premium support revenue and related costs to the respective services line items to align our financial reporting with the changes in our services business. We further simplified and clarified the labeling of several income statement line items. For more information about the changes to our income statement structure, see the Notes to the Consolidated Financial Statements section, Note (3).

### Measures We Use to Manage Our Operating Financial Performance

In 2015, we used the following key measures to manage our operating financial performance:

- **Cloud subscriptions and support revenue (non-IFRS):** This revenue driver comprises the main revenues of our fast-growing cloud business. We generate cloud subscriptions and support revenue when we provide software functionality in a

cloud-based infrastructure (SaaS) to our customers, when we provide our customers with access to a cloud-based infrastructure to develop, run, and manage applications (PaaS) and also when we provide hosting services for software hosted by SAP (IaaS). Cloud subscriptions and support revenue is also generated when providing additional premium cloud subscription support beyond the regular support, which is embedded in the basic cloud subscription fees as well as business network services to our customers. We use the measure cloud subscriptions and support revenue (non-IFRS) both at actual currency and at constant currency.

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

- **New cloud bookings:** For our cloud activities, we also look at new cloud bookings. This measure reflects the committed order entry from new customers and from incremental purchases by existing customers for offerings that generate cloud subscriptions and support revenue. In this way, it is an indicator for cloud-related sales success in a given period and for secured future cloud subscriptions and support revenue. We focus primarily on the average contract value variant of the new cloud bookings measure that takes into account annualized amounts for multiyear contracts. Additionally, we monitor the total contract value variant of the new cloud bookings measure that takes into account the total committed order entry amounts regardless of contract durations. There are no comparable IFRS measures for these bookings metrics.
- **Operating profit (non-IFRS):** We use operating profit (non-IFRS) and constant currency operating profit (non-IFRS) to measure our overall operational process efficiency and overall business performance. See below for more information on the IFRS and non-IFRS measures we use.
- **Cloud subscriptions and support gross margin (non-IFRS):** We use our cloud subscriptions and support gross margin (non-IFRS) to measure our process efficiency and our performance in our cloud business. Cloud subscriptions and support gross margin (non-IFRS) is the ratio of our cloud subscriptions and support gross profit (non-IFRS) to cloud subscriptions and support revenue (non-IFRS), expressed as a percentage.

#### Measures We Use to Manage Our Non-Operating Financial Performance

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

- **Financial income, net:** This measure provides insight into the return on liquid assets and capital investments and the cost of borrowed funds. To manage our financial income, net, we focus on cash flow, the composition of our liquid assets and capital investment portfolio, and the average rate of interest at which assets are invested. We also monitor average outstanding borrowings and associated finance costs.
- **Days Sales Outstanding (DSO):** We manage working capital by controlling the days sales outstanding (DSO) for operating receivables (defined as the average number of days from the raised invoice to cash receipt from the customer).

#### Measures We Use to Manage Overall Financial Performance

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

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

operating and non-operating business as well as income taxes but also by the number of shares outstanding.

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

#### MEASURES WE USE TO MANAGE OUR NON-FINANCIAL PERFORMANCE

In 2015, we used the following key measures to manage our non-financial performance in the areas of employee engagement, customer loyalty and leadership trust:

- **Employee Engagement Index:** We use this index to measure the motivation and loyalty of our employees, how proud they are of our company, and how strongly they identify with SAP. The index is derived from surveys conducted among our employees. Applying this measure is recognition that our growth strategy depends on engaged employees.
- **Customer Net Promoter Score (NPS):** This score measures the willingness of our customers to recommend or promote SAP to others. It is derived from our annual customer survey that identifies, on a scale of 0–10, whether a customer is loyal and likely to recommend SAP to friends or colleagues, is neutral, or is unhappy. We introduced this measure in 2012, as we are convinced that we can achieve our financial goals only when our customers are loyal to, and satisfied with, SAP and our solutions. To derive the Customer NPS, we start with the percentage of “promoters” of SAP – those who give us a score of 9 or 10 on a scale of 0–10. We then subtract the percentage of “detractors” – those who give us a score of 0 to 6. The method ignores “passives,” who give us a score of 7 or 8. Due to changes in sampling, resulting from ongoing efforts to implement the survey process holistically in recently acquired entities, the 2015 score is not fully comparable with the prior year’s score.
- **Leadership Trust Score:** We use this score to further enhance accountability and to measure our collective effort to foster a work environment based on trust. It is derived from a question in our annual global employee survey that

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gauges employees' trust in our leaders. We measure leadership trust by using the Net Promoter Score (NPS) methodology.

### **VALUE-BASED MANAGEMENT**

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

SAP's long-term strategic plans are the point of reference for our other planning and controlling processes, including a multiyear plan through 2020. We identify future growth and profitability drivers at a highly aggregated level. This process is intended to identify the best areas in which to target sustained investment. Next, we evaluate our multiyear plans for our support and development functions and break down the customer-facing plans by sales region. Based on our detailed annual plans, we determine the budget for the respective year. We also have processes in place to forecast revenue and profit on a quarterly basis, to quantify whether we expect to realize our financial goals, and to identify any deviations from plan. We

continuously monitor the concerned units in the Group to analyze these developments and define any appropriate actions.

Our entire network of planning, control, and reporting processes is implemented in integrated planning and information systems, based on SAP software, across all organizational units so that we can conduct the evaluations and analyses needed to make informed decisions.

### **NON-IFRS FINANCIAL MEASURES CITED IN THIS REPORT**

As in previous years, we provided our 2015 financial outlook on the basis of certain non-IFRS measures. Therefore, this report contains a non-IFRS based comparison of our actual performance in 2015 against our outlook in the *Financial Performance: Review and Analysis* section.

### **Reconciliations of IFRS to Non-IFRS Financial Measures for 2015 and 2014**

The following table reconciles our IFRS financial measures to the respective and most comparable non-IFRS financial measures of this report for each of 2015 and 2014. Due to rounding, the sum of the numbers presented in this table might not precisely equal the totals we provide.

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

| € millions, unless otherwise stated     |                |              |                |                 |                            | 2015           |              |                | 2014 |
|-----------------------------------------|----------------|--------------|----------------|-----------------|----------------------------|----------------|--------------|----------------|------|
|                                         | IFRS           | Adj.         | Non-IFRS       | Currency Impact | Non-IFRS Constant Currency | IFRS           | Adj.         | Non-IFRS       |      |
| <b>Revenue measures</b>                 |                |              |                |                 |                            |                |              |                |      |
| Cloud subscriptions and support         | 2,286          | 10           | 2,296          | -297            | 1,999                      | 1,087          | 14           | 1,101          |      |
| Software licenses                       | 4,835          | 1            | 4,836          | -255            | 4,581                      | 4,399          | 0            | 4,399          |      |
| Software support                        | 10,093         | 0            | 10,094         | -678            | 9,416                      | 8,829          | 5            | 8,834          |      |
| Software licenses and support           | 14,928         | 2            | 14,930         | -933            | 13,997                     | 13,228         | 5            | 13,233         |      |
| <b>Cloud and software</b>               | <b>17,214</b>  | <b>11</b>    | <b>17,226</b>  | <b>-1,230</b>   | <b>15,996</b>              | <b>14,315</b>  | <b>19</b>    | <b>14,334</b>  |      |
| <b>Services</b>                         | <b>3,579</b>   | <b>0</b>     | <b>3,579</b>   | <b>-276</b>     | <b>3,304</b>               | <b>3,245</b>   | <b>0</b>     | <b>3,245</b>   |      |
| <b>Total revenue</b>                    | <b>20,793</b>  | <b>11</b>    | <b>20,805</b>  | <b>-1,505</b>   | <b>19,299</b>              | <b>17,560</b>  | <b>19</b>    | <b>17,580</b>  |      |
| <b>Operating expense measures</b>       |                |              |                |                 |                            |                |              |                |      |
| Cost of cloud subscriptions and support | -1,022         | 232          | -789           |                 |                            | -481           | 88           | -393           |      |
| Cost of software licenses and support   | -2,291         | 283          | -2,008         |                 |                            | -2,076         | 258          | -1,818         |      |
| Cost of cloud and software              | -3,313         | 516          | -2,797         |                 |                            | -2,557         | 346          | -2,211         |      |
| Cost of services                        | -3,313         | 180          | -3,133         |                 |                            | -2,716         | 125          | -2,590         |      |
| <b>Total cost of revenue</b>            | <b>-6,626</b>  | <b>696</b>   | <b>-5,930</b>  |                 |                            | <b>-5,272</b>  | <b>471</b>   | <b>-4,801</b>  |      |
| <b>Gross profit</b>                     | <b>14,167</b>  | <b>707</b>   | <b>14,874</b>  |                 |                            | <b>12,288</b>  | <b>490</b>   | <b>12,778</b>  |      |
| Research and development                | -2,845         | 202          | -2,643         |                 |                            | -2,331         | 127          | -2,204         |      |
| Sales and marketing                     | -5,401         | 449          | -4,952         |                 |                            | -4,304         | 170          | -4,134         |      |
| General and administration              | -1,048         | 116          | -932           |                 |                            | -892           | 86           | -806           |      |
| Restructuring                           | -621           | 621          | 0              |                 |                            | -126           | 126          | 0              |      |
| TomorrowNow and Versata litigation      | 0              | 0            | 0              |                 |                            | -309           | 309          | 0              |      |
| Other operating income/expense, net     | 1              | 0            | 1              |                 |                            | 4              | 0            | 4              |      |
| <b>Total operating expenses</b>         | <b>-16,541</b> | <b>2,084</b> | <b>-14,457</b> | <b>1,062</b>    | <b>-13,395</b>             | <b>-13,230</b> | <b>1,288</b> | <b>-11,942</b> |      |
| <b>Operating profit</b>                 | <b>4,252</b>   | <b>2,095</b> | <b>6,348</b>   | <b>-443</b>     | <b>5,904</b>               | <b>4,331</b>   | <b>1,307</b> | <b>5,638</b>   |      |

### Explanation of Non-IFRS Measures

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

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

- Our management primarily uses these non-IFRS measures rather than IFRS measures as the basis for making financial, strategic, and operating decisions.



- The variable components of our Executive Board members' and employees' remuneration are based on revenue (non-IFRS), operating profit (non-IFRS), as well as new cloud bookings measures rather than the respective IFRS measures.
- The annual budgeting process for all management units is based on revenue (non-IFRS) and operating profit (non-IFRS) numbers rather than the respective IFRS financial measures.
- All forecast and performance reviews with all senior managers globally are based on these non-IFRS measures, rather than the respective IFRS financial measures.
- Both our internal performance targets and the guidance we provided to the capital markets are based on revenue (non-IFRS) and profit (non-IFRS) measures rather than the respective IFRS financial measures.

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

#### **Revenue (Non-IFRS)**

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

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

#### **Operating Expense (Non-IFRS)**

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

- Acquisition-related charges
  - Amortization expense/impairment charges of intangibles acquired in business combinations and certain stand-alone acquisitions of intellectual property (including purchased in-process research and development)
  - Settlements of preexisting business relationships in connection with a business combination
  - Acquisition-related third-party expenses
- Expenses from the TomorrowNow litigation (formerly labeled as "discontinued activities") and the Versata litigation cases
- Share-based payment expenses

- Restructuring expenses

We exclude certain acquisition-related expenses for the purpose of calculating operating profit (non-IFRS), operating margin (non-IFRS), and earnings per share (non-IFRS) when evaluating SAP's continuing operational performance because these expenses generally cannot be changed or influenced by management after the relevant acquisition other than by disposing of the acquired assets. Since management at levels below the Executive Board does not influence these expenses, we generally do not consider these expenses for the purpose of evaluating the performance of management units. Additionally, these non-IFRS measures have been adjusted from the respective IFRS measures for the results of the share-based payment expenses and restructuring expenses, as well as the TomorrowNow and Versata litigation expenses.

#### **Operating Profit (Non-IFRS), Operating Margin (Non-IFRS), and Earnings per Share (Non-IFRS)**

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

#### **Constant Currency Information**

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

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

### Free Cash Flow

The following table shows our free cash flow measure. We use this measure among others to manage our overall financial performance.

### Free Cash Flow

| € millions                                                                              | 2015         | 2014         | Δ in %   |
|-----------------------------------------------------------------------------------------|--------------|--------------|----------|
| Net cash flows from operating activities                                                | 3,638        | 3,499        | 4        |
| Purchase of intangible assets and property, plant, and equipment (without acquisitions) | -636         | -737         | -14      |
| <b>Free cash flow</b>                                                                   | <b>3,001</b> | <b>2,762</b> | <b>9</b> |

### Usefulness of Non-IFRS Measures

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

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

### Limitations of Non-IFRS Measures

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

- The eliminated amounts could be material to us.
- Without being analyzed in conjunction with the corresponding IFRS measures, the non-IFRS measures are not indicative of our present and future performance, foremost for the following reasons:
  - While our profit (non-IFRS) numbers reflect the elimination of certain acquisition-related expenses, no eliminations are made for the additional revenue or other income that results from the acquisitions.

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

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

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

Despite these limitations, we believe that the presentation of the non-IFRS measures and the corresponding IFRS measures, together with the relevant reconciliations, provide useful information to management and investors regarding present and future business trends relating to our financial condition and results of operations. We do not evaluate our growth and performance without considering both non-IFRS measures and the comparable IFRS measures. We caution the readers of our financial reports to follow a similar approach by considering our non-IFRS measures only in addition to, and not as a substitute for or superior to, revenue or other measures of our financial performance prepared in accordance with IFRS.

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# Employees and Social Investments

- At SAP, we encourage the well-being of our employees and our organization so we can master the challenges of a digital and global workplace.
- We enable our people to perform at their best so they can help our customers succeed in the digital economy. At SAP, everyone is a talent.
- Our “How We Run” set of behaviors describes how we get things done and is at the very heart of our culture.

## OUR HR STRATEGY IS BUILT FOR OUR PEOPLE

At SAP, we put our customers at the center of everything we do. It is our employees who are helping our customers succeed in the new digital economy and enabling us to become THE cloud company powered by SAP HANA. Therefore, we are fully committed to the people side of our business.

As digital advances change customer expectations, they also fundamentally change the ability of our employees to have a greater share of voice in defining their own work experiences. Today's talents expect a diverse, agile, and yet highly personalized workplace that is in line with individual needs. They expect inspiring and caring leaders who can rethink how we collaborate to drive innovation. Similarly, they expect meaningful learning and career opportunities – all of which are powered by pervasive technology.

Our human resources (HR) strategy is to create a culture that is able to deal with the complexity, speed, and volume of a digital workplace – a culture that inspires innovation, leads change, and creates ultimate employee satisfaction. We want employees to learn and grow, leaders to engage and develop amazing talent, and organizations to be simple and agile. With our three guiding principles of simplification, standardization, and customer satisfaction, we stay focused on our ultimate goal, which is a seamless, simple employee experience. Ultimately, our HR strategy supports the creation of an HR organization that is built on cloud technology to Run Simple.

## GETTING THE RIGHT TALENT IN THE RIGHT PLACE AT THE RIGHT TIME

To support SAP's transformation to THE cloud company powered by SAP HANA, it is important to understand what it means to operate with a cloud mindset. Part of this transformation means not only changing the way we hire new talent, but also developing and retaining our employees.

In 2015, approximately one quarter of all external hires are considered “early talents” (hires with professional experience of up to two years). This success is due to ambitious early talent hiring targets, increased hiring activities in areas of diversity, expanded use of the SAP SuccessFactors Recruiting solution as our recruitment management system as well as the continued recognition of SAP as an employer of choice. In fact, SAP was recognized in Brazil, Greater China, India, and Japan by the Great Place to Work Institute, and named by Forbes as a “Best Employer” in 2015.

Once we hire new talent, we make sure that the onboarding experience is an engaging and inspiring one. To this end, we offer dedicated new-joiner programs. In addition, we closely collaborate with 2,300 universities on international events such as student meet-ups, info days, or coding events, such as InnoJams, and many other events through our SAP University Alliances program.

Another cornerstone in our efforts to recruit early talent is our vocational training program, which allows students to work towards their university degree while gaining valuable SAP business experience at the same time. The program has a clear

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focus on IT related areas such as Development, Services/Consulting and IT. As of October 2015, 880 vocational training students were enrolled in the program that originally started in Germany. A few years ago, we extended the program into key markets such as China and India, and added Hungary, Ireland, and the United States recently. In 2015, 210 vocational training graduates around the world started their professional careers with an SAP contract. Overall, we measured a conversion rate for vocational training students of 63% in 2015 (2014: 59%). The high-performance ratings of the students after graduating prove the success of the program.

In the area of people development, we continue with our philosophy of “everyone is a talent” that came to life in 2013. Major achievements are:

- Simplifications to our performance management process and tools to further improve the overall employee experience in our cloud-based Success Map tool
- Development offerings for specific groups such as early talents, experts, and fast-track employees
- Introduction of Career Success Centers around the world that provide dedicated career development support
- Introduction of a globally consistent succession management approach for executive roles

To fund our continued investments in growth areas including cloud, SAP HANA, and business networks we scaled back in areas where we see no significant growth in the future. As part of this program, roughly 3,000 employees moved into new jobs or left SAP. To manage these transitions while remaining people-centric, we use a mix of measures, including voluntary and early retirement programs that have proven very successful.

The overall retention rate in 2015 was 91.8% (2014: 93.5%). We define retention as the ratio of average number of employees minus voluntary attrition to the average number of employees (in full-time equivalents). High retention is something we are aiming for as reflected in all our activities to drive high employee engagement.

### **ENGAGING OUR PEOPLE THROUGH IMPACTFUL AND INSPIRATIONAL LEADERSHIP**

At SAP, we see leadership as a profession. We make leaders accountable, and create a consistent leadership culture across the organization to ensure the engagement and advancement of our people.

Our leadership principles (ensuring customer success, driving simplicity, developing amazing talent) remain the foundation for leadership at SAP. With the demands of digitization, our leaders must operate with a comprehensive end-to-end view that focuses on delivering both immediate and long-term value for customers while optimizing operations. However, our leaders also need to focus on attracting and retaining talent with the

right skills and digital mindset in a competitive market where digital skills are scarce.

In 2015, we continued to move the needle of leadership trust measured by our People Survey 2015 that ran in October. In 2015, the overall leadership trust score for people leaders, which uses the Net Promoter Score (NPS) methodology, was 52.3% compared to 46.8% for 2014 against a target of 51%. For 2016, we are committed to keep the 2015 leadership NPS value of more than 52%.

We need leaders at every level who internalize what it will take to achieve our strategy, have the mindset to amplify the intelligence and capabilities of everyone around them, and have the ability to accelerate business transformation. In 2015, we mandated a three-day program for all our top leaders that resulted in each leader creating an individual plan for how they will lead SAP's transformation. In 2015, we also launched a flagship program for first-level people leaders who are responsible for guiding 75% of SAP's workforce. Corresponding programs go live in the first quarter of 2016 for mid- and executive-level leaders. All programs are mandatory for people leaders who aspire to advance in their career.

In July 2015, leaders and selected high-performing employees participated in a virtual leadership summit with a focus on cascading consistent messaging for SAP's digital business framework. This provided critical alignment for our strategy and the channels to communicate it throughout SAP. The summit included an in-depth financial update, positioning and messaging for the digital business framework and an aggregate report of the recently completed leadership assessments for the top 250 leaders.

### **MAKING LEARNING A COMPELLING EXPERIENCE FOR EVERYONE**

Our learning culture supports employees at all levels and roles in their learning efforts. Building on our philosophy of “everyone is a talent,” we want to maximize the skills of all our employees. 2015 was a major year for learning at SAP, with a focus on stronger governance and increased transparency on how we spend our learning funds.

Professional development offerings (self-paced online programs that include language learning as well as technical and soft-skills training) are open to all employees. In addition to learning portfolios offered by board areas, virtual self-paced programs support employees building impactful development plans that meet their career goals. Our peer-to-peer learning portfolio includes coaching, mentoring, job shadowing, and facilitation opportunities. Our Global Coaching program received the 2015 International Coaching Federation Prism Award. Similarly, our Global Customer Operations (GCO) University program won the Brandon Hall Gold Award for Excellence in Sales Performance.

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In 2015, we also hosted many learning culture workshops as well as virtual and in-person coffee corner sessions worldwide as an opportunity to foster exchange with peers and managers.

### **CREATING AN ENVIRONMENT THAT DRIVES INNOVATION, PERFORMANCE, AND ENGAGEMENT**

It is our goal to create an environment and a workplace that drives innovation, high performance, and employee satisfaction; we do so by providing the following benefits and activities:

- In 2015, SAP again offered a Share Matching Plan (SMP) that enables employees to purchase discounted shares and receive additional matching shares. Employees also received Restricted Stock Units (RSUs) under the Employee Participation Plan (EPP), as well as a Stock Option Plan (SOP) that rewards selected employees and executives.
- To help make our employees' lives easier when dealing with people-related topics, we continue to transform our entire HR-IT landscape with the ongoing implementation of SAP SuccessFactors solutions.
- With our "Accelerate Winning in HR" initiative, our HR organization helps support business goals with our domain and functional knowledge. In 2015, approximately 130 HR experts supported sales teams in HR deal engagements. We were able to convey a true "SAP Runs SAP" story to potential customers with our SAP expertise.

As another example, SAP again sponsored "People Weeks," a two-week program designed for employees to learn from each other, exchange ideas, and cultivate a greater connection across cultures, genders, and generations. Under the motto "Shine through the Cloud," the event reached 25,000 employees in 75 locations and 52 countries.

### **PROMOTING INCLUSION, WELL-BEING, AND SOCIAL INNOVATION**

#### **Diversity and Inclusion**

An inclusive culture inspires greater innovation, helps us better connect with and serve our customers, fosters employee engagement, and makes SAP a more attractive workplace. At SAP, our diversity and inclusion efforts focus on four key areas:

- Gender intelligence
- Cross-generational intelligence
- Differently-abled people
- Culture and identity

SAP has publicly stated our commitment to achieve a workforce of 25% women in management by the end of 2017. We have made great strides toward our goal, with year-over-year growth from 21.3% in 2014 to 23.6% in 2015.

We offer executive sponsorships for women and strive for a qualified, equally distributed hiring shortlist that aligns with our corporate diversity targets. Additionally, we offer the Leadership

Excellence Acceleration Program (LEAP), a highly respected and award-winning development program that helps prepare high-potential women for leadership roles at SAP. In May 2015, SAP co-sponsored the first Women's Leadership Summit at the SAPPHIRE NOW conference.

Additional initiatives to support female careers at SAP include the Women's Professional Growth Webinar series, the Business Women's Network, and the Women@SAP online community.

For our commitment to gender equality in the workplace SAP America was awarded with the Economic Dividends for Gender Equality (EDGE) certificate as the first technology company in the United States.

Our Autism at Work program, an initiative that enables people with Autism Spectrum Disorder (ASD), continues to gain momentum and recognition. In October 2015, we also launched the program in Australia. Now implemented in eight countries, the program has won numerous accolades including the Catalyst Award of the US organization The Arc, for people with intellectual and developmental disabilities, and others. SAP is committed to having 1% of our total workforce composed of individuals with ASD by 2020. As of today, SAP counts a total of approximately 100 ASD employees. These employees can add enormous value to our ability to innovate with their high attention to detail in development and data analysis and contribute to us as a diverse company.

SAP has also made great strides in other areas such as the advancement of lesbian, gay, bisexual, and transgender (LGBT) rights. The Global Pride@SAP employee network has grown to more than 5,000 members, sponsoring numerous activities and initiatives throughout the year. In April, SAP joined the Human Rights Campaign (HRC) Business Coalition for Workplace Fairness in the United States, supporting the U.S. Employment Non-Discrimination Act (ENDA). SAP earned top scores in the HRC Foundation's 2016 Corporate Equality Index.

In early 2015, our "How We Run" initiative was launched. Its outcome replaced the SAP passions by defining behaviors that describe what makes SAP unique. In a bottom-up approach, employees had the opportunity to define the behaviors that link SAP's culture to its strategy. The result was five distinct behaviors:

- "Tell it like it is"
- "Build bridges, not silos"
- "Keep the promise"
- "Stay curious"
- "Embrace differences"

#### **Health and Well-Being**

We invest in extensive employee benefits, programs, and services that truly make people's lives better:

- Corporate Oncology Program for Employees (COPE) is available in Canada, Germany, and the United States. COPE offers employees facing cancer an individual, cost-free tumor analysis and interpretation based on TreatmentMAP™ by our external partner Molecular Health.
- Health Checkup for Executives is a one-day, one-on-one health checkup program for executives.
- Take Charge of Your Health and Well-Being program empowers employees to make the right decisions for their health and well-being.
- Health Ambassador Network is a global network that strengthens our focus on health in office locations and helps identify best practices.
- Local offerings, such as skin screening, on-site gyms and activity classes, mindfulness practice, eyesight testing, and health awareness sessions, are available to employees.

Our Business Health Culture Index (BHCI), based on our People Survey, assesses the degree to which our workplace culture supports people's well-being, work-life balance, and organizational health.

The positive trend of the BHCI continued, achieving 75% compared to 72% in 2014. The BHCI for 2014 was recalculated from 70% to 72% based on two questions in the People Survey concerning work-life balance. The changes were done to simplify the questionnaire and to achieve better comparability against external benchmarks. With the very positive result in 2015, we see the first indications that a health-focused culture has a significantly positive impact on employees. In an ever-changing environment and with SAP's transition into the cloud, we firmly believe that the very good financial results of SAP for 2015 were supported by the BHCI results. Based on 2015 data, a change by one percentage point of the BHCI would have an impact of €75 million to €85 million on SAP's operating profit. For more information, see the *Integrated Performance Analysis* section of the SAP Integrated Report online.

### Engaging in Social Investments

One of the major challenges for SAP and our customers on the digital transformation journey will be ensuring there is enough skilled talent around the world. The demographics are daunting with more than one billion young people on the planet, 85% living in developing countries, and more than 90 million unemployed. At the same time the global economy will be facing a shortage of 40 million highly-skilled workers by 2020. To help bridge this skills gap and support economic development, SAP's social investments focus on equipping the world's youth with the skills they need to tackle society's problems and thrive in the digital economy.

Our corporate social responsibility (CSR) programs do this in two main focus areas: building the capacity of innovative social enterprises that put young people on the path to successful careers, and building a skilled workforce for the IT sector with skills, training or workforce development programs.

A core component of our CSR approach is pro-bono volunteering activities that use employees' core skills for social good. These programs help strengthen leadership competencies while delivering needed services to communities and individuals worldwide. Now in its fourth year, the SAP Social Sabbatical is a short-term assignment for key talents who work in diverse teams to solve business challenges for the education and social entrepreneurship sector in emerging markets. In 2015, the program was expanded to include work with local organizations in an employee's region. As of 2015, more than 40,000 pro-bono service hours were attributed to 163 employees for 57 organizations. These include AhoodooTec, a tech startup in Addis Ababa, Ethiopia, that develops Web applications and mobile apps for secondary school education, and Livox, a Brazilian startup that makes accessibility software to help people with disabilities speak and learn.

SAP launched the very successful Africa Code Week, which trained nearly 90,000 children on coding in one week in October 2015. Young people from 17 African countries took part in the more than 3,000 free coding workshops.

In 2015, the world's eyes were opened to the breadth of the global refugee crisis. SAP's leaders and employees felt strongly that SAP could make an important contribution and committed to a broad holistic approach. The program covered internship opportunities for at least 100 refugees as well as humanitarian assistance. Through employees giving more than €200,000 and CSR commitments, SAP pledged more than €900,000 to immediate relief, long-term education, and integration projects to assist refugees. In addition, SAP joined forces with the Grammy-award winning band Imagine Dragons to launch the One4 project under the hashtag #One4. Imagine Dragons donated the proceeds from their song "I Was Me" to the UN Refugee Agency (UNHCR). Further, SAP is donating 10 U.S. cents for every download up to the first five million downloads from iTunes.

### Listening to Our People

Our past People Survey scores revealed that our employees were committed to executing the strategy but needed support to translate the strategic direction into their daily lives. Subsequently, we decided to continue our focus on this key topic in 2015. Across the five waves of our quarterly strategy checkpoint survey in 2014 and 2015, there was a steady increase in strategy adoption. By the end of September, more than 8 out of 10 employees say they are aware of the strategy, understand it, and are committed to executing it. We continue to measure the success of strategy adoption in 2016, along with the adoption of the key cultural elements that are the How We Run behaviors and leadership principles.

To measure the achievements of these respective initiatives, we conducted our People Survey from October to November. We are able to link our financial and non-financial performance to employee engagement. A change by one percentage point of the



Employee Engagement Index (EEI) would have an impact of €40 million to €50 million on SAP's operating profit. For more information, see the *Integrated Performance Analysis* section of the SAP Integrated Report online. Employee engagement remains one of SAP's corporate objectives, along with growth, profitability, and customer loyalty.

The 2015 People Survey results are extraordinarily positive. The Employee Engagement Index shows a steady increasing trend (81%, up by 2pp). This is the highest EEI score since 2010. The employee satisfaction went up in nearly all aspects and questionnaire items.

As a company that sets out to make the world run better and improve people lives, we cannot stop here. Based on the survey results, we decided to focus, in particular, on two areas in 2016: our efforts to simplify our processes and our ability to innovate. Employee engagement will remain one of our Company-wide strategic goals, and thus we remain committed to achieving 82% in 2016. This is an ambitious goal since in comparison to external norms as the current level of engagement is already in the top 10%. Similarly, we focus on the simplification of HR service offerings with our internal HR Run Simple program. The measurement of our internal HR customer satisfaction delivers actionable insights for prioritizing the strategic investments and deployment of resources as well as for creating efficiency through continuous improvements or decommissioning of services.

### HEADCOUNT

On December 31, 2015, we had 76,986 full-time equivalent (FTE) employees worldwide (December 31, 2014: 74,406). This represents an increase in headcount of 2,579 FTEs in comparison to 2014. The average number of employees in 2015 was 75,180 (2014: 68,343).

We define FTE headcount as the number of people we would employ if we only employed people on full-time employment contracts. Students employed part-time and certain individuals employed by SAP but who, for various reasons, are not currently working, are excluded from our figures. Also, temporary employees are not included in the above figures. The number of temporary employees is not material.

On December 31, 2015, the largest number of SAP employees (44%) were employed in the Europe, Middle East, and Africa (EMEA) region (including 23% in Germany and 21% in other countries of the region), while 29% were employed in the North America and Latin America (Americas) region (including 21% in the United States and 8% in other countries of the region) and 27% in the Asia Pacific Japan (APJ) region.

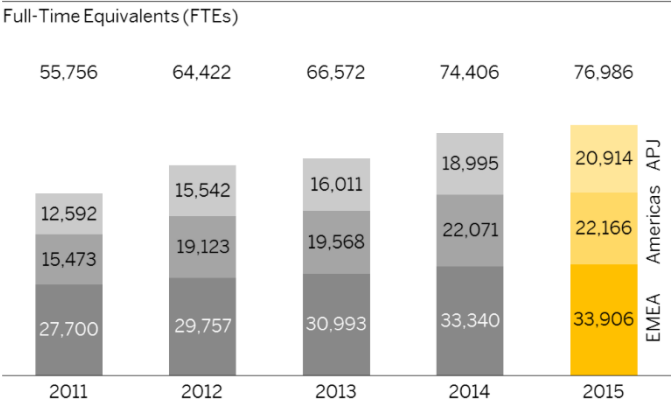
Our worldwide headcount in the field of cloud and software decreased less than 1% to 14,991 FTEs (2014: 15,074). Services counted 15,085 FTEs at the end of 2015 – an increase of 3% (2014: 14,639). Our R&D headcount saw a year-over-year

increase of 11% to 20,938 FTEs (2014: 18,908). Sales and marketing headcount grew by 1% to 18,206 FTEs at the end of the year (2014: 17,969). General and administration headcount stayed constant at 5,024 FTEs at the end of the year (2014: 5,023). Our infrastructure employees numbered 2,743 FTEs – a decrease of 2% (2014: 2,794).

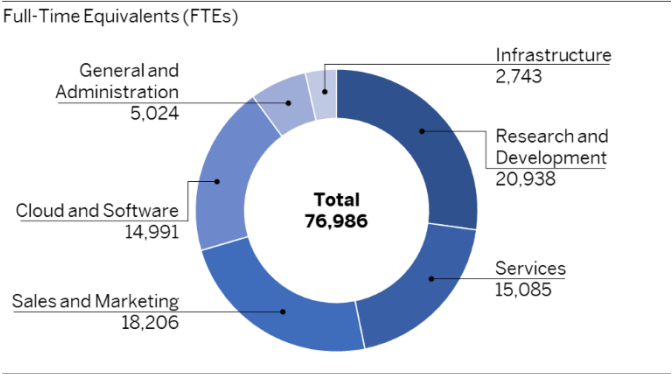
In the Americas region, headcount (FTEs) increased by 95, or less than 1%; in the EMEA region, the increase was 566, or 2%; and in the APJ region, it was 1,919, or 10%.

Our personnel expense per employee increased to approximately €135,000 in 2015 (2014: approximately €115,000). This rise in expense is primarily attributable to an increase in salaries, employee-related restructuring expenses, share-based payments, and a significant rise in the share price in 2015. The personnel expense per employee is defined as the personnel expense divided by the average number of employees. For more information about employee compensation and a detailed overview of the number of people we employ, see the Notes to the Consolidated Financial Statements section, *Note (7)*.

### Number of Employees



### Employees by Functional Area



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# Environmental Performance: Energy and Emissions

- We continued to procure 100% renewable electricity in 2015.
- Carbon emission offsets were introduced for business flights.
- We continued to drive the expansion of the environmental management system (ISO 14001).

In 2015, we made significant progress toward our goals for the reduction of greenhouse gas emissions, taking advantage of the digitalization and green technology trends that are driving transformational changes across the global economy. These trends can have a significant impact on energy consumption and greenhouse gas emissions. We are applying these trends to our own business and helping our customers apply them to their businesses. For example, by enabling business model transformation, using advances such as smart grids and the Internet of Things, SAP is helping connected digital business networks reduce overall carbon footprints.

## **STRENGTHENING OUR “GREEN CLOUD”**

We see that energy consumption in data centers is closely related to innovation and customer adoption of our solutions. As we accelerate our shift to the cloud, we have tied our business strategy to our environmental strategy by creating a completely “green cloud” at SAP, referring to carbon neutrality, by purchasing 100% renewable electricity certificates and compensation by CO<sub>2</sub> offsets. In assessing our environmental impact, we focus on energy usage throughout SAP, as well as greenhouse gas emissions across our value chain.

## **REDUCING GREENHOUSE GAS EMISSIONS**

Our goal is to reduce the net greenhouse gas (GHG) emissions from our operations to levels of the year 2000 by 2020. This target includes all direct and indirect emissions from running our business (GHG Protocol Scopes 1 and 2), as well as a selected subset of other indirect (Scope 3) emissions. We do not include all of our Scope 3 emissions in our target because we choose to

focus on those emissions over which we have direct control or ability to influence. However, we are increasingly addressing both our upstream and downstream emissions to support a comprehensive carbon strategy for SAP.

Specifically, we are working to reduce our emissions through three primary approaches: increasing our operational efficiency combined with innovative approaches to the way we do things; purchasing high-quality renewable electricity certificates; and investing in high-quality carbon credits.

In addition to our long-term commitment for 2020, we have derived annual targets for our internal operational steering. Despite integrating new acquisitions in 2015, our total net emissions decreased to 455 kilotons CO<sub>2</sub> (2014: 500 kilotons). This decrease stems primarily from a reduction of business flights and compensation with carbon emission offsets. We are effectively compensating the emissions from those customer systems that have moved into our green cloud. Given the large size of our customers' CO<sub>2</sub> footprints and our growth strategy in the cloud, we see significant potential to reduce both our own and our customers' environmental impact.

Since the beginning of 2008, our focus on carbon emissions has generated a cumulative cost avoidance of €346 million, compared to a business-as-usual scenario. This leads to an avoidance of €124 million in the past three years, with €39.8 million avoided in 2015 alone.

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## INVESTING IN ENVIRONMENTAL INNOVATIONS

We are pursuing new strategies to contend with the ongoing tension between growth in our business and our goal to reduce our emissions. One such approach is the introduction of carbon emission offsets for business flights in 2015. In addition to avoiding and reducing overall business flights, we began, in the second half of 2015, to offset selected business flights in the United States, as this is the country with the greatest number of business flights. This offset effort resulted in a compensation of 35 kilotons of CO<sub>2</sub>.

SAP continues to invest in technology that enables virtual collaboration, supporting our efforts to reduce the need for employees to travel. In addition to our TelePresence and video conferencing platforms, new collaboration rooms based on the Skype for Business communications platform bring new features that enable teamwork across borders and time zones. More than 100 collaboration rooms have been installed throughout SAP with more planned for 2016. Because more employees adopt video chat as their preferred method of communication, more than 1,200 meeting spaces have been equipped with 360-degree cameras – giving remote participants a more interactive experience. Skype for Business also enables each employee to video chat from their computer.

To further decrease car-related emissions, we plan to increase the portion of electric vehicles (or alternatives) in our company car fleet from the current 1% to 20% by 2020. At the end of 2015, we have 57 charging stations and 55 pure electric vehicles in our company car fleet at our headquarters in Walldorf, and approximately 300 e-cars globally. Our company car initiatives address a dilemma that has grown in recent years. As a result of our business expansion, the number of SAP employees eligible for a company car has increased annually. We want to ensure that we do not undo our efficiency gains with our growing car fleet.

In keeping with our existing policy for office buildings and data centers, all our electric company cars charged at SAP are powered with 100% renewable sources. In Germany, for example, we provide employees with an incentive to switch to electric alternatives by offering a battery subsidy that offsets the costs of using an electric vehicle. We believe that our electric car initiative will play a critical role in helping achieve our 2020 carbon reduction goal.

In 2015, emissions caused by SAP products in use at the sites of more than 300,000 customers were almost 15 times larger than SAP's own footprint, meaning these products caused approximately 6,800 kilotons of CO<sub>2</sub>. By using 100% renewable electricity, we dramatically broaden our sustainability efforts and align them with our cloud strategy, reducing the carbon emissions of our cloud solutions to zero.

We continued to realize the benefits of our investment in the Livelihoods Fund, a unique investment fund whose returns

consist of high-quality carbon credits. Several years ago, we made a commitment to investing €3 million covering a 20-year participation in the fund, which supports the sustainability of agricultural and rural communities worldwide. Projects of this fund focus on ecosystem restoration, agriculture, agroforestry, and rural energy. In eastern India, for example, the fund helped communities plant fruit trees to diversify food sources and address the overcultivation of soil. Instead of a charitable donation, we have made a long-term investment that brings benefits to society, the environment, and SAP. In 2015, we received carbon credits from the fund, which helped us to offset our carbon footprint by 23 kilotons.

Another important program in 2015 was the further implementation of ISO 14001 in SAP locations throughout the world. This well-accepted environmental management system is now in place at 32 of our locations worldwide, including our North America headquarters in Newtown Square, Pennsylvania, as well as in Palo Alto, San Francisco, Sunnyvale, and Dublin, California, both in the United States; and other countries including Austria, Canada, Czech Republic, France, Germany, Israel, Italy, and South Africa. New sites in Singapore and Switzerland, as well as Rio de Janeiro and São Paulo in Brazil, were certified in 2015. To act more quickly and achieve consistency, we created a template to roll out in other sites, enabling us to efficiently build a large global network where different sites interact and share best practices. Our goal is to continually increase the number of certified locations; we aim for total full-time equivalent (FTE) coverage of 70% by 2018. By end of 2015, SAP had an environmental management system (ISO 14001) in place in 15 countries and 32 single sites. This represents a total FTE coverage of 22.2%.

## MEASURING OUR TOTAL ENERGY CONSUMED

Because our energy usage drives emissions, one of the most important measures for us is total energy consumed. This includes all energy that SAP generates or purchases to run our facilities, data centers, company cars, and corporate jets. Our total energy consumption increased to 965 gigawatt hours (GWh) in 2015, compared to 920 GWh in 2014.

This increase is due to growth in our workforce and business. In addition, as software usage shifts to the cloud, we are operating more of our customers' systems in our data centers, as well as other locations where we supplement our servers. This additional cloud operation, along with accompanying servers and facilities, consumes more energy. At the same time, we believe this shift has the opposite effect for our customers that are now able to simplify their technology and save energy through our shared infrastructure. This reduces overall IT-related energy consumption through our highly energy-efficient cloud provisioning.

## OPTIMIZING EFFICIENCY IN OUR DATA CENTERS

Data centers are at the heart of how SAP provides solutions to our customers and represents a significant part of our total

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greenhouse gas emissions. At the same time, with our energy consumption rising as more of our business moves to the cloud, data centers have become a primary focus of our carbon reduction efforts and the adoption of our technology innovations and solutions towards our customers. We continue to drive efficiency and innovation around buildings, data center operations, and infrastructure. For example, in one of our largest data centers in St. Leon-Rot, Germany, we received an energy efficiency certificate from TÜV Rheinland, a leading provider of technical, safety, and certification services, with an efficiency score of 98.7%. One hundred percent of our energy usage that provides internal and external computation power comes from renewable sources. Our total data center electricity consumption at both our internal and external sites increased from 179 in 2014 to 249 GWh in 2015. In recognition of the exemplary actions SAP has taken to improve our data centers, we were awarded the European Datacentre Sustainability Award in 2015.

#### **REINFORCING OUR RENEWABLE ELECTRICITY STRATEGY**

Our commitment to 100% renewable electricity in all of our internal and external data centers and facilities is one of the most significant steps toward making our operations more sustainable. In 2015, we mainly focused on wind and, to a lesser extent, on biomass. While we produce a small amount of renewable electricity through solar panels in some locations, we rely primarily on the purchase of renewable electricity certificates (RECs) to increase the renewable electricity in our energy mix. We procure RECs regionally that add value and drive change in the electricity market, adopting high-quality standards in our procurement guidelines that are aligned with two non-governmental organizations (NGOs). For example, we consider renewable electricity from biomass only if it is disconnected from coal or other fossil power plants and if the biomass itself is not related to deforestation. In addition, we require that power plants must be no more than 10 years old, as we aim to foster new innovation in the production of renewable electricity. Furthermore, SAP is not considering RECs from power plants that are currently supported by governments. As a vintage requirement, we define that renewable electricity must be produced in the same year or the year before the reporting period will be applied.

In 2015, SAP joined the green initiative RE100 and is now one of the global corporations that have signed on to the RE100 initiative. RE100 is led by The Climate Group in partnership with CDP (formerly Carbon Disclosure Project) and the goal of the campaign is to have 100 of the world's most influential businesses committed to 100% renewable electricity.

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# Financial Performance: Review and Analysis

- Exceptional growth in cloud business, an overall strong top-line result generated highest non-IFRS operating profit in SAP's history
- Completeness of vision in the cloud combined with a soaring adoption of SAP S/4HANA gives us confidence for 2016 and beyond, reflected in an increase of our 2017 ambition
- Stable total group liquidity despite repaying significant debt

## **ECONOMY AND THE MARKET**

### **Global Economic Trends**

In its most recent report, the European Central Bank (ECB) concludes that the global economy grew gradually and unevenly in 2015. The ECB finds that low oil prices, favorable financing conditions, and improving labor markets helped advanced economies perform better than in previous years. However, growth in emerging markets and developing economies remained relatively weak, according to the ECB. It cites tight global financing conditions and declining commodity prices as the causes.

For the Europe, Middle East, and Africa (EMEA) region, the ECB reports contrasting developments. According to its calculations, the gross domestic product of the euro area grew 1.5% in 2015. It finds that this recovery was mainly due to increasing domestic demand. The economies of Central and Eastern European countries were robust, according to the ECB, while Russia was in significant recession.

The economic performance of the countries in the Americas region was also uneven. According to the ECB, the United States economy firmed in 2015, and weakened slightly only in the third quarter. However, a number of countries in Latin America slipped into recession; notably Brazil, where the downturn was mainly due to political uncertainty.

In the Asia Pacific Japan (APJ) region, Japan's economy struggled to gain momentum in 2015, the ECB notes. However, the ECB also points to a slight recovery in the third quarter and signs of growth at the end of the year. China refocused its

economy in 2015, easing its monetary policy and introducing a new exchange rate regime in the summer, the ECB reports. This increased political uncertainty and economic growth slowed. The ECB writes that business-friendly reforms in India boosted investment and, after a temporary decline in the second quarter, led to an increase in economic growth from mid-year onwards.

### **The IT Market**

Growth in the global IT market slowed from the second quarter of 2015, U.S. market research firm International Data Corporation (IDC) reports. It attributes this development to the contracting PC market, the encroachment on traditional IT business by cloud services, and weak economic performance in countries such as Brazil, China, and Russia. IDC lowered its forecast for IT market growth in 2015, and at the end of the year it expected the global IT market to have grown 4.9% year over year – still ahead of the economy as a whole.

However, according to IDC, IT spending did not grow evenly across the segments. It pointed to strong growth in cloud, mobile, and Big Data, with service providers increasing investment in server and data storage hardware. IDC reports that smartphone market expansion, which had been rapid in the previous year, slowed significantly in 2015 due to saturation. In 2015, the rate of smartphone market growth was closer to that of the IT market as a whole. Even the tablet market was unable to make up for this loss of momentum, IDC notes.

By contrast, worldwide spending on business software increased significantly, at 6.8% in 2015, according to IDC. The share of investment in cloud, mobile, and Big Data solutions

continued to increase. However, according to IDC, this had an adverse effect on services, which grew only 2.8%.

IDC reports that IT spending in the Europe, Middle East, and Africa region (EMEA) increased 1.5% in 2015, and by as much as 5% in Western Europe due to the economic recovery there. In Germany, the IT market grew even more strongly at over 6%. In Russia, though, low oil prices, depreciation of the ruble, and economic sanctions had a significant negative impact, IDC reports. It expects the Russian IT market declined 15% in 2015.

In the Americas region, the IT market grew 4.6% according to IDC. In its view, the U.S. market remained largely stable. It grew 3% overall, somewhat less than in the previous year, mainly due to the weakening market for smartphones and tablets. Software, on the other hand, grew strongly at 7% in the United States, according to IDC. In Brazil, IT investment increased 11% in 2015, though this increase has to be seen in the context of high inflation. IDC put growth in the Mexican IT market at almost 13%.

In the Asia Pacific Japan (APJ) region, IDC reports that the IT market there grew almost 6% in 2015. The IT markets in individual countries performed very differently. In Japan, IT spending remained constant year over year. In China, growth in the IT market slowed to 8% (2014: 12%). In India, however, in 2015 IT spending grew very strongly at 11%, according to IDC.

### **Impact on SAP**

Once again, growth in the overall global economy and in the IT industry was relatively slow in a volatile market environment in 2015. This confronted SAP with considerable challenges. But our tremendous 2015 results validate our strategy of innovating across the core, the cloud, and business networks to help our customers become true digital enterprises. We once again succeeded in significantly expanding our business and outperformed the overall global economy and IT industry in all regions in 2015 with regards to revenue growth.

Our non-IFRS cloud and software revenue increased 12% at constant currencies in 2015. Both our core business and our cloud business contributed substantially to the increase. Our core business grew with non-IFRS software and support revenue increasing 6% at constant currencies. This was driven by a 4% year-over-year increase in our non-IFRS software revenue at constant currencies, while our resilient constant currency non-IFRS support revenue grew 7%. Support revenue is a robust feature of our core business model because a maintenance contract generally continues for as long as the customer uses the software. Our cloud business growth was strong as well. Non-IFRS cloud subscriptions and support revenue grew 82% over the year at constant currencies.

For more details about our regional performance, see the *Revenue by Region* section below.

In 2015, we again demonstrated that we are consistently pursuing our strategy for innovation and growth – and that globally we are able to generate growth that few other IT companies can match.

## **OVERALL FINANCIAL POSITION**

### **Executive Board's Assessment**

In 2015, SAP saw exceptional growth in its cloud business. Its core on-premise license business performed strongly as well, growing 10%. With the strong top line result we generated the highest non-IFRS operating profit in SAP's history.

The exceptional strong cloud growth is driven by a broad cloud portfolio, the largest cloud business network in the world (SAP Ariba, Concur, and SAP Fieldglass solutions), and the SAP HANA Enterprise Cloud service.

We made substantial progress in transforming our Company by shifting investments from non-core activities to strategic growth areas, enabling us to capture the tremendous growth opportunities in the market. The completeness of vision in the cloud combined with a soaring adoption of SAP S/4HANA gives us confidence in our business in 2016 and beyond, which is reflected in an increase of our 2017 ambition. We exceeded our targets for cloud and software revenues and operating income and we are ever confident that SAP will remain a profitable growth business well into the future.

### **Influence of Accounting Policies on Our Financial Position**

For more information about our accounting policies, see the Notes to the Consolidated Financial Statements section, *Note (3)*.

There are no off-balance sheet financial instruments, such as sale-and-lease-back transactions, asset-backed securities, and liabilities related to structured entities, which are not disclosed in our Consolidated Financial Statements.

### **PERFORMANCE AGAINST OUTLOOK FOR 2015 (NON-IFRS)**

Our 2015 operating profit-related internal management goals and published outlook were based on our non-IFRS financial measures. For this reason, in the next section we discuss performance against our outlook only in terms of non-IFRS numbers derived from IFRS measures. The subsequent section about IFRS operating results discusses numbers only in terms of the International Financial Reporting Standards (IFRSs). So the numbers in that section are not expressly identified as IFRS numbers.

We acquired Concur Technologies in December 2014, so Concur results are incorporated in our 2014 results only for December. We acquired Fieldglass in May 2014, so Fieldglass results are incorporated in our 2014 results only from May to December.

### Guidance for 2015 (Non-IFRS)

At the beginning of 2015, we projected, based on the strong momentum in our cloud business, that our non-IFRS cloud subscriptions and support revenue would end between €1.95 billion and €2.05 billion at constant currencies (2014: €1.10 billion). The upper end of this range represents a growth rate of 86% at constant currencies. The acquired companies Concur and Fieldglass were expected to contribute approximately 50 percentage points to this growth. SAP expected full-year 2015 non-IFRS cloud and software revenue to increase by 8% to 10% at constant currencies (2014: €14.33 billion). We also expected our full-year operating profit (non-IFRS) for 2015 to end between €5.6 billion and €5.9 billion (2014: €5.64 billion) at constant currencies. We anticipated an effective tax rate (IFRS) of between 25.0% and 26.0% (2014: 24.7%) and an effective tax rate (non-IFRS) of between 26.5% and 27.5% (2014: 26.1%).

### Actual Performance Compared to Guidance 2015 (Non-IFRS)

We achieved or exceeded the amended outlook guidance for revenue and operating profit we published at the beginning of the year.

### Comparison of Forecast and Results for 2015

|                                                                            | Forecast for 2015                | Results for 2015 |
|----------------------------------------------------------------------------|----------------------------------|------------------|
| Cloud subscriptions and support revenue (non-IFRS, at constant currencies) | € 1.95 billion to € 2.05 billion | € 2.00 billion   |
| Cloud and software revenue (non-IFRS, at constant currencies)              | +8 % to +10 %                    | +12 %            |
| Operating profit (non-IFRS, at constant currencies)                        | €5.6 billion to €5.9 billion     | €5.90 billion    |
| Effective tax rate (IFRS)                                                  | 25.0 % to 26.0 %                 | 23.4%            |
| Effective tax rate (non-IFRS)                                              | 26.5 % to 27.5 %                 | 26.1 %           |

Despite ongoing economic uncertainty throughout 2015, our new and existing customers continued to show a strong willingness to invest in our solutions.

At constant currencies, non-IFRS cloud subscriptions and support revenue grew from €1.1 billion in 2014 to €2.0 billion in 2015. That represents an increase of 82% at constant currencies. The increase includes effects relating to acquisitions not included, or not included in full, in the 2014 amount. Besides

these positive acquisition effects our cloud line of business also continued to benefit from strong organic growth (32% at constant currencies), which surpassed our long-term growth expectations for 2015.

Starting with the reporting for the first quarter of 2015, SAP reports a new cloud related measure called "new cloud bookings." This measure is an order entry measure that is determined by including all order entry of a given period that meets all of the following conditions:

- The revenue from the orders is expected to be classified as cloud subscriptions and support revenue.
- It results from purchases by new customers and incremental purchases by existing customers. Consequently, orders to renew existing contracts are not included.
- The order amount is contractually committed (that is, variable amounts from pay-per-use and similar arrangements are not included). Consequently, due to their uncommitted pay-per-use nature, transaction-based fees from SAP Ariba and SAP Fieldglass solutions are not reflected in the new cloud bookings metric.
- Amounts are annualized. That is, for contracts with durations of more than one year, the average annual order entry amount is included in the number.

Thus, the new cloud bookings measure is an indicator for our cloud-related sales success in a given period and for future cloud subscriptions revenue. New cloud bookings increased 100% in 2015 to €874 million (2014: €436 million). Concur contributed €169 million to new cloud bookings. In addition to the strong growth of the new cloud bookings the combination of our cloud backlog (unbilled future revenue based on existing customer contracts) and deferred cloud revenue that together reflect the committed future cloud subscriptions and support revenue climbed by 53% to €4.6 billion (2014: €3.0 billion). This committed business will drive cloud growth in 2016 and beyond.

Besides the cloud business also our core on-premise business showed an exceptional growth in 2015. Cloud and software revenue (non-IFRS) was €17.2 billion (2014: €14.3 billion). On a constant currency basis, the increase was 12% and based on that result significantly above the forecast for 2015.

Our total revenue (non-IFRS) rose 18% in 2015 to €20.8 billion (2014: €17.6 billion). On a constant currency basis, the increase was 10%.

Operating expenses (non-IFRS) in 2015 were €14.5 billion (2014: €11.9 billion), an increase of 21%. On a constant currency basis the increase was 12%.

Our expense base in 2015 was impacted by the transformation to a fast-growing cloud business resulting in a significant higher share of more predictable revenue. The gross margins of our cloud offerings made good progress throughout 2015. Our gross



margin (Non-IFRS) in our business network segment resulted in ~75% for 2015, already close to our long-term ambition of ~80%. This good result is based on an overall improved profitability as well as related to positive effects of the Concur acquisition. The revenue growth of our private cloud offering was more positive than expected. At the same time, the profitability of our private cloud offering could also be improved further; it is still negative but based on the good progress we saw throughout 2015, we expect break even in the course of 2016. Profitability in our public cloud offering was ~70% for 2015 compared to our long-term ambition of ~80%. Our overall cloud gross margin improved year over year from 64.3% in 2014 to 65.6% in 2015, despite incremental investments in the cloud infrastructure. These investments were necessary so as to be able in future periods to satisfy the increased customer demand that can be seen in the significantly higher cloud backlog as well as the increased cloud bookings.

Efficiency improvements in both our core and our cloud business drove absolute operating profit growth. Non-IFRS operating profit in 2015 was €5.904 billion, an increase of 5% at constant currencies. The growth in our operating profit in 2015 reflects the continued success of our business transformation in combination with the strong top-line growth. In 2015, we had a positive impact from our Company-wide transformation program in the triple-digit million euro range. On the other hand, we had a net increase of more than 2,500 employees in 2015 as we continued to invest in innovation and growth markets. Thus, constant currency non-IFRS operating profit amounting to €5.904 billion slightly exceeded the range (€5.6 billion to €5.9 billion) we had expected in our outlook.

We achieved an effective tax rate (IFRS) of 23.4% and an effective tax rate (non-IFRS) of 26.1%, which is below the outlook of 25.0% to 26.0% (IFRS) and 26.5% to 27.5% (non-IFRS). The reduction mainly results from taxes for prior years.

## OPERATING RESULTS (IFRS)

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

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

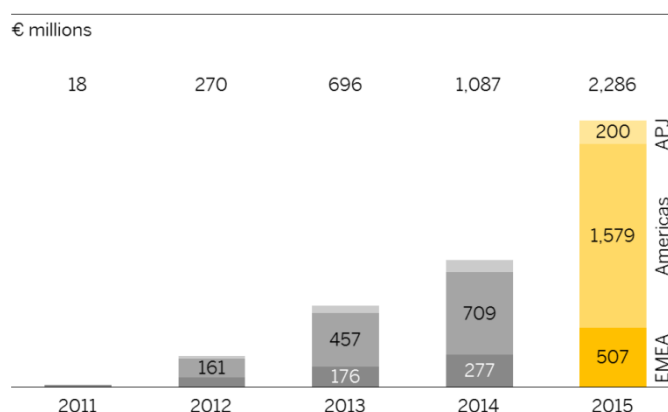
## Revenue

### Total Revenue

Total revenue increased from €17,560 million in 2014 to €20,793 million in 2015, representing an increase of €3,233 million, or 18%. This growth reflects a 10% increase

from new business and a 9% increase from currency effects. The growth in revenue resulted primarily from a €1,264 million rise in support revenue, a €1,199 million increase in cloud subscriptions and support revenue, software license revenue increased €436 million and services revenue grew by €334 million. Cloud and software revenue climbed to €17,214 million in 2015, an increase of 20%. Cloud and software revenue represented 83% of total revenue in 2015 (2014: 82%). Service revenue increased 10% from €3,245 million in 2014 to €3,579 million, which was 17% of total revenue, in 2015.

### Cloud Subscriptions and Support Revenue by Region (based on customer location)

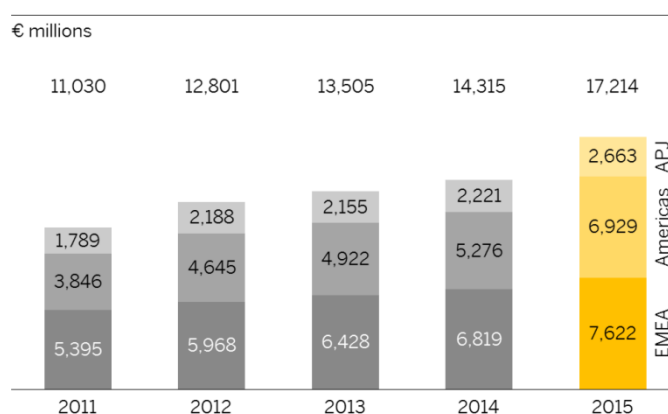


For more information about the breakdown of total revenue by region and industry, see the *Revenue by Region and Industry* section below.

### Cloud and Software Revenue

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

### Cloud and Software Revenue by Region (based on customer location)



Cloud subscriptions and support revenue increased from €1,087 million in 2014 to €2,286 million in 2015.

Despite a combination of a challenging macroeconomic and political environment and the accelerating industry shift to the cloud, we achieved a €436 million increase in software license revenue. This increase, from €4,399 million in 2014 to €4,835 million in 2015, reflects a 4% increase from new license business and a 6% increase from currency effects.

Our customer base continued to expand in 2015. Based on the number of contracts concluded, 13% of the orders we received for software in 2015 were from new customers (2014: 12%). The total value of software orders received increased 16% year-over-year. The total number of software license contracts increased 6% to 57,439 (2014: 54,120 contracts), while the average order value increased by 9%. Of all our software orders received in 2015, 27% were attributable to deals worth more than €5 million (2014: 22%), while 40% were attributable to deals worth less than €1 million (2014: 44%).

Our stable customer relations and continued investment in new software licenses by customers throughout 2015 and the previous year resulted in an increase in software support revenue from €8,829 million in 2014 to €10,093 million in 2015. The SAP Enterprise Support offering was the largest contributor to our software support revenue. The €1,264 million, or 14%, growth in software support revenue reflects a 7% increase from new support business and an 8% increase from currency effects. This growth is primarily attributable to SAP Product Support for Large Enterprises and SAP Enterprise Support. The acceptance rate for SAP Enterprise Support among new customers slightly increased to 99% in 2015 (2014: 98%).

Software licenses and software support revenue rose €1,700 million, or 13%, from €13,228 million in 2014 to €14,928 million in 2015. This growth breaks down into a 6% increase from new software licenses and software support business and a 7% increase from currency effects.

Cloud and software revenue grew from €14,315 million in 2014 to €17,214 million in 2015, an increase of 20%. This reflects a 12% increase from new cloud and software business and a 9% increase from currency effects.

### Services Revenue

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

delivered in connection with our travel and expense management offerings.

Services revenue increased €334 million, or 10%, from €3,245 million in 2014 to €3,579 million in 2015. This increase reflects a 2% increase from new services business and an 8% increase from currency effects.

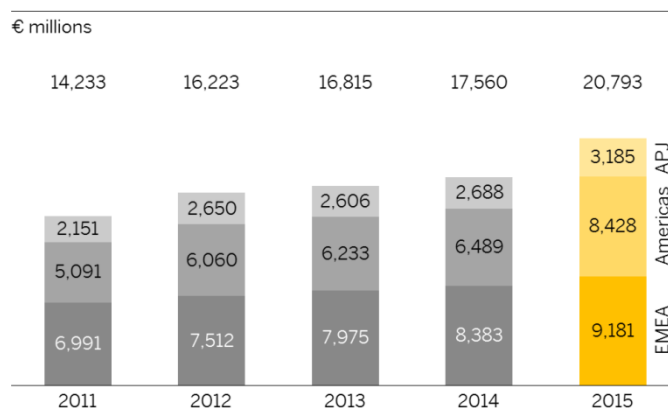
A solid market demand led to an 8% increase of €222 million in consulting revenue and premium support revenue from €2,634 million in 2014 to €2,856 million in 2015. This increase reflects a 0% increase from new business and an 8% increase from currency effects. Consulting and premium support revenue contributed 80% of the total service revenue (2014: 81%). Consulting and premium support revenue contributed 14% of total revenue in 2015 (2014: 15%).

Revenue from other services increased €112 million, or 18%, to €723 million in 2015 (2014: €611 million). This reflects a 9% increase from new business and a 10% increase from currency changes.

## Revenue by Region and Industry

### Revenue by Region

#### Revenue by Region (based on customer location)



### EMEA Region

In 2015, the EMEA region generated €9,181 million in revenue, which was 44% of total revenue (2014: €8,383 million; 48%). This represents a year-over-year increase of 10%. Revenue in Germany increased 8% to €2,771 million in 2015 (2014: €2,570 million). Germany contributed 30% (2014: 31%) of all EMEA region revenue. The remaining revenue in the EMEA region was primarily generated in France, Italy, the Netherlands, Russia, Switzerland, and the United Kingdom. Cloud and software revenue generated in the EMEA region in 2015 totaled €7,622 million (2014: €6,819 million). Cloud and software revenue represented 83% of all revenue in the region in 2015 (2014: 81%). Cloud subscriptions revenue rose 83% to €507 million in 2015 (2014: €277 million). This growth reflects a

69% increase from new cloud business and a 14% increase from currency effects. Software licenses and software support revenue rose 9% to €7,115 million in 2015 (2014: €6,542 million). This growth reflects an 8% increase from new software license and software support business and a 1% increase from currency effects.

#### Americas Region

In 2015, 41% of our total revenue was generated in the Americas region (2014: 37%). Total revenue in the Americas region increased 30% to €8,428 million; revenue generated in the United States increased 38% to €6,750 million. This growth reflects a 16% increase from new business and a 22% increase from currency effects. The United States contributed 80% (2014: 75%) of all revenue generated in the Americas region. In the remaining countries of the Americas region, revenue increased 5% to €1,678 million. This reflects a 3% increase from new business and a 2% increase from currency effects. This revenue was primarily generated in Brazil, Canada, and Mexico. Cloud and software revenue generated in the Americas region in 2015 totaled €6,929 million (2014: €5,276 million). Cloud and software revenue represented 82% of all revenue in the Americas region in 2015 (2014: 81%). Cloud subscriptions revenue rose by 123% to €1,579 million in 2015 (2014: €709 million); currency effects were 34%, growth in new cloud business was 89%. Software licenses and software support revenue rose 17% to €5,350 million in 2015 (2014: €4,566 million). This growth reflects a 2% increase from new business; currency effects were 15%.

#### APJ Region

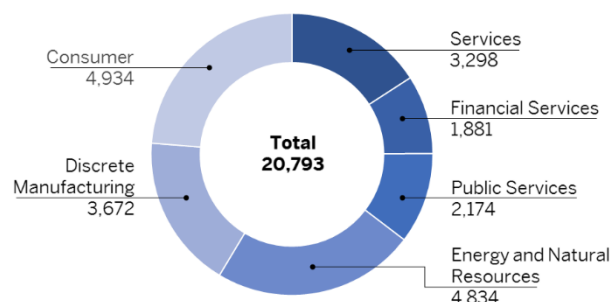
In 2015, 15% (2014: 15%) of our total revenue was generated in the APJ region, with the strongest revenue growth being achieved in India. Total revenue in the APJ region increased 18% to €3,185 million. In Japan, revenue increased 11% to €667 million. Revenue from Japan was 21% (2014: 22%) of all revenue generated in the APJ region. The revenue growth in Japan was attributable to a 6% increase from new business and a 5% increase from currency effects. In the remaining countries of the APJ region, revenue increased 21%. Revenue in the remaining countries of the APJ region was generated primarily in Australia, China, and India. Cloud and software revenue in the APJ region totaled €2,663 million in 2015 (2014: €2,221 million). That was 84% of all revenue from the region (2014: 83%). Cloud subscriptions revenue grew 98% to €200 million in 2015 (2014: €101 million). This growth reflects an 82% increase from new cloud business and a 17% increase from currency effects. Software licenses and software support revenue increased 16% to €2,463 million in 2015 (2014: €2,120 million). This increase reflects an 8% increase from new business and an 8% increase from currency effects.

#### Revenue by Industry

We allocate our customers to one of our industries at the outset of an initial arrangement. All subsequent revenue from a particular customer is recorded under that industry sector.

#### Revenue by Industry

€ millions



In 2015, we achieved above-average growth in the following industry sectors, measured by changes in total revenue: Public Services (€2,174 million, at a growth rate of 22%); Consumer (€4,934 million, at a growth rate of 22%); and Discrete Manufacturing (€3,672 million, at a growth rate of 20%). Revenue from the other industry sectors was Services (€3,298 million, at a growth rate of 17%); Energy & Natural Resources (€4,834 million, at a growth rate of 16%); and Financial Services (€1,881 million, at a growth rate of 11%).

#### Operating Profit and Operating Margin

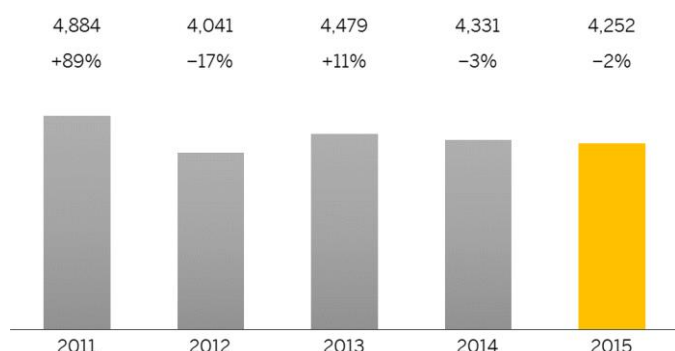
SAP continued to invest in innovation and its cloud business and generated record turnover in 2015. The strong growth in revenue, however, also led to an increase in compensation payments to our employees, while the climbing stock price translated into higher share-based payment expenses. As a result, our operating profit declined slightly by 2% to €4,252 million (2014: €4,331 million).

In 2015, our operating expenses increased €3,311 million or 25% to €16,541 million (2014: €13,230 million). The main contributors to that increase were our acquisition of Concur in December 2014, our greater investment- and revenue-related cloud subscriptions and support costs, our continued investment in sales activities, and higher restructuring expenses.

The effect of acquisition-related expenses, which were €738 million (2014: €562 million), of restructuring expenses, which were €621 million (2014: €126 million), and of a €724 million expense for share-based payments (2014: €290 million) weighed more heavily on operating profit than in the previous year. The record revenue generated increased the cost of bonus payments, and the improving performance of the share price in 2015 pushed share-based payment expenses higher. Continuing investment in the cloud infrastructure, in sales activities around the world, and in research and development also affected operating profit. Our employee headcount (measured in full-time equivalents, or FTEs) increased by 2,579 year-over-year.

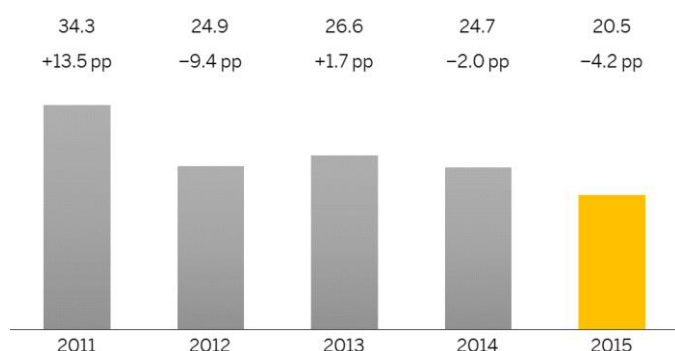
## Operating Profit

€ millions | change since previous year



## Operating Margin

Percent | change since previous year



These short-term, negative effects on operating profit largely represent investments in the future and were in part offset by the increase in revenue.

The overall result of these effects on operating profit was a 4.2 percentage point narrowing of our operating margin in 2015 to 20.5 % (2014: 24.7 %).

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

### Cost of Cloud and Software

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

In 2015, the cost of cloud and software increased 30% to €3,313 million (2014: €2,557 million).

Significant costs included an additional €539 million year-over-year to extend our cloud business in response to the sustained strength of customer demand, with an associated increase in the expense of delivering and operating cloud applications, a €164 million revenue-related increase in the license fees we pay to third parties, and a €74 million rise in the cost of providing custom development projects. These investments contributed to revenue growth. Our margin on cloud subscriptions and support narrowed 0.4 percentage points to 55.3% (2014: 55.8%). This decrease was primarily due to increasing expenses related to the extension of our cloud infrastructure. These expenses represent an investment in our fast-growing cloud business of the future, and were in part already offset by a significant increase in cloud subscriptions and support revenue.

The gross margin on cloud and software, defined as cloud and software profit as a percentage of cloud and software revenue, narrowed to 80.8% in 2015 (2014: 82.1%). This change is driven by the revenue mix effect with a rising cloud subscriptions and support revenue share while both cloud subscriptions and support margin as well as software license and support margin only changed marginally.

### Cost of Services

Cost of services consists primarily of the cost of consulting, premium services and training personnel and the cost of bought-in consulting and training resources. This item also includes sales and marketing expenses for our services resulting from sales and marketing efforts where those efforts cannot be clearly distinguished from providing the services.

Although we were able to increase our service revenue by 10% year-over-year to €3,579 million in 2015 (2014: €3,245 million), our service business continues to be greatly affected as we trend away from classic software licensing and consulting revenue toward more subscription revenue from cloud solutions. We are also investing in our SAP ONE Service organization. As a result, cost of service rose 22% to €3,313 million (2014: €2,716 million). Our gross margin on services, defined as services profit as a percentage of services revenue, narrowed to 7.4% (2014: 16.3%).

### Research and Development Expense

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

Due to growing personnel costs because of the 11% increase in our headcount by the end of the year, and the revenue-related year-over-year increase in compensation payments, our R&D expense increased by 22% to €2,845 million in 2015 from €2,331 million in 2014. R&D expense as a percentage of total revenue increased to 13.7% (2014: 13.3%). For more

information, see the *Products, Research & Development, and Services* section.

### Sales and Marketing Expense

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

Our sales and marketing expense rose 25% from €4,304 million in 2014 to €5,401 million in 2015. The increase was mainly the result of greater personnel costs as we expanded our global sales force, and of increased expenditure for bonus payments prompted by the strong revenue growth. The ratio of sales and marketing expense to total revenue, expressed as a percentage, increased to 26.0% year-over-year (2014: 24.5%), an increase of 1.5 percentage points.

### General and Administration Expense

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

General and administration expense increased 17% from €892 million in 2014 to €1,048 million in 2015. That this expense grew less rapidly than revenue is primarily the result of careful cost management. Consequently, the ratio of general and

administration expense to total revenue dropped slightly in 2015 to 5.0% (2014: 5.1%).

### Segment Information (Non-IFRS)

In 2015, SAP had two reportable segments: the Applications, Technology, and Services segment; and the SAP Business Network segment. These are the components of SAP that our Executive Board regularly reviews to assess the performance of our Company and to make resource allocation decisions.

Revenue and profit figures for each of our operating segments are calculated in line with our internal management reporting and therefore differ from the corresponding revenue and profit in our Consolidated Statements of Income prepared according to IFRS. For more information about our segment reporting, the activities that our two segments derive their revenues from, financial performance measures, and reconciliation from our internal management reporting to our external IFRS reporting, see the Notes to the Consolidated Financial Statements section, *Note (28)*, and the *Performance Management System* section.

The financial data presented for 2015 contain all revenues and expenses from Concur and Fieldglass, whereas the prior year's comparison figures only include their financial data as of their respective acquisition dates. Fieldglass was acquired on May 2, 2014; Concur on December 4, 2014.

### Applications, Technology & Services Segment

| € millions, unless otherwise stated<br>(Non-IFRS) | 2015   | 2014   | Δ in % | Δ in %<br>(Constant<br>Currency) |
|---------------------------------------------------|--------|--------|--------|----------------------------------|
| Segment revenue                                   | 19,126 | 16,871 | 13     | 6                                |
| Gross margin (in %)                               | 72     | 73     | -1pp   | -1pp                             |
| Cloud subscription and support margin (in %)      | 53     | 55     | -2pp   | -5pp                             |
| Segment profit                                    | 7,918  | 7,099  | 12     | 4                                |
| Segment margin (in %)                             | 41     | 42     | -1pp   | -1pp                             |

In 2015, the Applications, Technology & Services segment revenue increased 13% (6% at constant currencies) to €19,126 million (2014: €16,871 million). This increase was driven mainly by strong growth in software support revenue, which increased 14% (7% at constant currencies) to €10,061 million and a 10% increase in software licenses (5% at constant currencies) to €4,836 million. As a consequence of continuous strong demand in the human capital management, customer engagement and commerce, and SAP HANA Enterprise Cloud business, cloud subscriptions and support revenue in the Applications, Technology & Services segment grew 64% (45% at constant currencies) to €961 million.

The increase of cloud subscriptions and support revenue and software support revenue results in an increasing revenue share of more predictable revenue streams in this segment of 2 percentage points from 56% in 2014 to 58% in 2015. Software license revenue attributable to this segment increased 10% (5% at constant currencies) to €4,835 million (2014: €4,381 million).

The segment's cost of revenue during the same time period increased 17% (9% at constant currencies) to €5,343 million (2014: €4,564 million). This increase in expenses was primarily the result of greater investment in expanding our cloud infrastructure and in providing and operating our cloud applications, as well as additional personnel expenses to support the growth of the SAP HANA Enterprise Cloud service. The cloud subscriptions and support margin for the segment, therefore, decreased by 2.2 percentage points to 52.9% (50.4% at constant currencies). Segment gross profit increased 12% in 2015 (5% at constant currencies) to €13,784 million (2014: €12,307 million), which resulted in a decrease of the segment gross margin from 72.9% to 72.1% (72.1% at constant currencies). Segment profit increased 12% (4% at constant currencies) to €7,918 million (2014: €7,099 million), while the segment margin decreased by 0.7 percentage points to 41.4% (41.3% at constant currencies).

### SAP Business Network Segment

| € millions, unless otherwise stated<br>(Non-IFRS) | 2015  | 2014 | Δ in % | Δ in %<br>(Constant<br>Currency) |
|---------------------------------------------------|-------|------|--------|----------------------------------|
| Segment revenue                                   | 1,614 | 644  | 150    | 116                              |
| Gross margin (in %)                               | 67    | 66   | 1pp    | 0pp                              |
| Cloud subscription and support margin (in %)      | 75    | 75   | –0pp   | –1pp                             |
| Segment profit                                    | 312   | 105  | 199    | 139                              |
| Segment margin (in %)                             | 19    | 16   | 3pp    | 2pp                              |

In 2015, revenue from the SAP Business Network segment, which combines all of our business network solutions, increased 150% (116% at constant currencies) to €1,614 million (2014: €644 million). Concur and Fieldglass, which were acquired in 2014, together contributed €909 million (2014: €107 million) to the segment's revenue. SAP internal analyses show that more than US\$740 billion in commerce is conducted on the network annually.

The segment's cost of revenue increased 144% in 2015 (114% at constant currencies) to €530 million (2014: €217 million), of which €299 million in expenses are attributable to Concur and SAP Fieldglass (2014: €28 million). The cloud subscriptions and support margin for the segment decreased by 0.4 percentage points to 74.9% (74.5% at constant currencies). The SAP Business Network segment achieved a segment gross profit of €1,084 million in 2015 (2014: €427 million), an increase of 154% (117% at constant currencies). This resulted in an increase of the segment gross margin from 66.3% to 67.2% (66.5% at constant currencies). Segment profit increased 199% year on year (139% at constant currencies) to €312 million (2014:

€105 million), resulting in an increase in the segment margin of +3.1 percentage points to 19.4% (18.0% at constant currencies).

### Financial Income, Net

Financial income, net, changed to –€5 million (2014: –€25 million). Our finance income was €241 million (2014: €127 million) and our finance costs were €246 million (2014: €152 million).

Finance income mainly consists of gains from disposal of equity securities and interest income from loans and receivables, financial assets (cash, cash equivalents, and current investments), and income of derivatives.

Finance costs mainly consist of interest expense on financial liabilities (€135 million in 2015 compared to €93 million in 2014) due to higher average indebtedness and negative effects from derivatives (€72 million in 2015 compared to €28 million in 2014). For more information about financing instruments, see the Notes to the Consolidated Financial Statements section, *Note (17b)*.



## Income Tax

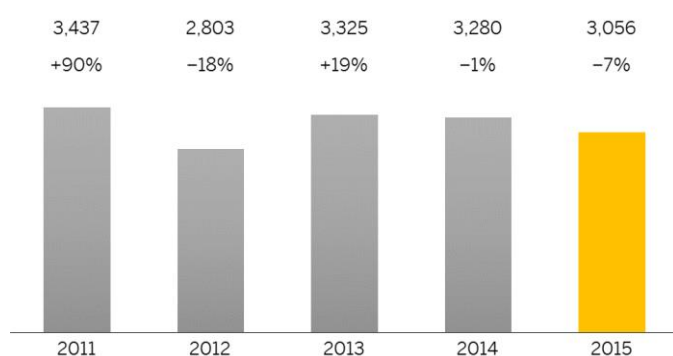
Our effective tax rate decreased to 23.4% in 2015 (2014: 24.7%). The year-over-year decrease in the effective tax rate mainly resulted from changes in taxes for prior years. For more information on income taxes, see the Notes to the Consolidated Financial Statements section, *Note (10)*.

## Profit After Tax and Earnings per Share

Profit after tax decreased to €3,056 million in 2015 (2014: €3,280 million).

### Profit After Tax

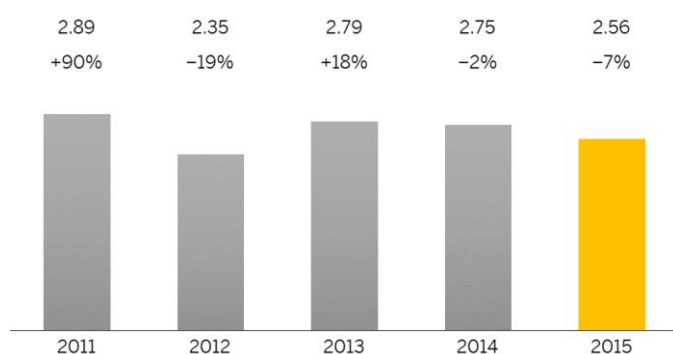
€ millions | change since previous year



Basic earnings per share decreased to €2.56 (2014: €2.75). The number of shares outstanding increased to 1,197 million in 2015 (2014: 1,195 million).

### Earnings per Share

€ | change since previous year



## Dividend

We believe our shareholders should benefit appropriately from the profit the Company made in 2015. In recent years, the payout has always been greater than 35% of profit after tax. We aim to continue our policy to pay a dividend totaling more than 35% of profit after tax in the future.

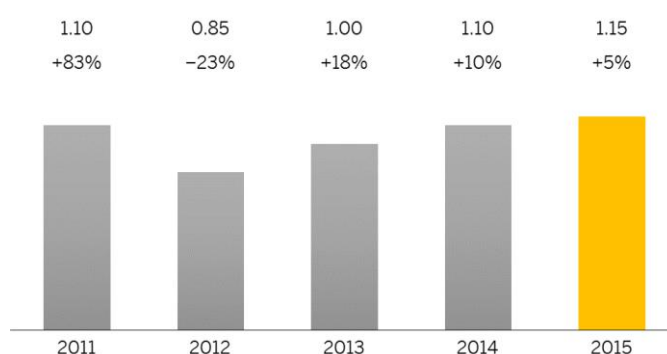
The Executive Board and the Supervisory Board will recommend to the Annual General Meeting of Shareholders that the total

dividend will be increased by 5% to €1.15 per share (2014: €1.10). Based on this recommendation, the overall dividend payout ratio (which here means total distributed dividend as a percentage of profit) would be 45% (2014: 40%).

If the shareholders approve this recommendation and if treasury shares remain at the 2015 closing level, the total amount distributed in dividends would be €1,378 million. The actual amount distributed may be different from this total because the number of shares held in treasury may change before the Annual General Meeting of Shareholders. In 2015, we distributed €1,316 million in dividends from our 2014 profit. In 2015 and 2014, we did not repurchase any SAP treasury shares.

### Dividend per Share

€ | change since previous year



In 2011, in addition to the regular dividend of €0.75 per share, we rewarded our shareholders with a special dividend of €0.35 per share to celebrate our 40th anniversary.

## FINANCES (IFRS)

### Overview

#### Global Financial Management

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

We manage credit, liquidity, interest rate, equity price, and foreign exchange rate risks on a Group-wide basis. We use selected derivatives exclusively for this purpose and not for speculation, which is defined as entering into a derivative

instrument for which we do not have a corresponding underlying transaction. The rules for the use of derivatives and other rules and processes concerning the management of financial risks are collected in our treasury guideline document, which applies globally to all companies in the Group. For more information about the management of each financial risk and about our risk exposure, see the Notes to the Consolidated Financial Statements section, *Notes (24) to (26)*.

### Liquidity Management

Our primary source of cash, cash equivalents, and current investments is funds generated from our business operations. Over the past several years, our principal use of cash has been to support operations and our capital expenditure requirements resulting from our growth, to quickly repay financial debt, to acquire businesses, to pay dividends on our shares, and to buy back SAP shares on the open market. On December 31, 2015, our cash, cash equivalents, and current investments were primarily held in euros and U.S. dollars. We generally invest only in the financial assets of issuers or funds with a minimum credit rating of BBB, and pursue a policy of cautious investment characterized by wide portfolio diversification with a variety of counterparties, predominantly short-term investments, and standard investment instruments. We rarely invest in the financial assets of issuers with a credit rating lower than BBB, and such investments were not material in 2015.

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

### Capital Structure

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

### Capital Structure Management

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

The long-term credit rating for SAP SE is "A" by Standard and Poor's and "A2" by Moody's, both with stable outlook. Since their initial assignment in September 2014, the ratings and outlooks have not changed.

Our general intention is to remain in a position to return liquidity to our shareholders by distributing annual dividends totaling more than 35% of our profit after tax. There are currently no plans for future share buybacks.

|                                     | 2015          |                                   | 2014          |                                   | Δ in %   |
|-------------------------------------|---------------|-----------------------------------|---------------|-----------------------------------|----------|
|                                     | € millions    | % of Total equity and liabilities | € millions    | % of Total equity and liabilities |          |
| Equity                              | 23,295        | 56                                | 19,534        | 51                                | 19       |
| Current liabilities                 | 7,867         | 19                                | 8,574         | 22                                | -8       |
| Non-current liabilities             | 10,228        | 25                                | 10,457        | 27                                | -2       |
| Liabilities                         | 18,095        | 44                                | 19,031        | 49                                | -5       |
| <b>Total equity and liabilities</b> | <b>41,390</b> | <b>100</b>                        | <b>38,565</b> | <b>100</b>                        | <b>7</b> |

In 2015, we repaid €1,270 million in bank loans that we had taken to finance the Concur acquisition and refinanced another part of this loan through the issuance of a three-tranche Eurobond of €1.75 billion in total with maturities of two to ten

years. We also repaid a €550 million Eurobond and a US\$300 million U.S. private placement tranche at their maturity. Thus, the ratio of total financial debt to total equity and



liabilities decreased by 7 percentage points to 22% at the end of 2015 (29% as at December 31, 2014).

Total financial debt consists of current and non-current bank loans, bonds, and private placements. For more information about our financial debt, see the Notes to the Consolidated Financial Statements section, *Note (17)*.

As part of our financing activities in 2016, the Company intends to repay a US\$600 million U.S. private placement tranche when it matures and a further substantial portion of our outstanding bank loan.

Total liabilities on December 31, 2015, mainly comprised financial liabilities of €9,522 million (of which €8,681 million are non-current). Financial liabilities on December 31, 2015, consisted largely of financial debt, which included amounts in euros (€6,994 million) and U.S. dollars (€2,202 million). On December 31, 2015, approximately 64% of financial debt was held at variable interest rates, partially swapped from fixed into variable using interest rate swaps. Total liabilities on December 31, 2015, also comprised non-financial liabilities. Most of these non-financial liabilities result from employee-related obligations.

For more information about financial and non-financial liabilities, see the Notes to the Consolidated Financial Statements section, *Note (18)*.

## CASH FLOWS AND LIQUIDITY

Group liquidity on December 31, 2015, primarily comprised amounts in euros and U.S. dollars. Current investments are included in other financial assets in the statement of financial position. Financial debts are included within financial liabilities in the statement of financial position.

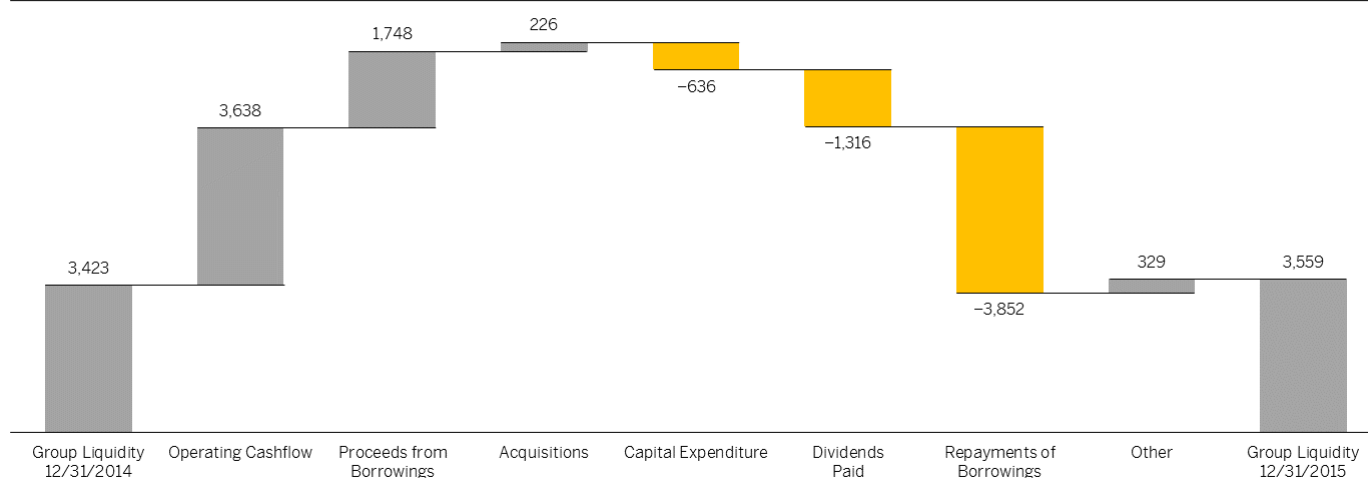
### Group Liquidity of SAP Group

| € millions                 | 2015          | 2014          | Δ            |
|----------------------------|---------------|---------------|--------------|
| Cash and cash equivalents  | 3,411         | 3,328         | 83           |
| Current investments        | 148           | 95            | 53           |
| <b>Group liquidity</b>     | <b>3,559</b>  | <b>3,423</b>  | <b>136</b>   |
| Current financial debt     | -567          | -2,157        | 1,590        |
| <b>Net liquidity 1</b>     | <b>2,992</b>  | <b>1,266</b>  | <b>1,726</b> |
| Non-current financial debt | -8,607        | -8,936        | 329          |
| <b>Net liquidity 2</b>     | <b>-5,615</b> | <b>-7,670</b> | <b>2,055</b> |

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

## Group Liquidity Development

€ millions



Net liquidity is Group liquidity less total financial debt as defined above.

The increase in Group liquidity compared to 2014 was mainly due to cash inflows from our operations and financing activities in issuing bonds. They were offset by cash outflows for dividend payments and repayments of borrowings.

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

### Analysis of Consolidated Statements of Cash Flow

| € millions                               | 2015   | 2014   | Δ in % |
|------------------------------------------|--------|--------|--------|
| Net cash flows from operating activities | 3,638  | 3,499  | 4      |
| Net cash flows from investing activities | -334   | -7,240 | -95    |
| Net cash flows from financing activities | -3,356 | 4,298  | <-100  |

Net cash provided by operating activities increased 4% year-over-year to €3,638 million in 2015 (2014: €3,499 million). Payments in connection with the restructuring of €204 million to employees and €272 million to insurance policies have offset partly the non-recurring effect from litigations in 2014. In 2015, days' sales outstanding (DSO) for receivables, defined as the average number of days from the raised invoice to cash receipt from the customer, increased six days to 71 days (2014: 65 days).

Cash outflows from investment activities decreased significantly to €334 million in 2015 (2014: €7,240 million). Cash outflows from purchase of intangible assets and property, plant, and equipment remained stable. Cash outflows in 2014 had resulted mainly from business combinations of Concur and Fieldglass. For more information about current and planned capital expenditures, see the *Assets* section and the *Investment Goals* section.

Net cash outflows from financing activities were €3,356 million in 2015, compared to net cash inflows of €4,298 million in 2014. The 2015 cash outflows had resulted from repayments of €1,270 million bank loans, €550 million Eurobonds and US\$300 million private placements. We refinanced another part of the bank loan through the issuance of a three-tranche Eurobond of €1,750 million in total. Cash inflows in 2014 were the result of issuing a €2,750 million Eurobond and drawing two tranches (of €1,270 million and €3,000 million) of a bank loan. Cash outflows in 2014 arose chiefly from repayments of €1,086 million borrowings and US\$1,160 million convertible bonds that we assumed in connection with our acquisition of Concur.

The dividend payment of €1,316 million made in 2015 exceeded the amount of €1,194 million in the prior year resulting from the increased dividend paid per share from €1.00 to €1.10.

### Credit Facilities

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

We are party to a revolving €2.0 billion credit facility contract with maturity in November 2020. The credit line may be used for general corporate purposes. A possible future withdrawal is not subject to any financial covenants. Borrowings under the facility

bear interest at the Euro Interbank Offered Rate (EURIBOR) or London Interbank Offered Rate (LIBOR) for the respective optional currency plus a margin ranging from 0.3% to 0.525%. We pay a commitment fee of 0.079% per annum on unused amounts of the available credit facility. So far, we have not used and do not currently foresee any need to use, this credit facility.

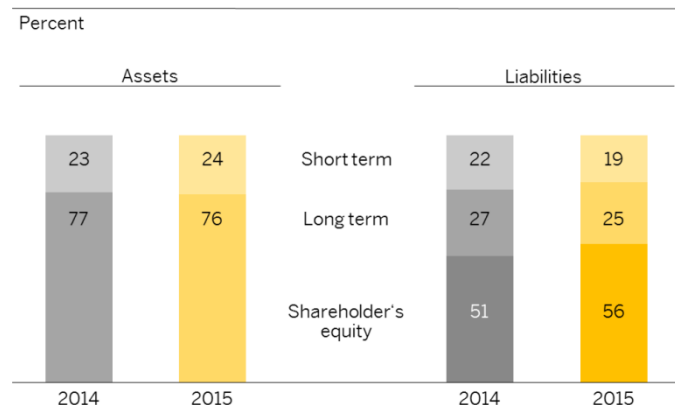
As at December 31, 2015, SAP SE had additional available credit facilities totaling €471 million. Several of our foreign subsidiaries have credit facilities available that allow them to borrow funds at prevailing interest rates. As at December 31, 2015, approximately €49 million was available through such arrangements. There were immaterial borrowings outstanding under these credit facilities from our foreign subsidiaries as at December 31, 2015.

## ASSETS (IFRS)

### Analysis of Consolidated Statements of Financial Position

Total assets increased by 7% year-over-year to €41,390 million.

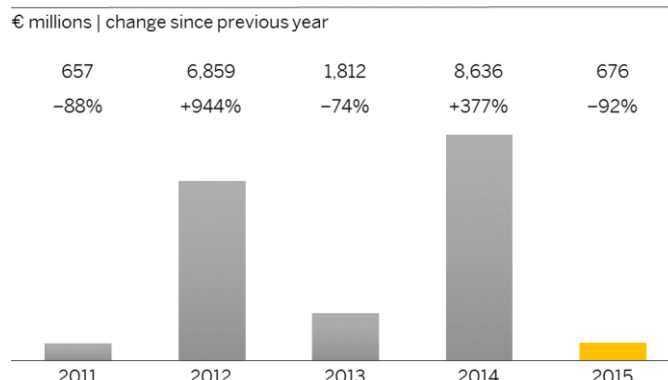
### Breakdown of Consolidated Statements of Financial Position



Total current assets increased by 8% in 2015 from €8,999 million to €9,739 million. This was mainly due to an increase in trade and other receivables to €5,275 million (2014: €4,342 million) stemming from strong business in the last quarter of 2015.

Total non-current assets increased by 7% in 2015 to €31,651 million compared to the previous year's figure of €29,566 million. This change was mainly due to foreign exchange related revaluations.

### Investment in Goodwill, Intangible Assets or Property, Plant, and Equipment (incl. Capitalizations due to Acquisitions)



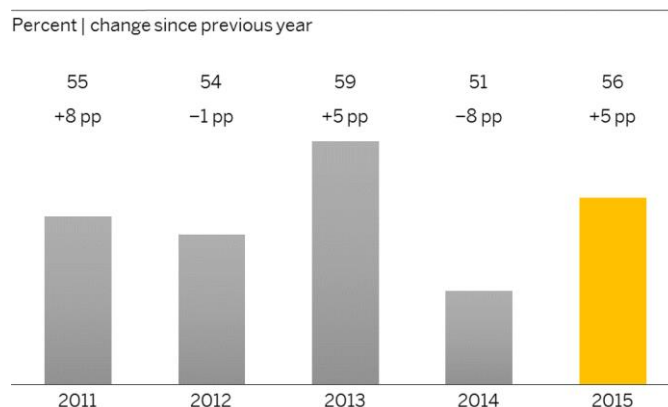
Current liabilities decreased by 8% to €7,867 million in 2015 as compared to the prior year (€8,574 million) which is mainly due to repayments of a short-term bank loan we took to finance the Concur acquisition.

Total non-current liabilities decreased slightly by €229 million in 2015 to €10,228 million compared to the previous year figure of €10,457 million.

For more information about financing activities in 2015, see the *Finances (IFRS)* section.

Thus, the equity ratio (that is, the ratio of shareholders' equity to total assets) improved to 56% (prior year: 51%).

### Equity Ratio



### Principal Capital Expenditures and Divestitures Currently in Progress

In 2015, we continued with various construction projects and started new construction activities in several locations. The expansion of our data centers is again an important aspect of our investments planned for 2016. We aim to extend our office space to be able to cover future growth. We plan to cover all of these projects in full from operating cash flow. Our most important projects are:

- In Bangalore, India, we want to add additional capacity of roughly 2,500 employees. We estimate the total cost to be approximately €50 million, of which we had paid approximately €7 million as at December 31, 2015. We expect to complete the construction of this office building in 2017.
- In Ra'anana, Israel, we continued with the construction of a new building. We estimate the total cost of this project to be approximately €60 million, of which we had paid approximately €25 million as at December 31, 2015. We expect to complete the construction of this office building in 2016.
- In our research center in Potsdam, Germany, we started a third construction phase to realize additional capacity for approximately 150 employees. With the extension of our research center, we aim to create the general conditions for further teams contributing innovations to SAP products in miscellaneous fields. We estimate the total cost to be approximately €16 million, of which we had paid approximately €11 million as at December 31, 2015. We expect to complete the construction of this office building in 2016.
- In New York, New York, in the United States, we continued executing the leasehold improvements for our new office space. The project includes the consolidation of our New York City offices for approximately 450 employees. We estimate the total capital expenditures for this project to be approximately €34 million, of which we had paid approximately €3.5 million as at December 31, 2015. We expect to complete the leasehold improvements in 2016.
- In Dubai, United Arab Emirates, we continued with our office consolidation project including an expansion of office space adding additional capacity for 100 employees. We estimate the total cost to be approximately €11 million, of which we had paid approximately €0.9 million as at December 31, 2015. We expect to complete the leasehold improvements in 2016.
- In Walldorf, Germany, we started construction on a new office building for about 700 employees. We estimate the total cost to be approximately €71 million, of which we had paid approximately €0.5 million as of December 31, 2015. We expect to complete the construction in 2018.
- In Walldorf, Germany, we also started construction on a new data center as well as a new power station. We estimate the total cost to be approximately €58 million, of which we had paid approximately €0.7 million as at December 31, 2015. We expect to complete the construction for both projects in 2017.
- In Prague, Czech Republic, we started the expansion of an office building and began an office move. We estimate the total capital expenditures for this project to be approximately €19 million. We expect to complete the project in 2016.
- In Colorado Springs, Colorado, in the United States, we started construction on a new data center in 2015. We estimate the total cost of this project to be approximately €75 million. We expect to complete the construction of this data center in 2017.

- In San Ramon, California, in the United States, we began an office move. We estimate the total cost of this move to be approximately €22 million. We expect to complete this project in 2017.
- In Shanghai, China, we started an expansion of our office building. We estimate the total cost to be approximately €15 million, of which we had paid approximately €2 million as at December 31, 2015. We expect to complete the construction in 2016.

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

### COMPETITIVE INTANGIBLES

The resources that are the basis for our current as well as future success do not appear on the Consolidated Statements of Financial Position. This is apparent from a comparison of the market capitalization of SAP SE (based on all outstanding shares), which was €90.1 billion at the end of 2015 (2014: €71.6 billion), with the book value of our equity on the Consolidated Statements of Financial Position, which was €23.3 billion (2014: €19.5 billion). This means that the market capitalization of our equity is nearly four times higher than the book value. The difference is mainly due to certain internally generated intangible resources that the applicable accounting standards do not allow to be recorded (at all or at fair value) on the Consolidated Statements of Financial Position. They include customer capital (our customer base and customer relations), 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.

As of December 31, 2015, SAP was the second most valuable companies in Germany in terms of market capitalization based on all outstanding shares.

According to the Interbrand “Best Global Brands” annual survey, SAP ranked as the 26th most valued brand in the world (2014: 25th). Against other German brands, the SAP brand ranks third behind Mercedes-Benz and BMW, and 9th globally against other IT brands. Interbrand determined our brand value as US\$ 18.8 billion, an increase of 8 % compared to the previous year (2014: US\$17.3 billion).

The results of our current and past investment in research and development are also a significant element in our competitive intangibles.

Our customer capital continued to grow in 2015. At the end of 2015 we had approx. 300,000 customers (2014: 282,000) in various market segments. The U.S. magazine *Forbes* revealed in its World's Most Valuable Brands report that 98% of the 100 most valued brands, 87% of the Forbes Global 2000 companies, and 100% of the Dow Jones top scoring sustainability

companies are SAP customers. To help us improve insight into our customers' view of SAP, in 2012 we began measuring our Customer Net Promoter Score (NPS), a metric that gives a more complete picture of customer loyalty as it answers the question of how likely our customers would be to recommend SAP. For more information about our new customers and the Customer NPS, see the *Customers* section.

Employee-related activities increased the value of our employee base and our own software. For more information, see the *Employees and Social Investment* section and the *Products, Research & Development, and Services* section. We also increased the value of our partner ecosystem by continuing to develop sales and development partnerships.

## REPORT ON THE ECONOMIC POSITION OF SAP SE

SAP SE is headquartered in Walldorf, Germany, and is the parent company of the SAP Group, which comprises 256 companies. SAP SE is the Group holding company and employs most of the Group's Germany-based development and service and support personnel.

As the owner of the intellectual property in most SAP software, SAP SE derives its revenue mainly from software license fees paid by its subsidiaries for the right to market SAP solutions.

The SAP SE annual financial statements are prepared in accordance with the reporting standards in the German Commercial Code and the German Stock Corporation Act. The full SAP SE annual financial report and unqualified audit report are submitted to the operator of the *Elektronischer Bundesanzeiger* (Online German Federal Gazette) for publication and inclusion in the *Unternehmensregister* (German Business Register). It is available from SAP SE on request.

## Income

The income statement uses the nature of expense method and presents amounts in millions of euros.

### SAP SE Income Statement – German Commercial Code (Short Version)

| € millions                             | 2015          | 2014         |
|----------------------------------------|---------------|--------------|
| <b>Total revenue</b>                   | <b>10,866</b> | <b>8,957</b> |
| Other operating income                 | 1,719         | 722          |
| Cost of services and materials         | -4,031        | -3,099       |
| Personnel expenses                     | -1,764        | -1,476       |
| Depreciation and amortization          | -263          | -272         |
| Other operating expenses               | -3,955        | -2,697       |
| <b>Operating profit</b>                | <b>2,573</b>  | <b>2,135</b> |
| <b>Finance income</b>                  | <b>929</b>    | <b>921</b>   |
| <b>Income from ordinary activities</b> | <b>3,501</b>  | <b>3,056</b> |
| Taxes                                  | -837          | -749         |
| <b>Net income</b>                      | <b>2,664</b>  | <b>2,307</b> |

The total revenue of SAP SE in 2015 was €10,866 million (2014: €8,957 million), an increase of 21%. Product revenue increased €1,125 million to €8,051 million (2014: €6,926 million). As in previous years, product revenue was primarily generated from license fees paid by subsidiaries of SAP SE. Therefore, the increase in SAP SE revenue in 2015 was principally a result of the increase in cloud and software revenue achieved by the SAP Group. Due to intensified pooling of services at SAP SE and positive currency effects, other revenues increased by 47% to €2,270 million.

SAP SE operating profit increased 21% to €2,573 million (2014: €2,135 million) owing to the growth in revenue. Other operating income increased €997 million to €1,719 million (2014: €722 million). The year-over-year increase is due primarily to an increase in gains from currency effects. SAP SE cost of services and materials increased 30% to €4,031 million (2014: €3,099 million). SAP SE cost of services and materials comprises third-party services, including those provided by SAP subsidiaries. The rise is mainly due to increased services received in the context of intra group cost allocations. SAP SE personnel expenses, mainly the labor cost of software developers, service and support employees, and administration staff employed by SAP SE, increased 20% to €1,764 million (2014: €1,476 million) primarily because of higher share-based compensation expenses and headcount increase over the year. Other operating expenses increased 47% to €3,955 million (2014: €2,697 million). This increase is mainly attributable to €722 million higher losses from currency effects, a €385 million increase in expenses for licenses and provisions and restructuring costs that increased by €261 million compared to the previous year. The effect was partly offset by a €256 million decrease in miscellaneous other expenses.

Finance income was €929 million (2014: €921 million), an increase of €8 million compared with the previous year. The increase is primarily due to a €48 million higher income from profit transfer agreements and a decrease of €11 million in write-downs of financial assets. These were partly offset by a decrease of €46 million in net interest income.

SAP SE income from ordinary activities, which is the sum of operating profit and finance income, increased €445 million to €3,501 million (2014: €3,056 million). Income and other taxes increased 12% to €837 million (2014: €749 million). After deducting taxes, the resultant net income is €2,664 million (2014: €2,307 million), an increase of €357 million year-over-year.

## Assets and Financial Position

In 2015, SAP SE total assets closed at €30,953 million (2014: €30,206 million).

### SAP SE Balance Sheet – German Commercial Code (Short Version)

| € millions                                        | 12/31/2015    | 12/31/2014    |
|---------------------------------------------------|---------------|---------------|
| <b>Assets</b>                                     |               |               |
| Intangible assets                                 | 184           | 232           |
| Property, plant, and equipment                    | 999           | 994           |
| Financial assets                                  | 25,257        | 24,953        |
| <b>Fixed assets</b>                               | <b>26,440</b> | <b>26,179</b> |
| Inventories                                       | 2             | 2             |
| Accounts receivable                               | 3,872         | 3,085         |
| Liquid assets                                     | 360           | 691           |
| <b>Short-term assets</b>                          | <b>4,233</b>  | <b>3,778</b>  |
| <b>Prepaid expenses and deferred charges</b>      | <b>173</b>    | <b>146</b>    |
| <b>Deferred taxes</b>                             | <b>106</b>    | <b>70</b>     |
| <b>Surplus arising from offsetting</b>            | <b>1</b>      | <b>33</b>     |
| <b>Total assets</b>                               | <b>30,953</b> | 30,206        |
| <b>Equity and liabilities</b>                     |               |               |
| Shareholders' equity                              | 14,024        | 12,494        |
| Provisions                                        | 1,247         | 1,102         |
| Other liabilities                                 | 15,679        | 16,605        |
| Deferred income                                   | 3             | 5             |
| <b>Total shareholders' equity and liabilities</b> | <b>30,953</b> | <b>30,206</b> |

Financial assets increased €304 million compared with the previous year to €25,257 million (2014: €24,953 million), due mainly to the increase in contributions to subsidiaries. Short-term assets stood at €4,233 million (2014: €3,778 million), a year-over-year increase of €455 million, reflecting a €787 million increase in accounts receivable and €331 million decrease in liquid assets.

SAP SE shareholders' equity rose 12% to €14,024 million (2014: €12,494 million). Against outflows of €1,316 million associated with the payment of the 2014 dividend, there was a €2,664 million increase in net income and an inflow of €180 million from the issuance of shares to service the share-based payments of employees. The equity ratio (that is, the ratio of shareholders' equity to total assets) increased from 41% in 2014 to 45% in 2015.

Provisions increased €145 million to €1,247 million (2014: €1,102 million). While the other provisions increased €170 million to €844 million primarily as a result of additions to

the other employee-related liabilities, the reserves for tax decreased €28 million to €398 million (2014: €426 million).

Other liabilities decreased €926 million to €15,679 million (2014: €16,605 million). This decrease is mainly attributable to contrasting effects: On the one hand, SAP SE issued new debt in the amount of €1,750 million and liabilities to affiliated companies increased €817 million, primarily due to increased cash contributions by subsidiaries through SAP SE centralized management of finance and liquidity; on the other hand, SAP SE repaid €3,020 million in liabilities to banks and made a scheduled repayment of a bond in the amount of €550 million.

### SAP SE Cash Flow Statement – German Commercial Code (Short Version)

| € millions                                                       | 2015          | 2014          |
|------------------------------------------------------------------|---------------|---------------|
| Net cash flows from operating activities                         | 1,835         | 1,309         |
| Net cash flows from investing activities                         | 447           | -7,204        |
| Net cash flows from financing activities                         | -3,118        | 5,175         |
| Net decrease/increase in funds of financial resources            | -836          | -720          |
| <b>Funds of financial resources at the beginning of the year</b> | <b>-5,368</b> | <b>-4,648</b> |
| Cash and cash equivalents                                        | 360           | 691           |
| Cash pool balances                                               | -6,564        | -6,059        |
| <b>Funds of financial resources at the end of the year</b>       | <b>-6,204</b> | <b>-5,368</b> |

Cash flow from operating activities increased €526 million to €1,835 million in 2015 (2014: €1,309 million), largely caused by the increase in net income.

SAP SE net cash flows from investing activities were €447 million in 2015 compared to a cash outflow of €7,204 million in 2014. Received finance income of €1,160 million and inflows of €76 million from sales of property, plant, and equipment were in part offset by outflows of €295 million for financial assets, €248 million for intangible assets and property, plant, and equipment and €244 million contributions to plan assets. The previous year net cash outflow from investing activities was notably due to the contributions to the capital of SAP America, Inc. in 2014 in connection with the acquisition of Concur and Fieldglass.

Net cash outflows from financing activities were €3,118 million in 2015 compared to a cash inflow of €5,175 million in 2014. Inflows of €1,926 million were attributable to issued new bonds of €1,750 million, taking up intercompany loans of €111 million and €65 million inflows were generated from the reissuance of treasury shares for share-based payments. SAP SE outflows included the dividend of €1,316 million (2014: €1,194 million),

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interest payments of €158 million (2014: €115 million) and repayments of financial liabilities of €3,570 million.

At the close of the year, SAP SE funds of financial resources amounted to €-6,204 million (2014: €-5,368 million), a year-over-year decrease of €836 million; thereof €505 million were cash contributions by subsidiaries through SAP SE centralized management of finance and liquidity. In addition short-term liquid assets decreased by €331 million and closed at €360 million (2014: €691 million).

### **Opportunities and Risks**

SAP SE is subject to materially the same opportunities and risks as the SAP Group. For more information, see the *Risk Management and Risks* section as well as the *Expected Developments and Opportunities* section

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# Corporate Governance Fundamentals

## CORPORATE GOVERNANCE STATEMENT

The German Commercial Code, section 289a, requires that as a listed company, SAP SE publish a corporate governance statement either as part of our management report or on our Web site. The Executive Board of SAP SE filed the corporate governance statement on February 24, 2016, and published it on our public Web site at [www.sap.com/corporate-en/investors/governance](http://www.sap.com/corporate-en/investors/governance).

For more information about the corporate governance of SAP, see the *Corporate Governance Report* section.

## CHANGES IN MANAGEMENT

On January 9, 2015, Michael Kleinemeier and Steve Singh were appointed to the Global Managing Board, with immediate effect. Steve Singh, CEO of Concur, is responsible for our business network strategy. Michael Kleinemeier led service and support efforts worldwide. As of November 1, 2015, Michael Kleinemeier was appointed to the Executive Board and assumed sole responsibility for the Global Service & Support organization.

With effect from July 15, 2015, the Executive Board appointed Quentin Clark to the Global Managing Board. He became our new chief business officer as of October 1, 2015.

On November 1, 2015, Gerhard Oswald assumed responsibility for our new Product Quality & Enablement organization.

## INFORMATION CONCERNING TAKEOVERS

Information required under the German Commercial Code, sections 289 (4) and 315 (4), with explanatory report:

- **Composition of share capital:** For information about the composition of SAP SE share capital as at December 31, 2015, see the Notes to the Consolidated Financial Statements section, *Note (20)*. Each share entitles the bearer to one vote. American depositary receipts (ADRs) representing our shares are listed on the New York Stock Exchange in the United States. ADRs are certificates representing non-U.S. shares and are traded on U.S. stock exchanges instead of the underlying shares. One SAP ADR corresponds to one SAP share.
- **Restrictions applying to share voting rights or transfers:** SAP shares are not subject to transfer restrictions except the lock-in period under the SAP Share Matching Plan (SMP), described below. SAP held 30,551,035 treasury shares as at December 31, 2015. Treasury shares do not entitle us to any voting rights or dividend rights or other rights. Shares issued in 2015 under the employee SMP are subject to contractual transfer restrictions for a three-year lock-in period unless the plan member's employment with SAP is ended during that period. Until that lock-in period has expired, the participating employees are not ordinarily allowed to dispose of the shares they have acquired under the plan. We are not aware of any other restrictions applying to share voting rights or to share transfers.
- **Shareholdings that exceed 10% of the voting rights:** We are not aware of any direct or indirect SAP SE shareholdings that exceed 10% of the voting rights.
- **Shares with special rights conferring powers of control:** No SAP shareholder has special rights conferring powers of control.
- **Type of control over voting rights applying to employee shareholders who do not directly exercise their control rights:** As with other shareholders, employee holders of SAP shares exercise their control rights in accordance with the law and the Articles of Incorporation. In votes on the formal approval of their acts at the Annual General Meeting of Shareholders, employee representatives on the Supervisory Board, as all other members of the Supervisory Board, are prohibited from exercising the voting rights associated with their shares.
- **Requirements concerning appointments and dismissals of members of the Executive Board and amendments to the Articles of Incorporation:** Conditions for the appointment and dismissal of members of the Executive Board and amendment to the Articles of Incorporation reflect the relevant provisions of applicable European and German law, including Council Regulation (EC) No. 2157/2001 on the Statute for a European Company (the "SE Regulation") and the German Stock Corporation Act. Under the Articles of Incorporation, the Executive Board consists of at least two members who are appointed for a period of not more than five years by the Supervisory Board in accordance with the



SE Regulation, articles 39 and 46. The number of members of the Executive Board is decided by the Supervisory Board. Executive Board members may be reappointed for, or their term of office extended by, a maximum of five years. A simple majority of the Supervisory Board membership is required for Executive Board appointments. In the event of a tie, the chairperson of the Supervisory Board has the casting vote. The Supervisory Board can appoint a chairperson of the Executive Board and one or more deputy chairpersons from among the members of the Executive Board. The Supervisory Board can revoke appointments to the Executive Board in accordance with the SE Regulation, article 9, and the German Stock Corporation Act, section 84, if compelling reasons exist, such as gross negligence on the part of the Executive Board member. If the Executive Board is short of a required member, one may be appointed in urgent cases by a court in accordance with the SE Regulation, article 9, and the German Stock Corporation Act, section 85. In accordance with the SE Regulation, article 59, and the German Stock Corporation Act, section 179, an amendment of the Articles of Incorporation requires a resolution of the General Meeting of Shareholders with a majority of at least three-quarters of the valid votes cast. For any amendments of the Articles of Incorporation that require a simple majority for stock corporations established under German law, however, the simple majority of the valid votes cast is sufficient if at least half of the subscribed capital is represented or, in the absence of such quorum, the majority prescribed by law (that is, two-thirds of the votes cast, pursuant to article 59 of the SE Regulation) is sufficient. Section 11 (2) of the Articles of Incorporation authorizes the Supervisory Board to amend the Articles of Incorporation where such amendments only concern the wording.

- **Power to issue and repurchase shares:** The Annual General Meeting of Shareholders on May 25, 2011, granted powers to the Executive Board, subject to the consent of the Supervisory Board, to issue convertible and warrant-linked bonds and to grant conversion and option rights in respect of SAP SE shares representing a total attributable portion of the share capital of not more than €100 million secured by a corresponding amount of contingent capital. These powers will expire on May 24, 2016. The Executive Board is also authorized until May 19, 2020, to increase the share capital by not more than €250 million by issuing new shares against contributions in cash and to increase the share capital by not more than €250 million by issuing new shares against contributions in cash or in kind. For more details about the different tranches of authorized capital and the aforementioned contingent capital, see the Articles of Incorporation, section 4. The Annual General Meeting of Shareholders on June 4, 2013, granted a power to the Executive Board in accordance with the German Stock Corporation Act, section 71 (1)(8), to buy back for treasury on or before June 3, 2018, SAP SE shares attributable in total to not more than €120 million of the share capital. The power is subject to the proviso that the shares repurchased, together

with any shares that were previously acquired and are still held by SAP in treasury and any other shares controlled by SAP, must not in total exceed 10% of SAP's share capital. Executive Board powers, such as those described to issue and repurchase stock and to grant rights of conversion and subscription to shares of SAP, are widely followed common practice among German companies such as SAP. They give the Executive Board the flexibility it needs, in particular, the options to use SAP shares as consideration in equity investments, raise funds on the financial markets at short notice on favorable terms, or return value to shareholders during the course of the year.

- **Material agreements with change of control provisions:** SAP SE has concluded the following material agreements with provisions that take effect in the event of a change of control, whether following a takeover bid or otherwise:

The terms of SAP's syndicated €2 billion revolving credit facility include a change-of-control clause. For more information about this syndicated credit facility, see the Notes to the Consolidated Financial Statements section, *Note (25)*. This clause obliges SAP SE to notify the banks in case of a change of control. If, on receiving the notification, banks that represent at least two-thirds of the credit volume so require, the banks have the right to cancel the credit facility and demand complete repayment of the outstanding debt. If no continuation agreement is reached, the credit facility would end and the obligation to repay would become effective at an ascertainable time.

In agreements between SAP SE and various banks for bilateral credit facilities that totaled €471 million as at December 31, 2015, we have agreed customary material adverse change clauses permitting the banks to terminate if events occur that are materially averse to the economic standing of SAP SE, which may possibly also include a change of control. We believe that in view of our current liquidity situation, termination of these credit facilities would not have a material adverse effect, at least in the near term.

In 2012, SAP set up a Debt Issuance Program that currently has a volume of €8 billion. Of SAP's total amount of Eurobonds of €5.75 billion outstanding as of December 31, 2015, €5.25 billion were issued under the Debt Issuance Program. For more information about SAP's Eurobonds, see the Notes to the Consolidated Financial Statements section, *Note (17b)*. Under the terms agreed with the buyers, we are required to notify the buyers of any change of control without delay. If there is a change of control and SAP is consequently assigned a lower credit rating within a defined period, buyers are entitled to demand repayment.

Under the terms of our U.S. private placements totaling US\$2.35 billion, we are required to offer lenders repayment of outstanding debt if there is a change of control and SAP is consequently assigned a lower credit rating within a defined period. For more information about these private placements, see the Notes to the Consolidated Financial Statements section, *Note (17b)*. Lenders would have at least 30 days to accept the offer.

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We have entered into relationships with other companies to jointly develop and market new software products. These relationships are governed by development and marketing agreements with the respective companies. Some of the agreements include provisions that, in the event of a change of control over one of the parties, give the other party a right to consent to the assignment of the agreement or to terminate it.

- **Change of control provisions in Executive Board compensation agreements:** Agreements have been concluded with the members of the Executive Board concerning compensation in the event of a change of control. These agreements, which are customary in Germany and elsewhere, are described in the compensation report, which is an integral part of this management report. We have no analogous compensation agreements with other employees.

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# Risk Management and Risks

## OUR RISK MANAGEMENT

### Internal Control and Risk Management System

As a global company, SAP is exposed to a broad range of risks across our business operations. As a consequence, our Executive Board has put comprehensive risk management and internal control structures in place that enable SAP to identify and analyze risks early and take appropriate action. Our risk management and internal control system is designed to identify potential events that could negatively impact the Company and to provide reasonable assurance regarding the operating effectiveness over our financial reporting in place ensuring the achievement of the Company objectives, specifically our ability to achieve our financial, operational, or strategic goals as planned.

This system comprises numerous control mechanisms and is an important element of our corporate decision-making process; it is therefore implemented as an integral part of SAP's business processes across the entire Group. To ensure that our global risk management efforts are effective while also enabling us to aggregate risks and report on them transparently, we have adopted an integrated risk management and internal control approach.

Due to our public listings in both, Germany and the United States, we are subject to both, German and U.S. regulatory requirements that relate to risk management and internal controls over financial reporting, such as provisions in the German Stock Corporation Act, section 91 (2) and the U.S. Sarbanes-Oxley Act (SOX) of 2002, specifically sections 302 and 404. Hence, our Executive Board has established an early warning system (risk management system) to ensure compliance with applicable regulations and an effective management of risks.

Our risk management system is based on five pillars, which include a dedicated risk management policy and a standardized risk management methodology as well as a global risk management organization. Our internal control system consists of the internal control and risk management system for financial reporting (ICRMSFR) that also covers the broader business

environment. In 2015, we adjusted existing control designs to adequately address the changed risk environment and continued to automate our internal control landscape leveraging continuous control monitoring and continuous auditing activities in selected business areas. Using the current Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework of 2013, we define and cover internal controls along the value chain on a process and subprocess level to ensure that sound business objectives are set in line with the organization's strategic, operational, financial, and compliance goals. In addition, we have a governance model in place across risk management and the internal control system to ensure both systems are effective, as well as a central software solution to store, maintain, and report all risk-relevant information.

### Risk Management Policy and Framework

The risk management policy issued by our Executive Board governs how we handle risk in line with the Company's risk appetite and defines a methodology that is applied uniformly across all parts of the Group. The policy stipulates who is responsible for conducting risk management activities and defines reporting and monitoring structures. In 2015, as part of our regular review, we updated and rolled out this mandatory policy to all employees. Our global corporate audit function conducts regular audits to assess the effectiveness of our risk management system. Every year, SAP's external auditor assesses if the SAP SE early risk identification system is adequate to identify risks that may endanger our ability to continue as a going concern. SAP's enterprise risk management covers risks in the areas of strategy, operational business, financial reporting, and compliance. As of today, the risk management system analyzes risks and only assesses or analyzes opportunities where deemed appropriate.

### Risk Management Methodology and Reporting

The following sections describe the key elements of the risk management process as part of SAP's risk management policy: risk planning, identification, analysis, response, and monitoring.

Risk planning and risk identification for both internal and external risks are conducted in cooperation between risk managers and the business units or subsidiaries across the

Group. We use various techniques to identify risks. For example, we have identified risk indicators and developed a comprehensive risk catalog that includes risk mitigation strategies for known product and project risks. Risk identification takes place at various levels of our organization to ensure that common risk trends are identified and end-to-end risk management across organizational borders is enabled. We apply both a qualitative and quantitative risk analysis as well as other risk analysis methods such as sensitivity analyses and simulation techniques.

To determine which risks pose the highest threat to the viability of the SAP Group, we classify them as “high,” “medium,” or “low” based on the likelihood that a risk will occur within the assessment horizon as well as the impact the risk would have on SAP’s business objectives if it were to occur. The scales for measuring these two indicators are given in the following tables.

| Probability/Likelihood of Occurrence | Description    |
|--------------------------------------|----------------|
| 1% to 19%                            | Remote         |
| 20% to 39%                           | Unlikely       |
| 40% to 59%                           | Likely         |
| 60% to 79%                           | Highly Likely  |
| 80% to 99%                           | Near Certainty |

In this framework, we define a remote risk as one that will occur only under exceptional circumstances and a near certain risk as

one that can be expected to occur within the specified time horizon. The period for analyzing our risks is at least the used forecast period. The period for analyzing our risks that could be possible threats to the Group’s ability to continue as a going concern is eight rolling quarters.

| Impact Level      | Impact Definition                                                                      |
|-------------------|----------------------------------------------------------------------------------------|
| Insignificant     | Negligible negative impact on business, financial position, profit, and cash flows     |
| Minor             | Limited negative impact on business, financial position, profit, and cash flows        |
| Moderate          | Some potential negative impact on business, financial position, profit, and cash flows |
| Major             | Considerable negative impact on business, financial position, profit, and cash flows   |
| Business-Critical | Detrimental negative impact on business, financial position, profit, and cash flows    |

Based on the combination of the likelihood that a risk will occur and its impact on SAP’s reputation, business, financial position, profit, and cash flow classify the risks as “high,” “medium,” or “low.”

| Probability  | Insignificant | Minor           | Moderate | Major         | Business Critical |
|--------------|---------------|-----------------|----------|---------------|-------------------|
|              | 80-99%        | L               | M        | H             | H                 |
|              | 60-79%        | L               | M        | H             | H                 |
|              | 40-59%        | L               | L        | M             | H                 |
|              | 20-39%        | L               | L        | M             | M                 |
|              | 1-19%         | L               | L        | L             | M                 |
| Impact       |               |                 |          |               |                   |
| L = Low Risk |               | M = Medium Risk |          | H = High Risk |                   |

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Risk analysis is followed by risk response and risk monitoring. Our risk managers work in close cooperation with the business owners, ensuring that effective strategies are implemented to address risks. Business owners are responsible for continuously monitoring the risks and the effectiveness of mitigation strategies, with support from the respective risk managers. Risks may be reduced by taking active steps based on risk approval. To provide greater risk transparency and enable appropriate decision making for business owners, we have established a risk delegation of authority (RDOA) for relevant parts of the organization as deemed appropriate. Risk DOA is a risk management decision-making hierarchy that helps business owners gain timely insight into projects and processes with the greatest risk, so they are better able to review the relevant information, understand the risk profile and associated mitigation strategies, and determine if their approval is warranted. Depending on the exposure, approval is required at different levels of the Company, up to and including the Executive Board.

All identified and relevant risks are reported at the local, regional, and global levels in accordance with our risk management policy. At local, regional, and global levels, we have established executive risk councils that regularly discuss risks and countermeasures and that monitor the success of risk mitigation. In addition, the Executive Board is informed quarterly about individual risks based on clearly defined reporting criteria. Newly identified or existing significant risks that are above a defined threshold or with a potential significant impact are also reported to the chairperson of the Supervisory Board and to the Audit Committee of the Supervisory Board. This includes any risks of potential ongoing concern.

We also have a process in place that analyzes those risks with respect to potential effects on liquidity, excessive indebtedness, and insolvency, which could be possible threats to the Group's ability to continue as a going concern.

### **Risk Management Organization**

Our risk management organization ensures the coverage of the functions of risk management governance, strategic, operational, financial, and compliance risk management. Our Global Governance, Risk & Compliance (GRC) organization comprises a Group-wide governance function, including regular maintenance and implementation of our risk management policy. The uniform process model comprises all essential elements of risk management: risk planning, risk identification, risk analysis, risk response, and risk monitoring. This function is also responsible for standardized risk reporting to risk committees at different levels of the Company, including the Executive Board as well as the chairperson and the Audit Committee of the Supervisory Board.

Our strategic risk management function resides within our Global Controlling organization and is responsible for enabling early identification and mitigation of risks that could threaten

the successful execution of SAP's strategic priorities and targets. It also supports the successful execution of our corporate strategy by creating transparency regarding risks that could threaten commercial interests or intangible assets such as corporate or product reputation and brand image.

Operational and financial risk management is uniformly implemented at SAP. Independent GRC risk managers are assigned to each of SAP's important business units and business activities and to selected strategic initiatives. All GRC risk managers, together with assigned risk contacts in the business units, continuously identify and assess risks associated with material business operations using a uniform approach and monitor the implementation and effectiveness of the measures chosen to mitigate risks. Further financial risk management activities are performed by our global treasury function.

During the merger and acquisition and post-merger integration phase, newly acquired companies are subject to risk management performed by our Corporate Development M&A function. Furthermore, as long as they are not integrated, existing risk management structures are maintained or enhanced within the acquired companies to ensure that legal requirements are met.

Risk managers are responsible for supporting and monitoring the implementation of risk management across the Group that is both effective and compliant with regulatory requirements and SAP's global risk management policy. Based on our risk management policy, all risks and risk-related matters have to be reported to the Global GRC organization.

The head of Global GRC, together with other key functions (for example, Global Controlling or Global Treasury), is responsible for SAP's internal control and risk management program, and provides regular updates to the Audit Committee of the Supervisory Board. The overall risk profile of the Group is consolidated by the head of Global GRC, who reports to the Group CFO.

### **Internal Control and Risk Management System for Financial Reporting**

The purpose of our system of internal control over financial reporting is to ensure with sufficient certainty that its financial reporting is reliable and in compliance with applicable generally accepted accounting principles. Because of the inherent limitations of internal control over financial reporting, it may not prevent or bring to light all potential misstatements in our financial statements.

SAP's internal control and risk management system for financial reporting (ICRMSFR) is based on our Group-wide risk management methodology. The ICRMSFR includes organizational, control, and monitoring structures designed to ensure that data and information concerning our business are collected, compiled, and analyzed in accordance with applicable laws and

properly reflected in the IFRS Consolidated Financial Statements.

Our ICRMSFR also includes policies, procedures, and measures designed to ensure compliance of SAP's financial reports with applicable laws and standards. We analyze new statutes, standards, and other pronouncements concerning IFRS accounting and its impact on our financial statements and ICRMSFR. Failure to adhere to these new statutes, standards, and other pronouncements would present a substantial risk to the compliance of our financial reporting. Finally, the ICRMSFR has both preventive and detective controls, including, for example, automated and non-automated reconciliations, segregated duties with two-person responsibility, authorization concepts in our software systems, and monitoring.

Our Corporate Financial Reporting department codifies all accounting policies in our global Group Accounting and Revenue Recognition Guidelines. These policies, the corporate closing schedule, and our process handbooks together define the closing process. Under this closing process, we prepare, predominately through centralized and outsourced services, the financial statements of all SAP legal entities for consolidation by our Corporate Financial Reporting department. The Corporate Financial Reporting department and other corporate departments assist in the efforts to comply with Group accounting policies and monitor the accounting work. Our Corporate Financial Reporting department conducts reviews of our accounting processes and books.

We have outsourced some work, such as valuing projected benefit obligations and share-based payment obligations, quarterly tax calculations for most entities, and purchase price allocations in the context of asset acquisitions and business combinations. We have also outsourced the preparation of the local statutory financial statements of most of our subsidiaries. The employees who work on SAP's financial reporting receive training in the respective policies and processes.

Based on an analysis of the design and operating effectiveness of our respective internal controls over financial reporting, a committee presents the results of the assessment on the ICRMSFR effectiveness with respect to our IFRS Consolidated Financial Statements as at December 31 each year to the Group CFO. The committee meets regularly to set the annual scope for the test of effectiveness, to evaluate any possible weaknesses in the controls, and to determine measures to address them adequately. During its own meetings, the Audit Committee of the Supervisory Board regularly scrutinizes the resulting assessments of the effectiveness of the internal controls over financial reporting with respect to the IFRS consolidated financial statements.

The assessment of the effectiveness of the ICRMSFR related to our IFRS consolidated financial statements was that on

December 31, 2015, the Group had an effective internal control system over financial reporting in place.

### **Risk Management and Internal Control Governance**

Our Executive Board is responsible for ensuring the effectiveness of the risk management and internal control system. The effectiveness of both systems and their implementation in the different Executive Board areas is monitored by each board member. We regularly provide a status on the risk management and the internal control system to the Audit Committee. Key risks are reported quarterly to the chairperson of the Supervisory Board and to the Audit Committee of the Supervisory Board. The Audit Committee of our Supervisory Board regularly monitors the effectiveness of SAP's risk management and internal control system. In this regard, our Audit Committee requested the Corporate Audit department to regularly audit various aspects of the risk management system and its effectiveness. Additional reassurance is obtained through the external audit of the effectiveness of our internal control system over financial reporting and the internal warning system.

### **Software Solution Deployed**

We use our own risk management software (SAP solutions for GRC) powered by SAP HANA to effectively support the governance process. Risk managers record and address identified risks using our risk management software to create transparency across all known risks that exist in the Group, as well as to facilitate risk management and the associated risk reporting. This information is available to managers through a mobile app as well as regularly issued reports, and is consolidated and aggregated for the quarterly risk report to the Executive Board. The solution also supports the risk-based approach of SAP's internal control and risk management system for financial reporting (ICRMSFR).

### **RISK FACTORS**

The following sections outline risk factors that we identify and track using our risk management software (SAP solutions for GRC) powered by SAP HANA. They are presented below at a more aggregated level as compared to their use in internal controlling, but are broken down by the same risk categories we use in our internal risk management system reporting structure. An overview of the risk factors presented below is outlined in the following table. It shows the clarification of the risk factors according to our framework detailed in the *Risk Management Methodology and Reporting* section.

## Overview Risk Factors

|                                                          | Probability | Impact            | Risk Level | Evolution <sup>1)</sup> |
|----------------------------------------------------------|-------------|-------------------|------------|-------------------------|
| <b>Economic, Political, Social, and Regulatory Risks</b> |             |                   |            |                         |
| Global Economy                                           | likely      | business critical | high       | →                       |
| International Business Activities                        | unlikely    | major             | medium     | →                       |
| Environmental, Social and Political Instability          | unlikely    | business critical | medium     | →                       |
| <b>Market Risks</b>                                      |             |                   |            |                         |
| Demand for New and Existing Solutions                    | unlikely    | business critical | medium     | →                       |
| Market Development for Cloud                             | unlikely    | business critical | medium     | →                       |
| Market Share and Profit                                  | unlikely    | major             | medium     | →                       |
| <b>Business Strategy Risks</b>                           |             |                   |            |                         |
| Solution Demand                                          | remote      | business critical | medium     | →                       |
| Cloud Business Model                                     | remote      | business critical | medium     | →                       |
| Relationships with Partners                              | likely      | major             | medium     | →                       |
| <b>Human Capital Risks</b>                               |             |                   |            |                         |
| Managing the Geographically Dispersed Workforce          | remote      | major             | low        | →                       |
| Attracting, Develop, and Retaining People                | unlikely    | major             | medium     | →                       |
| <b>Organizational and Governance-Related Risks</b>       |             |                   |            |                         |
| Corporate Governance Laws and Regulations                | unlikely    | major             | medium     | →                       |
| Data Protection and Privacy                              | unlikely    | business critical | medium     | →                       |
| Climate Change, Energy and Emissions                     | unlikely    | moderate          | low        | →                       |
| Ethical Behavior                                         | remote      | major             | low        | →                       |
| <b>Communication and Information Risks</b>               |             |                   |            |                         |
| Unauthorized Disclosure of Information                   | remote      | business critical | medium     | →                       |
| <b>Financial Risks</b>                                   |             |                   |            |                         |
| Quarterly Sales Fluctuations                             | unlikely    | moderate          | low        | →                       |
| Liquidity                                                | remote      | business critical | medium     | →                       |
| Management Use of Estimates                              | unlikely    | moderate          | low        | →                       |
| Accounting Pronouncement                                 | unlikely    | major             | medium     | →                       |
| Currency and Interest Rate Fluctuations                  | remote      | major             | low        | →                       |
| Derivative Instruments for Share-Based Payment Plans     | remote      | minor             | low        | →                       |

## Overview Risk Factors

|                                       | Probability | Impact            | Risk Level | Evolution <sup>1)</sup>                   |
|---------------------------------------|-------------|-------------------|------------|-------------------------------------------|
| <b>Project Risks</b>                  |             |                   |            |                                           |
| Implementation Projects               | unlikely    | major             | medium     | →                                         |
| <b>Product and Technology Risks</b>   |             |                   |            |                                           |
| Product Security                      | unlikely    | business critical | medium     | →                                         |
| Undetected Defects in Products        | unlikely    | business critical | medium     | →                                         |
| Third Party Licensing                 | likely      | major             | medium     | →                                         |
| Innovation                            | remote      | business critical | medium     | →                                         |
| Technology and Product Strategy       | unlikely    | business critical | medium     | →                                         |
| Cloud Performance                     | unlikely    | business critical | medium     | →                                         |
| <b>Operational Risks</b>              |             |                   |            |                                           |
| Infringement of Intellectual Property | likely      | business critical | high       | →                                         |
| Lawsuits                              | likely      | business critical | high       | →                                         |
| Mergers and Acquisitions              | unlikely    | business critical | medium     | →                                         |
| Enforcement of Intellectual Property  | likely      | business critical | high       | →                                         |
| Cybersecurity                         | unlikely    | business critical | medium     | →                                         |
| Business Operations                   | unlikely    | major             | medium     | ↗                                         |
| Insurance                             | remote      | business critical | medium     | →                                         |
| Venture Capital                       | remote      | minor             | low        | →                                         |
|                                       |             |                   | Icon:      | decreased ↘<br>unchanged →<br>increased ↗ |

<sup>1)</sup> Evolution: Risk Level compared with previous year.

All described risks are applicable to a different extent to our reportable segments (Applications, Technology, and Services and SAP Business Network) unless otherwise noted.

SAP SE is the parent company of the SAP Group. Consequently, the risks described below also apply, directly or indirectly, to SAP SE.

## Economic, Political, Social, and Regulatory Risk

**Uncertainty in the global economy, financial markets, or political conditions could have a negative impact on our business, financial position, profit, as well as cash flows, and put pressure on our operating profit.**

Our business is influenced by multiple risk factors that are both difficult to predict and beyond our influence and control. These factors include global economic and business conditions, and fluctuations in national currencies. Other examples are political

developments and general regulations as well as budgetary constraints or shifts in spending priorities of national governments.

Macroeconomic developments, such as financial market volatility episodes, global economic crises, chronic fiscal imbalances, slowing economic conditions, or disruptions in emerging markets, could limit our customers' ability and willingness to invest in our solutions or delay purchases. In addition, changes in the euro conversion rates for particular currencies might have an adverse effect on business activities with local customers and partners. Furthermore, political instabilities in regions such as the Middle East and Africa, political crises (such as in Greece or Ukraine), natural disasters, pandemic diseases (such as Ebola in West Africa) and terrorist attacks (such as the attacks in Paris, France, in November 2015) could contribute to economic and political uncertainty.



These events could reduce the demand for SAP software and services, and lead to:

- Delays in purchases, decreased deal size, or cancellations of proposed investments
- Potential lawsuits from customers due to denied provision of service as a result of sanctioned-party lists or export control issues
- Higher credit barriers for customers, reducing their ability to finance software purchases
- Increased number of bankruptcies among customers, business partners, and key suppliers
- Increased default risk, which may lead to significant impairment charges in the future
- Market disruption from aggressive competitive behavior, acquisitions, or business practices
- Increased price competition and demand for cheaper products and services

Any one or more of these developments could reduce our ability to sell and deliver our software and services which could have an adverse effect on our business, financial position, profit, and cash flows.

SAP has established measures and conducted scenario analyses to address and mitigate the described risks and adverse effects to the extent possible. We offer our customers standard software and product packages that are fast and easy to install, as well as financially attractive financing, software licensing, and subscription models. Our ongoing shift to a higher share of cloud subscriptions and software support revenue streams will lead to more predictable streams over time providing increased stability against financial volatilities. Furthermore, we continue to apply cost discipline internally and have a conservative financial planning policy. Additionally, SAP is continuously reshaping its organizational structure and processes to increase efficiency.

We estimate the probability of occurrence of this risk to be likely. Therefore, we cannot completely exclude the possibility that it will have a business-critical impact on our business, financial position, profit, and cash flows. This could exacerbate the other risks we describe in this report or cause a negative deviation from our revenue and operating profit target. We classify this risk as a high risk.

**Our international business activities and processes expose us to numerous and often conflicting laws and regulations, policies, standards or other requirements and sometimes even conflicting regulatory requirements, and to risks that could harm our business, financial position, profit, and cash flows.**

We are a global company and currently market our products and services in more than 180 countries and territories in the Americas (Latin America and North America); Asia Pacific Japan

(APJ); China, Hong Kong, Macau, and Taiwan (Greater China); Europe, Middle East, and Africa (EMEA); and Middle and Eastern Europe (MEE) regions. Our business in these countries is subject to numerous risks inherent in international business operations. Among others, these risks include:

- Data protection and privacy regulation regarding access by government authorities to customer, partner, or employee data
- Data residency requirements (the requirement to store certain data only in and, in some cases, also to access such data only from within a certain jurisdiction)
- Conflict and overlap among tax regimes
- Possible tax constraints impeding business operations in certain countries
- Expenses associated with the localization of our products and compliance with local regulatory requirements
- Discriminatory or conflicting fiscal policies
- Operational difficulties in countries with a high corruption perceptions index
- Protectionist trade policies, import and export regulations, and trade sanctions and embargoes
- Works councils, labor unions, and immigration laws in different countries
- Difficulties enforcing intellectual property and contractual rights in certain jurisdictions
- Country-specific software certification requirements
- Challenges with effectively managing a large distribution network of third-party companies
- Compliance with various industry standards (such as Payment Card Industry Data Security Standard)

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

We address these risks with various measures depending on the circumstances, including, for example, a strong legal and compliance office presence in the main countries, maintaining an effective data protection and privacy office and associated policy, receiving guidance from external economics consultants, law firms, tax advisors, and authorities in the concerned countries, and taking legal actions.

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Although we estimate the probability of occurrence of this risk to be unlikely, we cannot completely exclude the possibility that this risk could have a major impact on our business, financial position, profit, and cash flows, or cause a negative deviation from our revenue and operating profit target. We classify this risk as a medium risk.

**Social and political instability caused by state-based conflicts, terrorist attacks, civil unrest, war, or international hostilities, as well as pandemic disease outbreaks or natural disasters, may disrupt SAP's business operations.**

Terrorist attacks (such as the attacks in Paris in November 2015) as well as other acts of violence or war, civil, religious, and political unrest (such as in Ukraine, Israel, Syria, and in other parts of the Middle East, Libya, and in other parts of Africa); natural disasters (such as hurricanes, flooding, or similar events); or pandemic diseases (such as Ebola in West Africa) could have a significant adverse effect on the local economy and beyond. Such an event could lead, for example, to the loss of a significant number of our employees, or to the disruption or disablement of operations at our locations, and could affect our ability to provide business services and maintain effective business operations. Furthermore, this could have a significant adverse effect on our partners as well as our customers and their investment decisions, which could have an adverse effect on our reputation, business, financial position, profit, and cash flows.

Our mitigation measures have been designed and implemented to minimize such adverse effects. To ensure continuous operations of all business processes, we have been implementing and operating a worldwide business continuity management and crisis management system. To enable effective response and minimize possible losses in case of crisis situations, we have installed local crisis management teams at our main locations, supplemented by regional crisis management teams for the Americas (including Latin America and North America), APJ (including Greater China), EMEA, and MEE regions, and a global crisis management team.

To protect our key IT infrastructure (especially our data centers), critical business systems, and processes from material adverse effects in crisis situations, disaster recovery and business continuity plans have been developed that include implementation of data redundancies and daily data backup strategies. To verify and improve our approach, our IT-related organizations have been certified to the internationally recognized ISO 22301:2013 (Business Continuity Management) standard with regards to the Applications, Technology, and Services segment. In addition, our corporate headquarters, which houses certain critical business functions, is located in the German state of Baden-Württemberg. This area has historically been free of natural disasters.

With regards to the relevance of current and anticipated political crisis situations and acts of violence as well as pandemic diseases impacting SAP's business, we believe that the likelihood of this risk materializing is unlikely; however, we cannot exclude the possibility of such a risk occurring and having a business-critical impact on our reputation, business, financial position, profit, and cash flows, or causing a negative deviation from our revenue and operating profit target. We classify this risk as a medium risk.

## **Market Risks**

**Our established customers might not buy additional software solutions, subscribe to our cloud offerings, renew maintenance agreements, purchase additional professional services, or they might switch to other products or service offerings (including competitive products).**

In 2015, we continued to depend materially on the success of our support portfolio and on our ability to deliver high-quality services. Traditionally, our large installed customer base generates additional new software, maintenance, consulting, and training revenue. Despite the high quality and service level of our transformed and expanded service offering in the area of premium support services, we may be unable to meet customer expectations with regards to delivery and value proposition. This may lead to a potentially adverse impact on customer experience. Existing customers might cancel or not renew their maintenance contracts, decide not to buy additional products and services, not subscribe to our cloud offerings, or accept alternative offerings from other vendors. In addition, the increasing volume in our cloud business as well as the conversion of traditional on-premise licenses to cloud subscriptions licenses could have a potential negative impact on our software and maintenance revenue streams. This could have an adverse effect on our business, financial position, profit, and cash flows.

Working closely with SAP user groups, we continuously demonstrate the business value and the benefits of our solution, service and support portfolio in terms of innovation, quality, and high service level as well as through customer references and success stories. Additionally, we continuously monitor the performance and the perceived value of our services and the satisfaction of our customers. We implement mitigating steps where required.

In early 2015, we combined organizationally two main departments responsible for services and support at SAP in regards to the Applications, Technology, and Services segment, into one Global Service & Support unit. This combined organization offers a wide range of support, including premium support services (SAP MaxAttention and SAP ActiveEmbedded), and professional services to increase business benefit for our customers. For the SAP Business

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Network segment, we continue the established service and support models.

With regards to our volume in cloud business as well as the conversion of traditional on-premise licenses to cloud subscriptions licenses, we estimate the probability of this risk materializing to be unlikely. However, we cannot completely exclude the possibility that it could have a business-critical impact on our business, financial position, profit, and cash flows, or cause a negative deviation from our revenue and operating profit target. Overall, we classify this risk as medium risk.

**The success of our cloud computing strategy depends on market perception and an increasing market adoption of our cloud solutions and managed cloud services. Insufficient adoption of our solutions and services could lead to a loss of SAP's position as a leading cloud company.**

The market for cloud computing is increasing and shows strong growth relative to the market for our on-premise solutions. To offer a broad cloud service portfolio and generate the associated business value for our customers, we have acquired cloud computing companies such as Ariba, Concur, Fieldglass, and SuccessFactors. Due to ongoing contracts and previous substantial investments to integrate traditional on-premise enterprise software into their businesses, as well as concerns about data protection, security capabilities, and reliability, customers and partners might be reluctant or unwilling to migrate to the cloud.

Other factors that could affect the market acceptance of cloud solutions and services include:

- Concerns with entrusting a third-party to store and manage critical employee or company confidential data
- Customer concerns about security capabilities and reliability
- Customer concerns about the ability to scale operations for large enterprise customers
- The level of configurability or customizability of the software
- Missing integration scenarios between on-premise products and cloud-to-cloud solutions
- Failure to securely and successfully deliver cloud services by any cloud service provider could have a negative impact on customer trust in cloud solutions
- Strategic alliances among our competitors in the cloud area could lead to significantly increased competition in the market with regards to pricing and ability to integrate solutions
- Failure to get the full commitment of our partners might reduce speed and impact in the market reach

If organizations do not perceive the benefits of cloud computing, the market for cloud business might not develop further, or it may develop more slowly than we expect, either of which could have an adverse effect on our business, financial position, profit, reputation and cash flows.

In addition to measures to communicate the business value of our cloud solutions to the market, we invest significantly in infrastructure and processes that ensure secure operations of our cloud solutions including the adaption of cloud service delivery to local and/or specific market requirements (such as local or regional data centers) and the compliance with all local legal regulations regarding data protection and privacy as well as data security.

Although we estimate the probability of occurrence of this risk to be unlikely, we cannot completely exclude the possibility that this risk could have a business-critical impact on our reputation, business, financial position, profit, and cash flows, or cause a negative deviation from our revenue and operating profit target. We classify the risk as a medium risk.

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

The software industry continues to evolve rapidly and is currently undergoing a significant shift due to innovations in the areas of enterprise mobility, cybersecurity, Big Data, hyperconnectivity, the Internet of Things, digitization, supercomputing, cloud computing, and social media. While smaller innovative companies tend to create new markets continuously and expand their reach through mergers, large traditional IT vendors tend to enter such markets mostly through acquisitions. SAP faces increased competition in our business environment from traditional as well as new competitors. This competition could cause price pressure, cost increases, and loss of market share, which could have an adverse effect on our business, financial position, profit, and cash flows.

Additionally, related to our Applications, Technology, and Services segment, customers could change their buying behavior by accelerating their acceptance of cloud solutions to reduce their investments, which might have a temporary adverse effect on our operating results. Furthermore, the trend in the market to invest more in cloud solutions might lead to a risk of the potential loss of existing on-premise customers. It may also have a temporary adverse effect on our revenue due to the number of conversions from on-premise licenses to cloud subscriptions from existing SAP customers in our installed base, as we recognize cloud subscriptions revenue over the respective service provision, and that typically ranges from one-to-three years with some up to five years.

We believe we will be able to protect our leadership in the market by continuing to execute successfully on our customer-centric innovation strategy, which is driven by a mix of organic growth, targeted acquisitions, and attractive cloud solution offerings. To compete successfully in the market, we continuously enhance our global processes and adjust our

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organizational structures. Furthermore, in the Application, Technology, and Services segment, we have policies in place to effectively manage conversions from on-premise software arrangement to cloud arrangements.

Although we estimate the probability of this risk being a major impact unlikely, we cannot completely exclude the possibility that this risk could have a major impact on our business, financial position, profit, and cash flows, or cause a negative deviation from our revenue and operating profit target. We classify this risk as a medium risk.

## **Business Strategy Risks**

### **Demand for our new solutions may not develop as planned and our strategy on new business models and flexible consumption models may not be successful.**

Our business consists of new software licenses, software license updates, and support and maintenance fees as well as of cloud subscriptions. Our customers are expecting to take advantage of technological breakthroughs from SAP without compromising their previous IT investments. However, the introduction of new SAP solutions, technologies, and business models as well as delivery and consumption models is subject to uncertainties as to whether customers will be able to perceive the additional value and realize the expected benefits we deliver along our road maps. There is a risk that such uncertainties may lead customers to wait for proof of concept through reference customers or more mature versions first, which might result in a lower level of adoption of our new solutions, technologies, business models, and flexible consumption models, or no adoption at all. This could have an adverse effect on our business, financial position, profit, and cash flows.

To mitigate this risk, SAP is balancing the distribution of our strategic investments by evolving and protecting our core businesses and simultaneously developing new solutions, technologies, and business models for markets, such as those in analytics, applications, and database and technology. Furthermore, we continuously demonstrate the benefits of our solution and services portfolio through customer references and success stories as well as the provision of support excellence to ensure customer satisfaction with and after the implementation of our solution.

We estimate the probability of occurrence of this risk to be remote, but cannot completely exclude the possibility that this risk could have a business-critical impact on our business, financial position, profit, and cash flows, or cause a negative deviation from our revenue and operating profit target. We classify this risk as a medium risk.

### **Though downturns or upturns in cloud sales may not be immediately reflected in our operating results, any decline in our customer renewals would harm the future operating results of our cloud business.**

We recognize cloud subscriptions revenue as we provide the respective services, which typically range from one-to-three years with some up to five years. This revenue recognition and our increasing subscription revenues could have a temporary adverse effect on our financial position, profit, and cash flows.

To maintain or improve our operating results in the cloud business, it is important that our customers renew their agreements with us when the initial contract term expires and purchase additional modules or additional capacities. Our customers have no obligation to renew their subscriptions after the initial subscription period, and we cannot assure that customers will renew subscriptions at the same or at a higher level of service, or at all. Our customers' renewal rates may decline or fluctuate as a result of various factors, including their satisfaction or dissatisfaction with our cloud solution and services portfolio; our ability to efficiently provide cloud services according to customer expectations and meeting the service level agreements, service availability and provisioning, the integration capabilities of our cloud solutions into their existing IT environment (including hybrid solutions combining both cloud and on-premise solutions); our customer support; concerns regarding stable, efficient, and secure cloud operations and compliance with legal and regulatory requirements; our pricing; the pricing of competing products or services; mergers and acquisitions affecting our customer base; global economic conditions; and reductions in our customers' spending levels.

If our customers do not renew their subscriptions, renew on terms less favorable to us, or fail to purchase additional modules or users, our revenue and billings will decline, and we may not realize significantly improved operating results from our customer base. This could have an adverse effect on our business, financial position, profit, and cash flows.

We share our overall long-term cloud strategy and our integration road map with our customers and continuously implement improvements that enhance our cloud solutions, including instant provisioning, a consumer-grade user experience, and a fast time to value, among others. To continuously improve our services, we closely monitor any issue and work together with customers to perform a root-cause analysis and provide a solution. We have a strong focus on providing our cloud services efficiently and according to customer expectations, including service provisioning, quality, and security as well as data protection and privacy.

Furthermore, we are continuously improving and adapting cloud services delivery to local and/or specific market requirements (such as local or regional data centers, customer expectations, and in accordance with legal and regulatory requirements).

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Although we estimate the probability of occurrence of this risk to be remote, we cannot completely exclude the possibility that this risk could have a business-critical impact on our business, financial position, profit, and cash flows, or cause a negative deviation from our revenue and operating profit target. We classify this risk as a medium risk.

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

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

If partners consider our products or services model less strategic and/or financially less attractive compared to our competition and/or less appropriate for their respective channel and target market, if partners fear direct competition by SAP or if SAP fails to establish and enable a network of qualified partners meeting our quality requirements and the requirements of our customers, then, among other things, partners might not:

- Develop a sufficient number of new solutions and content on our platforms
- Provide high-quality products and services to meet customer expectations
- Drive growth of references by creating customer use cases and demo systems
- Embed our solutions sufficiently enough to profitably drive product adoption, especially with innovations such as SAP S/4HANA and SAP HANA Cloud Platform
- Enable and train sufficient resources to promote, sell, and support to scale to targeted markets
- Comply with applicable laws and regulations, resulting in delayed, disrupted, or terminated sales and services
- Transform their business model in accordance with the transformation of SAP's business model in a timely manner
- Renew their existing agreements with us or enter into new agreements on terms acceptable to us or at all
- Provide ability and capacity to meet customer expectations regarding service provisioning.

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

SAP continues to invest in long-term, mutually beneficial relationships and agreements with partners. We continue to develop and enhance a wide range of partner programs to retain existing and attract new partners of all types. We offer training opportunities to a wide range of resources for our partners and additionally provide demo solutions to enable partners to lead business value discussions on cloud and on-premise solutions with customers. A thorough certification process for third-party solutions has been designed and established to ensure consistent high-quality and seamless integration.

With the transformation of SAP's business model, partners play an increasingly important role in co-locating our cloud solutions as well as operating SAP's cloud solutions for their customers. Therefore, we estimate the probability of occurrence of this risk to be likely, and we cannot exclude the possibility that this risk could have a major impact on our reputation, business, financial position, profit, and cash flows, or cause a negative deviation from our revenue and operating profit target if it were to materialize. We classify this risk as a medium risk.

**Human Capital Risks**

**If we do not effectively manage our geographically dispersed workforce, we may not be able to run our business efficiently and successfully.**

Our success is dependent on appropriate alignment of our internal and external workforce planning processes and our location strategy with our general strategy. It is critical that we manage our internationally dispersed workforce effectively, taking short- and long-term workforce and skill requirements into consideration. This applies to the management of our internal as well as our external workforce. Changes in headcount and infrastructure needs as well as local legal or tax regulations could result in a mismatch between our expenses and revenue. Failure to manage our geographically dispersed workforce effectively could hinder our ability to run our business efficiently and successfully and could have an adverse effect on our business, financial position, profit, and cash flows.

We focus on mitigating this risk through a range of activities including succession management; workforce planning (which aims to achieve diversity and the right mix of talent and to take account of demographic changes); outsourcing; external short-term staffing; employer branding; career management (such as offering opportunities for short-term assignments and opportunities to improve skills, competencies, and qualifications); and extended benefit programs – for example, a performance-oriented remuneration system, an employer-financed pension plan in certain countries, and long-term incentive plans.

We estimate this risk to be a remote possibility, but we cannot completely exclude the possibility of this risk to have a major impact on our business, financial position, profit, and cash flows.

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or cause a negative deviation from our revenue and operating profit target. We classify this risk as a low risk.

**If we are unable to attract, develop, and retain leaders and employees with specialized knowledge and technology skills, or are unable to achieve internal diversity and inclusion objectives, we might not be able to manage our operations effectively and successfully, or develop successful new solutions and services.**

Our highly qualified workforce is the foundation for our continued success. In certain regions and specific technology and solution areas, we continue to set very high growth targets, specifically in countries and regions such as Africa, China, Latin America, and the Middle East. In the execution of SAP's strategic priorities, we depend on highly skilled and specialized personnel and leaders, both male and female. Successful maintenance and expansion of our highly skilled and specialized workforce in the area of cloud is a key success factor for our transition to be the leading cloud company. The availability of such personnel is limited and, as a result, competition in our industry is intense and could expose us to claims by other companies seeking to prevent their employees from working for a competitor. If we are unable to identify, attract, develop, motivate, adequately compensate, and retain well-qualified and engaged personnel, or if existing highly skilled and specialized personnel leave SAP and ready successors or adequate replacements are not available, we may not be able to manage our operations effectively, which could have an adverse effect on our reputation, business, financial position, profit, and cash flows. Furthermore, we may not be able to develop, sell, or implement successful new solutions and services as planned. This is particularly true as we continue to introduce new and innovative technology offerings and expand our business in emerging markets. The lack of appropriate or inadequately executed benefit and compensation programs could limit SAP's ability to attract or retain qualified employees and lead to financial losses. In addition, we might not be able to achieve our internal gender diversity objectives to increase the number of women in management from 18% in 2010 to 25% by 2017.

These risks notwithstanding, we continue to believe our leading market position, employer brand, and extended benefit programs will enable us to hire top talent internationally with the potential to contribute to SAP's growing business success in the future. We address the risk of an adverse effect on our business operations from a failure to recruit the employees we need or from the loss of leaders and employees by seeking to build employee and leadership strengths through a range of targeted professional development, mentoring, and coaching programs, a gender diversity program, and a special focus on accelerated high-potential employee development that aims to develop talent as well as leadership talent, in particular. A strong focus on succession planning for leadership and key positions seeks to ensure sustainable leadership and to safeguard the business from disruption caused by staff turnover.

Although the risks related to failure to attract, develop, and retain talent could materialize, we believe that this is unlikely and that the impact on our reputation, business, financial position, profit, and cash flows, or potential negative deviation from our revenue and operating profit target would be major. We classify this risk as a medium risk.

## **Organizational and Governance-Related Risks**

### **Laws and regulatory requirements in Germany, the United States, and elsewhere have become much more stringent.**

As a European company domiciled in Germany with securities listed in Germany and the United States, we are subject to European, German, U.S., and other governance-related regulatory requirements. Changes in laws and regulations and related interpretations, including changes in accounting standards and taxation requirements, and increased enforcement actions and penalties may alter the business environment in which we operate. Regulatory requirements have become significantly more stringent in recent years, and some legislation, such as the anticorruption legislation in Germany, the U.S. Foreign Corrupt Practices Act, the UK Bribery Act, and other local laws prohibiting corrupt payments by employees, vendors, distributors, or agents, is being applied more rigorously. Emerging markets are a significant focus of our international growth strategy. The nature of these markets presents a number of inherent risks. A failure by SAP to comply with applicable laws and regulations, or any related allegations of wrongdoing against us, whether merited or not, could have an adverse effect on our business, financial position, profit, cash flows and reputation.

It is difficult to assess the precise potential risk, because there is a wide variety of complex legal and regulatory requirements that apply, and therefore an equally wide variety of potential non-compliance scenarios exist.

However, we continuously monitor new and increased regulatory requirements, updated or new enforcement trends, and publicly available information on compliance issues in the computer software industry, the emerging markets where we invest our resources, and in the business environment in general to cope with an increase in regulation enforcement efforts of certain countries or state-driven protectionism. Based on this information and any other available sources, we continuously update and refresh our compliance programs to achieve the most effective approach possible and to ensure that our employees understand and comply with the SAP Code of Business Conduct. This process is coordinated by our Legal Compliance and Integrity Office, a team of dedicated resources who are tasked with managing our policy-related compliance measures. Our chief compliance officer coordinates policy implementation, training, and enforcement efforts throughout SAP. Those efforts are monitored and tracked to allow trending and risk analysis and to ensure consistent policy application

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throughout the SAP Group. Despite our comprehensive compliance programs and established internal controls, intentional efforts of individuals to circumvent controls or engage in fraud for personal gains cannot always be prevented.

With regards to the increase of regulation enforcement efforts we have already experienced and continue to expect as well as state-driven protectionism, we estimate the likelihood of this risk to be unlikely. We cannot completely exclude the possibility that this risk could have a major impact on our reputation, business, financial position, profit, and cash flows, or cause a negative deviation from our revenue and operating profit target. We classify this risk as a medium risk.

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

As a global software and service provider, SAP is required to comply with local laws wherever SAP does business. Consequently, we must ensure that any legal requirements in connection with the provision of products and services are properly implemented. With regards to data protection requirements, significant changes are expected subject to the upcoming European Data Protection Regulation. Furthermore, SAP is affected by the consequences of the decision of the European Court of Justice (ECJ), which declared Safe Harbor invalid, so that data transfers from within the European Union (EU) to the United States are no longer permitted based on Safe Harbor. This means that acquired SAP affiliates that have not already implemented the requirements for data transfers based on the Standard Contractual Clauses will have to implement these requirements immediately. However, this will be ensured by the implementation of the new Intra Group Agreement that provides a data protection level at the Standard Contractual Clauses within the SAP Group. These laws and regulations amend and supplement existing requirements regarding the processing of personal data that SAP and SAP customers must fulfill and which we must consequently address with our products and services, including cloud delivery. Failure to comply with applicable laws or to adequately address privacy concerns of customers, even if unfounded, could lead to investigations by supervisory authorities, civil liability, fines, (in the future, potentially calculated based on the Company's annual revenue), loss of customers, damage to our reputation, and could have an adverse effect on our business, financial position, profit, and cash flows.

Further, recent landmark decisions by the ECJ on data protection matters, as well as official statements made by the European data protection supervisory authorities, require SAP to carefully review our globalized business practices. Most importantly, the ECJ on October 6, 2015, ruled that data transfers by European companies to data processors in the

United States can no longer be based on Safe Harbor. While SAP has not widely relied upon Safe Harbor, the data protection supervisory authorities have challenged the legality of other transfer mechanisms, such as the Standard Contractual Clauses used by SAP, on the same grounds by which the ECJ has declared Safe Harbor invalid. The data protection supervisory authorities have threatened to start enforcement activities as early as end of January 2016 against European companies that still transfer data to the United States (or grant U.S. companies remote access to systems containing personal data in the EU) based on a transfer mechanism that the authorities consider invalid. Enforcement activities against SAP or against SAP customers because of services and products that SAP provides with the help of our U.S.-based entities and/or U.S.-based suppliers could lead to fines, civil liability, loss of customers, and damage to our reputation, and could have an adverse effect on our business, financial position, profit, and cash flows.

It is conceivable that data transfers to further countries that do not provide a level of data protection and privacy comparable to the European level may be challenged, too.

To mitigate risks due to legal non-compliance, SAP actively monitors changes to applicable laws and regulations so that we can take adequate measures and certify our existing standards and policies on an ongoing basis. We have implemented a wide range of measures to protect data controlled by SAP and our customers from unauthorized access and processing, as well as from accidental loss or destruction. This includes, among others, a continuous enhancement of our data center operations worldwide, also taking into account local and/or sector-specific market and legal requirements. We have implemented a certified data protection management system in areas critical to data protection, such as global service and support, human resources (HR), marketing, products and innovation, and custom development, whereby implementation is audited internally as well as externally by the British Standard Institutions on an annual basis. Furthermore, customers are provided with security certifications (such as ISO/IEC 27001), security white papers, and reports from our independent auditors and certification bodies.

Notwithstanding the aforementioned, and to address the potential risks resulting from the ECJ ruling on Safe Harbor in particular, we are analyzing all processes by which personal data is transferred to or remotely accessed by U.S.-based SAP entities or external third parties. Any of these processes that are still based upon Safe Harbor will be amended to address any requirements based upon the Standard Contractual Clauses that are still considered a valid legal basis to transfer personal data from within the EU to the United States. SAP further works on investigating possibilities to host and process all personal data that is in the legal responsibility of EU/ European Economic Area (EEA)-based SAP entities in the EU/EEA only. With respect to customers, the EU Access service by which already today

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many European customers can be supported from within the EU/EEA countries shall be expanded.

We estimate this risk to be unlikely, and cannot rule out the possibility of it having a business-critical impact on our business, financial position, profit, and cash flows, and causing damage to our reputation, or causing a negative deviation from our revenue and operating profit target. We classify this risk as a medium risk.

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

Energy and emissions management are an integral component of our holistic management of social, environmental, and economic risks and opportunities. We have identified risks in these major areas:

- Our solutions
- Our own operations – energy management and other environmental issues such as carbon management, water use, and waste

Because our customers, employees, and investors expect a reliable energy and carbon strategy, we have reemphasized our previously communicated targets, especially our 2020 target for greenhouse gas emissions. In case these targets cannot be achieved, our customers might no longer recognize SAP for our environmental leadership and might buy other vendors' products and services. Consequently, we could fail to achieve our revenue target. If we do not meet stakeholder expectations in the areas identified, our rating in sustainable investment indexes might decrease, which could have an adverse effect on our reputation, business, financial position, profit, and cash flows.

In recent years, SAP has shown that it is possible to take a proactive position on social and environmental issues while delivering robust financial growth. As a result, we received great recognition for our sustainability efforts. As a proof point for SAP's sustainability performance, we continue to be listed in the most prominent and recognized sustainability indexes, such as the Dow Jones Sustainability Indices and the CDP Climate Performance and Disclosure Leadership Indices. In 2015, SAP's greenhouse gas emissions added up to 455 kilotons CO<sub>2</sub>, which means we did not meet our greenhouse gas emissions target of 420 kilotons by 35 kilotons. If we do not meet our greenhouse gas emissions target for 2020, we might fail to meet expectations regarding our energy and emission performance.

However, we believe that the risk of failing to meet expectations regarding our energy and emission strategy is unlikely to occur and that if the risk were to occur, it would only have a moderate

impact on our reputation, business, financial position, profit, and cash flows, as well as on the achievement of our revenue and operating profit target. We classify this risk as a low risk.

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

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

However, we may encounter unethical behavior and non-compliance with our integrity standards due to intentional and fraudulent behavior of individual employees, possibly in collusion with external third parties. In addition to intentional behavior, problems could also arise due to negligence in the adherence to rules and regulations. Unethical behavior and misconduct attributable to SAP could not only lead to criminal charges, fines, and claims by injured parties, but also to financial loss, and severe reputational damage. This could have an adverse effect on our business, financial position, profit, and cash flows.

To help prevent this, we instituted a comprehensive compliance management system (CMS), which is based on the three pillars of prevention, detection, and reaction. Our CMS program comprises several educational, counseling, control, and investigative instruments. The objective is to minimize and mitigate the risk of unethical behavior, whether intentional or negligent.

The SAP Code of Business Conduct is mandatory and applies to every SAP employee. It provides legal compliance guidance on how to avoid unethical behavior and solve dilemma situations. On an annual basis, the SAP Code of Business Conduct is re-confirmed by SAP's workforce (except where disallowed by local legal regulations). We also rolled out and enforced various additional compliance policies aimed at managing third parties and preventing misuse of third-party payments for illegal purposes; ensuring controls around travel, entertainment, gift, and expense policies; and promoting a commitment to business with integrity through our partner and vendor ecosystems. These efforts are flanked by continuous education including e-learning and classroom training to target audiences as identified by compliance risk assessment. The overall CMS approach by SAP is continuously monitored internally and externally, and adapted accordingly, if needed.



Although we estimate the probability of occurrence of intentional or negligent major unethical conduct to be remote, we cannot exclude the possibility that this risk could materialize. In that event, this risk could have a major impact on our reputation, business, financial position, profit, and cash flows and could cause a negative deviation from our operating profit target. We classify this risk as a low risk.

## **Communication and Information Risks**

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

Confidential information and internal information related to topics such as our strategy, new technologies, mergers and acquisitions, unpublished financial results, or personal data, could be prematurely or inadvertently disclosed and subsequently lead to market misperception and volatility. This could require us to notify multiple regulatory agencies and comply with applicable regulatory requirements and, where appropriate, the data owner, which could result in a loss of reputation for SAP. For example, leaked information during a merger or acquisition deal could cause the loss of our deal target, or our share price could react significantly in case of prematurely published financial results. This could have an adverse effect on our market position and lead to fines and penalties. In addition, this could have an adverse effect on our business, financial position, profit, and cash flows.

We take a wide range of actions to prevent unauthorized disclosure of information, including procedural and organizational measures. These measures include mandatory security awareness training for all employees, social engineering tests, standards for safe internal and external communication, and technical security features in our IT hardware and communication channels, such as mandatory encryption of sensitive data.

Although we estimate the likelihood of occurrence of this risk to be remote, we cannot completely exclude the possibility that this risk could have a business-critical impact on our reputation, business, financial position, profit, and cash flows, or cause a negative deviation from our operating profit target. We classify this risk as a medium risk.

## **Financial Risks**

### **Our sales are subject to quarterly fluctuations and our sales forecasts may not be accurate.**

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

- The relatively long sales cycles for our products

- The large size, complexity, and extended timing of individual customer transactions
- The introduction of licensing and deployment models such as cloud subscription models
- The timing of the introduction of new products or product enhancements by SAP or our competitors
- Changes in customer budgets
- Decreased software sales that could have an adverse effect on related maintenance and services revenue
- The timing, size, and length of customers' services projects
- Deployment models that require the recognition of revenue over an extended period of time
- Adoption of, and conversion to, new business models leading to changed or delayed payment terms
- Seasonality of a customers' technology purchases
- Limited visibility during the ongoing integration of acquired companies into their ability to accurately predict their sales pipelines and the likelihood that the projected pipeline will convert favorably into sales
- Other general economic, social, environmental, and market conditions, such as a global economic crisis and difficulties for countries with large debt

Since many of our customers make their IT purchasing decisions near the end of calendar quarters, and with a significant percentage of those decisions being made during our fourth quarter, even a small delay in purchasing decisions for our on-premise software could have an adverse effect on our revenue results for a given year. Our dependence on large transactions has decreased in recent years with a trend towards an increased number of transactions coupled with a decrease in deal size. However, the loss or delay of one or a few large opportunities could have an adverse effect on our business, financial position, profit, and cash flows.

We use a "pipeline" system for forecasting sales and trends in our business. Pipeline analysis informs and guides our business planning, budgeting, and forecasting, but pipeline estimates do not necessarily consistently correlate to revenue in a particular quarter, potentially due to one or more of the reasons outlined above. The reliability of our plans, budgets, and forecasts may therefore be compromised. Because our operating expenses are based upon anticipated revenue levels and a high percentage of our expenses are relatively fixed in the near term, any shortfall in anticipated revenue or delay in revenue recognition could result in significant variations in our operating results from quarter to quarter or year to year. Continued deterioration in global economic conditions would make it increasingly difficult for us to accurately forecast demand for our products and services, and could cause our revenue, operating results, and cash flows to fall short of our expectations and public forecasts. This could have an adverse effect on our stock price. To the extent any future expenditure fails to generate the anticipated increase in revenue, our quarterly or annual operating results may be subject to an adverse effect and may vary significantly compared to preceding or subsequent periods. As we recognize

cloud subscriptions and support revenue over the respective service period that typically ranges from one-to-three years with some up to five years, the relevance and impact of sales fluctuations decrease along with the growing importance of these revenues.

Although we estimate the probability of occurrence of this risk to be unlikely, we cannot completely exclude the possibility that this risk could have a moderate impact on our business, financial position, profit, and cash flows, or cause a negative deviation from our revenue and operating profit target. We classify this risk as a low risk.

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

Macroeconomic factors such as an economic downturn could have an adverse effect on our future liquidity. We use a globally centralized financial management to control financial risk, such as liquidity, exchange rate, interest rate, counterparty, and equity price risks. The primary aim is to maintain liquidity in the SAP Group at a level that is adequate to meet our obligations at any time. Our total Group liquidity is supported by our strong operating cash flows, of which a large part is recurring, and by credit facilities from which we can draw if necessary. However, adverse macroeconomic factors could increase the default risk associated with the investment of our total Group liquidity including possible liquidity shortages limiting SAP's ability to repay financial debt. This could have an impact on the value of our financial assets, which could have an adverse effect on our business, financial position, profit, and cash flows.

SAP's investment policy with regards to total Group liquidity is set out in our internal treasury guideline, which is a collection of uniform rules that apply globally to all companies in the SAP Group. Among others, it requires that we invest, with limited exceptions, only in assets and funds rated BBB flat or better. The weighted average rating of the investments of our total Group liquidity is in the range A to A-. We continue to pursue a policy of cautious investment characterized by wide portfolio diversification with a variety of counterparties, predominantly short-term investments, and standard investment instruments.

Although we estimate the probability of occurrence of this risk to be remote, there can be no assurance that the prescribed measures will be successful or that uncertainty in global economic conditions could not have a business-critical impact on our business, financial position, profit, cash flows, or operating profit target. We classify this risk as a medium risk.

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

To comply with IFRS, management is required to make numerous judgments, estimates, and assumptions (among

others for our major patent disputes) that affect the reported financial figures. The facts and circumstances, as well as assumptions on which management bases these estimates and judgments and management's judgment regarding the facts and circumstances, may change from time to time and this could result in significant changes in the estimates and judgments and, consequently, in the reported financials. Such changes could have an adverse effect on our business, financial position, profit and cash flows.

We have a number of control procedures in place to make sure that our estimates and judgments are adequate. For example, we apply two-person verification to significant estimating.

Although we estimate the probability of occurrence of the risk to be unlikely, we cannot completely exclude the possibility of a moderate impact on our business, financial position, profit, and cash flows, or a negative deviation from our revenue and operating profit target. We classify this risk as a low risk.

**Current and future accounting pronouncements and other financial reporting standards, especially but not only concerning revenue recognition, may negatively impact our financial results.**

We regularly monitor our compliance with applicable financial reporting standards and review new pronouncements and drafts thereof that are relevant to us. As a result of new standards, changes to existing standards (including the new IFRS 15 on revenue from contracts with customers that we will need to adopt in 2018) and changes in their interpretation, we might be required to change our accounting policies, particularly concerning revenue recognition, to alter our operational policies so that they reflect new or amended financial reporting standards, or to restate our published financial statements. Such changes may have an adverse effect on our reputation, business, financial position, and profit, or cause an adverse deviation from our revenue and operating profit target.

Although we estimate the probability of occurrence of the risk to be unlikely, we cannot completely exclude the possibility of a major impact. We classify this risk as a medium risk.

**Because we conduct operations throughout the world, our business, financial position, profit, and cash flows may be affected by currency and interest rate fluctuations.**

Our Group-wide management reporting and our external financial reporting are both in euros. Nevertheless, a significant portion of our business is conducted in currencies other than the euro. Approximately 74% of our revenue in 2015 was attributable to operations outside the euro area and was translated into euros. Consequently, period-over-period changes in the euro rates for particular currencies can significantly affect our reported revenues, profits and cash flows. In general, appreciation of the euro relative to another

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currency has an adverse effect while depreciation of the euro relative to another currency has a positive effect. Variable interest balance-sheet items are also subject to changes in interest rates. Such changes may have an adverse effect on our business, financial position, profit and cash flows or cause an adverse deviation from our revenue and operating profit target.

We continuously monitor our exposure to currency fluctuation risks based on balance-sheet items and expected cash flows, and pursue a Group-wide foreign exchange risk management strategy using, for example, derivative financial instruments as appropriate. With regards to our financial debt, we have a very balanced maturity profile and mixture of fixed and floating interest rate arrangements in place.

We believe that the likelihood of this risk of significant currency and interest rate fluctuations affecting our reported revenue and income materializing is remote and that if the risk were to occur, its impact on our business, financial position, profit, and cash flows could be major, or cause a negative deviation from our revenue and operating profit target. We classify this risk as a low risk.

For more information about risks arising from financial instruments, including our currency and interest rate risks and our related hedging activity, see the Notes to the Consolidated Financial Statements section, *Notes (24) to (25)*.

**The cost of using derivative instruments to hedge share-based payments may exceed the benefits of hedging them.**

We use derivative instruments to reduce the impact of our share-based payments on our income statement and to limit future expense associated with those plans. Based on a defined hedging strategy, we align the decision of individual hedging transactions with the Group CFO in the Treasury Committee. The expense of hedging the share-based payments could exceed the benefit achieved by hedging them. On the other hand, a decision to leave the plans materially unhedged could prove disadvantageous. This could have an adverse effect on our business, financial position, profit and cash flows or cause an adverse deviation from our revenue and operating profit target.

We believe that the likelihood of this risk materializing is remote and that if the risk were to occur, its potential impact on our business, financial position, profit, cash flows, and operating profit target would be minor. We classify this risk as a low risk.

## **Project Risks**

**Implementation of SAP software often involves a significant commitment of resources by our customers and is subject to a number of significant risks over which we often have no control.**

A core element of our business is the successful implementation of software solutions to enable our customers to master complexity and help our customers' business run at their best. The implementation of SAP software is led by SAP, by partners, by customers, or by a combination thereof. Depending on various factors, such as the complexity of solutions, the customer's implementation, integration and migration needs, or the resources required, SAP faces a number of different risks. For example, functional requirement changes, delays in timeline, or deviation from recommended best practices may occur during the course of a project. These scenarios have a direct impact on the project resource model and on securing adequate internal personnel or consultants in a timely manner and could therefore prove challenging.

As a result of these and other risks, SAP and/or some of our customers have incurred significant implementation costs in connection with the purchase and installation of SAP software products. Some customer implementations have taken longer than planned. We cannot guarantee that we can reduce or eliminate protracted installation or significant third-party consulting costs, for example, that trained consultants will be readily available, that our costs will not exceed the fees agreed in fixed-price contracts, or that customers will be satisfied with the implementation of our software and solutions. Unsuccessful, lengthy, or costly customer implementation and integration projects could result in claims from customers, harm SAP's reputation, and could have an adverse effect on our business, financial position, profit, and cash flows.

Our customers continue to follow project approaches to optimize their IT solutions in a non-disruptive manner. Our projects also include risk management processes that are integrated into SAP project management methods intended to safeguard implementations with coordinated risk and quality management programs. As part of our processes, we make adequate financial planning provisions for the remaining individual risks.

We estimate the probability of occurrence of this risk to be unlikely, but we cannot completely exclude the possibility that this risk could have a major negative impact on our reputation, business, financial position, profit, and cash flows, or cause a negative deviation from our revenue and operating profit target. We classify this risk as a medium risk.

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## Product and Technology Risks

### **Undetected security vulnerabilities shipped and deployed within our products might cause damage to SAP and our customers, and partners.**

Customer systems or systems operated by SAP itself to provide services could potentially be compromised by vulnerabilities if they are exploited by hackers. This could lead to theft, destruction, or abuse of data, or systems could be rendered unusable (for example, due to distributed denial of service attacks). The detection of security vulnerabilities in our software, our customers' systems, or SAP systems used in the provision of services, especially in case of exploitation, could prevent us from meeting our contractual obligations and subsequently might lead to customer claims and reputational damage, which might have an adverse effect on our business, financial position, profit, and cash flows.

We have implemented a software security development lifecycle as a mandatory integral part of our software development process. We systematically align our software security development lifecycle to the recommendations of ISO/IEC 27034, applying methods to develop secure software in all development phases starting early in the design phase. This includes industry best practices such as security risk identification, threat modeling, a comprehensive security testing strategy, mandatory security training for all developers, and security validation of our products, patches, and services before shipment.

SAP has a software security response process in place to rapidly react to detected vulnerabilities and provide fixes. We have also improved the roll-out procedures for security-relevant notes, patches, and service packs to ensure easy and fast consumption on the customer side. However, with regards to the Applications, Technology and Services segment, there is a risk that customers do not upgrade or patch their business systems on a timely basis according to SAP's recommendations.

We cannot completely exclude the possibility of a negative impact on our customers' and partners' or our own operations globally or in one or more countries or regions. We estimate the probability of occurrence of the risk of severe damages to customers and SAP to be unlikely. If such an occurrence happens, it could have a business-critical impact on our reputation, business, financial position, profit, and cash flows as well as on the achievement of our revenue and operating profit target. We classify this risk as a medium risk.

### **Undetected defects in the introduction of new products and product enhancements could increase our costs, and reduce customer demand.**

Our development investment, including new product launches and enhancements, is subject to risks. For example, software

products and services might not completely meet our high-quality standards, including security standards; might not fulfill market needs or customer expectations; or might not comply with local standards and requirements. Furthermore, this risk also exists with respect to acquired companies' technologies and products where we might not be able to manage these as quickly and successfully as expected. Therefore, market launches, entering new markets, or the introduction of new innovations could be delayed or not be successful.

In addition, new products and cloud offerings, including third-party technologies we have licensed and open source software components we use in those products, could contain undetected defects or they might not be mature enough from the customer's point of view for business-critical solutions. The detection and correction of any defects especially after delivery could be expensive and time-consuming and we might not be able to meet the expectations of customers regarding time and quality in the defect resolution process. In some circumstances, we might not be in a position to rectify such defects or entirely meet the expectations of customers, specifically as we are expanding our product portfolio into additional markets. As a result, we might be faced with customer claims for cash refunds, damages, replacement software, or other concessions. The risk of defects and their adverse consequences could increase as we seek to introduce a variety of new software products and product enhancements at a higher innovation rate. This is especially relevant for cloud products as delivery cycles are even shorter (up to daily deliveries) and our complete cloud product customer base could receive undetected defects simultaneously. Furthermore, for products that use third-party (not SAP) cloud services, we cannot detect defects in advance. Significant undetected defects or delays in introducing new products or product enhancements could affect market acceptance of SAP software products and could have an adverse effect on our reputation, business, financial position, profit, and cash flows.

The use of existing SAP software products by customers in business-critical solutions and processes and the relative complexity and technical interdependency of our software products and services create a risk that customers or third parties may pursue warranty, performance, or other claims against us for actual or alleged defects in SAP software products, in our provision of services, or in our application hosting services. We have in the past been, and may in the future be, subject to warranty, performance, or other similar claims.

Although our contracts generally contain provisions designed to limit our exposure due to actual or alleged defects in SAP software products or in our provision of services, these provisions may not cover every eventuality or be effective under the applicable law. Regardless of its merits, any claim could entail substantial expense and require the devotion of significant time and attention by key management personnel. Publicity

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surrounding such claims could affect our reputation and the demand for our software.

We counter these risks using a broad range of techniques, including project management, project monitoring, product standards and governance, and rigid and regular quality assurance measures certified to ISO 9001:2008, applicable to the Applications, Technology and Services segment. Additionally, we conduct program risk assessments during product development as well as market introduction phases, and direct customer feedback is considered in the market release decision process. Delivering high-quality software products is a priority and part of our core business. Our strong investment and permanent efforts lead to a generally high level of quality of our products, which is made transparent in the defined quality perception and support index and confirmed by our constantly high customer satisfaction ratings as measured by customer quality perception reporting.

With regards to the increased volume of open source software components used in our software products and services as well as in the products and services of our acquired companies, we see a probability of this risk to materialize but rate the probability as unlikely. We cannot completely exclude the possibility that this risk, if it were to occur, could have a business-critical impact on our reputation, business, financial position, profit, and cash flows, or cause a negative deviation from our revenue and operating profit target. We classify this risk as a medium risk.

**Changes in our rights to use software, cloud services, and technologies we license from third parties that are an integral part of SAP's products could slow down time to market and influence our license pricing and therefore the competitiveness with other software vendors. Furthermore, it could diminish our software's or cloud functional capabilities and therefore could jeopardize the stability of our solution portfolio offering.**

The numerous third-party solutions we have licensed and certain open source software components we use have become an integral part of our product and service portfolio. We depend on those solutions for the functionality of our software and cloud services. Changes to, or the loss of, third-party licenses as well as open source licenses being construed could significantly increase the cost of these licenses and significantly reduce software or cloud functionality and/or usability of SAP's software or cloud offerings. As a result, we might incur additional development or license costs to ensure the continued functionality of our products, which could have an adverse effect on our business, financial position, profit, and cash flows. This risk increases with each of our acquisitions of a company or a company's intellectual property assets that had been subject to third-party solution licensing, open source software and product standards less rigorous than our own.

We strive to execute appropriate due diligence and contract management processes and to continuously monitor development projects through our product implementation lifecycle process and monitoring as part of our cloud deployment.

We believe that the probability of occurrence of this risk is likely and we cannot exclude the possibility of a major impact on our business, financial position, profit, and cash flows, or the possibility of a negative deviation from our revenue and operating profit target. We classify this risk as a medium risk.

**If we are unable to keep up with rapid technological, process and service innovations, and new business models as well as changing market expectations, we might not be able to compete effectively.**

Our future success depends upon our ability to keep pace with technological and process innovations and new business models, as well as our ability to develop new products and services, enhance and expand our existing products and services portfolio, and integrate products and services we obtain through acquisitions. To be successful, we are required to adapt our products and our go-to-market approach to a cloud-based delivery model to satisfy changing customer demand.

We might not be successful in bringing new business models, solutions, solution enhancements, and/or services to market before our competitors. We may also face increasing competition from open source software initiatives in which competitors may provide software and intellectual property free and/or under terms and conditions unfavorable for SAP. In addition, we might not be able to generate enough revenue to offset the significant research and development costs we incur to deliver technological innovations or to offset the required infrastructure costs to deliver our solutions and services as part of our new business models. Moreover, we might not anticipate and develop technological improvements or succeed in adapting our products, services, processes, and business models to technological change, changing regulatory requirements, emerging industry standards, and changing requirements of our customers and partners. Finally, we might not succeed in producing high-quality products, enhancements, and releases in a timely and cost-effective manner to compete with products, solutions, and other technologies offered by our competitors, which could have an adverse effect on our reputation, business, financial position, profit, and cash flows.

We will continue to align our organization, processes, products, delivery models, and services to changing markets and customer and partner demands. We develop new technology and new solutions such as the next-generation suite SAP S/4HANA or adopt the latest technology if there is a clear business opportunity for SAP and if it provides value to our customers. To ensure that we remain competitive in the future, we still conduct wide-ranging market and technology analyses

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and research projects, often in close cooperation with our customers and partners. We strive for strategic acquisitions with the potential to drive innovation and contribute to achieving our growth target.

We believe that the likelihood of this risk materializing is remote; however, we cannot exclude the business-critical impact this risk would have on our reputation, business, financial position, profit, and cash flows, or the potential negative deviation from our revenue and operating profit target if it were to materialize. We classify this risk as a medium risk.

**Our technology and/or product strategy may not be successful or our customers and partners might not adopt our technology platforms and other innovations accordingly.**

We offer customers a broad portfolio of products, solutions, and services. Our technology strategy centers on SAP HANA as a real-time in-memory computing platform for analytics and applications, the SAP S/4HANA suite as the digital core, the business network, and SAP HANA Cloud Platform as our platform-as-a-service offering. The success of our technology strategy depends on the delivery of the new digital framework, as our technology continues to deliver business value to meet changing customer expectations. Our technology strategy also relies on our ability to maintain a dynamic network of partner organizations developing their own business applications using our technology platforms.

We might not be successful in integrating our platforms, enabling the complete product and cloud service portfolio, harmonizing our user interface design and technology, integrating acquired technologies, or bringing new solutions based on the SAP HANA platform as well as SAP HANA Cloud Platform to the market as fast as expected, in particular, innovative applications such as SAP S/4HANA. In addition, we may not be able to compete effectively in the area of cloud services and our new applications and services might not meet customer expectations. As a result, our partner organizations and customers might not adopt our technology platforms, applications, or cloud services quickly enough or they might consider competitive solutions. This could have an adverse effect on our reputation, business, financial position, profit, and cash flows.

We believe that we will be able to deliver additional business value with minimum disruption to our customers if we can successfully drive the integration and convergence of our technology platform offerings, SAP S/4HANA, as well as acquired technologies, enable our current product portfolio for SAP HANA, develop new solutions based on SAP HANA, and offer comprehensive cloud-based services, extendable with SAP HANA Cloud Platform. We enable and encourage partners to leverage SAP technology by providing guidance about business opportunities, architecture, and technology, as well as a com-

prehensive certification program designed to ensure that relevant third-party solutions are of consistently high quality.

We believe that the likelihood of this risk materializing is unlikely. If this risk were to occur, its impact on our reputation, business, financial position, profit, cash flows, and revenue and operating profit target would be business-critical. We classify this risk as a medium risk.

**Our cloud offerings might be subject to a security attack, become unavailable, or fail to perform properly.**

The software used in our cloud portfolio is inherently complex and any defects in product functionality, data center operations, or system stability that cause interruptions in the availability of our application portfolio could result in the following:

- Lost or delayed market acceptance and sales
- Breach of warranty or other contract breach or misrepresentation claims
- Sales credits or refunds to our customers or partners
- Loss of customers and/or partners
- Diversion of development and customer service resources
- Breach of data protection and privacy laws and regulations
- Customers considering competitive cloud offerings
- Loss of customer satisfaction and brand reputation

The costs incurred in correcting any defects or errors might be substantial and could have an adverse effect on our reputation, business, financial position, profit, and cash flows. The availability of our cloud applications could be interrupted by a number of factors, resulting in customers' inability to access their cloud applications, system outages, failure of our network due to human or other errors, security breaches, or variability in user traffic for our cloud applications. Because of the large amount of data that we collect and manage, hardware failures, defects in our software, or errors in our systems could result in data loss or corruption, or cause the information that we collect to be incomplete or contain inaccuracies that our customers regard as significant. Additionally, any loss of the right to use hardware purchased or leased from third parties could result in delays in our ability to provide our cloud applications until equivalent technology is either developed by us or, if available, identified. Furthermore, our cooperation with partners in the area of cloud includes the co-location of data centers that might expose SAP to additional risks in the area of security and data protection, as well as the potential for breached service-level agreements by partners.

We have administrative, technical, and physical security measures in place as well as contracts that require third-party data centers to have appropriate security and data protection and privacy measures in place. In this context, customers might demand to use only specific and/or local data centers. However, if these security measures are breached as a result of third-party action, employee error or malfeasance, or otherwise, and

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if, as a result, someone obtains unauthorized access to our customers' data, which may include personally identifiable information regarding users, our reputation could be damaged, our business may suffer, local data protection and privacy laws or regulations might be breached, and we could incur significant liability.

In addition, our insurance coverage might not cover claims against us for loss or security breach of data or other indirect or consequential damages. Moreover, defending a suit, regardless of its merit, could be costly and time-consuming. In addition to potential liability, if we experience interruptions in the availability of our cloud applications, our reputation could be harmed and we could lose customers.

Our mitigation measures have been designed and implemented to minimize such adverse effects. We continuously invest in protecting the integrity and security of our products and services as well as internal and external data that is managed within our data centers. We are consolidating and harmonizing our data centers and our data protection measures, including implementing security information and event management solutions as well as network access control enforcement, to run a homogeneous landscape that supports the complex infrastructure, application, and security requirements so that we can deliver the required service level for cloud services.

Although we estimate the probability of occurrence of this risk to be unlikely, we cannot completely exclude the possibility that any disruption of our cloud operations could result in a business-critical impact on our reputation, business, financial position, profit, cash flows, and revenue and operating profit target. We classify this risk as a medium risk.

## **Operational Risks**

**Third parties have claimed, and might claim in the future, that we infringe their intellectual property rights, which could lead to damages being awarded against us and limit our ability to use certain technologies in the future.**

We believe that we will increasingly be subject to intellectual property infringement claims as our solution portfolio grows; as we acquire companies with increased use of third-party code including open source code; as we expand into new industries with our offerings, resulting in greater overlap in the functional scope of offerings; and as non-practicing entities that do not design, manufacture, or distribute products increasingly assert intellectual property infringement claims.

Any claims, with or without merit, and negotiations or litigation relating to such claims, could preclude us from utilizing certain technologies in our products, be time-consuming, result in costly litigation, and require us to pay damages to third parties, stop selling or reconfigure our products and, under certain circumstances, pay fines and indemnify our customers, which

could have an adverse effect on our business, financial profile, profit, cash flows, and reputation. They could also require us to enter into royalty and licensing arrangements on terms that are not favorable to us, cause product shipment delays, subject our products to injunctions, require a complete or partial redesign of products, result in delays to our customers' investment decisions, and damage our reputation.

Software includes many components or modules that provide different features and perform different functions. Some of these features or functions may be subject to third-party intellectual property rights. The rights of another party could encompass technical aspects that are similar to one or more technologies in one or more of our products. Intellectual property rights of third parties could preclude us from using certain technologies in our products or require us to enter into royalty and licensing arrangements on unfavorable or expensive terms.

The software industry is making increasing use of open source software in its development work on solutions. We also integrate certain open source software components from third parties into our software. Open source licenses may require that the software code in those components or the software into which they are integrated be freely accessible under open source terms. Third-party claims may require us to make freely accessible under open source terms one of our products or third-party (not SAP) software upon which we depend.

SAP continues to expand our participation in standards organizations and increase the use of such standards in our products. Participation in standards organizations might require the licensing of SAP's intellectual property to contributors to the standard and to all standards implementers, including competitors, on a non-discriminatory basis in accordance with licensing terms defined by standards organizations. Within the software-related standards field, there is a trend toward expanding the scope of licensing obligations and narrowing an intellectual property owner's right to revoke a license if sued by a licensee. In certain situations, limitations on SAP's rights to revoke a license could reduce SAP's ability to assert a patent infringement claim against a third-party. Assertion of patents inadvertently licensed through standards could expose SAP to third-party claims.

Our Legal Compliance and Integrity Office is responsible for constantly assessing and managing risks associated with third-party intellectual property. It works closely with our Global GRC organization. The Legal Compliance and Integrity Office investigates the way we handle intellectual property, sets internal policies, and monitors compliance with these policies.

We consider the probability of this risk materializing to be likely, and that any claims concerning intellectual property rights of third parties, open source requirements, or certain standards could have a business-critical impact on our business, financial

position, profit, cash flows and reputation, as well as on the achievement of our revenue and operating profit target, and could also exacerbate the other risks we describe in this report. We classify this risk as a high risk.

We are named as a defendant in various legal proceedings for alleged intellectual property infringements. For more information and a more detailed report relating to certain of these legal proceedings, see the Notes to the Consolidated Financial Statements, *Note (23)*.

**Claims and lawsuits against us could have an adverse effect on our business, financial position, profit, cash flows, and reputation.**

Claims and lawsuits are brought against us, including claims and lawsuits involving businesses we have acquired. Adverse outcomes to some or all of the claims and lawsuits pending against us might result in the award of significant damages or injunctive relief against us that could hinder our ability to conduct our business and could have an adverse effect on our reputation, business, financial position, profit, and cash flows.

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

We consider the probability of occurrence of this risk to be likely, and cannot exclude its business-critical impact on our reputation, business, financial position, profit, cash flows, and revenue and operating profit target if it were to materialize. We classify this risk as a high risk.

For more information and a more detailed report relating to certain of these legal proceedings, see the Notes to the Consolidated Financial Statements, *Note (23)*.

**We might not acquire and integrate companies effectively or successfully and our strategic alliances might not be successful.**

To expand our business, we acquire businesses, products, and technologies, and we expect to continue to make acquisitions in the future. Over time certain of these acquisitions have increased in size and in strategic importance for SAP. Management negotiation of potential acquisitions and alliances and integration of acquired businesses, products, or technologies demands time, focus, and resources of management and of the workforce. Acquisitions of companies, businesses, and technology expose us to unpredictable operational difficulties, expenditures, and risks. These risks include, among others:

- Selection of the wrong integration model for the acquired company and/or technology
- Failure to properly evaluate the acquired business and its different business and licensing models
- Failure to successfully integrate acquired technologies or solutions into SAP's solution portfolio and strategy in a timely and profitable manner
- Failure to integrate the acquired company's operations across SAP's different cultures, languages, and local protocols, all within the constraints of applicable local laws
- Failure to meet the needs of the acquired company's customers and partners in the combined company
- The diversion of management's time and attention from daily operations
- Loss of key personnel of the acquired business
- Material unknown liabilities and contingent liabilities of acquired companies, including legal, tax, accounting, intellectual property, or other significant liabilities that may not be detected through the acquisition due diligence process
- Legal and regulatory constraints (such as contract obligations, privacy frameworks, and agreements)
- Difficulties in implementing, restoring, or maintaining internal controls, procedures, and policies
- Practices or policies of the acquired company that may be incompatible with our compliance requirements
- An adverse effect on relationships with existing customers, partners, or third-party providers of technology or products
- Difficulties in integrating the acquired company's accounting, HR, and other administrative systems and coordination of the acquired company's research and development (R&D), sales, and marketing functions
- Debt incurrence or significant cash expenditures
- Constraints in enforcing acquired companies' compliance with existing SAP security standards in a timely manner
- Difficulties in customer implementation projects combining technologies and solutions from both SAP and the acquired company

In addition, acquired businesses might not perform as anticipated, resulting in charges for the impairment of goodwill and other intangible assets on our statements of financial position. Such charges may have an adverse effect on our business, financial position, profit, and cash flows. We have entered into, and expect to continue to enter into, alliance arrangements for a variety of purposes, including the development of new products and services. There can be no assurance that any such products or services will be successfully developed or that we will not incur significant unanticipated liabilities in connection with such arrangements. We may not be successful in overcoming these risks and we may therefore not benefit as anticipated from acquisitions or alliances.

We counter these acquisition-related risks with many different methodological and organizational measures. These include



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technical, operational, financial, and legal due diligence on the company or assets to be acquired and a holistic evaluation of material transaction and integration risks. The methods we use depend on the integration scenario. Our integration planning is detailed and standardized, and carried out by a dedicated integration team. We therefore believe we have minimized this risk.

Although we estimate this risk to be unlikely, we cannot completely exclude the possibility that this risk could have a business-critical impact on our business, financial position, profit, cash flows, and revenue and operating profit target. We classify this risk as a medium risk.

**We may not be able to obtain adequate title to, or licenses in, or to enforce, intellectual property.**

Protecting and defending our intellectual property is crucial to our success. We use a variety of means to identify and monitor potential risks and to protect our intellectual property. These include applying for patents, registering trademarks and other marks and copyrights, implementing measures to stop copyright and trademark infringement, entering into licensing, confidentiality, and non-disclosure agreements, and deploying protection technology. Despite our efforts, we might not be able to prevent third parties from obtaining, using, or selling without authorization what we regard as our proprietary technology and information. All of these measures afford only limited protection, and our proprietary rights could be challenged, invalidated, held unenforceable, or otherwise affected. Some intellectual property might be vulnerable to disclosure or misappropriation by employees, partners, or other third parties. Third parties might independently develop technologies that are substantially equivalent or superior to our technology. Finally, third parties might reverse-engineer or otherwise obtain and use technology and information that we regard as proprietary. Accordingly, we might not be able to protect our proprietary rights against unauthorized third-party copying or utilization, which could have an adverse effect on our competitive and financial positions, and result in reduced sales. Any legal action we bring to enforce our proprietary rights could also involve enforcement against a partner or other third party, which may have an adverse effect on our ability, and our customers' ability, to use that partner's or other third parties' products. In addition, the laws and courts of certain countries may not offer effective means to enforce our intellectual property rights. This could have an adverse effect on our reputation, business, financial position, profit, and cash flows.

We rely on a combination of the protections provided by applicable statutory and common law rights, including trade secret, copyright, patent, and trademark laws, license and non-disclosure agreements, and technical measures to establish and protect our proprietary rights in our products. We have established various internal programs, such as internal policies, processes, and monitoring, to assess and manage the risks

associated with standards organizations, open source, and third-party intellectual property.

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

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

We estimate the probability of this risk occurring as likely, and that it could have a business-critical impact on our reputation, business, financial position, profit, cash flows, and revenue and operating profit target. We classify this risk as a high risk.

**SAP's business strategy focuses on certain business models that are highly dependent on a working cyberspace. A cybersecurity breach could have an adverse effect on our customers, our reputation, and our business.**

The key cybersecurity risks currently applicable to us include state-driven economic espionage as well as competitor-driven industrial espionage, and criminal activities including, but not limited to, cyberattacks and "mega breaches" against cloud services and hosted on-premise software. This might result in, for example, disclosure of confidential information and intellectual property, defective products, production downtimes, supply shortages, and compromised data (including personal data). A failure of our cybersecurity measures could impact our compliance with legal demands (for example, Sarbanes-Oxley Act, Payment Card Industry Data Security Standard, data privacy) and expose our business operations as well as service delivery to the described risks, for example, virtual attack, disruption, damage, and/or unauthorized access. Additionally, we could be subject to recovery costs, for example, as well as significant contractual and legal claims by customers, partners, authorities, and third-party service providers for damages against us, which could have an adverse effect on our reputation, business, financial position, profit, and cash flows.

To address the increasing cybersecurity threats, we are continuously adapting and modifying our security procedures. We have multiple security measures in place, such as technical IT security measures, identity and access management, and mandatory security and compliance training. In addition, our security governance model clearly defines security management accountabilities for all security areas regarding product security and corporate security, which enables us to respond quickly to identified cybersecurity risks. In 2015, we have established a global security function as well as an independent security audit

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department within the Corporate Audit organization to appropriately address potential security threats.

Although we still consider the occurrence of this risk to be unlikely, we cannot completely exclude the possibility that this risk could have a business-critical impact on our business, financial position, profit, cash flows, and reputation as well as revenue and operating profit target. We classify this risk as a medium risk.

**We may not be able to protect our critical information and assets or to safeguard our business operations against disruption.**

SAP is highly dependent on the exchange of a wide range of information across our global operations and on the availability of our infrastructure. With regards to our physical environment, we face several key security risks such as industrial and/or economic espionage, serious and organized crime, and other illegal activities, as well as violent extremism and terrorism. We might be endangered by threats including, but not limited to, social engineering, misuse, or theft of information or assets, or damage to assets by trespassers in our facilities or by people who have gained unauthorized physical access to our facilities, systems, or information. These could have an adverse effect on our business, financial profile, profit, and cash flows.

To minimize these risks, we have implemented several technical and organizational measures designed to safeguard our information, IT and facility infrastructure, and other assets. These measures include, for example, physical access control systems at facilities, multilevel access controls, closed-circuit television surveillance, security personnel in all critical areas, and recurring social engineering tests for SAP premises and data centers. Access to information and information systems is controlled using authorization concepts. Managers and employees are regularly sensitized to the issues and given mandatory security and compliance training. We keep these measures under continuous review to mitigate current threats.

Although we estimate the probability of occurrence of this risk to be unlikely, we cannot completely exclude the possibility that any misuse, theft, or breach of security could have a major impact on our business, financial position, profit, and cash flows as well as on our revenue and operating profit target. Due to our strategic transition into cloud business operations, we classify this increased risk as a medium risk.

**Our insurance coverage might not be sufficient and we might be subject to uninsured losses.**

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

outside the scope, of coverage of our insurance and that may limit or prevent indemnification under our insurance policies. In addition, we might not be able to maintain adequate insurance coverage on commercially reasonable terms in the future. Further, certain categories of risks are currently not insurable at reasonable cost, which could have an adverse effect on our business, financial position, profit, and cash flows. Finally, there can be no assurance of the financial ability of the insurance companies to meet their claim payment obligations.

In view of the scope of our insurance coverage and our selection of insurers, and because we keep our insurance programs under constant review, we believe that the likelihood of this risk materializing is remote.

However, we cannot exclude the possibility of a business-critical impact on our business, financial position, profit, cash flows, and operating profit target if the risk were to occur. We classify this risk as a medium risk.

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

Through Sapphire Ventures (formerly SAP Ventures), our consolidated venture investment funds, we plan to continue investing in new and promising technology businesses. Many such investments initially generate net losses and require additional expenditures from their investors. Changes to planned business operations have, in the past affected, and may in the future affect, the performance of companies in which Sapphire Ventures holds investments, and that could have an adverse effect on the value of our investments in Sapphire Ventures, which could have an adverse effect on our business, financial position, profit, and cash flows. Furthermore, tax deductibility of capital losses and impairment in connection with equity securities are often restricted and could therefore have an adverse effect on our effective tax rate.

To address this risk, Sapphire Ventures diversifies its portfolio and manages our investments actively. In addition, our venture capital activities have a limited scope.

We believe that the likelihood of this risk materializing is remote and that if the risk were to occur, its potential impact on our business, financial position, profit, cash flows, and operating profit target would be minor. We classify this risk as a low risk.

**Consolidated Risk Profile**

SAP consolidates and aggregates all risks reported by the different business units and functions following our risk management policy, monitored by a Group-wide risk management governance function.

In 2015, we recognized only minor changes in the percentages of all reported risks categorized as “high” or “medium” in our risk-level matrix. The number of risks categorized as “high”

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accounted for 11% of all reported risks, while the risks categorized as “medium” accounted for 68% of all risks reported in the *Risk Factors* section.

In our view, considering their likelihood of occurrence and impact level, the risks described in our aggregated risk report do not individually or cumulatively threaten our ability to continue as a going concern. Management remains confident that the Group's earnings strength forms a solid basis for our future business development and provides the necessary resource to pursue the opportunities available to the Group. Because of our strong position in the market, our technological leadership, our highly motivated employees, and our structured processes for early risk identification, we are confident that we can continue to successfully counter the challenges arising from the risks in our risk profile in 2016.

# Expected Developments and Opportunities

## FUTURE TRENDS IN THE GLOBAL ECONOMY

In its most recent report, the European Central Bank (ECB) forecasts moderate growth in the world economy and it expects that this growth will vary across regions and countries in 2016. It foresees more favorable prospects for advanced economies than for emerging markets and developing economies. Geopolitical risks, especially of heightened tensions in the Middle East, could undermine global economic performance, the ECB warns.

In the Europe, Middle East, and Africa (EMEA) region, the ECB expects the euro-area economy to recover slightly more rapidly in 2016 than in the previous year. It suggests that low oil prices, increased publicsector spending on assistance for refugees, and its own monetary measures may encourage that acceleration. In Central and Eastern Europe, the ECB expects economic activity to remain stable but for performance to vary from country to country. The European Union's structural funds and strong consumer spending may be principal factors behind such growth. In Russia, on the other hand, the economic situation is expected to remain difficult. The ECB expects further cuts in public spending as a consequence of declining oil revenue.

The ECB's forecasts for 2016 for a number of major countries in the Americas region are cautious. For the United States, the ECB expects that economic growth may slow following the Federal Reserve's move on interest rates in December 2015. The ECB expects political uncertainty, a tightening of monetary policy, and more restrictive financing conditions to continue to weigh on Brazil's economy.

For the Asia Pacific Japan (APJ) region, the ECB expects that wage increases and low oil prices will improve consumer spending in Japan. Japan's exports should also pick up. For China, though, the ECB expects that economic growth will continue to slow following the refocusing of its economy. It

believes that the prospects for India's economy are positive in 2016.

### Economic Trends – Year-Over-Year GDP Growth

| Percent                                       | 2014e      | 2015p      | 2016p      |
|-----------------------------------------------|------------|------------|------------|
| <b>World</b>                                  | <b>3.4</b> | <b>3.1</b> | <b>3.4</b> |
| Advanced economies                            | 1.8        | 1.9        | 2.1        |
| Developing and emerging economies             | 4.6        | 4.0        | 4.3        |
| <b>Europe, Middle East, and Africa (EMEA)</b> |            |            |            |
| Euro area                                     | 0.9        | 1.5        | 1.7        |
| Germany                                       | 1.6        | 1.5        | 1.7        |
| Central and Eastern Europe                    | 2.8        | 3.4        | 3.1        |
| Middle East and North Africa                  | 2.8        | 2.5        | 3.6        |
| Sub-Saharan Africa                            | 5.0        | 3.5        | 4.0        |
| <b>Americas</b>                               |            |            |            |
| United States                                 | 2.4        | 2.5        | 2.6        |
| Canada                                        | 2.5        | 1.2        | 1.7        |
| Central and South America, Caribbean          | 1.3        | -0.3       | -0.3       |
| <b>Asia Pacific Japan (APJ)</b>               |            |            |            |
| Japan                                         | 0.0        | 0.6        | 1.0        |
| Asian developing economies                    | 6.8        | 6.6        | 6.3        |
| China                                         | 7.3        | 6.9        | 6.3        |

e = estimate; p = projection

Source: International Monetary Fund (IMF), World Economic Outlook Update January 2016, Subdued Demand, Diminished Prospects, as of January 19, 2016, p. 6.

## IT MARKET: THE OUTLOOK FOR 2016

The worldwide IT market is at the dawn of a new era, according to U.S. market research firm IDC. It expects IT market growth to decline in a number of emerging economies, notably Brazil, China, and Russia. For a decade, these countries were the driving force in all segments of the global IT market while the advanced economies were already focusing on the transition from traditional technologies to innovations such as cloud and mobile computing. IDC expects that the growth in traditional IT will also slow in the emerging markets and developing economies in the years ahead. It believes that cloud, mobile, and Big Data will offer the main opportunities for growth. In view of that prediction, IDC expects the worldwide IT market to grow just 2.8% in 2016. Hardware spending is expected to increase by about 1%, and software spending by almost 7% (mainly due to software-as-a-service and platform-as-a-service solutions).

In the Europe, Middle East, and Africa (EMEA) region, IDC expects overall IT market growth to decelerate to 2% in 2016. Notably, the IT market in Western Europe is expected to grow just 1% to 2% in the coming years. The IT market in Germany is not expected to grow much above these rates either, according to IDC. The institute believes that IT spending in Russia might recover as early as 2016 and grow 6% as a result of short-term government stimulus measures.

IDC expects the Americas region IT spending to increase 3.7% in 2016. It believes the IT market in the United States will grow at a similar rate and that, with 7% growth, the software segment will again be the fastest to expand there. For Brazil, IDC expects that the government will pursue a strict program of economic reform in the next few years, which could slow growth in the IT market to a rate of 3% or 4%. IDC forecasts that the IT market in Mexico will also grow by about 3% annually in the next few years.

In the Asia Pacific Japan (APJ) region, IDC believes growth in the IT market might reach 2.5%. However, growth rates again are expected to vary from country to country. IDC expects the IT market in Japan will grow by about 3% in 2016. It anticipates that China's IT market will expand only in the low to middle single-digit percentage range in the years ahead. The IT market in India, on the other hand, might continue to grow by rates at or above 10% a year, according to IDC.

## Trends in the IT Market – Increased IT Spending Year-Over-Year

| Percent                                       | 2014e | 2015p | 2016p |
|-----------------------------------------------|-------|-------|-------|
| <b>World</b>                                  |       |       |       |
| Total IT                                      | 4.5   | 4.9   | 2.8   |
| Hardware                                      | 5.2   | 5.5   | 1.1   |
| Packaged software                             | 5.6   | 6.8   | 6.8   |
| Applications                                  | 6.9   | 7.3   | 7.1   |
| IT services                                   | 3.0   | 2.8   | 3.0   |
| <b>Europe, Middle East, and Africa (EMEA)</b> |       |       |       |
| Total IT                                      | 3.9   | 4.6   | 2.0   |
| Packaged software                             | 4.0   | 4.8   | 5.2   |
| Applications                                  | 4.5   | 5.4   | 5.6   |
| IT services                                   | 2.2   | 1.9   | 2.6   |
| <b>Americas</b>                               |       |       |       |
| Total IT                                      | 4.2   | 4.6   | 3.7   |
| Packaged software                             | 6.8   | 8.4   | 7.3   |
| Applications                                  | 8.5   | 8.9   | 7.8   |
| IT services                                   | 2.8   | 2.8   | 2.6   |
| <b>Asia Pacific Japan (APJ)</b>               |       |       |       |
| Total IT                                      | 5.9   | 5.9   | 2.5   |
| Packaged software                             | 4.5   | 4.9   | 8.0   |
| Applications                                  | 5.6   | 5.1   | 7.7   |
| IT services                                   | 5.3   | 4.6   | 4.6   |

e = estimate, p = projection

Source: IDC Worldwide Black Book Pivot V3.1, 2015

## IMPACT ON SAP

SAP expects to outperform the global economy and the IT industry again in 2016 in terms of revenue growth.

Our 2015 results validate our strategy of innovating across the core, the cloud, and business networks to help our customers become true digital enterprises.

Our innovation cycle for SAP S/4HANA is well underway and the completeness of our vision in the cloud has distinguished SAP from both legacy players and point solution providers. We have beaten our guidance for 2015 on cloud and software as well as on operating income.

In 2015, we have transformed our Company and made it leaner by shifting investments from non-core activities to strategic growth areas enabling us to capture the growth opportunities in the market.

We are well-positioned for the future as reflected in the increase of our ambition for 2017.

We plan to continue to invest in countries in which we expect significant growth, helping us reach our ambitious 2016 outlook targets and medium-term aspirations for 2017 and 2020.

We are confident we can achieve our medium-term targets for 2017 and 2020, assuming that the economic environment and IT industry develop as currently forecasted. Balanced in terms of regions as well as industries, we are well-positioned with our product offering to offset smaller individual fluctuations in the global economy and IT market.

A comparison of our business outlook with forecasts for the global economy and IT industry shows that we can be successful even in a tough economic environment and will further strengthen our position as the market leader of enterprise application software.

## OPERATIONAL TARGETS FOR 2016 (NON-IFRS)

### Revenue and Operating Profit Outlook

We are providing the following outlook for the full-year 2016:

- Based on the continued strong momentum in SAP's cloud business the Company expects full year 2016 non-IFRS cloud subscriptions and support revenue to be in a range of €2.95 billion to €3.05 billion at constant currencies (2015: €2.30 billion). The upper end of this range represents a growth rate of 33% at constant currencies.
- SAP expects full year 2016 non-IFRS cloud and software revenue to increase by 6% to 8% at constant currencies (2015: €17.23 billion).
- SAP expects full-year 2016 non-IFRS operating profit to be in a range of €6.4 billion to €6.7 billion at constant currencies (2015: €6.35 billion).

We expect our headcount to experience an increase similar to the increase in 2015.

While our full-year 2016 business outlook is at constant currencies, actual currency reported figures are expected to continue to be impacted by currency exchange rate fluctuations.

We expect that non-IFRS total revenue will continue to depend largely on the revenue from cloud and software. However, the revenue growth we expect from this is below the outlook provided for non-IFRS cloud subscriptions and support revenue. We expect the software license revenue in 2016 to be at the same level as in 2015 with SAP gaining market share against our main on-premise license competitors.

We expect that most of the total revenue growth (non-IFRS) will come from the Applications, Technology, and Services segment, equally distributed into software licenses and support revenue growth and cloud subscriptions and support revenue growth. Nevertheless, we anticipate our SAP Business Network segment will outpace the Applications, Technology, and Services

segment with a significantly higher total revenue growth rate at lower absolute levels. As such, we expect we will seize a huge market opportunity with continued strong mid- and long-term growth potential.

We continuously strive for profit expansion in all our segments, therefore, we expect an increase in both segments' profits. The vast majority of the profit expansion comes from our Applications, Technology, and Services segment. Overall, in the SAP Business Network segment, operating profit growth is higher than in the Applications, Technology, and Services segment, but at significantly lower volume.

Across all segments we expect our 2016 non-IFRS cloud subscriptions and support gross margin to be at least stable or to slightly increase compared to 2015. For SAP's managed-cloud offerings, we still expect negative margins in 2016 which by 2017 are expected to break even.

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

### Non-IFRS Measures

| € millions                   | Estimated Amounts for 2016 | Actual Amounts for 2015 |
|------------------------------|----------------------------|-------------------------|
| Revenue adjustments          | < 20                       | 11                      |
| Share-based payment expenses | 590 to 630                 | 724                     |
| Acquisition-related charges  | 690 to 740                 | 738                     |
| Restructuring                | 40 to 60                   | 621                     |

We do not expect any Company-wide restructuring programs in 2016.

The Company expects a full-year 2016 effective tax rate (IFRS) of 22.5% to 23.5% (2015: 23.4%) and an effective tax rate (non-IFRS) of 24.5% to 25.5% (2015: 26.1%).

### Goals for Liquidity and Finance

On December 31, 2015, we had a negative net liquidity. We believe that our liquid assets combined with our undrawn credit facilities are sufficient to meet our present operating financing needs also in 2016 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 2016, we expect a positive development of our operating cash flow mainly due to lower restructuring related payments.

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We intend to repay a US\$600 million U.S. private placement when it matures in June. Additionally, we are planning to further repay our outstanding €1.25 billion bank loan.

By the time of this report, we have no concrete plans for future share buybacks.

Based on this planning, at this point in time we expect we will noticeably reduce our net debt in 2016 and gradually return to a positive net liquidity in subsequent years.

### **Investment Goals**

Our planned capital expenditures for 2016 and 2017, other than from business combinations, mainly comprise the construction activities described in the *Assets (IFRS)* section of this report. We expect investments from these activities of approximately €450 million during the next two years. These investments can be covered in full by operating cash flow.

SAP does not plan any significant acquisitions in 2016 and 2017 but will rather focus on organic growth.

### **Proposed Dividend**

We intend to continue our dividend policy in 2017 as well, which is to pay a dividend totaling more than 35% of the prior year's profit after tax.

### **Premises on Which Our Outlook Is Based**

In preparing our outlook guidance, 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 effects from major acquisitions in 2016 and 2017.

### **OUTLOOK FOR SAP SE**

The primary source of revenue for SAP SE is the license fees it charges subsidiaries for the right to market and maintain SAP software solutions. Consequently, the performance of SAP SE in operating terms is closely tied to the cloud and software revenue of the SAP Group.

In December 2015, SAP SE concluded license agreements with affiliated companies granting SAP SE as of January 2016 worldwide distribution and utilization rights of IP held by these companies. This mainly concerns the IP rights of our acquisitions from the passed years: Ariba, Concur, Fieldglass, SuccessFactors, and Sybase. The planned centralization of the IP rights at SAP SE pursues the goal of simplifying enterprise processes as well as of steering future strategic development decisions more efficiently and more directly.

Against this background and due to the rise in cloud and software anticipated for the SAP Group in 2016 of around 6% to

8% (non-IFRS, at constant currencies), we expect a very strong growth of SAP SE's product revenue at constant currencies.

As the granted IP rights are accompanied by royalty payments and IP-related research and development costs, we also expect the operating expenses to rise noticeably. Thus, we anticipate the operating result of SAP SE to be similar to 2015, provided SAP Group achieves its targets set for 2016 and there are no non-recurring negative effects.

Provided the SAP Group continues to hit its revenue and profit targets, we expect SAP SE to sustain revenue and operating income growth into the medium term.

We believe SAP SE, the parent company of the SAP Group, will receive investment income in the form of profit transfers and dividends again in the future. The growth we expect from the SAP Group should have a positive effect on SAP SE investment income.

The outlook projections for the SAP Group in respect of liquidity, finance, investment, and dividend are equally applicable to SAP SE.

Among the assumptions underlying this outlook are those presented above concerning the economy and our expectations for the performance of the SAP Group.

### **MEDIUM-TERM PROSPECTS**

In this section, all discussion of the medium-term prospects is based exclusively on non-IFRS measures.

We expect to grow our more predictable revenue business while steadily increasing operating profit. Our strategic objectives are focused primarily on the following financial and non-financial objectives: growth, profitability, customer loyalty, and employee engagement.

We are raising our 2017 ambition compared to our outlook previously communicated in 2015 to reflect both the current exchange rate environment and our excellent business momentum.

Assuming a stable exchange rate environment going forward, SAP now expects non-IFRS cloud subscriptions and support revenue in a range of €3.8 billion to €4.0 billion in 2017. The upper end of this range represents a 2015 to 2017 compound annual growth rate (CAGR) of 32%. Non-IFRS total revenue is expected to be in a range of €23.0 billion to €23.5 billion in 2017. We now expect our 2017 non-IFRS operating profit to be in a range of €6.7 billion to €7.0 billion.

We continue to anticipate that the fast-growing cloud business along with growth in support revenue will drive a higher share of more predictable revenue. Given the current software license revenue momentum, we now expect the total of cloud

subscriptions and support revenue and software support revenue to be in a range of 63% to 65% of total revenue in 2017.

By 2017, we continue to expect the rapidly growing cloud subscriptions and support revenue to be close to software license revenue and they are expected to exceed software license revenue in 2018. At that time, SAP expects to reach a scale in its cloud business that will clear the way for accelerated operating profit expansion.

In 2015, we communicated our long term, high-level ambitions for the year 2020. We are not adjusting this long-term ambition at this time. Thus, we continue to strive for reaching the following by 2020:

- €7.5 billion to €8.0 billion non-IFRS cloud subscriptions and support revenue
- €26 billion to €28 billion non-IFRS total revenue
- €8.0 billion to €9.0 billion non-IFRS operating profit
- 70% to 75% share of more predictable revenue (defined as the total of cloud subscriptions and support revenue and software support revenue)

By 2020, we expect our business network offering to generate the largest portion of the cloud subscriptions and support revenue. The share of this portion of revenue is expected to be followed by our public cloud offerings. Both of these offerings are expected to each generate, in 2020, cloud subscriptions and support revenues that are significantly higher than the cloud subscriptions and support revenue generated from our private cloud offerings.

We also strive for significantly improving, over the next few years, the profitability of our cloud business. We expect that the flat or slightly increasing cloud subscriptions and support margin development in 2016 will be followed by further margin increases in the following years until we reach our envisioned long-term cloud subscriptions and support margin targets in 2020. These will continue to increase at different rates: We expect the gross margin from our public cloud to reach approximately 80% (2015: approximately 70%) in 2020. Likewise, we expect our business network gross margin to reach approximately 80% (2015: approximately 75%) in 2020. The gross margin for our private cloud is expected to break even in 2016 and reach about 40% in 2020.

In a mature state of our cloud business, we expect that approximately 80% of the cloud subscription business will be generated from existing contracts and their renewals and approximately 20% from new business. This is compared to approximately 60% from existing contracts and renewals and 40% from new business in the fast-growth phase of our cloud business.

We also communicated in 2015 that we aim at further improving the profitability of our on-premise software business. It is our

target, from that point in time, to grow, until 2020, our gross profit from software licenses and support by a compound annual growth rate of approximately 3%, leading to an improvement in the software licenses and support gross margin of approximately 2 percentage points.

#### **NON-FINANCIAL GOALS 2016**

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

We believe it is essential that our employees are engaged, drive our success, and support our strategy. We remain committed to achieving an 82% employee engagement score in 2016 (2015: 81%).

Further, our customers' satisfaction with the solutions we offer is very important to us. We want our customers not only to be satisfied, but also to see us as a trusted partner for innovation. We measure this customer loyalty metric using the Customer Net Promoter Score (NPS). For 2016, we aim to achieve a Customer NPS of 25% (2015: 22.4%).

#### **OPPORTUNITIES**

Our customers rely on SAP as the trusted partner in their business transformation, not only for providing in-memory technology, standardized on-premise and cloud solutions, and access to business networks, but also for helping them drive new business outcomes and enabling business model innovations. To meet these expectations, we must grow consistently and accelerate the pace of our own business transformation by exploiting new opportunities.

We have established a framework for opportunity management by evaluating and analyzing four key areas: current markets, competitive landscapes, external scenarios, and technological trends. Additionally, we have delved into customer and product segmentation, growth drivers, and industry-specific success factors. Based on these combined insights, our Executive Board defines our market strategies. Our shareholder value relies heavily upon a fine balance of risk mitigation and value-driven opportunities. Therefore, our strong governance model ensures that decisions are based on return, investment required, and risk mitigation. We rely on the talent and resources within SAP and our entire ecosystem.

As far as opportunities are likely to occur, we have incorporated them into our business plans, our outlook for 2016, and our medium-term prospects outlined in this report. Therefore, the following section focuses on future trends or events that might result in an uplift of our outlook and medium-term prospects, if they develop better than we have anticipated in our forecasts.

SAP SE is the parent company of the SAP Group and earns most of its revenue from software license fees, subscriptions fees, and dividends paid by affiliates. Consequently, the opportunities described below also apply – directly or indirectly – to SAP SE.



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### **Opportunities from Economic Conditions**

Economic conditions have a clear influence on our business, financial position, profit, and cash flows. Should the global economy experience a more sustained growth than is reflected in our plans today, our revenue and profit may exceed our current outlook and medium-term prospects.

Our midterm planning is based on unchanged market conditions in emerging markets. Should their stability increase again, this would be an upside to our midterm planning.

For more information about future trends in the global economy and the IT market outlook as well as their potential influence on SAP, see the *Expected Developments and Opportunities* section.

### **Opportunities from Research and Development Traction**

Our continued growth through innovation is based on our ability to leverage research and development resources effectively. We continue to improve our development processes through design thinking and lean methodologies. We are accelerating innovation cycles especially in the area of cloud solutions and engaging more closely with our customers to ensure accuracy and success.

While speed is a key strength, we also focus on ease of adoption and providing compelling returns. This allows our customers to easily consume technologies and software applications with immediate benefits for their businesses. If we make innovations available faster than currently anticipated, or if customers adopt the innovations faster than currently expected, for example, shifting faster to managed clouds for enterprise resource planning, or shifting faster to our new SAP S/4HANA solutions, this could positively impact our revenue, profit, and cash flows, and result in their exceeding our stated outlook and medium-term prospects.

For more information about future opportunities in research and development for SAP, see the *Products, Research & Development, and Services* section as well as the *Expected Developments and Opportunities* section.

### **Opportunities from Our Strategy for Profitable Growth**

SAP strives to generate profitable growth across our portfolio of products, solutions, and services to keep or improve its market position. Our aim is to continue to expand our addressable market to €320 billion in 2020, based on new assets in our SAP Business Network Segment, our new technologies, and the extension of our cloud portfolio.

We see opportunities in growing product and market areas, such as in-memory computing, cloud, mobile, business networks, digital marketing, social media, Big Data, the Internet of Things, and predictive analytics. In addition to organic developments and tuck-in acquisitions, large strategic acquisitions in particular may boost our revenue and profits significantly. For example, the acquisition of Concur significantly strengthens the value

proposition of a business network from SAP by addressing one of the most important enterprise spend categories – travel expenses. Furthermore, SAP seeks to establish new business models and leverage our expanding ecosystem of partners to achieve scale and maximize opportunities.

Our strong assets in applications and analytics, as well as database and technology, continue to offer solid multiyear growth opportunities as we bring innovative technologies with simplified consumption to our installed base and continue to add net-new customers. Unexpected portfolio growth may positively impact our revenue, profit, and cash flows, and result in their exceeding our stated outlook and medium-term prospects. Specifically, the SAP HANA platform, cloud offerings, and SAP S/4HANA solutions, could create even more demand than is reflected in our stated outlook and medium-term prospects. Further upside potential is possible by higher than expected renewal rates of our cloud solutions.

For more information about future opportunities for SAP, see the *Strategy and Business Model* section as well as *Expected Developments and Opportunities* section.

### **Opportunities from Our Partner Ecosystem**

SAP continues to grow and develop a global partner ecosystem. To increase market coverage, we want to enhance our portfolio and spur innovation with the specified objective of increasing the partner revenue contribution to SAP's overall revenue target. In addition to strengthening our core, we will leverage our entire ecosystem to drive adoption of SAP HANA, cloud solutions, SAP S/4HANA, and SAP HANA Cloud Platform. This includes strategic partnerships across all areas: third-party software vendors, systems integrators, service providers, and infrastructure providers. As a result, we are creating an ever-stronger setup, where SAP, along with our customers and partners, co-innovate and develop new innovative solutions on top of SAP HANA. Should the business of our partners develop better than currently expected, our indirect sales (partner revenue) could grow stronger than reflected in our outlook and medium-term prospects. This may positively impact our revenue, profit, and cash flows, and result in their exceeding our stated medium-term prospects.

For more information about opportunities arising from our partner ecosystem, see the *Partner Ecosystem* as well as *Expected Developments and Opportunities* sections.

### **Opportunities from Our Employees**

Our employees drive our innovation, are the value to our customers, and consistently promote our growth and profitability. In 2015, we increased the number of full-time employees accompanied with balanced job restructurings to drive our simplification and growth. We anticipate improvements in employee productivity as a result of our continued endeavors in design-thinking principles. As described in the *Employees and Social Investment* section, we constantly

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invest in our talents to increase engagement, collaboration, social innovation, and health.

To ensure continuous innovation and sustained business success, we need to continuously tap into the global talent pool and bring the best and brightest talent to SAP. To do so, we aim to further strengthen our brand perception in the market and optimize our recruiting experience to emphasize our focus on helping the world run better and improving people's lives. Furthermore, we will maximize mobile channels and innovative talent strategies to tap into new talent pools.

Our outlook and medium-term prospects are based on certain assumptions regarding employee turnover and our Business Health Culture Index (as defined in the *Employees and Social Investment* section). Should these develop better than expected there might be an upside to employee productivity and engagement. In turn, this might positively impact our revenue, profit, and cash flows, and result in their exceeding our stated medium-term prospects.

For more information about future opportunities from our employees, see the *Employees and Social Performance* section.

#### **Opportunities from Our Customer Engagement**

SAP goes to market by region, customer segments, line of business, and industry. We evolve and invest in our go-to-market coverage model to effectively sell industry-specific solutions while increasing our engagement with customers. We focus on the dynamic and fast-changing landscape each industry faces as technology evolves.

We offer unique services that support a significant return on investment, and continue to actively look at new opportunities to increase the value we deliver to our customers. In 2015, we closely aligned two main organizations responsible for service and support to the Applications, Technology, and Services segment to increase the benefit for our customers. This could potentially lead to an increased level of customer loyalty and higher renewal rates.

In general, our outlook and medium-term prospects are based on certain assumptions regarding the success of our go-to-market approaches. If the actual go-to-market success exceeds these assumptions, this could positively impact our revenue, profit, and cash flows, and result in their exceeding our stated medium-term prospects.

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# Events after the Reporting Period

We are in the process of preparing the consolidation of intellectual property rights from hybris AG to SAP SE. For more information about this transfer, see *Note (33)*.

The Supervisory Board of SAP SE appointed Stefan Ries and Steve Singh to the SAP Executive Board, with effect from April 1, 2016.

Stefan Ries will continue his role as Chief Human Resources Officer and also take on the role of SAP Labor Relations Director. Steve Singh will continue to lead the SAP Business Network Group.

The Global Managing Board will be dissolved on March 31, 2016.