software AG

2019

ANNUAL REPORT

Key Figures

in € millions (unless otherwise stated)	**2019**	**2018**	**+/– as %**	**+/– as % acc**[1]
Revenue	**890.6**	**865.7**	**3**	**1**
Digital Business Platform (DBP, incl. Cloud & IoT)	474.5	464.7	2	0
of which DBP (excl. Cloud & IoT)	432.2	434.4	–1	–3
of which DBP (Cloud & IoT)	42.3	30.3	39	38
Adabas & Natural (A&N)	228.9	218.3	5	3
Licenses	245.1	249.4	–2	–4
Maintenance	435.0	415.4	5	3
Software as a Service (SaaS)	22.7	17.6	29	27
Percentage of recurring revenue in DBP (incl. Cloud & IoT)	79%			
Bookings in DBP (incl. Cloud & IoT)[2]	307.0			
of which ARR[3] in DBP (excl. Cloud & IoT)[2]	241.1			
of which ARR[3] in DBP (Cloud & IoT)[2]	65.9			
Bookings in A&N[2]	100.8			
Operating EBITA (non-IFRS)	**260.3**	**272.9**	**–5**	
as % of revenue	29.2%	31.5%		
DBP segment earnings	130.6	147.0	–11	
Segment margin as %	27.5 %	31.6 %		
A&N segment earnings	159.8	155.4	3	
Segment margin as %	69.8%	71.2%		
Net income (non-IFRS)	**188.1**	**195.0**	**–4**	
Earnings per share (non-IFRS)[4]	**2.54**	**2.64**	**–4**	
Net cash flow from operating activities	**172.0**	**195.1**	**–12**	
CapEx[5]	–10.0	–11.0		
Repayment of lease liabilities	–16.2			
Free cash flow	**145.8**	**184.1**	**–21**	

Balance sheet	**Dec. 30, 2019**	**Dec. 30, 2018**		
Total assets	**2,116.1**	**2,007.9**	**5**	
Cash and cash equivalents	513.6	462.3	11	
Net cash	217.0	149.0	46	
Employees (full-time equivalents)	**4,948**	**4,763**	**4**	

1 At constant currency
2 Bookings in accordance with new definition as of 2020
3 Annual recurring revenue
4 Based on weighted average shares outstanding (basic) FY 2019: 74.0 mn/FY 2018: 740 mn
5 Cash flow from investing activities adjusted for acquisitions and investments in debt instruments

Due to rounding, some numbers may not add up excactly to the totals given and percentages may not exactly reflect the absolute figures.

Making Living Connections

We began our journey in 1969, the year that technology helped put a person on the moon and the software industry was born. Ever since—and always mindful of the positive impact we must have on the future—we've worked ceaselessly to be independent, inclusive and inventive.

Fair and flexible to work with, we're committed to sustainable progress in making a world of living connections.

By providing the fluid flow of data, we give businesses the power to instantly see, decide and act. We make sure an app-ordered coffee is waiting on the counter to go, an airline schedule gets a family together in the right place at the right time, and wind turbines keep the power supply for communities constant.

We are the pulse that keeps the world living and thriving.

2019 at a Glance

€890.6
million (+3 percent year-on-year)
Total Revenue

+10%
Annual Recurring Revenue
DBP (incl. Cloud & IoT)
(acc)

4,948
Employees
(+4% year-on-year)

+3%
Total Revenue
Adabas & Natural (acc)

29.2%
Operating Profit Margin
(EBITA, non-IFRS)

51.5%
SaaS/Subs as % Bookings
DBP (incl. Cloud & IoT)

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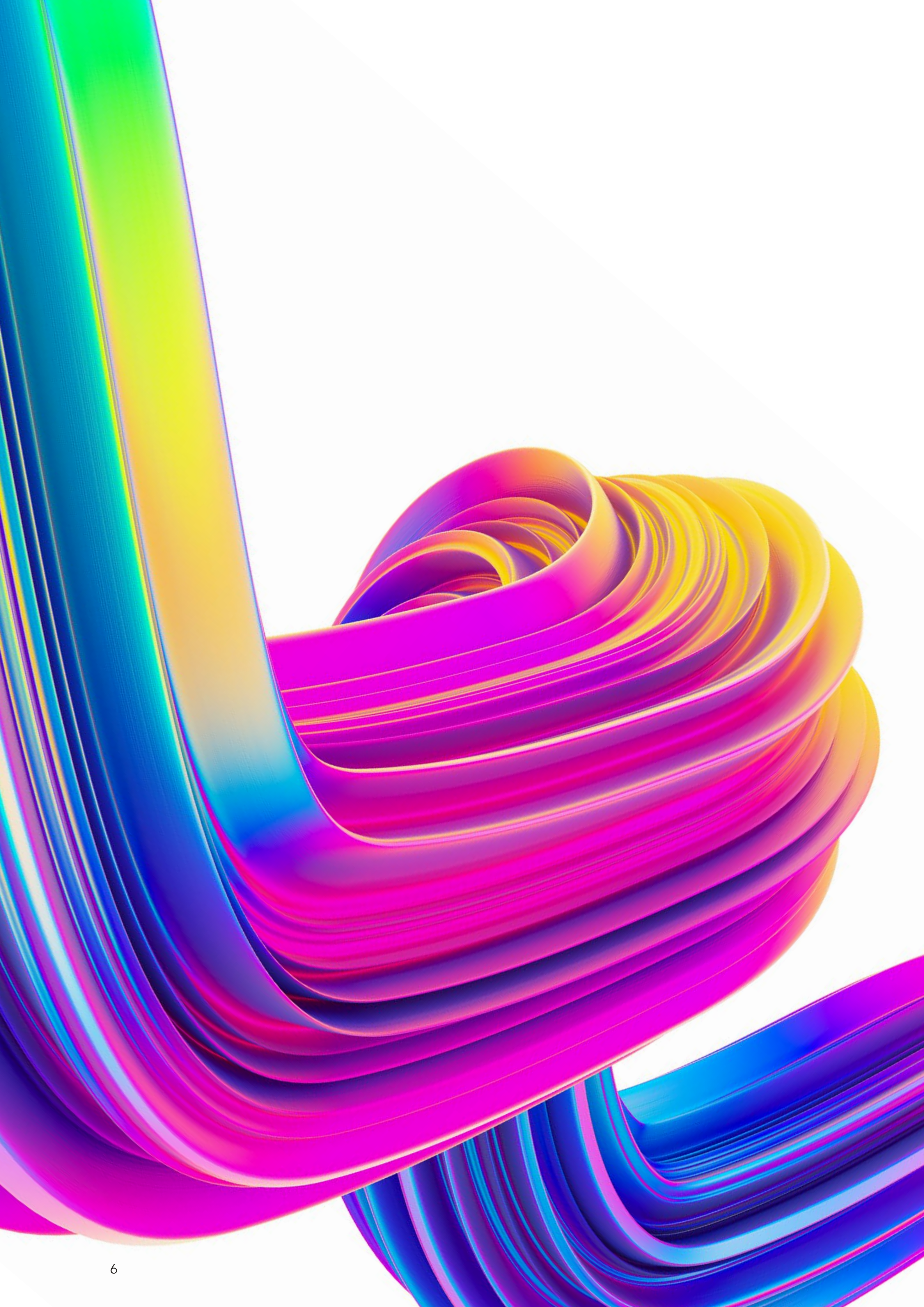
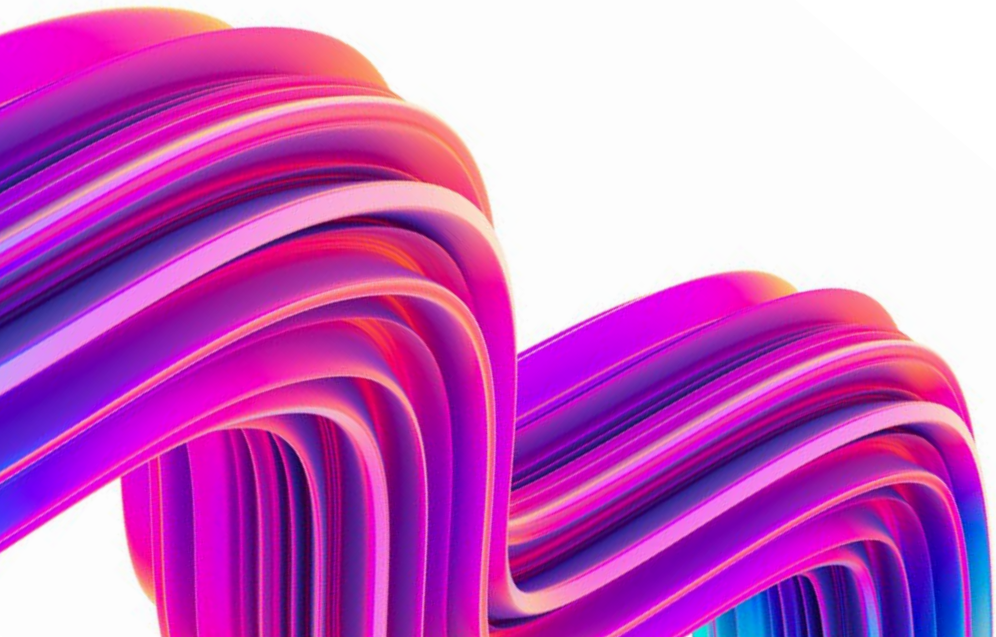


For Our Shareholders



Due to rounding, some numbers may not exactly add up to the totals provided and percentages may not exactly reflect the absolute figures.

Letter from the Management Board

Software AG delivered a solid full-year performance, with revenue broadly in line with expectations against a backdrop of a significant and far-reaching transformation of the business.

Dear Ladies and Gentlemen,
Dear Shareholders,

On behalf of the Management Board, I am pleased to present this Annual Report to you. In 2019, we launched Helix: our plan to transform our Company and create a sustainable, profitable future for Software AG. The progress of our transformation over the past twelve months makes me extremely proud of our team!

Executing Our Multi-Year Transformation

We embarked on our transformation to create sustainable and profitable growth for Software AG and have laid the foundations for future success in 2019. Despite many changes in sales and our shift to a subscription model, Group revenue increased 3 percent in 2019 to total €890.6 million. Product revenue also increased 3 percent to total €702.7 million. We were particularly pleased about the improved revenue mix in our digital and cloud business line (DBP including Cloud and IoT): new subscriptions and SaaS sales grew to represent 21 percent of revenue, with our DBP business (including Cloud and IoT) delivering 51.5 percent of its bookings through subscription and SaaS. Annual recurring revenue in this important and promising business line grew 11 percent, thereby making our business more predictable. Fueled by the Adabas & Natural 2050+ initiative, our Adabas & Natural business line grew 3 percent, hitting the top end of our optimistic full-year guidance.

We invested in transforming the Company in 2019 and laid a strong foundation. This investment had an impact on net income, which was down 6 percent year-on-year at €155.3 million, or €2.09 per share. At €145.8 million, our free cash flow will allow us to return more value to our shareholders in the form of another increase in the dividend, up year-on-year since 2017.

2019 marked the beginning of our strategic transformation based on three pillars: **Focus, Execution** and **Team.** The investments we made in products, go-to-market, subscription, partnerships and in our people and culture have laid strong foundations for growth. Indicators of our transformation's success are steadily improving. We have product clarity, with our products being rated strongly in nine analyst quadrants or waves; our Net Promoter Score (NPS) is at a record high; we brought new cloud innovations to market every single quarter; and increased our development velocity by 37%. We drove double-digit growth in EMEA and globally won 342 new logos against tough competition. In 2019, we expanded and grew our existing partner relationships with ADAMOS, Deutsche Telekom and Siemens. We also signed new partner agreements with Adobe, Microsoft and Dell, and are seeing the first revenue from these partnerships coming through. We invested in people, culture, training and welcomed our new CHRO as a member of the Management Board to reframe our leadership layer, develop talent management, and engage our employee base in fully adopting our transformation.

Building Momentum to Deliver Impact

All signs point towards success. We turned our strategy into a reality in 2019. Now, 2020 is all about building momentum and driving the impact of Helix as it takes shape. To achieve this, we will increase investments in our sales efforts—helping us to reinforce and enhance our presence in key regions. And with strong partners now in place, we will accelerate channel activities in a growing market. We expect these investments to lead to strong bookings growth, as reflected in the 2020 guidance we communicated on Capital Markets Day in February. The decision to invest now in this growth opportunity will have an impact on our 2020 margin. But we believe these investments are necessary to deliver on our medium-term potential.

You will note some changes to our forecasting metrics reflecting the transformation of our business. We will now guide on four KPIs: as always, our non-IFRS EBITA margin, and three that are new. These new metrics will not chart revenue in our three business lines, but bookings—a truer reflection of sales success irrespective of licensing model.

Sharper Focus on Market Opportunity

We are at the center of the digital economy and our product portfolio supports enterprises in successfully managing their digital transformations in key areas. As the Digital Transformation gathers pace, our own transformation inside Software AG has positioned us to take market share, innovate and expand our customer footprint. There are three distinct market opportunities where I believe Software AG can take a substantial lead—and where customers are now making commitments.

- **Truly connected enterprise—**Reliability, quality and consistency are no longer enough; connected customer experience is the key differentiator now. Technologies like IoT, 5G and narrowband-IoT are in the midst of adoption and are challenging businesses to reimagine customer expectations. With our strengths in Internet of Things and Edge combined with Hybrid Integration and Business Transformation, we are ideally positioned to enable these companies to become truly connected enterprises.

- **Hybrid cloud and multi cloud—**Cloud isn't easy or straightforward, and companies face a real challenge as the demand to migrate to cloud grows at a significant pace. A thin, independent integration layer will be critical to success in the hybrid or multi-cloud environment; a layer we know how to provide to simplify and accelerate the move to the cloud.

- **Democratizing data—**Data is the lifeblood of modern enterprise. Organizations need to quickly analyze and learn from that data to respond and stay ahead. We know how to help the business access and use self-serve analytics, machine learning & AI to gain actionable insights. This way the whole business can use data to drive the operational excellence they need to improve their performance.

We began working on successful solutions with large customers and partners like LANXESS, Smart City Dubai and Microsoft in these three areas of market opportunity in 2019.

The cornerstones laid by the Company's founder Dr. Peter Schnell and his principles are still firmly anchored in Software AG's corporate culture today. We believe deeply in responsible and sustainable action. These principles guide our relationships with our customers, our technologies, our partnerships and decisions on investments in our Company—to the benefit of our shareholders and society as a whole. Our new brand story reflects that and our place in this world of living connections. We help make your world a better place, connecting people, places, things and technology—making those living connections a reality.

Our transformation continues, and I would like to thank you for your trust and loyalty in joining us on this journey. The market potential, combined with the foundation we laid in 2019 and the further investments we are going to make, gives me real confidence that we will break through the €1 billion revenue mark in 2023.

Yours Sincerely

Sanjay Brahmawar
Chief Executive Officer

Sanjay Brahmawar
Chief Executive Officer (CEO)

Dr. Elke Frank
Chief Human Resources Officer (CHRO) & Member of the Management Board for Legal and IT

John Schweitzer
Chief Revenue Officer (CRO)

Dr. Stefan Sigg
Chief Product Officer (CPO)

Arnd Zinnhardt
Chief Financial Officer (CFO)

For more information on the members of the Management Board, please refer to Note [38] in the Notes to the Consolidated Financial Statements. p. 219

Software AG's Share

The Year on the Stock Market

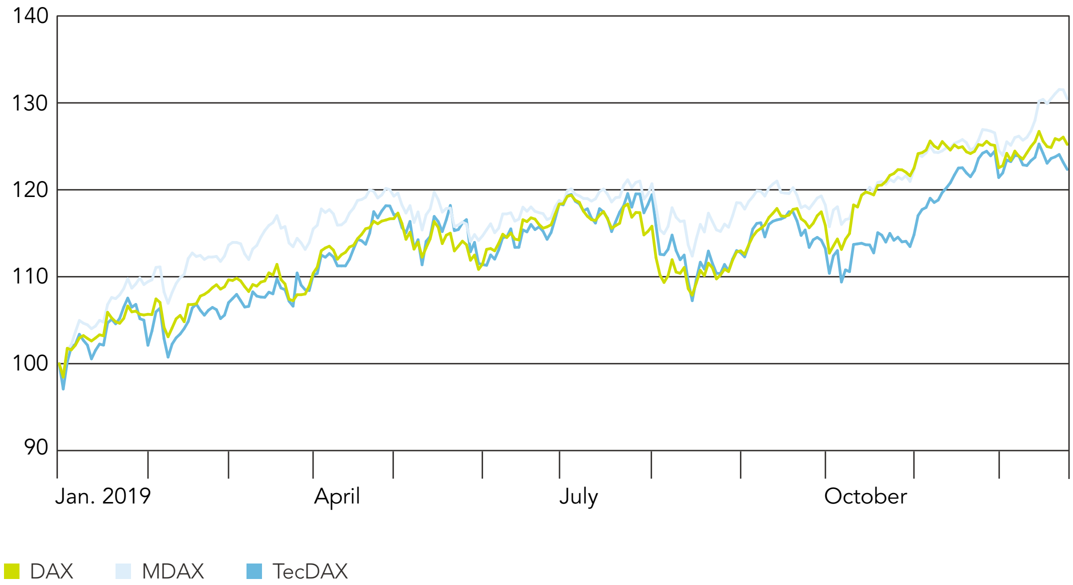
Stock indexes recover after a weak 2018

After a weak 2018, Germany's DAX benchmark index opened 2019 at 10,478 points, dropping quickly to its year low of 10,417 on January 3, 2019. The DAX peaked for the year on December 16, 2019 at 13,408 points. It finished 2019 at 13,249 points. After having suffered its greatest losses in 2018 since the global financial crisis of 2008, the DAX concluded 2019 on an encouraging note with a total gain of more than 25 percent.

The MDAX, where Software AG's shares are listed, performed similarly. Starting at 21,700 points, it fell to its low for the year of 21,398 on the second day of trading. The MDAX showed a jolt of energy at the end of the final day of trading and concluded the year at 28,313 points. This reflects more than 30 percent growth for the year.

The TecDAX, Germany's index for technology companies, also booked a successful year. This index only fell below its 2019 starting point of 2,465 points on one single day. It ended the year at 3,015 points, marking an encouraging gain of 22.3 percent.

Stock Index Performance Comparison Jan. 2, 2019–Dec. 30, 2019 (indexed)



Software AG's share reflects transformation

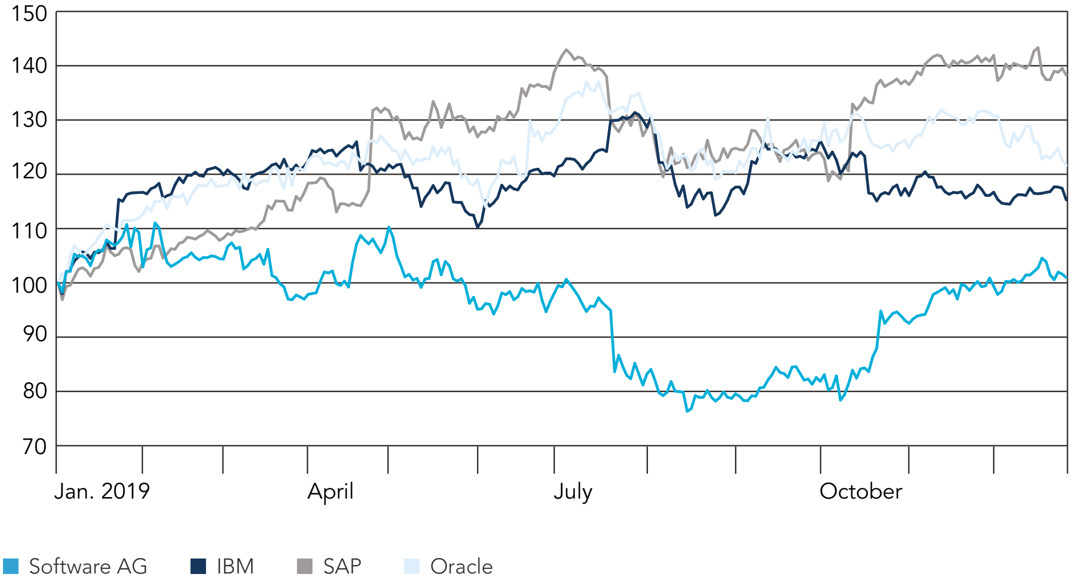
After opening the fiscal year on January 2, 2019 at €30.80, Software AG's share price continued on a moderate upward path. The release of Software AG's preliminary fourth-quarter results as well as the kick-off and presentation of its new strategy at Capital Markets Day in London drove the share price up to its year high of €34.20.

It receded over the course of the year. Due to restructuring measures in the North American sales organization, Software AG's management adjusted its full-year guidance for the Digital Business Platform (DBP) business line in July 2019. This led to a drop in share price to the year low of €23.51. Following the release of its third-quarter results and extensive communication with capital markets, the market exhibited a significantly greater estimation for the potential of Software AG's multi-year transformation. This caused Software AG shares to end trading for 2019 at €31.10.

Software AG's market capitalization was €2.3 billion at the end of the 2019 fiscal year.

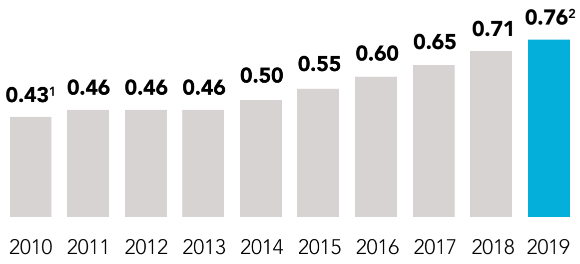
Software AG again exceeded the German stock market's prime standard liquidity requirement in 2019 with an XETRA average daily trading volume of 215,039.

Software AG Share Price Performance Compared to Peer Group Jan. 2, 2019-Dec. 30, 2019 (indexed)



Dividend Development Since 2010

in € per share



[1] Adjusted after 3:1 stock split in May 2011, rounded
[2] Dividend proposal, subject to shareholder approval in May 2020

Key Figures

	2019	2018
Closing price in €	31.10	31.59
Year high in €	34.20	48.69
Year low in €	23.51	30.83
Total number of shares at year end	73,979,889	73,979,889
Treasury shares held by Software AG	20,111	20,111
Market capitalization at year end in € millions	2,301.4	2,337.7
Free float as %	66.27	66.27

Consistent dividend policy

Software AG's Annual Shareholders' Meeting took place on May 28, 2019 in Darmstadt, Germany.

Those shareholders in attendance accounted for approximately 65 percent of the Company's voting rights and shared the Supervisory and Management Boards' optimism regarding the new strategy. All agenda items proposed by Management were met with strong approval.

A further increase was approved for a record-level dividend of €0.71 per dividend-bearing share for fiscal 2018. This was the fifth consecutive dividend increase. The Company's total dividend payout increased to a record-breaking €52.5 million. Based on the closing share price (Dec. 30, 2018: €31.59), this corresponds to a dividend yield of 2.25 percent (2018: 1.39 percent).

Software AG will be able to continue its value-driven dividend policy for the concluded 2019 fiscal year. The Management Board and Supervisory Board will propose a dividend in the amount of €0.76 for fiscal 2019 to the 2020 Annual Shareholders' Meeting. The treasury shares held by Software AG are not entitled to a dividend.

Treasury shares

As of December 31, 2019, Software AG held 20,111 treasury shares representing 0.03 percent of its share capital.

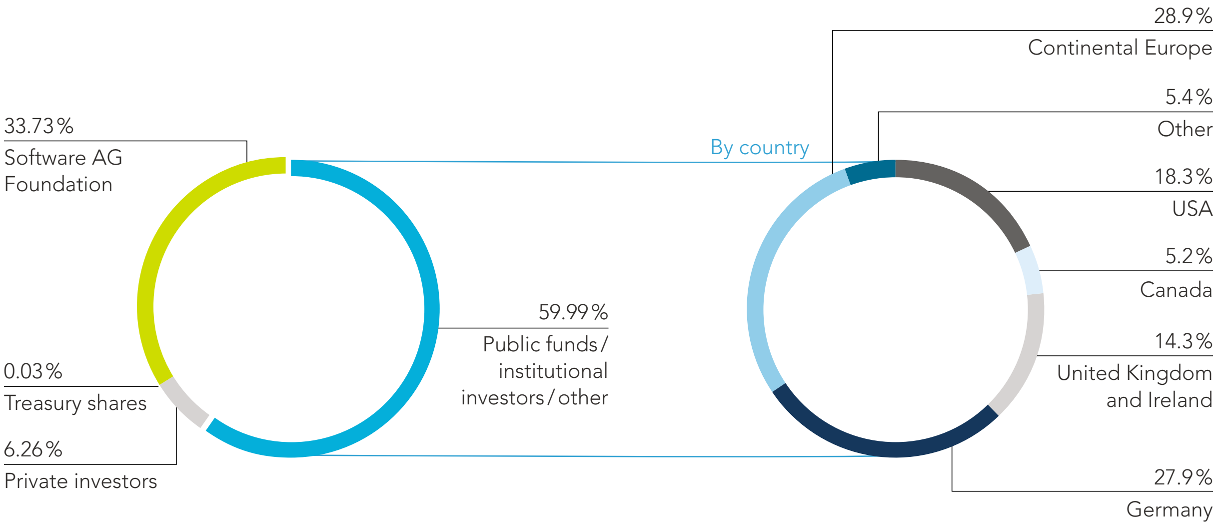
Shareholder structure

The Software AG Foundation remains Software AG's largest shareholder and thus a key anchor investor with 33.7 percent of its shares. The Software AG Foundation is an independent, non-profit organization under civil law based in Darmstadt, Germany. It is committed to projects in support of education, children, the disabled and the elderly. The foundation also sponsors a wide variety of scientific and environmental fields.

After deducting the balance held by the Software AG Foundation and the Company's own treasury shares, Software AG's free float is approximately 66 percent. This is calculated as defined by the Deutsche Börse as the percentage of a stock corporation's shares that are not held by long-term investors and can thus be traded freely on the stock market.

A regional analysis of the identified free float shows that 24 percent is held in Germany, 10 percent in the USA, 7 percent in the U.K. and 7 percent in Scandinavia. A further 8 percent of Software AG's total equity capital is managed in France and Benelux, 3 percent in Canada and 1 percent in Switzerland.

Shareholder Structure



* Source: IPREO, December 2019

Onging dialog with investors

In addition to engaging in an ongoing dialog with existing shareholders, active investor relations work also involves adapting the investor base in targeted ways. Addressing specific potential investors is a challenging aspect of investor relations work and requires the precise analysis of financial markets. Based on its new growth strategy, Software AG's interest and investor communications shifted toward long-term growth-oriented capital. Heightened interest was evident, in particular, among U.S. investors with experience in the transformation of software companies.

Software AG's Investor Relations team conducted numerous meetings with investors and analysts in 2019. Software AG participated in a total of 21 capital market conferences in Germany and abroad.

In addition, roadshows and analyst meetings in Germany, the U.K., France, Spain and the U.S. as well as investor visits to corporate headquarters in Darmstadt were also an important medium for engaging the investor community.

Software AG enjoyed a high degree of attention from financial analysts in the fiscal year under review. This was evident in the high number of well-known securities brokerage firms in Germany and abroad that trade Software AG's share. Furthermore, Software AG's Capital Markets Day was held on February 5, 2019 in the European financial hub of London. Numerous investors and financial analysts from Germany, the U.K., France and Switzerland took advantage of the opportunity to meet the new CEO, Sanjay Brahmawar. He used this occasion to introduce himself to a broad audience and, with the other members of the Management Board, present the Helix transformation strategy. The high degree of interest among investors and financial analysts was also reflected in the number of attendees at Software AG's investor relations events at the Hannover Fair.

Analysts from 20 investment banks currently track Software AG and regularly publish study results. Software AG's stock received a positive or neutral rating from 18 of them as of the end of 2019. Analysts' overall average target price was €31.71.

Top Investors (after meeting threshold) [1]

Disclosure of voting share changes pursuant to section 26(1) of WpHG	Voting share	Date threshold met
Software AG Foundation	32.67	4/30/2015
BlackRock, Inc.	4.52	8/15/2019
Allianz Global Investors GmbH	3.06	10/23/2019
Axxion S.A.	2.97	4/16/2019
Norges Bank	2.87	10/16/2019
DWS Investment GmbH	2.84	2/6/2019

[1] As of December 31, 2019

Commitment to excellence in IR

Software AG's Investor Relations team continued its commitment to the goal of comprehensive and prompt communication with all capital market participants in fiscal 2019. These high standards mean: all investors must have simultaneous access to the same information, and any potential misunderstandings in the capital market must be dispelled promptly. Embracing feedback from target audiences to continuously optimize communication remains a top priority.

A wide array of events, meetings, telephone conferences, the Annual Shareholders' Meeting and the IR website are all essential elements of Software AG's communication with investors. Members of the capital market can find key up-to-date information on the Investor Relations website at SoftwareAG.com/Investors.

Selected Indexes

MDAX, TecDAX
Prime All Share
LTecDAX
Technology All Share
HDAX
CDAX
EURO STOXX
TecDAX Kursindex
DAXglobal Sarasin Sustainability Germany Index EUR
DAXglobal Sarasin Sustainability Germany

Key Share Data

ISIN	DE 000A2GS401
WKN	A2GS40
Symbol	SOW
LEI	529900M1LIO0SLOBAS50
Reuters	SOWGn.DE
Bloomberg	SOW:GR
Listed on	Frankfurt Stock Exchange
Market segment	Prime Standard
Index	MDAX, TecDAX
IPO on	4/26/1999
IPO on April 26, 1999	€10[1]

[1] 3-for-1 split in May 2011

Corporate Governance Report

Statement on Corporate Governance

All information contained in this Statement on Corporate Governance reflects the situation as of January 31, 2020.

Basic understanding

Good corporate governance is a core component of management at Software AG. The Management Board and the Supervisory Board are committed to it, and all business lines are guided by it. Responsible, qualified and transparent corporate governance focuses on a company's long-term success. It includes both compliance with the law and extensively following generally accepted standards and recommendations. The focus is on values such as sustainability, transparency and value orientation.

Software AG's corporate bodies

Management Board

The Management Board leads the Company with the goal of sustainable value creation. The members of the Board share responsibility for management of the Company. The guidelines for the work of Software AG's Management Board are elaborated in the **Rules of Procedure of the Management Board.** Above all, they define the members' individual responsibilities, the tasks assigned to the Board as a whole, adoption of resolutions and the rights and obligations of the Chief Executive Officer. The Management Board of Software AG currently consists of five members. The Supervisory Board resolved that members of the Management Board are not permitted to be older than 65. As of the release date of this report, the members of the Management Board were Sanjay Brahmawar, Dr. Elke Frank (since August 1, 2019), John Schweitzer, Dr. Stefan Sigg and Arnd Zinnhardt (until March 31, 2020).

Sanjay Brahmawar, born in 1970 (nationality: Belgian), holds an MBA in finance and marketing from the University of Leeds (U.K.) and a Bachelor's degree in civil engineering from Delhi College of Engineering (India) and has been CEO of Software AG since August 1, 2018. His term is in effect until 2023.

Dr. Elke Frank, born in 1971 (nationality: German), holds a doctoral degree in law (Dr. jur.) from Julius-Maximilians University in Würzburg, Germany, and has been a member of Software AG's Management Board since August 2019. She oversees Global Human Resources, Talent Management and Transformation, Global Legal and Global Information Services. Her term is in effect until 2024.

John Schweitzer, born in 1968 (nationality: USA), holds a Bachelor of Science in economics and finance from Northern Arizona University and has been a member of Software AG's Management Board since November 2018; as Chief Revenue Officer, he oversees Global Sales and Professional Services. His term is in effect until 2023.

Dr. Stefan Sigg, born in 1965 (nationality: German), holds a degree (Diplom and Dr. rer. nat.) in mathematics and has been a member of Software AG's Management Board since April 2017; as Chief Product Officer, he oversees Product Management, Research & Development and Global Support. His term is in effect until 2022.

Arnd Zinnhardt, born in 1962, holds a degree in business administration and has been a member of Software AG's Management Board since May 2002; as Chief Financial Officer, he oversees Global Finance & Controlling, Corporate Investor Relations, Treasury, Global Procurement, Mergers & Acquisitions, Taxes and Business Operations. His appointment to the Management Board will end prematurely on March 31, 2020.

Mr. Zinnhardt is a member of the advisory board of the Hessian Landesbank (Helaba) and of the supervisory board of Warth & Klein Grant Thornton AG (since October 7, 2019).

Dr. Matthias Heiden, born in 1972, holds a Higher National Diploma (BTEC) in business and finance from the European College of Business and Management, Suffolk College, U.K., a degree (Diplom) in business administration and a PhD (Dr. rer. Oec.) in business administration, both from the University of Saarland, Germany. As Chief Financial Officer, he will assume Mr. Zinnhardt's areas of responsibility.

Diversity concept for the Supervisory Board and Management Board

In its meeting on December 19, 2019, the Supervisory Board reviewed the diversity concept for the Supervisory Board and Management Board, which was created in 2017. The Supervisory Board is certain that diversity is critical to Software AG's successful development. And, promoting diversity in the Company, specifically when appointing members of the Supervisory and Management Boards, is an important factor in ensuring Software AG's sustainable success. The concept covers age and term caps, gender quotas (as described below in Target Percentages for Women) and the explicit need to establish a sensible and broad mix of backgrounds with respect to education and experience (professional experience) as well as international experience/cultures on the boards.

The Supervisory Board determined the following targets for caps on age and term length and the percentage of women:

Objective	Supervisory Board	Management Board
Age cap	70, 65 when elected	65
Maximum term	For all members elected after July 30, 2015: 15 years For all other members: 20 years	unlimited
Target female percentage	16.70%	0%[1]

[1] As per resolution from May 17, 2017 (refer to Target Percentages for Women)

Moreover, the Supervisory Board established targets for its member composition, which, supplemented by the following requirements that: a) a member of the Supervisory Board must have knowledge of financial reporting or financial auditing; b) the members as a whole must be informed on the sector to which the Company pertains (enterprise software), form a skill profile for the Supervisory Board and represent a component of the diversity concept for the Supervisory Board:

1. Members' professional backgrounds should be in one or more of the following fields:

   a. ICT + media

   b. Direct or indirect experience with enterprise IT and/or understanding of digitalization and enterprise software solutions

   c. CTO or CR&DO of a large high-tech company

   d. Knowledge of the demands of a medium-sized company

   e. In-depth expertise in financial reporting or financial auditing

2. Members of the Supervisory Board should be familiar with the requirements and duties associated with the two-tier governance structure of German Stock Corporation Law.

3. International experience

In summary, based on ongoing consideration of current business and strategic priorities, the Supervisory Board strives to achieve the widest possible spectrum of backgrounds in the composition of its boards so that they can use their diversity to form opinions and make the best possible decisions for Software AG. The Supervisory Board considers its skill profile and concrete targets for its composition to be met.

The Supervisory Board sees no reason to define a rigid skill profile for the Management Board. The Committee for Compensation and Succession Issues regularly evaluates the composition of the Management Board and compares the skills and experiences represented on the the Management Board with its current requirements. It is the judgment of the Committee for Compensation and Succession Issues of the Supervisory Board as to how the results of this comparison are handled. In selecting Dr. Elke Frank and Dr. Matthias Heiden as new members of the Management Board, the Committee for Compensation and Succession Issues also made sure that, based on current and future business development, an optimal range of skills and experiences would be represented by the Management Board as a whole. Moreover, the Management Board targets for age limit and female percentage (for more details, continue reading) were met and/or exceeded.

Target percentages for women

In its meeting on May 17, 2017, the Supervisory Board established 0 percent as the target percentage for female members on the Management Board. The deadline for meeting this target is April 30, 2022. The current composition of the Management Board exceeds this target by 20 percentage points.

Pursuant to section 76 IV of the German Stock Corporation Act (AktG), the Management Board defined targets for the quota of first and second-tier female managers below the Management Board in its meeting on July 20, 2017: 12 percent female managers in the first tier and 15 percent in the second tier below the Management Board. The deadline for meeting this target is June 30, 2022. The first level of management below the Management Board consisted of 11.9 percent (2018: 9.4 percent) women and the second consisted of 15.5 percent (2018: 16.9 percent) women as December 31, 2019.

Supervisory Board

The Supervisory Board appoints, monitors and advises the Management Board. The Management Board reports to the Supervisory Board regularly, in a timely manner and comprehensively on the Company's performance, strategy, planning, risk situation, risk management and compliance. The Supervisory Board determines the remuneration of the members of the Management Board in accordance with the proposal of the Committee for Compensation and Succession Issues, decides on the Management Board's remuneration system and reviews it regularly. The chairperson of the Supervisory Board coordinates the work of the Supervisory Board, leads its meetings and maintains contact with the CEO between Supervisory Board meetings to discuss strategy, planning, business performance, the risk situation, risk management and compliance. The CEO informs him/her without delay of any important events, which are relevant to the assessment of the Company's position and performance and to the leadership of Software AG. Transactions that require the approval of the Supervisory Board are listed in the Rules of Procedure of the Management Board. If necessary, the Supervisory Board meets without the Management Board.

Composition

The Supervisory Board of Software AG is composed in accordance with the regulations of the One-Third Participation Act. Representatives elected to the Supervisory Board by the employees of the Software AG Group entitled to vote on January 2, 2015 are Guido Falkenberg (Deputy Chair, employee of Software AG) and Christian Zimmermann (employee of Software AG). Their term began upon conclusion of the Annual Shareholders' Meeting on May 13, 2015. Of the shareholder representatives, Dr. Andreas Bereczky (CEO, ZDF, until December 2018, production director), Eun-Kyung Park (as of January 2020 SVP & General Manager, Media, The Walt Disney Company Germany GmbH), Alf Henryk Wulf (until December 2018 CEO, GE Power AG) and Markus Ziener (Director, asset management, Software AG Foundation, Darmstadt) were elected to the Supervisory Board during the Annual Shareholders' Meeting on May 13, 2015. The term of the shareholder representatives began on May 27, 2015 upon entry of the amendment to the Articles of Incorporation in the Commercial Register regarding the composition of the Supervisory Board pursuant to the One-Third Participation Act.

The Supervisory Board held a total of six regular meetings during the year under review. At least one session took place each quarter. In addition, the Supervisory Board held four extraordinary meetings. For three of them the Supervisory Board took advantage of the option permitted by the Articles of Incorporation to hold meetings by telephone. The Supervisory Board also employed the circulation procedure to pass resolutions twice.

Committees

The guidelines for the work of the Supervisory Board of Software AG are described in the **Rules of Procedure of the Supervisory Board.** In addition to the duties and powers of the chairperson of the Supervisory Board, they define the structure of meetings, the adoption of resolutions, and the formation of committees. The Management Board, Supervisory Board and committees work together closely with the objective of sustainably enhancing Software AG's value.

The Supervisory Board established three committees to efficiently carry out its duties: the Audit Committee, the Committee for Compensation and Succession Issues and the Nominating Committee.

The **Committee for Compensation and Succession Issues** prepares personnel-related decisions made by the Supervisory Board when they affect the remuneration, appointment, reappointment or dismissal of the members of the Management Board. The Committee for Compensation and Succession Issues has three members: Dr. Andreas Bereczky (chair) Guido Falkenberg (employee representative) and Alf Henryk Wulf (shareholder representative). The Committee for Compensation and Succession Issues convened for four ordinary and five extraordinary meetings in 2019. The Committee for Compensation and Succession Issues employed the circulation procedure to pass resolutions once.

The **Audit Committee** handles issues related to monitoring the financial reporting process, risk management, half-year and quarterly reports, financial statement audits—particularly the independence of the auditor, the internal audit and compliance. The Audit Committee has three members: Eun-Kyung Park (chair), Christian Zimmermann (employee representative) and Markus Ziener (shareholder representative). The Audit Committee met twice in fiscal year 2019 and employed the circulation procedure to pass resolutions three times.

The **Nominating Committee** nominates qualified candidates for election to the Supervisory Board at the Annual Shareholders' Meeting. It consists of three shareholder representatives: Dr. Andreas Bereczky (chair), Markus Ziener and Alf Henryk Wulf. The Nominating Committee met five times in the year under review.

The members of the Supervisory Board review the efficiency of their work (self-evaluation) annually. Each individual member completes a questionnaire to assess all areas of the Supervisory Board's work. They discuss the results of the annual efficiency audit in detail and, if necessary, agree on measures to increase efficiency.

For more detailed information on the Supervisory Board's work and its committees, please refer to the Report of the Supervisory Board. For more detailed information on the current members of the Supervisory Board, including their curricula vitae and committee membership, please visit https://www.softwareag.com/in/company/management/svb/default.html. The CVs are updated regularly—at least once per year.

In its meeting on July 30, 2015, the Supervisory Board established 16.67 percent as the target percentage for female members on the Supervisory Board in accordance with section 111 (5) of the German Stock Corporation Act (AktG). The deadline for meeting this target was June 30, 2017. Through the election of Supervisory Board members, including Eun-Kyung Park, at the Annual Shareholders' Meeting on May 13, 2015, one woman was elected to the Supervisory Board, and thus the target of 1/6 was met within the allotted period of time. The Supervisory Board renewed 16.67 percent at its target in its meeting on May 17, 2017. The deadline for meeting this target is April 30, 2022.

In its meeting on January 28, 2016, the Supervisory Board determined the number of independent Supervisory Board members as defined in point 5.4.2 of the German Corporate Governance Code to be three, which still corresponds to 50 percent of the Supervisory Board members. The composition of the Supervisory Board reflects this target. In its meeting on December 19, 2019, the Supervisory Board assessed the independence of the shareholder representatives. Based on attendance numbers from the last three Annual Shareholders' Meetings, the Supervisory Board determined that Software AG does not have a controlling shareholder with a sustainable Annual Shareholders' Meeting majority. The Supervisory Board does not consider Mr. Ziener's employment with the Software AG Foundation to be a dependency. The Supervisory Board also considers Dr. Bereczky, Ms. Park and Mr. Wulf to be independent. The Supervisory Board does not consider the length of service to the Supervisory Board of Dr. Bereczky or Mr. Wulf alone as decisive in any sort of dependency. Additional factors speaking against a dependency is that all seats on the Management Board have been filled with new members since April 2017, and that—except for employment contracts with employee representatives—Software AG does not maintain direct or indirect business relationships with any members of the Supervisory Board. In particular, no mutual consulting agreements or other contracts for work or services exist.

Shareholders and Annual Shareholders' Meeting

The **Annual Shareholders' Meeting** is one of Software AG's main corporate bodies through which shareholders can exercise their rights and their voting rights. Software AG invites its shareholders to participate in its Annual Shareholders' Meeting. Important decisions are made at the meeting, including ratification of the actions of the Management and Supervisory Boards, election of the Supervisory Board and external auditors, amendments to the Articles of Incorporation and measures that change the Company's capital. Not least, the shareholders decide on profit distribution. In accordance with a binding financial calendar, shareholders are informed regularly of Software AG's business developments, financial performance, assets and financial position four times per year. The most recent Annual Shareholders' Meeting was held on May 28, 2019 in Darmstadt, Germany. Approximately 64.8 percent of voting shares were present. The next Annual Shareholders' Meeting will convene on May 20, 2020 in Darmstadt, Germany.

Pursuant to the recommendations of the Corporate Governance Code, Software AG conducts the Annual Shareholders' Meeting in an expedient manner, preferably within a time frame of four hours. To conduct the Annual Shareholders' Meeting efficiently, the chairperson has the option to cut short speakers who stray from the topic at hand and to refer to detailed information already published on the website. Shareholders who do not wish to exercise their voting rights may authorize a member of the Company to vote by proxy in accordance with the shareholder's instructions. Portions of the Annual Shareholders' Meeting are also broadcast via the Internet. The invitation to the Annual Shareholders' Meeting, the Annual Report and other legally mandatory reports and documents, such as the agenda, are readily available on the Software AG website as of the date of the invitation (https://investors.softwareag.com/en/events/annual-general-meeting). The resolutions adopted by previous shareholders' meetings as well as the quarterly reports of preceding fiscal years can also be found there.

Compliance management system

Software AG has an effective and efficient compliance management system that serves as part of Software AG's Global Code of Business Conduct and Ethics. The Compliance Board reports to the CEO. It initiates and orchestrates measures to ensure strict compliance management at Software AG.

Code of Business Conduct and Ethics

Software AG established a code of business conduct and ethics in fiscal year 2011. It includes ethical standards applicable to the Company worldwide and is available on Software AG's website at https://investors.softwareag.com/en/corporate-governance/csr. The code includes specific regional aspects. The code is binding for all employees of Software AG and its subsidiaries. In the year under review, 670 (2018: 605) new employees received certificates of successful completion of a course on the subject of the code. The Compliance Board meets monthly and makes decisions about questionable cases.

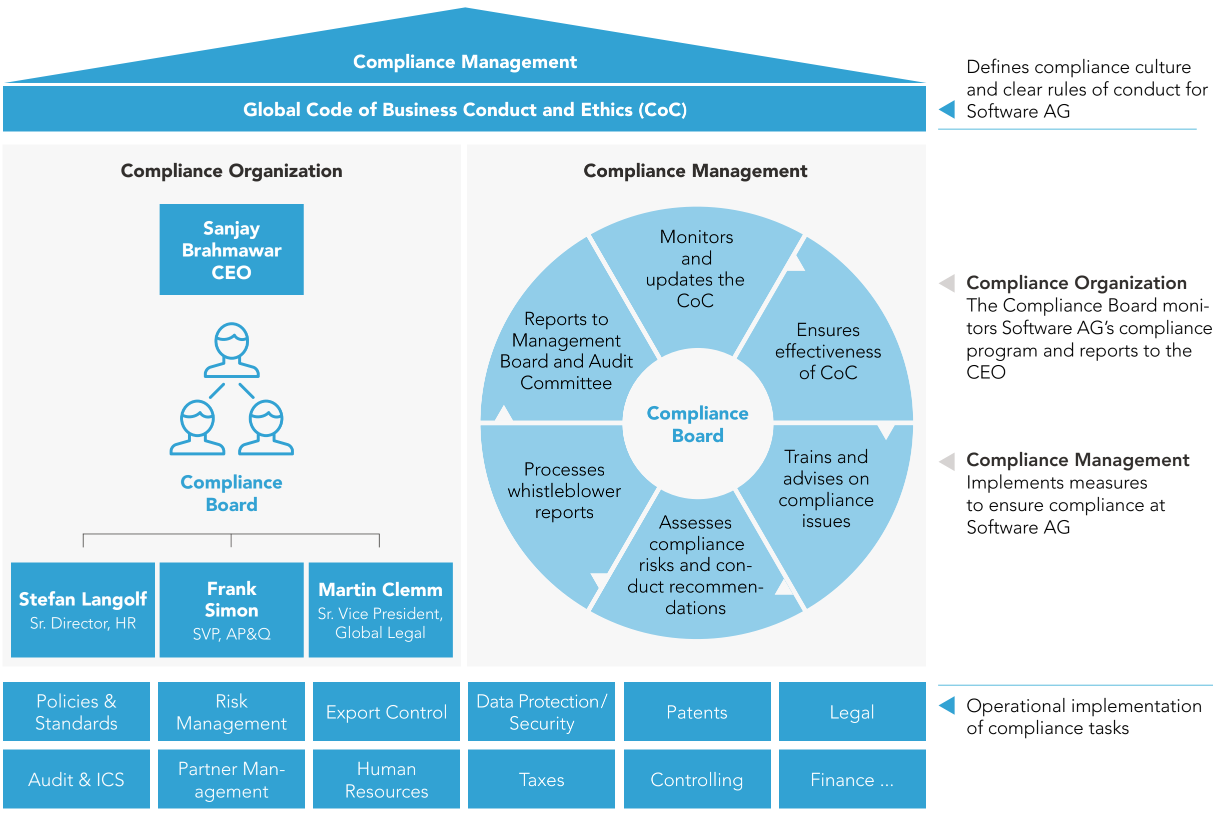
Compliance Board

In total, employees of Software AG filed 36 (2018: 68) inquiries and external parties filed one inquiry with the Compliance Board in 2019. In the year under review, the Compliance Board consisted of:

- Christine Schwab (until August 2019); as of September 2019, Stefan Langolf (Senior Director, HR)
- Frank Simon (Senior Vice President, Audit, Processes and Quality)
- Dr. Benno Quade (until May 2019); as of June 2019, Martin Clemm (Senior Vice President, Global Legal & General Counsel)

There is an email address on the Software AG Intranet and Internet for anyone who wishes to send an (anonymous) message to the Compliance Board. Both internal and external parties made use of this option during the year under review.

Software AG's Compliance Management System



Financial Reporting and Auditing

The 2019 Annual Shareholders' Meeting again appointed BDO Wirtschaftsprüfungsgesellschaft, Hamburg (hereinafter referred to as BDO AG), as **company auditor.**

BDO AG also advises the Company on individual tax matters in connection with tax returns and tax audits. As of January 1, 2017, non-audit services subject to approval may only be rendered by BDO AG if and provided they have been approved by the Audit Committee in accordance with the legally binding approval process. No business, financial, personal or other relationships that could cast doubt on the independence of the audit firm have existed at any time between BDO AG, its corporate bodies or audit managers and Software AG or the members of its corporate bodies.

Pursuant to the Annual Shareholders' Meeting resolution, the Supervisory Board, represented by the chairwoman of the Audit Committee, appointed the auditor and agreed on the fee. In connection with the awarding of the contract, the chairwoman of the Audit Committee has also agreed with the auditor to comply with the reporting duties pursuant to the German Corporate Governance Code. BDO AG participates in meetings of the Supervisory Board's Audit Committee concerning the financial statements and consolidated financial statements and reports on key audit findings. The Audit Committee had no doubt as to BDO AG's independence before it commissioned the firm.

Primary auditors' fees and services

Software AG Group

Software AG's general and administrative expenses include expenses for auditors' fees paid to BDO AG, the Group auditor, totaling €958 thousand (2018: €932 thousand). Of this amount, €923 thousand (2018: €867 thousand) relates to the audit of the domestic entities' and the Group's financial statements, €35 thousand (2018: €34 thousand) to other testation services, and €0 (2018: €31 thousand) to tax advisory services.

Separate financial statements of Software AG (parent company)

Total expenses for the financial auditors and Group financial auditors from BDO AG were €958 thousand (2018: €932 thousand) in fiscal 2019. These fees consist of €923 thousand (2018: €867 thousand) for the audit of the financial statements, €35 thousand (2018: €34 thousand) for miscellaneous testation services, and €0 (2018: €31 thousand) for tax advisory services. To ensure comparability, last year's figures were adjusted to the allocation requirements of the IDW HFA 36 (IDW = Institute of Public Auditors in Germany).

Capital market communication

Open and transparent communication

Software AG communicates openly, transparently, comprehensively and in a timely manner with all market participants. The Company participated in numerous investor conferences, road shows and other capital market events in fiscal year 2019.

A globally consistent corporate message is required to earn the trust of investors, analysts and journalists. Regulatory bodies and the media review publications and press releases for consistency and to ensure that laws and regulations are upheld. Software AG's communications guidelines define how it handles corporate communication. They are published on the Software AG Investor Relations website under Corporate Governance. Software AG provides information to investors, analysts and journalists in accordance with standard criteria. This information is transparent for all capital market participants.

The Management Board immediately publishes insider information that affects Software AG, unless, after having met waiver requirements in specific cases, it is exempt from the disclosure requirement. In accordance with legal stipulations, Software AG maintains electronic registries of persons with insider information who have been informed of their corresponding legal obligations by the Company.

Software AG uses a suitable service provider for publicizing mandatory disclosures throughout Europe. All ad hoc releases are published in German and English.

Software AG is also in full compliance of the Act on Electronic Commercial Registers, Registers of Cooperatives, and Business Registers (EHUG), which came into force on January 1, 2007. All documents requiring publication in electronic form are sent to the operator of the electronic version of the Federal Gazette, as required.

All ad hoc disclosures, press releases, as well as presentations given at press and analysts' conferences and road shows are published promptly to the Investor Relations section on the website of Software AG. The corresponding dates can be found in the Financial Calendar, which is also published on the website https://investors.softwareag.com/en/events/financial-calendar.

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Software AG commissions an independent consulting firm to carry out an annual study evaluating how investors and financial analysts perceive its financial communication. Critique and suggestions provide motivation for further improvement. Its performance in the most recent study, conducted in October 2019, received a good overall rating of 2.35.

Changing voting shares (pursuant to section 40, paragraph 1 of the Securities Trading Act [WpHG])

For information on Software AG's shareholder structure, please refer to the section on Software AG's Share. Disclosures on changes to voting shares in fiscal 2019 pursuant to section 40 (1) of the Securities Trading Act (WpHG) are published on the Software AG website at https://investors.softwareag.com/en/financial-news.

Directors' dealings (pursuant to art. 19 of MAR)

Software AG also discloses personal business dealings conducted by any individuals who carry out management duties and by those closely related (natural or legal) to them, pursuant to the provisions of art. 19 MAR (directors' dealings). These transactions can be viewed on the Company website within the legally required period of time.

No reportable transactions were declared during the 2019 calendar year. For more information, please visit the Internet at https://investors.softwareag.com/en/financial-news.

Opportunities and risks

Software AG deals with opportunities and risks responsibly, aided by a comprehensive opportunity and risk management process that identifies and monitors all significant risks and opportunities. It is consistently refined and adjusted to correspond to changing conditions. Software AG's risk management system is presented in the Opportunity and Risk Report. Opportunities that are strategic to the Company are described in the Outlook section of the Management Report. Please refer to the Notes to the Consolidated Financial Statements for information on the Group's consolidated financial reporting.

Stock option plans

For details on Software AG's stock option plans and similar equity-based incentive programs, please refer to the complete Remuneration Report which is presented in the Management Report.

Shareholdings of the members of the Management Board and Supervisory Board as of January 31, 2020

Management Board

Members of the Management Board:	Number of shares
Sanjay Brahmawar	0
John Schweitzer	0
Dr. Stefan Sigg	0
Arnd Zinnhardt	25,353

Supervisory Board

Members of the Supervisory Board:	Number of shares
Dr. Andreas Bereczky	0
Alf Henryk Wulf	400
Eun-Kyung Park	0
Markus Ziener	0
Guido Falkenberg	0
Christian Zimmermann	0

Compliance with the German Corporate Governance Code

Declaration of Compliance pursuant to section 161 of AktG submitted by the Management Board and Supervisory Board of Software AG, Darmstadt on the German Corporate Governance Code (GCGC)

The Management Board and Supervisory Board hereby declare that, since the last Declaration of Compliance was submitted on January 30/February 1, 2019, the recommendations of the government commission's GCGC dated February 7, 2017 were followed and the recommendations from the code dated February 7, 2017 will be followed in the future, with the following exceptions:

(a) In deviation of point 4.2.3, paragraph 2, p. 6 of the GCGC, there are no caps in absolute terms on variable remuneration components in place, but rather caps are expressed as percentages, from which an absolute amount can be calculated. There is no explicit cap expressed as an absolute amount on total remuneration; for this reason, Software AG is declaring a deviation from point 4.2.3, paragraph 2, p. 6 of the GCGC as a precautionary measure.

(b) In deviation of point 4.2.3, paragraph 4, p. 1, p.3 and paragraph 5 of the GCGC, the annual target salary in all Management Board members' contracts is the basis for calculating the severance caps (including severance caps in the event of a change in control), so as to provide a straightforward basis for calculation in the event someone leaves the Company mid-year.

Darmstadt, January 28/31, 2020

Software AG

The Management Board

Sanjay Brahmawar
Chief Executive Officer

The Supervisory Board

Dr. Andreas Bereczky
Chairman of the Supervisory Board

Report of the Supervisory Board

Dr. Ing. Andreas Bereczky
Chairman of the Supervisory Board
For more information on the members of the Supervisory
p. 218 Board, please refer to Note [38] in the Notes to the Consolidated Financial Statements.

Fiscal 2019 was a year of transformation for Software AG, closely overseen by the Supervisory Board. The Company's strategic realignment (Helix project) was presented and discussed in detail. Milestones and progress were tracked and discussed during the year. One element of the transformation was the appointment of Dr. Elke Frank to the Management Board as Chief Human Resources Officer. Her area of responsibility will include cultural transformation.

Collaboration between the Management Board and Supervisory Board

In fiscal year 2019, the Supervisory Board fulfilled all duties required of it by law and the Company's Articles of Incorporation. It advised the Management Board in running the Company and supervised its management. In doing so, the Supervisory Board was directly involved in all decisions of key relevance to Software AG. Via oral and written reports, the Management Board informed the Supervisory Board regularly, comprehensively and promptly about all important aspects of the new strategy, the status of strategy implementation, planning, business development, the risk situation and risk management, as well as compliance, and was available to the Supervisory Board in meetings for questions and discussions. Deviations from planned business developments were explained in detail.

The Supervisory Board chairman was in regular contact with the CEO and consulted with him about Software AG's strategy, planning, business development, risk situation, risk management and compliance. The CEO informed him immediately of important occurrences. The relationship between the Management Board and Supervisory Board was based on close, trusting cooperation and an open, constructive dialog.

The Supervisory Board's deliberations included the Company's strategic realignment, measures for strategy rollout and risk management as well as staff changes on the Management Board. The Supervisory Board and the Management Board discussed the quarterly and half-year results and reports and analyzed ongoing business development in detail. Any transactions requiring Supervisory Board approval in accordance with the Articles of Incorporation or applicable legislation were reviewed and voted on accordingly. Documents relevant to decisions were provided to the Supervisory Board in due time before the corresponding meeting.

Supervisory Board Meetings

The Supervisory Board held a total of six regular meetings during the year under review. At least one session took place each quarter. In addition, the Supervisory Board held four extraordinary meetings. For three of them the Supervisory Board took advantage of the option permitted by the Articles of Incorporation to hold meetings by telephone. If a member of the Supervisory Board was unable to attend a session, he or she had the option of participating via telephone or casting ballots in writing. All Supervisory Board members attended at least half of the Supervisory Board meetings that took place during the year under review.

The following table illustrates the attendance of members at Supervisory Board meetings held in fiscal 2019.

Supervisory Board Meetings in 2019

	1/18/2019	2/1/2019	3/22/2019	5/27/2019 5/28/2019	6/19/2019	7/25/2019	8/23/2019	10/23/2019	12/11/2019	12/19/2019
	Telephone conference				Telephone conference		Telephone conference			Telephone conference
Bereczky	x	x	x	x	x	x	x	x	x	x
Falkenberg	x	x	x	x	x	x	x	x	x	x
Park	x	x	x	x	x	x	x	x*	x	x
Wulf	x	x	x	x	x	x	x	x	x	x
Ziener	x	x	x	x	e	x	x	x	x	x
Zimmermann	x	x	x	x	x	x	x	x	x	x

e = Excused tel = Attended via phone * = Partially = Extraordinary meeting

The Supervisory Board conferred on the strategic realignment in its first ordinary meeting of 2019, held on **January 18, 2019**.

In its meeting on **February 1, 2019**, the Supervisory Board discussed, among other topics, the 2018 preliminary results and approved the 2019 budget. In addition to a strategy session, the Supervisory Board also defined the objectives for the members of the Management Board for fiscal 2019.

At the accounts meeting on **March 22, 2019**, in the presence of financial auditors, the 2018 financial statements and consolidated financial statements were discussed in depth and then approved by the Supervisory Board on the recommendation of the Audit Committee and following its own thorough audit. At this meeting, the Supervisory Board also informed itself of the status of implementation of the new strategy and approved the proposed resolutions for the Annual Shareholders' Meeting agenda. With regard to Management Board issues, the Supervisory Board determined the Management Board members' achieved variable remuneration for fiscal 2018 after the financial auditors' verification of the accuracy of the calculations.

One day prior to the Annual Shareholders' Meeting, on **May 27, 2019,** the Supervisory Board convened for an in-depth meeting on the go-to-market strategy. On the morning of the Annual Shareholders' Meeting, on **May 28, 2019,** the Supervisory Board also met to discuss topics such as first-quarter 2019 results and the status of strategy implementation.

In its extraordinary meeting on **June 19, 2019**, the Supervisory Board approved the appointment of Dr. Elke Frank to the Management Board in the role of CHRO. This followed the preparation and recommendation of the Committee for Compensation and Succession Issues.

On **July 25, 2019**, the Supervisory Board discussed topics including the results of the second quarter and first half of 2019; in addition, it conferred on the status of strategy implementation and informed itself of individual business lines and the CTO's technology vision, among other topics.

Points of discussion at the extraordinary meeting on **August 23, 2019** were Mr. Arnd Zinnhardt's departure and the associated contractual matters, prepared primarily by the Committee for Compensation and Succession Issues. These were approved by way of circulation procedure on **September 23, 2019**.

Following preparation and recommendation by the Committee for Compensation and Succession Issues, the Supervisory Board's discussions in its meeting on **October 23, 2019,** focused on a successor for Mr. Arnd Zinnhardt. The distribution of roles within the Management Board was also a topic of this session. A resolution was passed to include the Legal and IT departments in the area of responsibilities under Management Board member Dr. Elke Frank. In addition to a strategy session, third-quarter 2019 results were discussed.

In the meeting on **December 11, 2019,** the Supervisory Board informed itself of all legal disputes and compliance cases in the Software AG Group. Preliminary results of the transformation were also discussed; and the proposed resolution on the selection of a new CFO was passed.

In its last extraordinary meeting of the fiscal year, on **December 19, 2019,** the Supervisory Board addressed the announced amendments to the German Corporate Governance Code.

Committees

In order to efficiently carry out its duties, the Supervisory Board established a Committee for Compensation and Succession Issues, an Audit Committee and a Nominating Committee. The committees prepare the Supervisory Board's resolutions and topics to be discussed by the plenum. Decision-making powers are transferred to the committees to the extent allowable. The committee chairs generally report to the Supervisory Board plenum about the results of the respective committee meetings. All members of the Supervisory Board attended all meetings of the committees to which they belonged during the reporting year.

The **Committee for Compensation and Succession Issues** prepares personnel-related decisions made by the Supervisory Board provided they affect the remuneration policies for the members of the Management Board or appointment resolutions. It has three members and is constituted based on one-third co-determination. It was chaired by Andreas Bereczky. The Committee for Compensation and Succession Issues met nine times in fiscal year 2019. The Committee for Compensation and Succession Issues dealt with personnel matters related to the Management Board, particularly the Management Board members' defined targets for fiscal 2019, preparation of the Supervisory Board's decision regarding their achievement of these targets and the resulting determination of their variable remuneration for fiscal 2018. The Committee for Compensation and Succession Issues also prepared the appointment of Dr. Elke Frank as Chief Human Resources Officer and the selection of Dr. Matthias Heiden as the new Chief Financial Officer. The Committee for Compensation and Succession Issues was actively and closely involved in staff-related changes on the Management Board.

The following table shows meeting attendance of the members of the Committee for Compensation and Succession Issues:

The **Audit Committee** handles issues related to monitoring the financial reporting process, risk management, half-year and quarterly reports, financial statement audits—particularly the independence of the auditor, the internal audit and compliance. The Audit Committee also prepares the Supervisory Board's discussion and vote to approve the annual and consolidated financial statements. It has three members and is constituted based on one-third co-determination. The Audit Committee was chaired by Ms. Eun-Kyung Park. The Audit Committee met twice in fiscal year 2019. In a meeting on March 22, 2019, and in the presence of auditors, it dealt with the annual financial statements and the management report, the consolidated financial statements and Group management report, the Management Board's proposal on the appropriation of profits, the selection and independence of the financial auditor for fiscal 2019 and the Supervisory Board's respective resolution recommendation to the Annual Shareholders' Meeting. The Audit Committee also informed itself of the internal audit and compliance matters at this meeting. On December 11, 2019, the Audit Committee discussed, among other things, the results of the preliminary audit and the risk report in the presence of auditors. It also considered and approved specific non-audit services rendered by the auditors.

The following table shows meeting attendance of the members of the Audit Committee:

Audit Committee 2019

	3/22/2019	12/11/2019
Park	x	x
Ziener	x	x
Zimmermann	x	x

Committee for Compensation and Succession Issues 2019

	1/31/2019	3/14/2019	3/22/2019	6/19/2019	7/25/2019	8/23/2019	8/30/2019	10/23/2019	11/28/2019
							Telephone conference		
Bereczky	x	x	x	x	x	x	x	x	x
Falkenberg	x	x	x	x	x	x	x	x	x
Wulf	x	x	x	x	x	x	x	x	x

The task of the **Nominating Committee** is to nominate qualified candidates for election to the Supervisory Board at the Annual Shareholders' Meeting. All three members of the Nominating Committee (Dr. Andreas Bereczky, Alf Henryk Wulf and Markus Ziener) are shareholder representatives. The Nominating Committee was chaired by Andreas Bereczky. This committee met five times in 2019 to discuss candidates to propose for election at the 2020 Annual Shareholders' Meeting.

The following table shows meeting attendance of the members of the Nominating Committee:

Nominating Committee 2019

	3/22/ 2019	5/28/ 2019	7/25 2019	10/23 2019	12/11 2019
Bereczky	x	x	x	x	x
Wulf	x	x	x	x	x
Ziener	x	x	x	x	x

Annual Audit

In accordance with a resolution adopted at the Annual Shareholders' Meeting, the Supervisory Board appointed BDO AG Wirtschaftsprüfungsgesellschaft, Hamburg, Germany (referred to hereinafter as BDO AG), to audit the financial statements and the consolidated financial statements of Software AG for fiscal year 2019. BDO AG has been Software AG's financial auditor since 1997.

BDO AG examined the financial statements and consolidated financial statements for the year ended December 31, 2019, as well as the Management Report and the accounting books and records. The auditor issued an unqualified audit option. Mr. Ralf Pfeiffer and Mr. Klaus Eckmann are the signers of the auditor's certificate and responsible for the audit at BDO AG. Mr. Klaus Eckmann was responsible for the audit for the third time; Mr. Ralf Pfeiffer participated for the first time in the audit of the 2015 financial statements.

The audit reports were presented to the Supervisory Board, and the head of the audit team explained the results in person to the Audit Committee, the Supervisory Board as a whole and the Management Board. The Audit Committee and the Supervisory Board thoroughly reviewed the audit reports in their meetings on March 20, 2020. The Supervisory Board concurred with the results of the audit and approved the financial statements and consolidated financial statements. This constitutes formal approval and acceptance of the annual financial statements. We, the Supervisory Board, uphold the recommendation of the Management Board with respect to the appropriation of profits.

The Non-Financial Statement for fiscal 2019 was audited with a limited scope by BDO AG.

German Corporate Governance Code

The Supervisory Board thoroughly addressed the subject of corporate governance and the German Corporate Governance Code (GCGC) again in fiscal year 2019. In its meeting on February 1, 2019, the Supervisory Board approved the annual Declaration of Compliance (GCGC).

No conflicts of interest on the part of members of the Supervisory Board arose in the year under review. No agreements were concluded with members of the Supervisory Board.

Detailed reports from the Management Board and the Supervisory Board about the implementation of the GCGC can be found in the Corporate Governance Report. The Declaration of Compliance is published on the Company's website at https://investors.softwareag.com/en/corporate-governance/compliance-declaration

Changes to the Management Board and Supervisory Board

Dr. Elke Frank became a member of the Management Board as of August 1, 2019. There were no other personnel changes on the Management Board or Supervisory Board of Software AG in 2019. Changes related to the CFO are relevant to the 2020 fiscal year.

The Supervisory Board would like to thank Software AG's Management Board and employees for their high degree of commitment and excellent work during fiscal year 2019.

Darmstadt, March 20, 2020

The Supervisory Board

Dr. Andreas Bereczky
Chairman of the Supervisory Board

For more information on the members of the Supervisory Board, please refer to Note [38] in the Notes to the Consolidated Financial Statements or visit www.softwareag.com/svb

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Combined Management Report

Due to rounding, some numbers may not exactly add up to the totals provided and percentages may not exactly reflect the absolute figures.

Fundamental Aspects of the Group

Organization and Group Structure

Legal corporate structure

The Software AG Group is managed globally by the parent company, Software AG, acting as a holding company. The financial position of Software AG is shaped by the financial position of the Group. For this reason, the Management Board of Software AG combines the management reports of the Group and of Software AG into one Combined Management Report. Unless otherwise stated, "Software AG" will hereinafter refer to the Software AG Group.

Software AG was founded on May 30, 1969 in Darmstadt, Germany. It has been listed on the Frankfurt Stock Exchange since April 26, 1999.

Software AG has control and profit transfer agreements with its three German subsidiaries: SAG Deutschland GmbH, SAG Consulting Services GmbH and SAG LVG mbH. Otherwise, the Group is structured as a matrix organization reflected in its reporting lines, global policies and committees. The family of Software AG companies currently consists of 77 affiliated companies, ten of which are domestic entities, while the remainder are distributed
p. 160 worldwide. Software AG's scope of consolidation is outlined in Note [2] of the Notes to the Consolidated Financial Statements.

Major locations

A global company with a far-reaching sales and partner network, Software AG strives to maintain proximity to its customers by serving customers in more than 70 locations in all continents worldwide. The Company's corporate headquarters are located in Darmstadt, Germany. Its largest locations outside of Germany are in India, Spain, the USA and Israel. Software AG is positioning itself both in established as well as in emerging and high-potential regions as part of its global geographic strategy.

Employees

The number of Software AG employees rose worldwide to 4,948 (2018: 4,763), which reflects 4 percent growth. The employees can be separated in four business areas: Consulting and Services, Research and Development, Sales and Marketing, and Administration. Software AG's global staff was distributed according to function and country as follows:

Headcount by Function and Country

Full-time employees	Dec. 31, 2019	Dec. 31, 2018	+/– as %
Total	**4,948**	**4,763**	**4**
Consulting and Services	1,915	1,901	1
R&D	1,419	1,310	8
Sales and Marketing	961	926	4
Administration	653	626	4
Germany	1,278	1,243	3
India	1,004	895	12
USA	584	580	1
Other countries	2,082	2,045	2

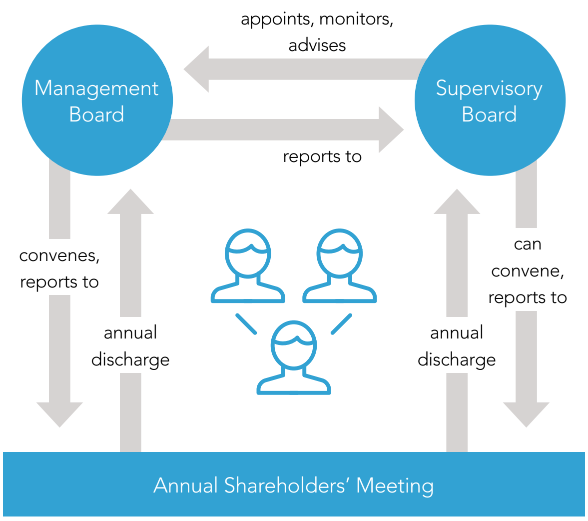
The number of employees in the key area of Research and Development (R&D) rose by 8 percent, with the new R&D employees primarily deployed in ongoing new product development. The continued expansion of Indian R&D locations led to a 12 percent increase in employees in India.

Management and control

Software AG's Management Board consists of the Chief Executive Officer (CEO) Sanjay Brahmawar, the Chief Financial Officer (CFO) Arnd Zinnhardt (through March 31, 2020), the Chief Human Resources Officer (CHRO) Dr. Elke Frank (since August 1, 2019), the Chief Revenue Officer (CRO) John Schweitzer and the Chief Product Officer (CPO) Dr. Stefan Sigg. All Board members as well as the personnel changes in fiscal year 2019 are presented in the Notes to the Consolidated Financial Statements in Note [38]. The Management Board is appointed, super- p. 219
vised and advised by the Supervisory Board.

The Supervisory Board of Software AG is composed in accordance with the stipulations of the One-Third Participation Act. It was comprised of six members in fiscal 2019: four shareholder representatives and two representatives of the employees of Software AG. For more information about the members of the Supervisory Board, please refer to Note [38] in the Notes to the Consolidated Financial Statements. p. 218

Corporate Governance Structure



Business Activities

Business model

Fundamental to the long-term success of Software AG's business model is delivering continuous value to its customers. For fifty years, Software AG has focused on delivering products and services that provide customers with a competitive edge, through the latest innovative software developments that can be fully integrated with their existing IT architectures.

Simultaneously protecting past IT investments while providing customers with the tools to build state-of-the-art applications has ensured a level of customer value, and therefore loyalty, that enables long-term planning, continuous product innovation and dynamic and timely technology acquisitions.

Add to this a culture of complete technology "openness," a vendor-neutral approach to integrating the best software solutions available anywhere. Software AG preserves customer choice, the ability to use whatever applications they need and the agility to react to rapidly changing markets and economic conditions.

As a global technology provider, Software AG has a special connection to customer and employee concerns. Responsible conduct and integrity are a key social concern in a highly competitive market environment, where the use of Software AG's innovative technologies can also help its customers conserve resources.

As a result, Software AG can bring its 50 years of technology development, customer relationship experience, complete vendor neutrality and industrial domain knowledge to guide enterprises through today's transformation to a digital economy through the Internet of Things (IoT) or Industry 4.0.

Finally, Software AG offers a flexible approach to licensing: subscriptions, term-limited, perpetual and annual maintenance. And, in line with Software AG's transformation, the Company is focused on shifting its licensing model towards subscriptions.

While remaining focused on providing continuous business value, Software AG's business model has adapted to changing market conditions for half a century and is optimal for addressing the challenges to the global digital transformation.

For more information on Software AG's strategy, please refer to the Strategy and Goals section. p. 45

Business lines

Software AG operates three complementary business lines to address differing customer requirements and business objectives:

- Digital Business Platform (DBP incl. Cloud & IoT)
- Adabas & Natural (A&N)
- Professional Services

The first two business lines, A&N and DBP (incl. Cloud & IoT), represent Software AG's wide product portfolio and are the primary revenue drivers through license and maintenance fees. License fees for Software AG's product portfolio can be perpetual, term-limited or subscription. Maintenance charges apply to perpetual licenses and give customers access to support services and product enhancement updates.

The third business line, Professional Services, provides software development services and expertise in business organization. This accelerates customer deployment of Software AG's products and significantly shortens the time to providing real business value.

Together, the business lines allow enterprises to successfully master the digital transformation from any starting point and in whatever direction they choose to go.

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A summary of the respective business lines' performance can be found in Segment reporting in the Financial Performance section of the Economic Report.

Digital Business Platform

The DBP (incl. Cloud & IoT) business line groups multiple technologies that support key aspects of the digital transformation and new digital business models. In fiscal 2019, the DBP (incl. Cloud & IoT) business line was internally reorganized into three product lines, creating greater accountability and bringing a sharper focus on Software AG's go-to-market. These product lines are Business Transformation, Integration & API, and IoT & Analytics.

Due to the openness and ease-of-use of this technology, both Cumulocity and webMethods are extensively used as white-label software in OEM contracts globally.

Adabas & Natural

Adabas (Adaptable Database) and Natural (a 4GL software development language) were Software AG's first product releases (1971 and 1979 respectively). They power financial institutions globally (over 30 countries) and national and state governments around the world (over half the 50 states in the USA use A&N). Adabas & Natural applications run airlines, railways, freight services, manage warehouse and logistics networks. They are in use anywhere that mission-critical, high-transaction, industrial-strength applications with extremely high levels of performance, availability and security are needed.

In 2016, Software AG launched its A&N 2050+ program, a roadmap of technology updates, support services and maintenance initiatives that will ensure that customers can rely on their installations beyond the next 30 years.

The first major impact of A&N 2050+ is the roadmap to full integration with the Internet of Things including:

- Hosting A&N apps in the cloud
- Exposing A&N applications as standard APIs
- Mainframe cost optimization with Adabas & Natural for zIIP through offloading workload to IBM's low-cost specialty engine, z Systems Integrated Information Processors (zIIP)

Software AG thinks and plans in generations when it comes to providing customer value.

Professional Services

Crucial to rapid and successful implementation in digital transformation are Software AG's Professional Services that support customers in all stages of the planning, design, development and deployment of digital applications. This applies not just to technology but also to the new business models and endless innovative possibilities opened up by today's digital economies.

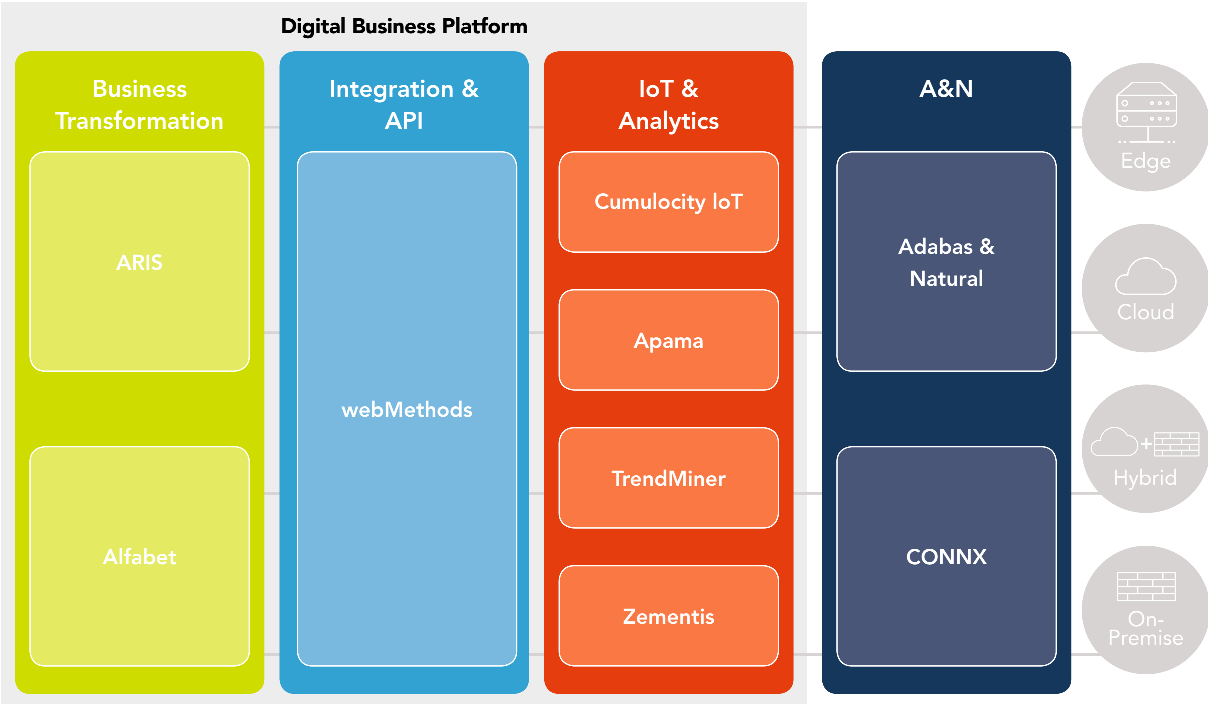
Professional Services support both the DBP and A&N business lines in ensuring that customers get the maximum benefit from their software investments as quickly as possible.

Product and brand portfolio

The Alfabet, ARIS, Apama, Built.io, Cumulocity, Terracotta, TrendMiner, webMethods and Zementis product families form the DBP business line, and all of the portfolio's cloud contracts are reported separately in the Cloud & IoT subsegment. Adabas & Natural and CONNX form the product offering of the A&N business line. The entire product portfolio is designed to comprehensively support customers as they transform to a digital enterprise. Using a clearly structured brand architecture, the individual brands have been separated into four market segments, which represent the core themes of digital enterprise transformation:

- **Business Transformation:** For over 25 years, the ARIS brand has been documenting and optimizing business processes—from strategy and analytics to design and controlling. In addition, Alfabet ensures the close integration of business processes at all levels of the IT system landscape, from planning, budgeting and projecting to implementation and monitoring.

Product portfolio



- **Integration & API:** The product families in the webMethods brand integrate systems, applications and processes via APIs or direct connections. Moreover, the webMethods Business Process Management and webMethods Agile Apps products enable the development of agile applications and business process management as well as the analysis of business operations. The portfolio is rounded out by the In-Memory Data Management and Universal Messaging applications that help digital enterprises store, analyze and reuse huge volumes of data to improve system performance enormously. The in-memory data can then be sent in real time from any device to any other device: web, mobile devices, POS terminals, etc.

- **IoT & Analytics:** Software AG customers have an ideal partner in Cumulocity IoT for integrating digital equipment and sensors through an IoT device management and application enablement platform in the Internet of Things and making the data consumable and usable with dashboards and control systems. This platform is completed with Apama Streaming Analytics for big data analytics in real time, Zementis, a solution for predictive analytics, artificial intelligence (AI) and machine learning, as well as TrendMiner, which specializes in visual data analysis. TrendMiner is an intuitive web-based analytics platform for flexible visualization of industrial processes and process data.

- **A&N:** Software AG's platforms for transaction processing are based on Adabas & Natural and CONNX. With Adabas & Natural, digital enterprises can harness new ways to use their core systems and enable the fast development, modernization and reliable operation of business-critical applications. A&N functions for high-performance data processing and application modernization allow companies to optimize their existing systems and reap the maximum benefit from them. Furthermore, CONNX provides the opportunity to utilize the potential of company data, wherever it might be stored. CONNX offers functions for read/write access to SQL data as well as integration functions where database architecture plays no role.

Software AG's portfolio is available for customers in the cloud, on premise, as a hybrid and an edge solution. In addition, Software AG operates a cutting-edge open cloud platform—SoftwareAG.Cloud—that businesses can use to create, test, implement and manage apps ranging from very simple to highly complex cloud-capable enterprise and IoT applications.

Industry Recognition

Software AG considers the recognition of independent research firms as confirmation of its strategy and quality of products and services. For years, the Company portfolio has received leading positions in market analyst evaluations. Software AG was recognized in 2019 as follows:

A Leader

The following **Gartner**[1] research recognized Software AG as a Leader:

- "Magic Quadrant for Full Life Cycle API Management"[2]
- "Magic Quadrant for Enterprise Architecture Tools"[3]
- "Magic Quadrant for Integrated IT Portfolio Analysis Applications"[4]

The following **Forrester** reports recognized Software AG as a Leader:

- "The Forrester Wave™: iPaaS And Hybrid Integration Platforms, Q1 2019"[5]
- "The Forrester Wave™: Enterprise Architecture Management Suites, Q1 2019"[6]
- "The Forrester Wave™: Streaming Analytics, Q3 2019"[7]
- "The Forrester Wave™: Strategic Portfolio Management For Agile Organizations, Q4 2019"[8]

IoT testing and benchmarking firm **MachNation** recognized Cumulocity IoT from Software AG as a Leader in the following international rankings:

- MachNation's "2019 IoT Application Enablement Scorecard"[9]
- MachNation's "2019 IoT Edge Scorecard"[10]
- MachNation's "2019 IoT Device Management Scorecard"[11]

A Visionary

Gartner named Software AG a Visionary in the following research:

- "Magic Quadrant for Industrial IoT Platforms"[12]

A Strong Performer

In addition, the following **Forrester** report named Software AG a Strong Performer:

- "The Forrester Wave™: Industrial IoT Software Platforms, Q4 2019"[13]

[1] Gartner does not endorse any vendor, product or service depicted in its research publications, and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose. The Gartner Report(s) described herein, (the "Gartner Report(s)") represent(s) research opinion or viewpoints published, as part of a syndicated subscription service, by Gartner, Inc. ("Gartner"), and are not representations of fact. Each Gartner Report speaks as of its original publication date (and not as of the date of this Annual Report) and the opinions expressed in the Gartner Report(s) are subject to change without notice.
[2] Gartner "Magic Quadrant for Full Life Cycle API Management", Paolo Malinverno, Mark O'Neill, Aashish Gupta, Kimihiko Iijima, October 9, 2019.
[3] Gartner "Magic Quadrant for Enterprise Architecture Tools," Marty Resnick and James McGovern, October 22, 2019.
[4] Gartner "Magic Quadrant for Integrated IT Portfolio Analysis Applications", Daniel B. Stang, Stefan Van Der Zijden, November 13, 2019.
[5] The Forrester Wave™: iPaaS And Hybrid Integration Platforms, Q1 2019, Forrester Research, Inc., January 3, 2019.
[6] The Forrester Wave™: Enterprise Architecture Management Suites, Q1 2019, Forrester Research, Inc., March 5, 2019.
[7] The Forrester Wave™: Streaming Analytics, Q3 2019, Forrester Research, Inc., September 23, 2019.
[8] The Forrester Wave™: Strategic Portfolio Management For Agile Organizations, Q4 2019, Forrester Research, Inc., November 5, 2019.
[9] MachNation: 2019 IoT Application Enablement ScoreCard, January 2019.
[10] MachNation: 2019 IoT Edge ScoreCard, February 2019.
[11] MachNation: 2019 IoT Device Management ScoreCard, June 2019.
[12] Gartner "Magic Quadrant Industrial IoT Platforms", Eric Goodness, et al., June 25, 2019.
[13] The Forrester Wave™: Industrial IoT Software Platforms, Q4 2019, Forrester Research, Inc., November 13, 2019.

Market positioning

Sales markets

Software AG has global market coverage. Its sales markets are divided into the following five regions:

Regions	Sales markets
North America (NAM)	USA Canada
Central and South America (LATAM)	Latin America
DACH	Germany Austria Switzerland
Europe, Middle East, Africa (EMEA)	All non-German-speaking EMEA countries
Asia-Pacific and Japan (APJ)	Australia Japan Asia and China

As the world's biggest IT market, the North American market continues to be a key driver for Software AG's business and the largest of all its geographic sales markets. Measured by percentage of total revenue, the EMEA, DACH, APJ and LATAM regions follow in that order. In the EMEA region, the United Kingdom and France are the most important sales markets. Software AG is positioning itself both in established as well as in emerging, high-potential locations as part of its global geographic strategy.

In addition to the geographic perspective, target markets can also be separated by industry. Thanks to a continuously expanding, extremely loyal customer base including many leading companies, Software AG is exceedingly well-established in the public, financial and IT service sectors (including outsourcing). The manufacturing industry, services, transport and logistics and telecommunication and media industries are also key market segments for
p. 66 Software AG. For more information on product revenue by region in 2019, please refer to the Financial Performance section of the Economic Report.

Competitive situation

The market for enterprise software is in the midst of a fundamental transformation. The development of new business models has brought new, innovative competitors onto the scene with technology startups and former industry outsiders. At the same time, customer market power has grown. Established companies are facing major innovative pressure. In light of this situation, portfolio quality and ongoing development as well as differentiation from the competition with unique solutions are key criteria for success.

Numerous analysts confirm that Software AG has established itself as one of the world's leading providers of p. 36
digital transformation capabilities under these tough conditions. The combination of its software and service portfolio for digitalization, automation and integration of business processes as well as for machines and devices is unique in the global market at this level of specialization. Software AG can provide its customers with comprehensive support for their companywide digital transformation like no other company—from planning and integration to evaluation, analysis and automated decision-making.

The Company clearly sets itself apart from the competition through its independent position, giving it an excellent competitive position in a tough software market. Its key **differentiators** can be summarized as follows:

Software AG's Unique Selling Points

Vendor-neutral portfolio	Software AG enables the integration of different systems and technologies from different providers—now and in the future.
Reliable and proven	For 50 years, Software AG has been a trusted partner for thousands of top companies in more than 70 countries. Gartner, Forrester and other market analysts name Software AG a technology leader every year because of its innovative power.
The right size	Software AG is large enough to support major companies and agile enough to be able to focus on individual customer requirements.
Fast return on investment (RoI)	Digitalization is just the starting point for Software AG because the goal is to recognize and fully exploit the potential of market differentiation at the intersection of technologies. Software AG supports its customers on this journey.
Consistent customer focus	Software AG's goal is to co-innovate with its customers and work closely with them at the management level.

With these key differentiators, Software AG can address customers' growing need for custom solutions of the highest quality. The Company is also positioning itself in the most important growth markets with its products for process improvement, digital transformation and IoT technologies.

Software AG's **market access** has continued to improve particularly in Europe's core markets, in which Software AG has reached critical mass. Moreover, the Company has established a basis for effective market cultivation and higher sales productivity through a focused, scalable go-to-market model. Extending the partner network and close collaboration with universities and research institutions support this direction. For more information about strategic partnerships and alliances, please refer to the following sections, Sales, Customers and Partners. For more information about Software AG's Scientific Advisory Board, please read the Research & Development section.

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Industry environment and influencing factors

Software AG's growth is influenced by a variety of factors. Key external influencing variables include the global economy, particularly in the major markets of Europe and North America, as well as developments in the international IT market. How these factors impacted Software AG's business during the 2019 reporting year is presented in the Business Summary section of the Economic Report.

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In addition, macroeconomic uncertainty and exchange rate fluctuations affect Software AG's global business, as they do all players in the free economy. For more information on the impact of exchange rate fluctuations on the Group, please refer to the Financial operating risks section in the Opportunity and Risk Report.

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Sales

Overall, Software AG is a trusted advisor for integration, digital transformation and IoT, creating real customer value and long-term success with more than 2,800 Professional Services and Sales employees. In 2019, the foundation was built for a truly customer-centric, value-driven sales approach and a global partner network as a strong future contributor for incremental license revenue.

Past attempts to modernize the go-to-market were ambitious, but did not have the expected impact. With Software AG's new strategic clarity and focus, it established the foundation for a sustainable and fundamental modernization and reshaping of its go-to-market in fiscal 2019. Among other things, the go-to-market model was updated and an optimized sales approach (Engage^2) was launched along with a new opportunity management system. Furthermore, a new Customer Success Management function is being introduced to support the business model's transition to subscriptions. Many of these updates were rolled out at Software AG's Sales Kick-Off in January 2020.

Sales and marketing activities also encompass numerous tradeshows and customer events. Software AG takes advantage of these opportunities to present its innovative product portfolio and engage with customers, prospects, partners and industry experts.

- At the **Mobile World Congress** in Barcelona, the largest mobile event in the world, bringing together the latest innovations and leading-edge technology from more than 2,400 leading companies, Software AG showed the world how to turn customer data into new IoT services. Many interactive showcases, such as Smart City and Industrial IoT (IIoT) in a box, supported a true customer experience with Cumulocity IoT.

- **Innovation Tour:** Software AG joined forces with Siemens, T-Systems, Dell, A1 Digital and other partners to present its portfolio to numerous customers during its 2019 Innovation Tour through Germany, Austria and Switzerland. The tour made stops in Hamburg, Munich, Düsseldorf, Vienna and Zurich. Innovation Tour also went international and was a success forum in Europe (e.g., London and Stockholm), the Middle East, South Africa and Singapore to get customers and prospects excited about Software AG's and its partners' product innovations and use cases.

- **IoT World 2019** in Santa Clara, California, a global conference where IoT was put into action across industry verticals. The event welcomed 12,500+ attendees, 400+ speakers, and 300+ exhibitors. Software AG generated many opportunities within a short period of time, though the U.S. is a completely different IoT market with a different target audience than Europe, for instance. Partnering with Sales ensured all leads were actioned and followed up successfully on time.

- With 6,500 exhibitors and more than 200,000 attendees, the **Hannover Messe** is the top international tradeshow and hotspot for transformation in the industry. Software AG was also prominently represented with a stand in Hannover, where it presented its comprehensive IoT portfolio together with strategic partners including ADAMOS, Autosen, A1, Bilfinger, Dell and many other IoT partners, one of which came all the way from Australia.

- **Gitex** in Dubai, with more than 100,000 visitors, was clearly a tradeshow for Software AG's complete offering though with a focus on Smart City, one of the mega trends in the region. Together with regional partners, Software AG showed the value of true partnership and inspired customers for the next decade of breakthroughs.

- **SPS—**Smart Production Solutions: With its unique concept, SPS covers the entire spectrum of smart and digital automation—from simple sensors to intelligent solutions, from what is feasible today to the vision of a fully digitalized industrial world. Software AG engaged with its partner ecosystem and together with autosen, SMC and Open Industry Alliance 4.0, presented the Cumulocity IoT platform and webMethods.io.

- **Deutscher Logistik Kongress:** The German Logistics Congress is one of the most important business congresses related to logistics issues. It is relevant across all sectors and highly political. More than 3,000 managers and decision-makers meet there every year to exchange knowledge and experience. Software AG presented use and showcases with Siemens and its new customer Trailar and showed how digitization can be lived. Another customer, Dachser, gave a keynote.

- **Gartner Symposium/ITXpo 2019 Barcelona:** With over 2,500 CIOs attending this tradeshow, Software AG showed the market how to truly connect their world from app to edge. Software AG led the event with an IoT messaging, without forgetting the rest of its offering: Integration, API Management and Business Transformation. Several interactive showcases (Smart Asset Management, Smart IIoT, Smart City and Smart Logistics), over 40 one-to-one meetings with customers and prospects, six meetings with Gartner analysts and a presentation by Sanjay Brahmawar supported a C-level experience around the IoT and Integration offering.

- At **SiDO** in Lyon, one of the key rendezvous in Europe for IoT, artificial intelligence and robotic solutions with 9,000 attendees, 80+ conferences and 250 speakers, Software AG presented and educated the market on IoT solutions with concrete demos on Industry 4.0 use cases.

Customers

Successfully serving customers as a trusted partner with innovative technologies to enable transformation to an agile digital enterprise is Software AG's primary objective. The Company therefore leverages the concept of co-innovation: collaborating with users to continue developing solutions. Multiple analyst awards confirmed the innovative power of Software AG's product portfolio in 2019. p. 35

User groups serve as one of the most valuable instruments for strengthening customer relationships. These groups bring the users of Software AG's primary product lines together on a regular basis to share experiences. Customers discuss how products can evolve with representatives of Software AG. The international user groups comprise almost 1,850 members from more than 1,150 companies and 70 countries. From June 3–7, 2019, 550 attendees from 276 organizations in 44 countries came together in Riga, Latvia for the annual meeting of Software AG's international user group. The next meeting will be held on June 15–19, 2020, in The Hague, Netherlands. Software AG welcomed around 300 attendees from 130 companies to the meeting of German-speaking user groups in 2019.

Software AG's Target Markets

Software AG's relevance as a global player of digital transformation is reflected in its ever-expanding international customer base and long-term customer relationships. The customer base continued to grow in fiscal 2019. Software AG was able to win 306 (2018: 241) new logos in 2019, which reflects year-on-year growth of 27 percent (2018: 13 percent). This development underscores the relevance of Software AG products.

Partners

Expanding the partner network

Software AG continued to systematically drive the growth of its partner network in 2019, both analyzing, consolidating and cleaning up the existing partner network as well as pursuing targeted recruiting of new partners.

Implementing these measures in the different regions resulted in a significant increase in business with resellers, which saw double-digit growth (66 percent).

With new partner recruiting, the focus was primarily on global partners called hyperscalers because they have a large customer base and can therefore offer Software AG significant opportunities for scaling up. Software AG was particularly successful in winning new partners in the areas of IoT and integration with its webMethods.io and Cumulocity IoT products. The Company continued its strategic partnerships with Dell and AWS, and entered into collaboration agreements with other well-known companies as well.

Adobe and Software AG announced a partnership at the Adobe Summit EMEA that will enable companies to transform their customer experience management. This solution will compile customer data from several systems into a central, reliable customer profile in real time. Software AG and Adobe will offer these integrations between the Adobe Experience Platform and Software AG's webMethods services for integration and API management.

Shantanu Narayen, President and CEO of Adobe, stated: "Adobe and Software AG are working on a joint solution that enables companies to capture and use large volumes of customer data to deliver personalized customer experiences in real time on a large scale."

Software AG announced an important partnership with Microsoft in July. The companies have joined forces to develop a solution to accelerate and simplify companies' migration to Microsoft Azure and ensure business continuity. Software AG's Cloud Migration Accelerator is based on the webMethods.io Integration Platform and allows companies to connect with applications, cloud services and data faster and more easily than ever before and thus become part of a networked ecosystem.

Winning new customers and market segments with the help of partners was another focal point of fiscal 2019. A new go-to-market model together with systematic customer segmentation created attractive areas that will be addressed exclusively by partners. Due to these efforts, Software AG was able to successfully recruit many new regional value-added resellers and distributors and achieve double-digit sales growth (78 percent), especially in EMEA (without DACH) and LATAM in these partner-led markets in 2019. New collaboration discussions with Tech-Data as a distributor for the U.S. market were especially good news in 2019.

At the same time, steps were taken to make the partner program even more attractive. For example, additional self-learning elements were added to the training program. This enables partners in a virtual classroom to determine when and how fast they want to work through the available training materials. Software AG's new virtual learning materials are already very popular in the partner community. The number of completed training courses increased by 45 percent over the previous year.

Moreover, the standard product demos for partners that had been available for some time were supplemented with cloud-based solutions that are easily accessible through the Company's partner business portal. Last but not least, the incentive model for partners was simplified substantially and made more appealing.

Supplier relationships and supply chain

Software AG and its subsidiaries buy goods and services necessary for internal processes from a large number of suppliers in different countries according to clearly defined guidelines. Operational purchasing is handled locally by the relevant subsidiary. The overarching procurement process, however, is the responsibility of the corporate Purchasing department. The Purchasing department analyzes all procurements worldwide using a reporting system, verifies compliance with defined guidelines through the Audit, Processes and Quality department and initiates strategic measures. The goal is to ensure that procurement only occurs with the necessary approval, thereby keeping costs under control at all times.

Investment and Expenditure policy

The provisions of the procurement process are defined in the Investment and Expenditure policy. This policy describes purchasing principles, rules for ordering and selecting suppliers and the global approval process.

Global Sourcing

The entire approval and procurement process and reporting policy for the Purchasing department can be found in the digital Global Sourcing approval and order system for Software AG and its subsidiaries. The process is broken down in the system as follows:

Global Sourcing Process

Request	Approval	Purchase	Reporting + Evaluation
Request For goods and services needed by a department	**Approval Matrix** • Role • Cost type • Commodity group • Limit	**Investment and Expenditure policy** • Selection of supplier • Order/contract • Purchase principles **Supplier Code of Conduct**	**Report Generation** • Purchase value • Relative savings • Absolute savings • Supplier evaluation • Order processing times

Supplier Code of Conduct

The Supplier Code of Conduct defines guidelines for responsible and sustainable conduct of Software AG suppliers with regard to economic, ecological and social aspects. It is currently available in eight languages (German, English, Hebrew, Japanese, Polish, Portuguese, Slovakian, Spanish). Suppliers must accept the applicable conditions prior to every order. There is a guideline that defines how the Supplier Code of Conduct is to be applied with a checklist to ensure compliance with all requirements. The Supplier Code of Conduct defines the following points:

- Interaction with employees (child labor, discrimination, forced labor, employee rights, compensation and working hours, health protection and occupational safety)
- Environmental laws, standards and policies
- Conduct in business situations (e.g., combating corruption, avoiding conflicts of interest, free competition)

Significant changes in the organization and its supply chain

Guideline for managing vendor master data

A dedicated approval process for data management was defined to ensure a high data quality of the recipient bank data and reduce the risk of fraudulent payments. Each entry or change to critical supplier master data must be justified with the appropriate documentation. Software AG's internal guidelines require two people to approve new or changed critical supplier master data. A vendor registration form (VRF) was implemented for all new suppliers to ensure this. The form that should be used is a separate document that can be requested from the Purchasing department or from the local FC&A contact. The supplier must be set up in Software AG's systems prior to the first order. This guideline defines the process for requesting, creating and managing supplier master data.

Recruiting and staff development

Software AG's highly qualified and committed staff plays a key role in the Company's success. Their expertise and personal skills are a crucial factor in customers', investors' and business partners' decision to choose Software AG. Particularly when competition for the best talent is so fierce, strategic HR measures such as individual staff development and high-value training are a key competitive advantage. Only motivated employees with excellent education and training are able to stay on top of the dynamic digital sector and develop the best customer solutions. Software AG's Human Resources department is responding to expectations in the market and the Company with a new talent management strategy and addressing topics such as succession planning and recruitment. Software AG pursues a comprehensive employee recruitment and development program to strengthen the Company's unique culture and employer branding.

Software AG's Corporate University is an integral component of Human Resources. It offers employees all over the world a comprehensive training portfolio—in the form of e-learning, face-to-face training and increasingly in new, digital and interactive formats as well. In addition to technical expertise, training programs focus on talent and management development and particularly on leadership and social skills. iLearn, Software AG's digital learning platform, provides all employees worldwide with job-specific training, available around-the-clock.

The University Relations program plays a key role in the search for the best rising talent thanks to its close ties to colleges, universities and graduates. Software AG provides software products for teaching and research purposes to more than 1,850 universities in over 70 countries. To date, more than 24,700 students have benefited from this program, learning about solutions from Software AG. Since 2017, students have the option of receiving ARIS certification online. The 1,000-plus downloaded certificates enable the young specialists to verify their newly acquired expertise when applying for jobs. Software AG also began expanding its activities into schools through the University Relations program in 2017. This reflects the fact that digitalization is affecting ever-more facets of life at an earlier age.

With the help of differentiated employer branding activities including the “b5" campaign, employees are gaining visibility as ambassadors for Software AG. Likewise, individual employee concerns are important, which is also evident in the global employee survey that asks all employees for feedback. The individual teams work together on next steps in workshops. This not only strengthens Software AG’s position as market leader, it motivates and supports existing employees with their many years of knowledge about products, customer needs and processes.

Software AG’s corporate culture is shaped by highly dedicated individuals, an international, open-minded staff and a global yet family-like environment. Promoting this diverse workforce, their leadership strengths and their expert knowledge while strengthening a global as well as individual identity is vitally important at Software AG. The Company’s deep respect for its employees is manifested in individual recognition, competitive compensation, comprehensive social benefits, a flexible working environment and holistic health and sustainability management. This all helps Software AG find and acquire the rising talents and managers of tomorrow.

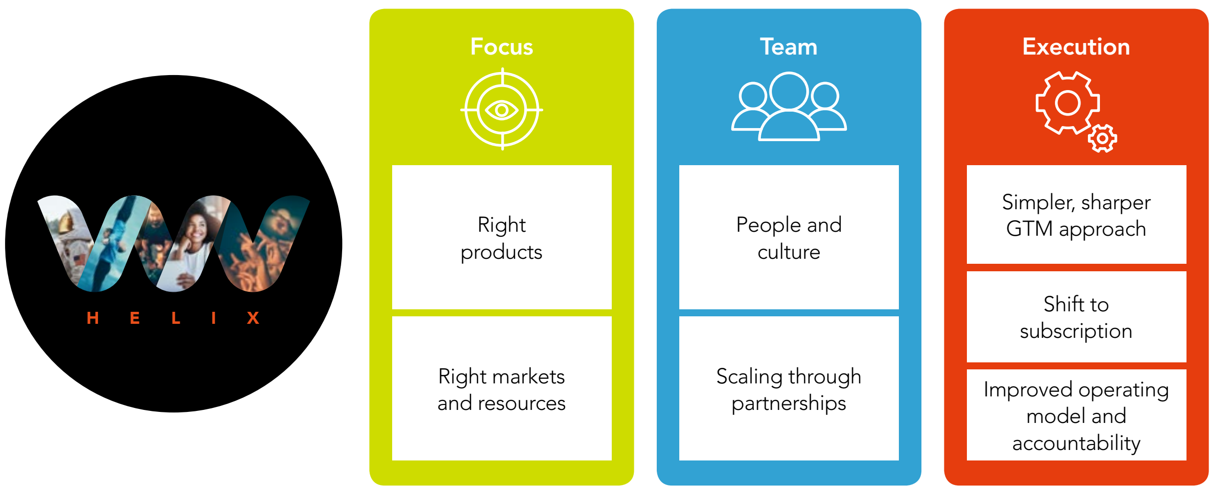
Strategy and Goals

Vision and business strategy

Software AG’s purpose is to connect technology and people for a smarter tomorrow. With this in mind, Software AG set its long-term vision to unlock the power of data to shape a better future. Software AG does this by focusing on a mission to empower customers to turn data into value as the leading hybrid-integration and IoT platform that reimagines the integration of cloud, applications, devices and data.

At the start of 2019, Software AG announced Helix, its strategy to transform the Company and target sustainable profitable growth by 2023. The transformation is a multi-year journey built on three key pillars:

Software AG’s Transformation at a Glance



Focus:

- **The right products:** Software AG is reducing its product portfolio complexity and focusing its R&D investments on product quality, cloud and innovation and in the areas of the product portfolio which have greater potential for growth. Software AG is also transforming its services business from a general technology consulting business to a focused professional services business that is an enabler for product growth.

- **The right markets:** Software AG is reshaping its go-to-market. The Company is focusing investments in resources and capabilities in the geographies where it sees the opportunity to grow and substantially increase market share—North America, Germany, the U.K., France and other select geographies. To complement this, Software AG is segmenting its customer base and creating a specialist sales model to create greater focus in how it brings its products to market and the ways it creates demand for them.

Team:

- **People and culture:** Software AG is harnessing its most valuable asset, its people, to deliver on its transformation, including working on aspects of culture change needed to enable its transformation to a growth company and investing in talent and areas that matter most to its people.

- **Scaling through partners:** Software AG will advance the extent to which it embraces the partner ecosystem to drive growth. Software AG is opening up new routes-to-market with partners, investing in enabling partners to support Software AG's customers and transforming its coverage model to complement partners.

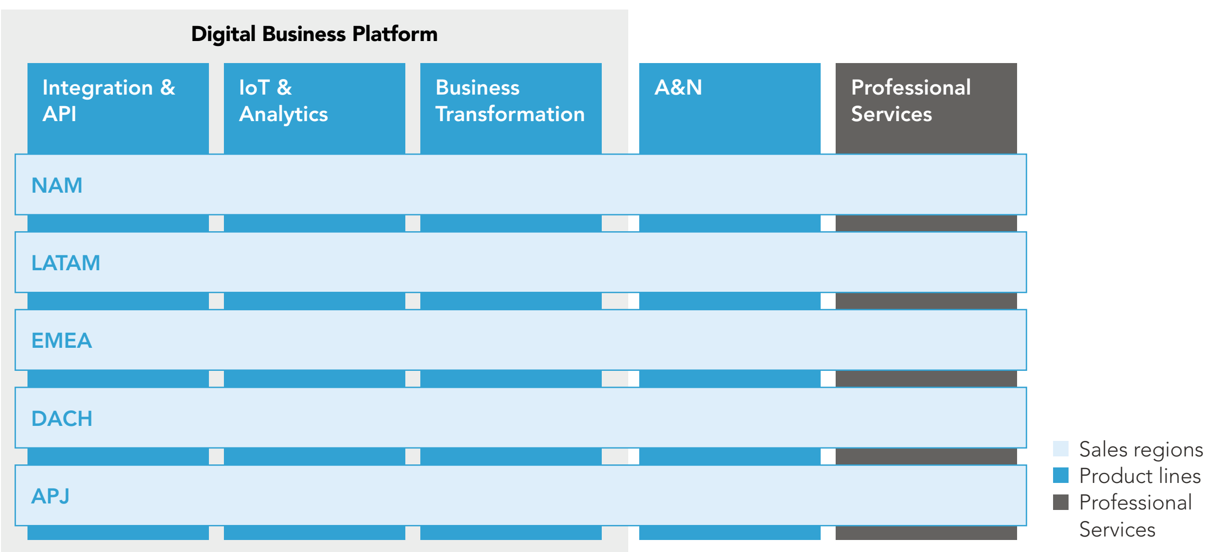
Execution:

- **Shift to subscription:** To meet the changing needs of its customers and capitalize on the opportunity a subscription business model presents, Software AG is transforming its business operations and go-to-market model to accelerate its own business model shift to subscription.

- **Simpler, sharper go-to-market:** Software AG is modernizing its go-to-market model to deliver growth. This extends to embedding sales excellence in the field through to marketing being fully enabled to create demand for Software AG products and ensuring its brand delivers the right impact in the market.

- **Improved operating model and accountability:** Software AG is implementing a new "performance matrix" operating model for the business to provide end-to-end accountability and shared goals for geographic sales and product units. As part of this change in 2019, the DBP (incl. IoT & Cloud) business line was internally organized into three product lines: Business Transformation, Integration & API and IoT & Analytics. The new structure has clear lines of leadership, responsibility and accountability.

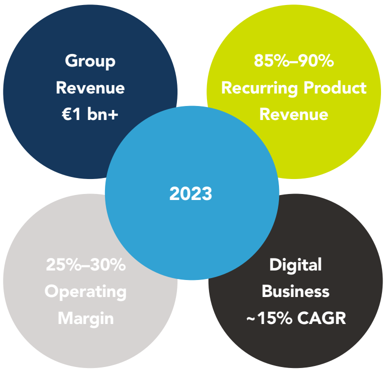
Software AG's Performance Matrix 2019



Strategic objectives

As part of the Software AG transformation, it has introduced a number of new KPIs that provide medium-term goals for the Company's external and internal stakeholders in relation to the progress and impact of the transformation. These external KPIs were shared at Software AG's Capital Markets Day on February 5, 2020, and are outlined below.

Accelerated growth, higher quality and higher visibility of revenues, good margin and cash generation



In addition to these external KPIs, Software AG introduced an internal transformation scorecard which combines the above with a set of more qualitive measurements to help track the transformation's progress.

Financial objectives

Based on its business model, Software AG is aiming to reach €1 billion in revenue by 2023 and anticipates a high operating non-IFRS EBITA margin between 25 and 30 percent. Continued high margins are expected in revenue growth for the A&N segment. In the DBP segment, the Company is targeting an average of 15 percent growth over the medium-term, which will be driven by continued acceleration in marketing activities for the IoT segment, where dynamic growth is anticipated. Over the medium-term, the DBP margin will be supported in particular by steady growth in the product business in the recurring revenue streams of subscription, Software as a Service (SaaS) and maintenance, which should increase to 85 to 90 percent of the total revenue. Furthermore, productivity improvements in sales and a growing partner network will further support the margin. Growth in the low-single digits with a stable to slightly increasing margin is expected in the Professional Services segment.

Non-financial objectives

Software AG is focusing on long-term, sustainable growth. An essential component of Software AG's success strategy is the ongoing development of its own product portfolio including the integration of technologies acquired in previous years and co-innovation with customers and partners. Software AG has identified factors for sustainable, continued development to drive profitable growth. These factors are discussed under Non-financial performance indicators in the Internal Corporate Control System section. For more information about the key drivers of sustainable company governance, please refer to the Combined Non-Financial Statement.

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Strategic direction of the business lines

Digital Business Platform (DBP)

With regard to the business lines, Software AG is focusing strategically on heavily expanding the pioneering DBP line, which has become the Company's top revenue generator in recent years. The reason: The transition to the digital enterprise also requires transformation of the internal IT architecture. Today everything focuses on a real-time platform that is needed in practically every field, from product development to customer interaction. This business line's goal is to deliver a comprehensive, cloud-based, consistent, flexible platform that is built on modern architecture elements (API, microservices, containers, events)—and with technology that is always one step ahead of the competition. To this end, Software AG is constantly developing and enhancing the relevant capabilities as part of its own R&D work as well as making targeted acquisitions to strengthen its technology leadership in this area. For more information on this topic, please refer to Equity Interests and Research & Development.

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Internet of Things (IoT)

IoT is the ultimate game-changer. Software AG's IoT solution (Cumulocity IoT) gives customers the freedom to integrate any "thing" in any way and anywhere. As a leader in integration and IoT, Software AG makes it easy to connect products in a matter of minutes—not months—and accelerate time to value. There's no limit to what customers can connect to optimize operations to the edge, improve their customer experience or launch new business models. Software AG's Cumulocity IoT is ranked as a leader by industry analysts and is open to white labeling so customers and partners can create their own IoT product offering on top of Software AG's powerful, telco-grade, secure IoT platform.

Adabas & Natural (A&N)

The A&N business line provides a solid, highly profitable base for enabling flexible, strategic investments in innovative emerging fields. Moreover, the Company can rely on an established customer base that offers promising sales potential for DBP products in this segment. The **Adabas & Natural 2050+** agenda provides the strategic roadmap for the A&N segment. The Company announced the agenda in summer of 2016, reaffirming its decision to continue to develop and support the A&N product portfolio through the year 2050 and beyond. This is an unprecedented commitment in the industry to sustainability and investment security for customers. It is Software AG's response to an independent survey, which showed that 98 percent of A&N customers employ the high-performance platform to render strategic, mission-critical enterprise applications. By pursuing this long-term agenda, the Company also aims to support its customers through the generational shift that is facing the entire software industry. Software AG wants to help its customers to secure and expand the expertise built up during decades of development work on enterprise applications. The goal is to provide customers with a single, integrated platform for digitalization that they can use to develop the next generation of future-proof business applications.

Professional Services

Sustainable profitability and high service quality are Software AG's two strategic targets for its **Professional Services** business line. The Company therefore focuses its activities on projects and services that comprehensively support its product business. Furthermore, Software AG is reducing its presence in regions with low profit expectations.

Equity interests

Mergers & Acquisitions (M&A) strategy

Corporate acquisitions and participating interests are a strategic instrument at Software AG for opening up new markets and growing market share while solidifying its technology leadership. Throughout 50 years of Company history, Software AG has succeeded in reinventing itself and transforming time and again—a key prerequisite for staying successful in today's IT world with its changes at breakneck speed and shrinking innovation cycles. With its technology acquisitions in recent years, Software AG has picked up new impetus and expertise and integrated it. The Company acquired 21 companies between 2007 and 2018 to grow and develop its product portfolio. The M&A strategy was redefined in fiscal 2019 as part of the Helix strategic realignment. Targeted takeovers and acquisitions should supplement and accelerate organic growth, especially in markets with substantial growth potential. No acquisitions were made in fiscal year 2019.

Software AG's M&A department is based at corporate headquarters in Darmstadt, Germany, and is in constant contact with the Management Board. The M&A department operates in an international, heavily networked ecosystem consisting of numerous investment banks, M&A boutiques and financial investors as well as leading IT companies and startups. Maintaining a regular presence in Silicon Valley helps manage and grow contacts with the startups and leading global IT companies located there. Software AG utilizes this ecosystem and constant market and competitor analyses to recognize future IT trends early on, to test, harness and develop them. Whether in Europe, Silicon Valley or other promising locations, Software AG will continue to keep a close eye on the technology development market in order to enhance its product portfolio and market penetration through targeted acquisitions and expand its global presence.

Internal Corporate Control System

Performance indicators and monitoring

Software AG's internal control system enables it to meet strategic corporate objectives. Software AG focuses on continued profitable growth and strengthening its financial power so that it can help customers master digital transformation and increase its own enterprise value. To this end, Software AG has established a comprehensive **internal corporate control system** that measures both hard and soft performance indicators of success.

For target values that were not reached or just barely reached during the year, Software AG will readjust in the following period. To do so, the Company has established a standard process between the local Commercial teams and Controlling that is conducted on a quarterly basis. A financial scorecard model is the foundation and starting point of this process. Suitable measures are developed and initiated if deviations from goals are detected, then the results are incorporated directly into a rolling forecasting and budgeting process. At the heart of this rolling process is a new planning horizon that has been expanded by two quarters to a total of six quarters. This enables Software AG to map out the effects from those measures beyond the current calendar year. In this case, rolling means that the planning horizon shifts from quarter to quarter.

Targets Met in 2019

as %	Bottom range	Top range	KPI 2019
Digital Business Platform product revenue (not incl. Cloud & IoT)[1,2]	–6	+0	–3
DBP Cloud & IoT product revenue[1]	+75	+125	+38
Adabas & Natural product revenue[1,3]	–3	+3	+3
Operating profit margin (non-IFRS)[4]	28.0	30.0	29.2

[1] At constant currency
[2] Original forecast of +3% to +7% was reduced to –6% to 0% in July 2019
[3] Original forecast of –5% to +0% was reduced to –3% to +3% in April 2019
[4] Before adjusting for non-operating factors (see non-IFRS results)

Group financial indicators

DBP revenue at constant currency (excl. Cloud & IoT), **DBP Cloud & IoT revenue**, **A&N product revenue** as well as **operating profit margin** (non-IFRS) are key strategic indicators for managing the Company. The operating profit margin (non-IFRS) is the focus of internal controlling. These performance indicators are calculated as follows:

Operating margin (EBITA, non-IFRS)

Earnings before interest and taxes (EBIT)

+	Acquisition-related amortization of intangible assets
+	Acquisition-related decreases in product revenue due to purchase price allocations
+/–	Other acquisition-related effects on earnings
+/–	Income/expense resulting from share price-based remuneration
+	Restructuring/ severance/litigation

= EBITA (non-IFRS)

The **operating profit margin (EBITA, non-IFRS)** is calculated by dividing EBITA (non-IFRS) by Group revenue adjusted for acquisition-related product revenue decreases.

As is typical across the software sector as a whole, capital-oriented financial indicators play a minor role for Software AG. This is due to the fact that the business model's commitment of capital is low. Software AG's largest expense block is for personnel costs, as described in p. 176 Note [14] of the Notes to the Consolidated Financial Statements. Other key indicators are provided by the segments and types of revenue on which Software AG's business model is based.

Software AG also reports operating earnings per share (non-IFRS) to account for tax-related factors and net financial income/expense. They are calculated as follows:

Operating earnings per share (non-IFRS)

Earnings before income taxes

+	Other taxes
+/–	Net financial income/expense

Earnings before interest and taxes (EBIT)

+	Acquisition-related amortization of intangible assets
+	Acquisition-related decreases in product revenue due to purchase price allocations
+/–	Other acquisition-related effects on earnings
+/–	Income/expense resulting from share price-based remuneration
+	Restructuring/severance/litigation

EBITA (non-IFRS)

+/–	Net financial income/expense
–	Other taxes

Earnings before income taxes

–	Income tax based on Company's income tax rates

Net income (non-IFRS)

Divided by average number of shares outstanding

= Operating earnings per share (non-IFRS)

Segment performance indicators

The key performance indicators for the product business are those reflecting sales efficiency. Efficiency is portrayed through the **cost of sales ratio,** which reflects the sales and marketing expenses of a product in relation to the associated product revenue. The factors influencing optimization of the cost of sales ratio are determined using additional efficiency indicators such as revenue performance per Sales employee and average deal size trends.

The **segment margin** (the ratio of revenue less cost of sales and sales and marketing expenses to revenue) is reported in the segment report and is an especially important performance indicator for the Professional Services line. It is influenced primarily by the capacity utilization of staff in the Delivery department, sales and marketing expenses and the cost per employee. The last factor can be optimized by controlling on/off-shore high/low cost percentages.

Monitoring types of revenue

Up to December 31, 2017, Software AG reported the revenue types: licenses, maintenance and services, whereby **license revenue** represented the key growth driver for maintenance and service revenue. As a result of the growing importance of term-limited, rental and usage-based license models in the software sector, Software AG added the revenue type "SaaS/usage-based" (Software as a Service) in the DBP segment in fiscal 2018. With Software as a Service, the customer purchases a time-limited user license that includes software hosting.

Because of the expected increase in the share of yearly subscription-based license models with somewhat distributed revenue recognition (in contrast to immediate revenue recognition at the start of a perpetual license agreement) , monitoring sales performance solely on the basis of revenue is no longer sufficient. For that reason, the Company implemented two additional performance indicators that identify business success in a standardized way independent of the individual revenue recognition of the different types of license agreements: bookings and annual recurring revenue (ARR).

Bookings

The bookings metric captures the sales performance in a reporting period based on contract value. To make this metric comparable across the different license models, it is normalized over three years and calculated as follows:

Unlimited licenses	Total contract value
Maintenance services on new unlimited licenses	3-year maintenance service contracts
Subscription contracts [1]	Contract volumes divided by the contract term multiplied by 3 years
Software as a Service (SaaS) [1]	Contract volumes divided by the contract term multiplied by 3 years
Usage-based license models incl. maintenance	The contract value is equivalent to the booked revenue based on the measured usage in the individual quarter

[1] Contracts with a term of less than 90 days are not counted as bookings. Furthermore, contracts with a term of less than 360 days are included in the calculation of bookings using their contract volume.

Annual recurring revenue (ARR)

This metric shows the annualized contract value[2] of active contracts with recurring revenue streams at the end of the reporting period. Thus, ARR is an indicator of expected annual recurring cash flows with continuation of the active contracts of the following contract types:

- Limited licenses / subscription licenses
- Maintenance from limited and unlimited licenses
- SaaS licenses
- Usage-based licenses[3]

Software AG also employs a multidimensional matrix structure to continuously monitor **changes in EBITA** for every profit and cost center. The matrix is broken down further according to business lines and revenue types and, within the business, by region. Furthermore, Software AG constantly observes the operating income of its service business with respect to specific projects, from the time a quote is prepared through to project conclusion. One of the most important goals is the constant improvement of **sales efficiency.** Software AG achieves this through its customer-centric go-to-market model. A cross-regional sales and service structure and steady expansion of the partner network offer additional potential for market coverage and growth.

[2] Value of all active contracts at period end (without one-time effects) divided by the contract term in months multiplied by 12
[3] Realized monthly revenue of usage-based license agreements at period end multiplied by 12

Total contract value

Total contract value (TCV) measures the agreed cash flows under all contracts entered into in a given period, up to the end of the contract. This figure is an indicator of sales performance in the period under review and reflects the expected cash flows, up to the end of the contract, from perpetual licenses, subscriptions and SaaS in the product business.

Cost and cash flow management

All cost items in the Group are subject to stringent budget control and are assigned to clearly defined controlling areas depending upon their business segment (R&D, Sales, Management). On a monthly basis, the individual profit and cost centers are reviewed to determine whether budgets were adhered to, how forecast costs evolved, and how cost growth compares to revenue growth. Software AG uses a **dynamic budget model,** ensuring that key components of the cost budget remain flexible in relation to sales growth. The cost budget is adjusted as needed throughout the year in order to achieve or surpass profit targets.

Receivables management has a significant effect on cash flow. It is controlled centrally by Software AG and executed locally by subsidiaries. Receivables management is monitored by way of various internal controlling processes.

Software AG's cash management is a centralized function and is carried out at corporate headquarters in Darmstadt using a global, standardized cash management system. It enables Software AG to optimize its investment strategy and minimize investment risk.

Non-financial performance indicators

Software AG's enterprise value is defined not only by financial indicators, but also by non-financial performance indicators. Software AG strongly believes that they are an element of long-term business success. To clarify how the Company measures the individual performance indicators, the table below illustrates examples of operationalizing practices.

Performance Indicator	Operationalization Examples
Strategic product positioning in the market	External analyst ratings
Customer satisfaction and loyalty, as well as feedback	Average deal sizes, maintenance agreement termination rates, regional trends, customer satisfaction analyses
Employee satisfaction and retention	Performance-based compensation, length of service, turnover
R&D	Number of product release cycles, analyst ratings
Focus of sales activities	Sales efficiency and effectiveness
Partner network	Number of sales and technology partners, revenue influenced by partners or through partners
Anti-corruption	Training rate on the Code of Conduct

Company-specific early warning indicators

The early warning indicators used by Software AG are separated into **cross-departmental** and **department-specific indicators**.

The key cross-departmental early warning indicator is **license revenue growth,** because license sales directly impact the Company's profitability and indirectly affect it through the resulting maintenance and Professional Services business. At the beginning of a reporting period, the existing qualified project pipeline is the essential early warning indicator for licensing business growth. In this qualified project pipeline, existing opportunities are evaluated in size and probability and placed in relation to expected revenues. Since opportunities naturally become disqualified, delayed, lost or contracted during the sales process, the relation between the pipeline and revenues is not fixed. Rather, it is subject to constant change until the end of the reporting period. To actively manage the complexity of this early warning indicator, Software AG uses an appropriate customer relationship management tool that shows the correlation between the existing pipeline and anticipated revenue in real time. Therefore, at the start of a quarter the value of that quarter's opportunities equals at least three times the expected revenue volume. If this is not the case, activities in license sales need to be intensified accordingly.

In fiscal 2018, ARR was added as an indicator of future performance. It represents the anticipated recurring cash flow in the product business. Furthermore, total contract value plays a role in Consulting as well as in some areas of the product business as a key indicator of future business development. In the Professional Services line, a report on total contract values for new Professional Services projects is submitted monthly. Work orders typically define clearly quantifiable contract values, whereas service agreements only stipulate an anticipated volume. Since neither the size of orders nor the date they are received are evenly distributed, total contract values can fluctuate considerably. For this reason, Software AG assigns greater importance to the Professional Serives line's **order backlog** than to its total contract value. The order backlog at the end of a period is defined as: the order backlog during a period plus all new contract values during that time period minus all new contract values realized (completed) in that period. The order backlog for a reporting period should increase by about the same rate as the target revenue growth for the next periods. Should that not be the case, the Professional Services business line has to intensify its sales activities.

Another department-specific early warning indicator is the **maintenance agreement termination rate**. Due to contractually defined cancellation periods, terminations received during the course of the year combined with anticipated licensing revenues allow the Company to draw conclusions about maintenance revenue growth for the subsequent reporting periods. With termination rates of 6–7 percent, experience has shown that Software AG can expect year-on-year growth in maintenance revenues of about 3 percent (2019: 2.7 percent) at constant currency (provided license revenue growth remains positive and other conditions remain constant).

Integrated management system

The integrated management system implemented in 2016 is a supplemental control system that currently includes the areas of **Quality Management, Business Continuity Management,** and **Information Security Management (cloud)**. It was initiated to provide an adequate answer to the growing compliance requirements on the customer side.

By defining internal quality goals and continuously monitoring compliance with them through management reviews and monitoring key quality indicators, Software AG is creating a corporate culture that is committed to maintaining high quality standards. Its successful **certification to ISO 9001:2015** is evidence of this commitment.

Software AG has performed a targeted analysis of its business processes and the accompanying IT systems to develop strategies that enable it to preserve the most critical processes from a customer's perspective, or be able to restore them as quickly as possible. This also includes concepts for redundant data storage. The Company is further securing its constant preparedness through regular training of the global Incident Response Team and continuously testing crisis scenarios. The Company's successful **ISO 22301:2012 certification** (business continuity management) confirms the effectiveness of these measures.

For more information about quality assurance and the **ISO 27001-certified cloud information management system** (Cloud IMS), please refer to Customer concerns in the Aspects section of the Combined Non-Financial Statement. p. 98

Research & Development

Strategic focus

Software AG's mission is to turn data into value for the world's most innovative enterprises. With a 50-years-bold heritage as a data pioneer, Software AG is fueled by entrepreneurship, an imaginative spirit and a staunch commitment to independence for customers. Software AG is the startup that's all grown up.

Software AG's innovative power and operational excellence continue to be the cornerstones of successful R&D. Targeted technological acquisitions, in-house R&D as well as the resulting innovations form the basis for long-term success for Software AG.

Ongoing portfolio development, partnerships and co-innovation projects with customers as well as joint research projects with academia, research centers and startups ensure that Software AG is always able to address the practical needs of customers based on the latest trends in technology.

The goal of R&D activities is to continually develop the Company's product portfolio while considering customer requirements as well as business concerns. The Internet of Things (IoT), data insights and analytics, machine learning mega trends are of particular focus.

Innovations and security expertise

Software AG believes in both organic and acquired innovation. Many Software AG products are visionary market leaders. As part of Software AG's **co-innovation strategy,** its R&D unit collaborates closely with customers and strategic partners including Siemens and Microsoft. Software AG contributes to various standards bodies and open source projects, participates in various **research programs** and established a **Scientific Advisory Board** in 2017. Software AG also encourages and sponsors grass-root-level innovations from employees via various internal initiatives and events designed to foster innovation.

Innovative **technology acquisitions** are another key component for gaining expertise. For more information on Software AG's corporate structure and M&A strategy, please refer to Fundamental Aspects of the Group. p. 32 p. 49

In addition, Software AG legally protects its knowledge and expertise with **patents**. Details on Software AG's patent practices are covered under legal risks in the Key Individual Risks and Opportunities section of the Opportunity and Risk Report. p. 124

Security

A security system based on OpenSAMM ensures the security of software development. Maintaining common security processes even during development is a guarantee for robust software security. Furthermore, the Company contracts with external security consultants to inspect the software for weak points to continually improve its security. In Germany, R&D also collaborates with the Fraunhofer Institute for Secure Information Technology (SIT) on processes for secure software development.

Software AG also looks at the adoption of its products, especially for new innovative solutions, to monitor whether new solutions meet customer expectations and result in adoption.

In addition to customer adoption, Software AG assesses its innovation strength by the number of patents filed.

These strategic indicators are complemented by a multitude of operational metrics as part of an early warning system.

R&D performance indicators

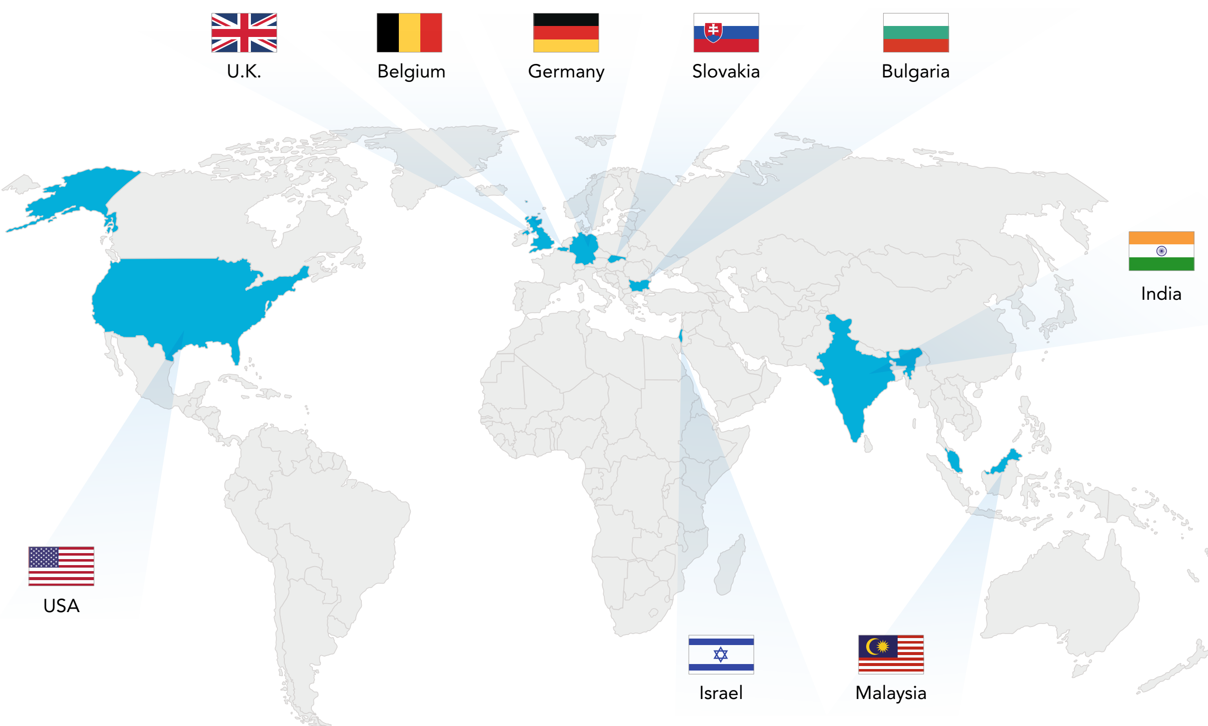
Software AG considers customer value to be the overarching objective when delivering products and solutions. Customer value and the resulting customer satisfaction and loyalty is measured by the Net Promotor Score (NPS). Software AG measures NPS at different touchpoints throughout the entire customer lifecycle (contract negotiations, support incident, etc.).

Employees and locations

Thanks to its intensive R&D activities, Software AG has always been a pioneer and innovation leader in the software industry. The Company set a new standard with its first Digital Business Platform in late 2014 and is working continuously on developing its product portfolio. In 2019, Software AG released comprehensive product updates and focused intently on IoT, a substantial growth area.

Considering the strategic importance of R&D for the Group, the number of employees in this area has been growing accordingly since 2014 and reached a record high of 1,419 employees in 2019 (2018: 1,310). Software AG has R&D centers in the following countries:

R&D Locations



Ongoing product portfolio development

In 2019, R&D worked primarily on customer-centric development, with a particular focus on a complementary product portfolio, integration of new partners' and acquired companies' technologies into the DBP and A&N product lines as well as implementing the co-innovation strategy. Key R&D topics in the DBP line were the digital enterprise (cloud, analytics, data integration and API management) and IoT (platform services, device management and data streaming and analytics). A&N focused primarily on rehosting and hardware optimization. Approaches such as scrum, design thinking and test automation are employed in the innovation process.

Partnerships and co-innovation

2019 was a big year for new partnerships. With Microsoft, Software AG not only added another strategic cloud infrastructure provider (IaaS) for its cloud products, the Company also teamed up with Microsoft to build and deliver new and combined solutions valuable to the huge Microsoft ecosystem that will open new addressable markets for Software AG. This new partnership enables Software AG's IoT solution (Cumulocity IoT) to not only use Microsoft's infrastructure Azure but also add Microsoft's data and analytical services like Azure Data Lake, Power BI and Azure Machine Learning. For Software AG's integration & API products (webMethods), this means that the Company can now safeguard and accelerate cloud migrations.

Furthermore, Software AG also became member of the Open Data Initiative (ODI), an industry consortium founded by Microsoft, Adobe and SAP. The ODI provides a platform for a single, comprehensive view of data, unifying and enriching data from all lines of business and across all systems to deliver real-time intelligence back into applications and services.

Another strategic partnership formed in 2019 was with Adobe. This alliance aims to help companies transform their customer experience management by bringing together customer data from across multiple enterprise systems into a centralized and actionable real-time customer profile.

R&D expenses and internal strategy

Expenditures for R&D rose by 6 percent in 2019 to €131.3 million (2018: €124.4 million). Accordingly, R&D expenses as a percentage of product revenue (licenses, maintenance and SaaS) increased from 18.2 percent in 2018 to 18.7 percent in the year under review. This rise is due to higher R&D investments totaling €105.1 million (2018: €100.6 million) in the high-growth DBP line. To strengthen its position as an innovation leader, Software AG is committed to digital products and markets—as a long-term investment in the future. Software AG is dedicated to evaluating and developing technologies for the digital enterprise and thus to a sustainable and customer-centric investment strategy. An additional reason for the rise in R&D expenditures in fiscal 2017 was the strategy introduced at the end of 2016 to continue developing and supporting the A&N database business through 2050 and beyond. This innovation program was reflected in the growth in A&N license revenue in 2018 and 2019.

Multi-Period Summary for R&D

in € millions	2019	+/– as %	2018	2017	2016	2015
R&D expenditures for A&N	26.2	10	23.8	23.8	22.5	20.7
R&D expenditures for DBP	105.1	4	100.6	96.9	89.9	85.7
Total	**131.3**	**6**	**124.4**	**120.6**	**112.4**	**106.4**
as % of product revenue	18.7	—	18.2	17.8	16.7	15.7
as % of total revenue	14.7	—	14.4	13.7	12.9	12.2
R&D headcount (FTE)	**1,419**	**8**	**1,310**	**1,176**	**1,110**	**992**

Expenditures for near and offshore capacities also went up, primarily in the area of staffing. This reflects Software AG's strategy of efficient distribution of R&D spending, whereby R&D capacities in various countries are taken into consideration. Over time, the Company has established four large, high-performance R&D centers in India, in the cities of Bangalore, Chennai, Hyderabad and Virar. Software AG's location strategy is based on global availability of outstanding talent and distributes product responsibility accordingly across R&D locations. Furthermore, Software AG allocates its resources optimally by combining technology acquisitions and in-house development.

Due to these factors, the number of employees (full-time equivalents) working in R&D rose to 1,419 (2018: 1,310) as of December 31, 2019. This is an 8 percent increase year-on-year and reflects the Company's sustainable long-term strategy. R&D specialists were distributed across 17 countries, with the majority based in Germany, India, the U.S. and Bulgaria in the year under review.

Collaboration with science and research

Software AG's Scientific Advisory Board once again contributed important ideas on technology trends in 2019. This strengthens the development of the product portfolio and, in turn, brings customers significant benefits. The task of the Scientific Advisory Board is to support Software AG's R&D activities in an advisory capacity; it is not a corporate controlling body in the legal sense. Members of the board determine what its areas of focus will be at least once per year. In addition to Software AG executives, the board consists of external members of science and research communities who are appointed for a term of at least three years.

Software AG participated in collaborative research projects with universities, research institutes and other companies as part of many publicly funded research projects in fiscal 2019. Sharing knowledge with partners from science and research leads to early identification of market and technology trends. Software AG employs these insights to offer customers a broad range of best-in-class innovations. The following is a selection of current research projects:

- **AMCOCS** will create an AI-enabled platform for digital testing and certification processes in additive manufacturing (3D printing). AI allows construction and production issues to be identified in advance, i.e., before actual production. AMCOCS can enhance, accelerate and even replace current manual processes which are very time and cost intensive. These significant improvements in time and expense are essential for the broad adoption of 3D printing in manufacturing.

- **EVAREST** turns data steaming from food production into tradeable data products, thereby unlocking new revenue streams for food producers. Thanks to EVAREST, they can sell data from their sensors, machines and plants, which to date have only been used to monitor and optimize production. This data then can be offered as a product to third parties such as retailers, information providers and financial service companies. EVAREST creates a monetary incentive to food producers to make their data available as products for others, thus contributing to the development of a real data economy in Germany.

- Europe's population is aging rapidly. By the middle of the century one in every three Europeans will be over 60. This will have dramatic consequences for our working world, as the average age of the workforce continues to rise. The objective of **sustAGE** is to enable workers to retire later and—above all—healthier. sustAGE is developing digital services based on the Internet of Things which will not only provide employees with tailormade suggestions for improving their physical and mental fitness, but will also allow them to carry out their duties according to their individual constitution. Furthermore, this project deals with improved safety and health at the workplace. All in all, sustAGE is playing an important role in tackling the effects of demographic change in the working world.

- The goal of **ZDMP** is to develop a digital platform for (partially) automated zero-defect production. In manufacturing, defects are defined as deviation of a product or process from its previously set specifications or characteristics. The sooner such defects, which can be very costly, are detected, the easier and cheaper it is to eliminate them. This is exactly where ZDMP comes in. Thanks to the use of real-time data analysis and artificial intelligence, defects can be detected at a very early stage in production, but also predicted with extreme precision. With the resulting cost savings, ZDMP is a key factor in strengthening the competitiveness of the European industry.

Other R&D activities

Software AG is active in many German and European committees, associations and organizations. This involvement enables the Company to react quickly to new challenges, set standards and positively influence digital transformation and its impact on society. The Industry 4.0 Platform is an example of Software AG's involvement. This platform grapples with not only the technological aspects, but also the social and legal aspects, of Industry 4.0. Software AG is represented on the platform's steering committee, collaborates in several workgroups and provides the co-chair of the research advisory committee.

Network Memberships and Political Involvement

Organization	Additional information
BDI—National Association of German Industry	bdi.eu
BDVA—Big Data Value Association	bdva.eu
Bitkom—Germany's Digital Association and neue Medien e. V.	bitkom.org
DKFI—German Research Center for Artificial Intelligence	dfki.de
GI—Society of Computer Science	gi.de
House of IT e.V.	house-of-it.eu
ITEA 3	itea3.org
Industry 4.0 Platform	plattform-i40.de
Plattform Lernende Systeme	plattform-lernende-systeme.de
Council for Scientific Information Infrastructures (RFII)	www.rfii.de
Software Campus	softwarecampus.de
Software Cluster	software-cluster.org

Economic Report

Business Summary

General economic conditions

Global economic growth slowed further in 2019. In the third quarter of 2019, global production rose only 0.8 percent; for the fourth quarter, the IfW indicator forecast a further cooling down. Advanced national economies, in particular, saw a continued weakening over the past year, while in many emerging economies, economic conditions stabilized, and even began to pick up towards the end of the year. The main sectors contributing to the sluggish economy were industry and global trade, which have increasingly lost momentum since the end of 2017/start of 2018. Emerging economies continued to benefit from production in China, growth of which slowed significantly but was still positive.

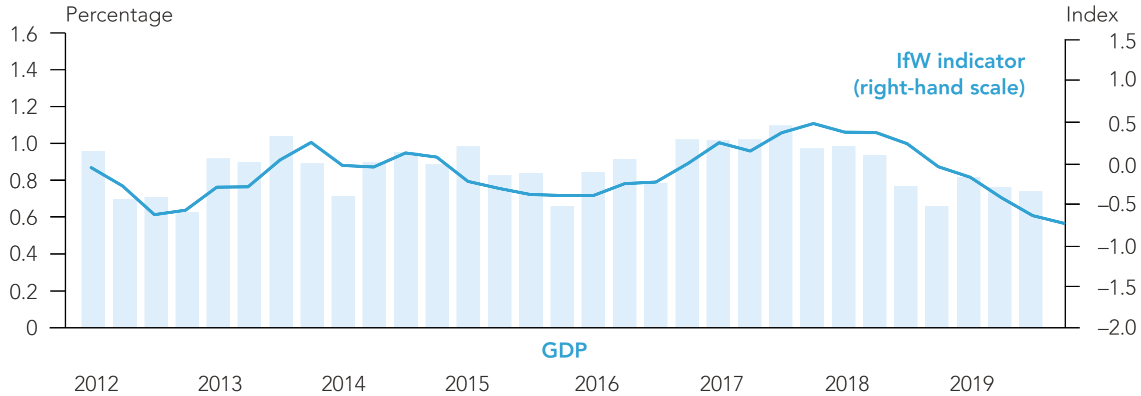
For 2019 as a whole, the Institute for the World Economy in Kiel, Germany (IfW) now forecasts an increase in global production of 3.0 percent. This is the lowest increase since the Great Recession of 2009. For 2018, the increase came to 3.7 percent.

The previously very robust U.S. economy also lost momentum. Investment activities, in particular, slowed noticeably. In addition, the effects of the strong fiscal impetus set in 2018 died out, and exports weakened. In the third quarter of 2019, GDP rose by 0.5 percent; the strong consumer demand subsequently slowed, however, and corporate investments declined once again. For 2019 as a whole, the IfW anticipates growth of 2.3 percent, after 2.9 percent in 2018.

In the eurozone, the economy has also noticeably lost momentum since the start of 2018, especially given that value creation in industry declined due to a lack of foreign policy impetus. GDP rose 0.2 percent in the third quarter of 2019 thanks to a higher level of private consumption and slightly stronger exports. Growth still declined in 2019 to 1.2 percent, after having reached 1.9 percent in 2018.

In Germany, the downward trend that began in 2018 continued in 2019. A main contributing factor was the dampened global economic environment. Global uncertainty, in particular, burdened the German economy, which is specialized in the production of capital goods. For 2019, the IfW expects growth of only 0.5 percent, after 1.5 percent in 2018.

Global Economic Activity 2012–2019

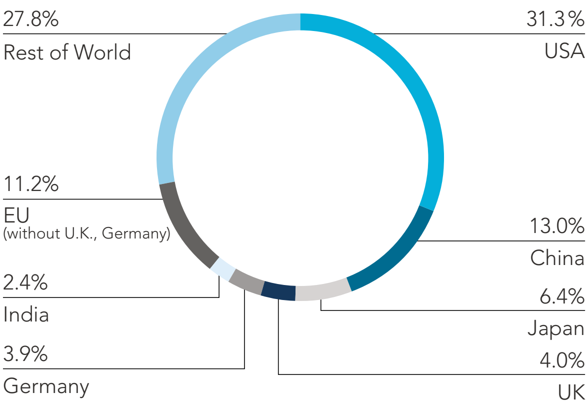


Quarterly data; seasonally adjusted; indicator calculated based on sentiment index in 42 countries; GDP: adjusted for price, change re. previous quarter, 46 countries, weighted by purchasing power parity.
Source: Institute for the World Economy in Kiel, Germany (IfW), Economic Reports, World Economy in Winter 2019 No. 61 (2019|Q4), Dec. 11, 2019

Sector environment and influencing factors

Software AG's business is closely linked to the growing digitalization of the economy and of society. This is because software is the fundamental raw material and driver of Industry 4.0 and the Internet of Things (IoT). Economic competitiveness will depend to a significant extent on the ability to create software-based products and services at the highest level of quality. Software expertise will also be a prerequisite if Germany is to maintain its position as a leader in engineering and consolidate its position as a leading export nation. A dynamic and successful German software industry gives a strong impetus to all economic sectors, and thus to the competitiveness of the German economy as a whole. In the future, innovative products and services will no longer be conceivable without software. In fiscal 2019, these factors once again had a positive impact on Software AG's business performance. In turn, however, it is vital that the software industry be able to rely on a stable, secure, high-performance infrastructure. In addition to clear legal conditions, for example in regard to the security of cloud services, this calls for the expansion and development of fast broadband networks with sufficient capacity. Regulatory and political changes and uncertainties in the countries and markets in which Software AG operates are thus further important factors that can have an impact on business performance. The opportunities and risks that arise in this connection are
p. 113 described in the Key Individual Risks and Opportunities section of the Opportunity and Risk Report.

The ICT Market: 2019 Revenue Shares by Country/Region



Note: ICT revenue does not include consumer electronics, business consulting or BPO.
Source: EITO, IDC

Sector-specific conditions

The global IT market continued to grow in 2019. The U.S.-based market research firm Gartner assumes that worldwide IT expenditures rose to $3.72 trillion (2018: $3.65 trillion) in the year under review. As in previous years, Software AG's market segments generated especially high demand among companies. Spending for enterprise software increased by 8.8 percent in 2019, to $456 billion (2018: $419 billion). Investments in IT services increased by 3.7 percent to $1,030 billion (2018: $993 billion).

Worldwide sales in information and communication technology (ICT) products and services also showed a positive trend in fiscal 2019. According to forecasts of the European Information Technology Observatory (EITO), they increased by 3.0 percent to €3.4 trillion (2018: €3.3 trillion). The USA again accounted for the largest share in global ICT sales, at 31.3 percent, or over €1.0 trillion. The EU accounted for 11.2 percent of global sales. In Germany as well, the ICT market continued to grow. According to current estimates by EITO and the German Association of Information, Telecommunications and New Media (Bitkom), revenue in this market increased in Germany by 1.5 percent in 2019 to €168.5 billion (2018: €166.0 billion). With sales of €92.9 billion (2018: €90.3 billion) and growth of 2.9 percent, information technology remained the largest segment with the strongest growth.

Key events affecting business performance

Dr. Elke Frank joined Software AG's Management Board as of August 1, 2019. As Chief Human Resources Officer (CHRO), she is responsible for all areas of HR including talent management, staff development and cultural transformation as part of the Company's new strategy. Since January 1, 2020, she has been responsible for Legal and IT as well.

The first appointment of a CHRO to the Management Board reflects the vital role HR currently plays in Software AG's growth strategy. Furthermore, it acknowledges that Software AG's intellectual property lies primarily with its employees.

With more than 20 years of international experience in HR leadership roles across a range of sectors at Daimler AG, Carl-Zeiss Vision, Microsoft and most recently Deutsche Telekom, Dr. Frank will be instrumental in upskilling and growing a diverse and agile workforce. For many years, she has worked closely with leadership teams to establish a collaborative and open-minded environment where employees and leaders can perform and grow.

Performance in Software AG's Digital Business Platform (DBP) was impacted by a restructuring of the North American organization. The new organization is now in place and in operation.

Management's general statement on business performance and financial position

In fiscal 2019, Software AG delivered a solid performance, with Group revenue in line with expectations against a backdrop of a significant and far-reaching transformation of the business. On a divisional basis, Adabas & Natural (A&N) delivered a strong performance with revenue up 3 percent year-on-year. Results in DBP (excl. Cloud and IoT) came in below the guidance announced at the beginning of 2019 and in the middle of the lowered range announced in July 2019. Here, structural changes in sales and go-to-market improved the quality and predictability of revenue planning in North America. Cloud & IoT growth was below the guidance range. The Company's EBIT was €214.8 million (2018: €231.6 million) in the period under review. This reflects an EBIT margin of 24.1 percent (2018: 26.8 percent). EBITA (non-IFRS) came to €260.3 million (2018: €272.9 million); accordingly, the EBITA margin (non-IFRS), at 29.2 percent, was in the upper half of the target range communicated at the start of the year.

The investments made in 2019 in products, sales and go-to-market, conversion to subscription agreements, the partner network and culture are showing the first positive results and validate the course the Company has set, and the Company will therefore make further investments in 2020. The performance in fiscal 2019 forms the basis for determining the extent and direction of these additional investments, which are ultimately intended to deliver higher sales growth, sooner than initially planned.

For more information on expectations for 2020, please refer to the Forecast. p. 104

Comparison of actual performance with forecast issued last year

Please note that revenue forecasts are at constant currency. Earnings targets are adjusted for stock option plans, acquisition or restructuring-related expenses and short-term effects that arise during the course of the year, all of which are unforeseeable.

Software AG communicated the following forecast for fiscal 2019 with the release of its 2018 consolidated results on January 31, 2019:

- Growth of the DBP business (excl. Cloud & IoT) between 3 and 7 percent year-on-year
- Growth in Cloud & IoT revenue between 75 and 125 percent year-on-year
- A&N growth between –5 and 0 percent year-on-year
- EBITA margin (non-IFRS) between 28.0 and 30.0 percent

Following the end of the first quarter of 2019, Software AG raised its guidance for the full 2019 fiscal year on April 11, 2019 and published the increased annual forecast for A&N sales in an ad hoc statement that same day. The new guidance for Adabas & Natural forsaw –3 to +3 percent revenue growth at constant currency (previously –5 to 0 percent). The Company confirmed its confidence in its 2019 revenue outlook for Digital Business Platform (excluding Cloud & IoT), Cloud & IoT and the target range for the operating margin (EBITA, non-IFRS).

On July 18, 2019, at the end of the second quarter of 2019, Software AG confirmed its outlook for the 2019 fiscal year from April 11, 2019 in all business lines except the Digital Business Platform (excluding Cloud & IoT). The Management Board's now anticipated growth for this business line at constant currency: between –6 and 0 percent (previously 3 to 7 percent).

The Management Board confirmed this guidance with the release of its third-quarter financial results on October 22, 2019.

Outlook for Fiscal Year 2019

	Earnings FY 2018 (as of Dec. 31, 2018) in € millions	Outlook FY 2019 (as of Jan. 31, 2019) as %	Outlook FY 2019 (as of Apr. 11, 2019) as %	Outlook FY 2019 (as of Jul. 18, 2019) as %	Earnings FY 2019 (as of Dec. 31, 2019) in € millions
DBP revenue	464.7	—	—	—	474.5
DBP excl. Cloud & IoT [1]	434.4	3 to 7 [2]	3 to 7 [2]	–6 to 0	432.2
DBP Cloud & IoT	30.3	75 to 125 [2]	75 to 125 [2]	75 to 125 [2]	42.3
A&N revenue [3]	218.3	–5 to 0 [2]	–3 to 3 [2]	–3 to 3 [2]	228.9
Operating margin EBITA (non-IFRS) [4]	31.5%	28.0 to 30.0	28.0 to 30.0	28.0 to 30.0	29.2%

[1] The outlook for the DBP segment was adjusted from 3% to 7% to –6% to 0% on Jul. 18, 2019.
[2] At constant currency
[3] The outlook for the A&N segment was adjusted from –5% to 0% to –3% to 3% on Apr. 11, 2019.
[4] Before adjusting for non-operating factors (see non-IFRS definition of earnings).

Software AG posted the following results for the 2019 fiscal year:

- The DBP business line, excluding Cloud and IoT, posted €432.2 million (2018: €434.4 million) in revenue in 2019, reflecting a 1 percent decline compared to the previous year (–3 percent at constant currency). These results were in the middle of the most recent, downward-corrected guidance range of –6 percent to 0 percent for the year. The reduction of the original guidance of 3 to 7 percent was due primarily to losses in the integration business, particularly in North America.

- The Cloud and IoT business posted €42.3 million (2018: €30.3 million) in revenue in 2019, which is 39 percent growth year-on-year and 38 percent growth at constant currency. Postponed contracts resulted in revenue for the year falling below guidance.

- The A&N business line generated €228.9 million (2018: €218.3 million) in revenue in fiscal 2019, which reflects a 5 percent increase year-on-year and 3 percent at constant currency. This strong performance throughout the year hit the upper end of the raised forecast of –3 to +3 percent announced in April 2019. A&N outperformed Software AG's guidance stated at the start of the year. This was due primarily to product enhancements for mainframe environments, contract renewals and winning back A&N customers.

- Software AG's absolute operating income (EBITA, non-IFRS) was €260.3 million (2018: €272.9 million) in 2019. This figure is 5 percent lower than the previous year. Nevertheless, the operating profit margin (EBITA, non-IFRS), at 29.2 percent (2018: 31.5 percent), was in the upper half of the forecast range of 28.0 to 30.0 percent.

Performance of secondary key performance indicators that do not serve as a basis for Group management

Guidance stated in 2018 for Group revenue was a low single-digit positive growth rate. On July 18, 2019, with the release of its second-quarter financial results, Software AG lowered its guidance for expected 2019 Group revenue. The revised forecast then foresaw a mid single-digit decline in Group revenue at constant currency. Actual Group revenue in fiscal 2019 came to €890.6 million (2018: €865.7 million), reflecting an increase of 3 percent, or 1 percent at constant currency. Group revenue was thus in the range of the original expectations and considerably exceeded the reduced guidance from July 18, 2019.

- Regarding Professional Services revenue, a slight decrease was expected year-on-year at constant currency. Professional Services revenue came to €187.2 million (2018: €182.5 million) in fiscal 2019, however, reflecting an increase of 3 percent, or 1 percent at constant currency. Professional Services revenue thus considerably exceeded expectations as well.

- In last year's Forecast, Software AG's Management Board anticipated that, assuming stable conditions (precluding unforeseeable special effects), IFRS net income for the Group would decline at a low to mid single-digit growth rate. IFRS net income for the Group in fiscal 2019 came to €155.3 million (2018: €165.2 million), representing a decline of 6 percent. IFRS net income for the Group was thus in the expected range.

- For the DBP (including Cloud & IoT), A&N, and Professional Services business lines, the Management Board anticipated in last year's Forecast that the segment margins would remain at similar levels to the previous year, 2018. In the DBP segment, the segment margin declined from 31.6 percent in 2018 to 27.5 percent in 2019. The development of this profit margin was thus below expectations, which was due primarily to the additional investments in sales and marketing as part of the Helix project. The profit margin for the A&N segment, at 69.8 percent, was slightly below the previous year's high level of71.2 percent and expectations. This was due to the impact of the R&D investments in innovation aimed at delivering sustainable growth in revenue. Exceeding expectations, on the other hand, the profit margin for Professional Services increased from 11.1 percent in 2018 to 12.1 percent in 2019 due to leaner cost structures.

The Group's Financial Performance

Revenue

Group revenue totaled €890.6 million (2018: €865.7 million) for 2019 as a whole, which reflects growth of 3 percent; at constant currency, growth came to 1 percent.

The future-oriented Digital Business Platform (DBP) business line once again increased its revenue: DBP revenue (including Cloud and IoT) was up 2 percent to €474.5 million (2018: €464.7 million), thus achieving the same level of revenue year-on-year at constant currency. The Adabas & Natural (A&N) business line generated €228.9 million (2018: €218.3 million) in revenue, reflecting growth of 5 percent year-on-year, or 3 percent at constant currency.

Annual recurring revenue (ARR) in the DBP (including Cloud and IoT) business line increased by 11 percent in the year under review, or, at constant currency, by 10 percent. ARR is a good indicator of future cash flows generated by past activities. ARR in the amount of €340.0 million (2018: €305.4 million) consists of all future recurring revenue from deals closed through December 31, 2019, together with future Software as a Service (SaaS)/usage-based sales from transactions agreed through the end of the fourth quarter.

Currency impact on revenue

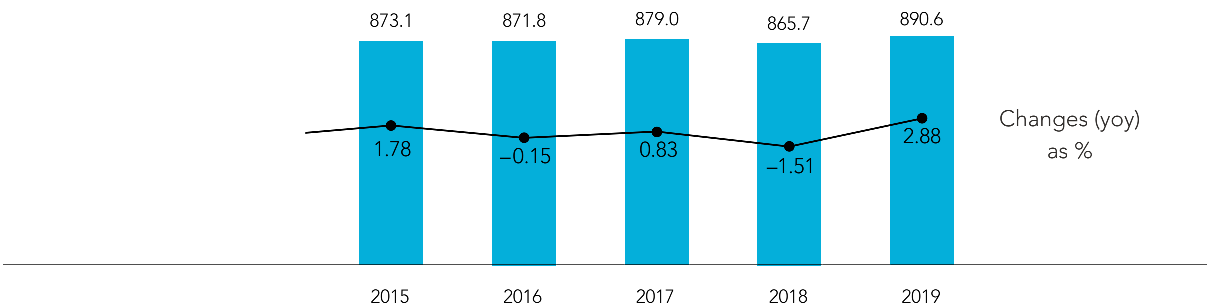
Currency translation had a favorable impact on revenue in fiscal 2019, after having had a negative impact on revenue in the previous year. Currency effects came to a total of €16.5 million (2 percent). The main driver was the strong U.S. dollar (the U.S. dollar accounted for the largest share among foreign currencies in the Group).

The largest percentage of Software AG's total revenue was again generated in euros (EUR), at 33 percent (2018: 34 percent). The U.S. dollar (USD) is the strongest foreign currency, with a share of 31 percent (2018: 31 percent). It is followed by the Israeli shekel (ILS) at 6 percent (2018: 4 percent) and pound sterling (GBP) at 5 percent (2018: 6 percent). Other currencies accounted for the remaining 25 percent (2018: 25 percent) of foreign currencies. The broad distribution of currency shares reflects Software AG's highly global focus.

Exchange rates had roughly the same effects on the different types of revenue, at 2 percent each. Maintenance revenue saw the strongest impact, at €8.1 million in absolute terms. The currency-related impact on license revenue amounted to €4.8 million, on services to €3.2 million and on SaaS revenue to €0.4 million.

Five-Year Revenue Performance

in € millions



Quarterly Revenue

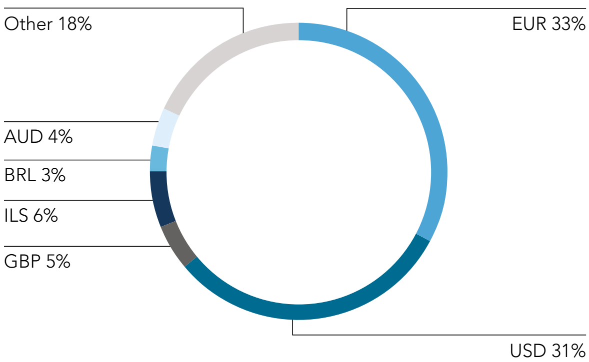
	Q1		Q2		Q3		Q4	
in € millions	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Group revenue	201.4	186.6	210.0	205.7	224.2	208.8	255.0	264.6
as % of total annual revenue	23	22	23	24	25	24	29	31

Currency Impact on Revenue

in € millions	2019	as %
Licenses	4.8	2
Maintenance	8.1	2
SaaS	0.4	2
Services and other	3.2	2
Total	**16.5**	**2**

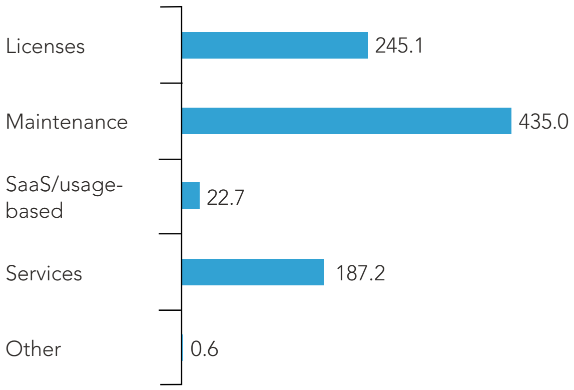
2019 Currency Split

33% revenue in euros
67% revenue in foreign currency



Types of revenue

Software AG's Group revenue is made up of product revenue—consisting of license, maintenance and SaaS sales—and service and other revenue. Product revenue rose to €702.7 million (2018: €682.4 million) in fiscal 2019. Growth thus amounted to 3 percent, reflecting 1 percent growth at constant currency. As a percentage of total revenue, product revenue remained at the same level year-on year, at 78.9 percent (2018: 78.8 percent). License revenue from Software AG's DBP and A&N products, at €245.1 million (2018: €249.4 million), was just under 2 percent less than in the previous year. At constant currency, this represents a decline of just under 4 percent. Maintenance revenue in the two product lines increased to €435.0 million (2018: €415.4 million) in the period under review. This represents a 5 percent increase, or a 3 percent increase at constant currency. At 48.8 percent (2018: 48.0 percent), the share of maintenance in total revenue increased slightly compared to 2018. This is a result of Software AG's dedicated focus on recurring high-margin and profitable revenue. SaaS revenue rose 29 percent, or 27 percent at constant currency, in 2019, to €22.7 million (2018: €17.6 million). Revenue in the Professional Services segment, which refers solely to projects associated with Software AG's own products, increased in the year under review by 3 percent (1 percent acc) to €187.2 million (2018: €182.5 million) (not including other revenue). Software AG focuses on high-quality consulting and profitability.



Product revenue by region

Software AG's global product revenue is divided into five regions:

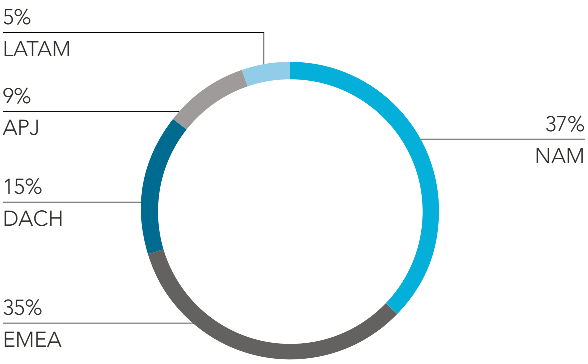
The **Americas** (**NAM** and **LATAM**) generated €298.5 million in 2019 (2018: €306.2 million) , which translates to 42 percent (2018: 45 percent) of product revenue. As expected, broken down by country, the USA accounted for the largest share of revenue, followed by Brazil and Canada. NAM generated total revenue of €263.4 million (2018: €266.5 million). LATAM generated revenue of €35.1 million (2018: €39.8 million).

EMEA (Europe, Middle East and Africa without DACH) achieved revenue of €239.0 million (2018: €203.0 million), or 34 percent (2018: 30 percent) of global product revenue. The most important single markets in this region are the United Kingdom, France, Israel, Scandinavia and Spain.

DACH (Germany, Austria and Switzerland) achieved revenue of €103.8 million (2018: €107.6 million), or 15 percent (2018: 16 percent) of global product revenue. Germany alone accounted for €89.2million (2018: €89.6 million), or, as in the previous year, 13 percent of product revenue.

Asia-Pacific (**APJ;** Australia, Japan, Asia and China) achieved product revenue of €61.2 million (2018: €65.8 million), which translates to a 9 percent (2018: 10 percent) share in Group product revenue. Australia was this region's top performer, followed by Japan.

Product Revenue by Region[1]



[1] Based on product revenue in 2019 by management approach (contracts can be distributed across multiple countries/regions).

For further information on sales markets, see the section on Market Positioning in Fundamental Aspects of the Group.

Total contract value

As described in Fundamental Aspects of the Group, order backlog in the Professional Services business line is an especially important company-specific early warning indicator. Software AG's order backlog as of December 31, 2019 continued to show stability and thus supports the expected growth stability for fiscal 2020. At the end of 2019, the forward order book (order backlog/revenue × 365 days) was more than 6 months (2018: more than 5 months).

Total contract value does not play a role for products with perpetual licenses because a new contract generally leads to immediate revenue. Total contract value is not a separate metric for the Group with respect to renewals and new maintenance agreements or in product subscriptions and SaaS. It is managed in line with the Professional Services business via order backlog performance in the form of ARR, which reflects the recurring revenue of the maintenance and subscription business for a 12-month period. The annual recurring revenue for these revenue components grew by 10 percent in the DBP business line on a currency-adjusted basis year-on-year. The forward order book is not calculated for the entire product business. It is not a reliable measure due to the heterogeneity of the various components (perpetual licenses, maintenance renewal, maintenance agreements and subscriptions).

Performance of key items on the income statement and cost structure

Software AG's **cost of sales** increased slightly disproportionately to revenue in fiscal 2019, to a total of €203.1 million (2018: €195.0 million). Nevertheless, **gross profit** rose 2 percent, to €687.5 million (2018: €670.7 million). The gross profit margin as a percentage of Group revenue, at 77.2 percent, thus remained close to last year's high level of 77.5 percent. This continued high profitability is due primarily to the high share of the product business and, in addition, active management of the contribution margin of Professional Services orders.

To further secure Software AG's technology leadership in the dynamic digital market, **expenses for research and development (R&D)** increased 6 percent to €131.3 million (2018: €124.4 million). R&D expenses as a percentage of product revenue (licenses, maintenance and SaaS) again increased compared to the previous year, from 18.2 percent to 18.7 percent.

Sales, marketing and distribution expenses increased 8 percent compared to the previous year, coming to €265.0 million (2018: €244.7 million) for 2019 as a whole. These expenses as a percentage of total revenue were thus 29.8 percent (2018: 28.3 percent). This increase reflects the investments in sales and marketing measures as part of the Helix project with the objective of strengthening and increasing the Company's presence in key regions. Sales efficiency remains a key operating performance indicator for the management of Software AG.

General and administrative expenses did not increase proportionately to revenue growth, rising only 1 percent to €74.8 million (2018: €74.0 million). General and administrative expenses as a percentage of total revenue decreased further, to 8.4 percent (2018: 8.5 percent).

2019 Income Statement

in € millions	2019	2018	+/– as %	+/– as % acc[1]
Licenses	245.1	249.4	–2	–4
Maintenance	435.0	415.4	5	3
SaaS	22.7	17.6	29	27
Services	187.2	182.5	3	1
Other	0.6	0.9	–18	–18
Total revenue	**890.6**	**865.7**	**3**	**1**
Cost of sales	–203.1	–195.0	4	
Gross profit	**687.5**	**670.8**	**2**	
R&D expenses	–131.3	–124.4	6	
Sales, marketing and distribution expenses	–265.0	–244.7	8	
General and administrative expenses	–74.8	–74.0	1	
Other income/expense, net	–1.6	3.9	—	
Other taxes	–6.8	–7.0	–3	
Operating income	**208.0**	**224.6**	**–7**	
Financial income/expense, net	7.1	4.3	65	
Earnings before income taxes	**215.1**	**228.9**	**–6**	
Income taxes	–59.8	–63.7	–6	
Net income	**155.3**	**165.2**	**–6**	
thereof attributable to shareholders of Software AG	**155.0**	**164.9**	**–6**	
thereof attributable to non-controlling interests	**0.34**	**0.3**	—	
Earnings per share in € (basic)	2.09	2.23	–6	
Earnings per share in € (diluted)	2.09	2.23	–6	
Weighted average number of shares outstanding (basic)	73,979,889	73,978,520	—	
Weighted average number of shares outstanding (diluted)	73,979,889	73,980,884	—	

[1] acc = At constant currency

Earnings performance

Software AG's **operating income** (IFRS) declined in the year under review to €208.0 million (2018: €224.6 million). The operating margin, at 23.3 percent (2018: 25.9 percent), was below the previous year's high level. This is mainly due to increased R&D and sales, marketing and distribution expenses in connection with the Helix project. This was offset by the high-margin product revenue, accounting for 78.9 percent (2018: 78.8 percent) of total revenue, and the ongoing strength of the very profitable A&N business.

EBIT (net income plus income taxes plus other taxes plus net financial income/expense), at €214.8 million (2018: €231.6 million), was down 7 percent year-on-year, or 10 percent at constant currency. This decline was the net result of the following effects: revenue increased by €24.9 million to €890.6 million (2018: €865.7 million); cost of sales increased 4 percent, or by €8.1 million, to €203.1 million (2018: €195.0 million); R&D expenses increased by 6 percent, or by €6.9 million, to €131.3 million (2018: €124.4 million); other income/expense declined by €5.5 million to –€1.6 million (2018: €3.9 million). In the fourth quarter of 2019, EBIT, at €65.9 million (2018: €82.8 million), was down 20 percent, and thus well below the record-breaking level achieved in the fourth quarter of 2018. The EBIT margin in the fourth quarter of 2019 declined to 25.9 percent (2018: 31.3 percent) accordingly.

Other net income came to –€1.6 million (2018: €3.9 million) in fiscal 2019, mainly due to legal expenses and expenses related to divestments. **Net financial income** increased again in the year under review, to €7.1 million (2018: €4.3 million). This significant year-on-year net improvement is primarily due to higher proceeds from interest, lower interest on liabilities to banks, and interest expenses due to first-time application of IFRS 16.

Earnings before income taxes declined by 6 percent to €215.1 million (2018: €228.9 million). Income taxes went down 6 percent to €59.8 million (2018: €63.7 million). Software AG has been experiencing positive effects since 2018 due to the changes in tax legislation in the USA. The Group's effective income tax rate thus remained at the same level year-on-year, at 27.8 percent.

At €155.3 million (2018: €165.2 million), **net income** was 6 percent below the previous year's level. Accordingly, **earnings per share** (basic) were €2.09 (2018: €2.23) with the number of shares outstanding (basic) at 73,979,889 (2018: 73,978,520) on average.

Overall, earnings performance can be considered stable.

2019 Earnings

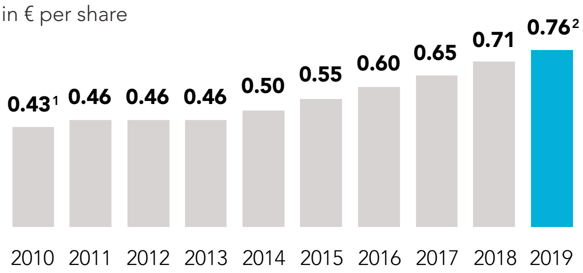
in € millions	2019	2018	+/– as %
Total revenue	**890.6**	**865.7**	**3**
Cost of sales	–203.1	–195.0	4
Gross profit	**687.5**	**670.8**	**2**
Margin as %	77.2	77.5	—
R&D expenses	–131.3	–124.4	6
Sales, marketing and distribution expenses	–265.0	–244.7	8
General and administrative expenses	–74.8	–74.0	1
Other income/expense (net)	–1.6	3.9	—
EBIT	**214.8**	**231.6**	**–7**
Margin as %	24.1	26.8	—

Appropriation of profits

Software AG adheres to a sustainable dividend policy, which is geared toward long-term, value-oriented development of the Company. This strategy will be pursued further in the interest of solid shareholder relations. The Management Board and Supervisory Board will therefore propose a **dividend** in the amount of €0.76 per share at the Annual Shareholders' Meeting on May 20, 2020 for fiscal year 2019. The dividend was €0.71 per share in the previous year, which will be an increase of €0.05 per share (+7 percent). Subject to the approval of the Annual Shareholders' Meeting and assuming 74.0 million (2018: 74.0 million) dividend-bearing shares outstanding, this would be a total payout sum of €56.2 million (2018: €52.5 million). Based on the closing share price in 2019 (Xetra closing price on Dec. 30, 2019: €31.10 (2018: €31.59)), this proposal is equal to a dividend yield of 2.52 percent (2018: 2.24 percent).

Dividend Development Since 2010

in € per share



[1] Adjusted for 1:3 stock split, rounded
[2] Dividend proposal, subject to shareholder approval in May 2020

Software AG's Management Board resolved in 2019 to increase the dividend ratio range, previously 25 to 33 percent, to 30 to 40 percent of the averaged net income (attributable to shareholders of Software AG) and free cash flow. Based on averaged free cash flow (€145.8 million / 2018: €184.1 million) and net income (€155.0 million / 2018: €164.9 million), the dividend ratio would equal 37.4 percent (2018: 30.1 percent). This consistent dividend policy stands for the Company's unequivocal commitment to stability and value and will be continued in upcoming years.

Additional earnings performance indicators

In order to improve the comparability of Software AG with competitors (primarily in the U.S.) which do not use IFRS accounting standards, Software AG also reports non-IFRS performance indicators. (For more information, please refer to Internal Corporate Control System in this Management Report). These performance indicators are as follows:

Operating Earnings per Share (non-IFRS)

in € millions	2019	2018
Earnings before income taxes	**215.1**	**228.9**
Other taxes	6.8	7.0
Financing income	–13.3	–10.5
Financing expenses	6.2	6.2
Financial income/expense, net	**–7.1**	**–4.3**
EBIT (before all taxes)	**214.8**	**231.6**
+ Acquisition-related amortization of intangible assets	21.9	21.1
+ Acquisition-related decreases in product revenue due to purchase price allocations	0.0	0.0
+/– Other acquisition-related effects on earnings	3.2	2.3
+/– Income/expense resulting from share price-based remuneration	11.3	11.0
+ Restructuring/severance/litigation	9.0	6.9
EBITA (non-IFRS)[1]	**260.3**	**272.9**
as % of revenue (non-IFRS)	**29.2**	**31.5**
Financial income/expense, net	7.1	4.3
Other taxes	–6.8	–7.0
Earnings before income taxes	260.6	270.2
Income taxes (FY 2019: 27.8%; FY 2018: 27.8%)[1]	–72.5	–75.2
Net income (non-IFRS)	188.1	195.0
Earnings per share (non-IFRS)[2]	**€2.54**	**€2.64**
Average number of shares outstanding (No.)	74.0 mn	74.0 mn

[1] Income tax rates shown are equal to the actual rates for fiscal 2019 and 2018.
[2] Earnings per share (non-IFRS) are calculated by dividing net income (non-IFRS) by the average number of shares outstanding.

Operating profit margin (EBITA, non-IFRS) is Software AG's key performance indicator for monitoring profitability. EBITA (non-IFRS), at €260.3 million (2018: €272.9 million), declined by 5 percent in fiscal 2019 compared to the previous year. EBIT was down 7 percent to €214.8 million (2018: €231.6 million). In contrast, amortization of intangible assets increased by 4 percent to €21.9 million (2018: €21.1 million). The increase was due primarily to the increase in the value of the U.S. dollar against the euro and to the 2018 acquisitions of TrendMiner, in June 2018, and Build.io at the end of September 2018.

Another factor was the increased expenses for stock option plans, which, largely due to the introduction of the new MIP 2019 plan, rose 3 percent to €11.3 million (2018: €11.0 million). Restructuring, severance and legal disputes increased significantly by 31 percent to €9.0 million (2018: €6.9 million). In the course of strategic transformation, preparations for the sale of the non-strategic Spanish consulting business were carried out in 2019. Expenses for mergers and acquisitions increased as well, by €0.9 million to €3.2 million.

Software AG's operating profit margin (EBITA, non-IFRS) based on Group revenue declined slightly to 29.2 percent (2018: 31.5 percent). The operating margin was thus slightly above the middle of the forecast range, since the Company continued to make targeted investments in products, go-to-market strategy, and the marketing and partner network. This ongoing high profit margin has solidified Software AG's financial foundation for further investments in the Helix project areas, which will support the Company's growth in 2020.

Net income (non-IFRS) decreased 4 percent to €188.1 million (2018: €195.0 million). Meanwhile, EBITA (non-IFRS) dropped 5 percent from €272.9 million in the previous year to €260.3 million. The smaller decrease in net income (non-IFRS) compared to the decline in EBITA (non-IFRS) is primarily attributable to the increase in net financial income, which was up 64 percent compared to the previous year at €7.1 million (2018: €4.3 million), and the decrease in operating income tax expenses, which declined by €3.1 million from €75.6 million in the previous year to €72.5 million. Accordingly, earnings per share (non-IFRS) based on the average number of shares outstanding (basic) in the amount of 74.0 million (2018: 74.0 million) were €2.54 (2018: €2.64), reflecting a decline of 4 percent.

SaaS/usage-based revenue

Recognizing the increasing importance of new licensing models in the software industry, Software AG added the SaaS/usage-based revenue type to the DBP segment in fiscal 2018. With SaaS, customers acquire usage rights to software, including operation of the software (hosting), for a limited period of time. Customers do not own the software; rather, they can only use it online. SaaS/usage-based sales revenue came to a total of €22.7 million (2018: €17.6 million) in fiscal 2019 and was thus up 29 percent over the previous year.

Annual recurring revenue (ARR)

In light of the increasing share of licensing models with recurring revenue (in contrast to one-time recognition of license revenue in the case of a perpetual license), it is no longer sufficient to monitor sales performance solely on the basis of sales. Therefore, in fiscal 2018, Software AG introduced "annual recurring revenue (ARR)" as an additional metric in the DBP segment. This indicator presents total annualized bookings under the following agreement types:

- Licenses of limited duration/subscription licenses
- Maintenance under limited-duration and perpetual licenses
- Software as a Service (SaaS)
- Usage-based licenses

In the case of usage-based licenses, the monthly revenue generated in the last month of a period is multiplied by 12 to obtain the annualized figure.

Annual recurring revenue (ARR) in the DBP business line (including Cloud and IoT) came to a total of €340.0 million (2018: €305.4 million) in fiscal 2019. In the Cloud & IoT business, ARR came to €41.7 million (2018: €30.1 million) in the year under review.

Multi-Period Earnings Summary

in € millions	2019	2018	2017	2016	2015
Total revenue	**890.6**	**865.7**	**879.0**	**871.8**	**873.1**
thereof product revenue	702.7	682.4	679.4	675.2	678.8
EBIT (before all taxes)	**214.8**	**231.6**	**222.8**	**213.9**	**209.4**
as % of total revenue	24.1	26.8	25.3	24.5	24.0
Net income	**155.3**	**165.2**	**140.6**	**140.4**	**139.6**
as % of total revenue	17.4	19.1	16.0	16.1	16.0

Segment reporting

Software AG's business operations are divided into three segments: DBP, A&N and Professional Services. The high-growth Cloud and IoT business is part of the DBP business line.

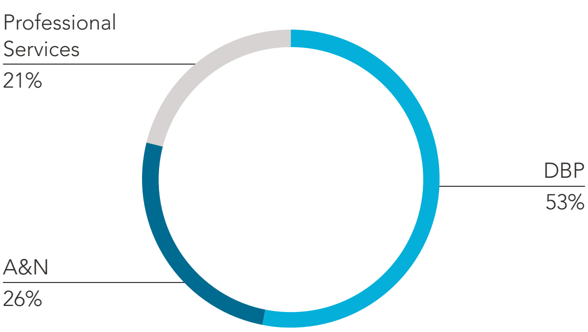
The DBP segment consists of a future-oriented product platform for customers' digital transformation. It accounted for more than half of total revenue, as in the previous year. DBP's share of revenue, at 53 percent (2018: 54 percent), remained at the previous year's level. This confirms the business and market relevance of this future-oriented business line. In particular, revenue from the Cloud and IoT business, which is part of the DBP segment, increased significantly by 38 percent at constant currency to €42.3 million (2018: €30.3 million). Growth in fiscal 2019 nevertheless remained below expectations.

The traditional A&N segment grew 3 percent at constant currency to total €228.9 million (2018: €218.3 million) in revenue. This increase coincides with the upper end of the target range, which had been lowered in April 2019. The segment thus generated 26 percent (2018: 25 percent) of Software AG's total revenue.

The Professional Services segment accounted for 21 percent (2018: 21 percent) of total revenue, thus remaining at the previous year's level.

Revenue Split in 2019

2019	in € millions	as %
Total revenue	**890.6**	**100**
DBP	**474.5**	**53**
thereof DBP Cloud & IoT	42.3	5
A&N	**228.9**	**26**
Professional Services	**187.2**	**21**



Digital Business Platform (DBP)

All Software AG products for enterprise digital transformation, including the fast-growing Cloud & IoT business, are part of the DBP business segment. This segment generated revenue of €474.5 million (2018: €464.7 million) in 2019, reflecting 2 percent growth year-on-year, or the same level as the previous year at constant currency. Annual recurring revenue (ARR) in the DBP business line (including Cloud and IoT) came to a total of €340.0 million (2018: €305.4 million) in fiscal 2019.

Revenue in the **DBP segment excl. Cloud & IoT** declined 1 percent, or 3 percent at constant currency, to €432.2 million (2018: €434.4 million). Thus, despite the unique challenges in North America in in the business for which the target had been reduced in July 2019, revenue was within the stated guidance range for the year as a whole. License revenue declined 9 percent, or 11 percent at constant currency, to €151.3 million (2018: €166.2 million). This was offset by the significant increase in the share of annual recurring revenue due to the implementation of the Helix strategy. Maintenance revenues increased 5 percent, or 3 percent at constant currency, year-on-year, to €280.9 million (2018: €268.2 million).

Meanwhile, Software AG increased revenue from its **Cloud & IoT business** by 39 percent, or 38 percent at constant currency, to €42.3 million (2018: €30.3 million). Revenue thus fell below guidance due to postponed contracts. ARR in Cloud and IoT came to €41.7 million (2018: €30.1 million) in the year under review, reflecting an increase of 39 percent, or 37 percent at constant currency.

DBP segment earnings came to €130.6 million (2018: €147.0 million); this year-on-year decrease was due to higher cost of sales and higher R&D and sales and marketing investments. Accordingly, the DBP segment margin was 27.5 percent (2018: 31.6 percent).

DBP Cloud & IoT

	2019	2018	+/– % acc[1]
Licenses	12.6	8.7	44
Maintenance	7.0	4.1	71
SaaS/usage-based	22.7	17.6	28
Total revenue	42.3	30.3	38
Annual recurring revenue (ARR)	41.7	30.1	37

[1] acc = At constant currency

2019 Segment Report for the Digital Business Platform (DBP)

in € millions	2019	2018	+/– as %	+/– as % acc[1]
DBP (excl. Cloud and IoT)	**432.2**	**434.4**	**–1**	**–3**
thereof licenses	151.3	166.2	–9	–11
thereof maintenance	280.9	268.2	5	3
DBP Cloud & IoT	**42.3**	**30.3**	**39**	**38**
Total revenue	**474.5**	**464.7**	**2**	**0**
Cost of sales	–40.6	–35.9	13	12
Gross profit	**433.9**	**428.8**	**1**	**–1**
Sales, marketing and distribution expenses	–198.2	–181.2	9	7
R&D expenses	–105.1	–100.6	4	4
Segment earnings	**130.6**	**147.0**	**–11**	**–14**
Margin as %	**27.5**	**31.6**	**—**	**—**

[1] acc = At constant currency

Adabas & Natural (A&N)

The mainframe database segment (A&N) generated €228.9 million (2018: €218.3 million) in revenue in fiscal 2019. This represents a 5 percent increase, or a 3 percent increase at constant currency. The whole market for traditional database software for mainframes is in decline due to its maturity and saturation. So for some years, Software AG's expectations have been a moderate decrease in this business. The fact that the decline in this traditional business slowed reflects the loyalty of the A&N customer base, which continues to rely on Software AG's dependable technology to run their business-critical applications. A key factor in the increased confidence was Software AG's announcement in late 2016 that it would continue development and support for the A&N portfolio beyond the year 2050. The Adabas & Natural 2050+ innovation program has had a positive impact since its introduction and will trigger new impetus for this segment in the medium term.

A&N licensing revenue rose 9 percent, or 7 percent at constant currency, to €81.2 million (2018: €74.4 million) in the year under review. Maintenance revenue in this segment came to €147.0 million (2018: €143.2 million) and was thus up 3 percent, or 1 percent at constant currency.

A&N segment earnings rose accordingly to €159.8 million (2018: €155.4 million). Cost of sales as well as R&D and sales and marketing expenses in this segment all increased at a significantly higher rate than revenue. A&N's segment margin was slightly below the record-breaking level of the previous year, reaching 69.8 percent (2018: 71.2 percent).

2019 Segment Report for Adabas & Natural (A&N)

in € millions	2019	2018	+/– as %	+/– as % acc[1]
Licenses	81.2	74.4	9	7
Maintenance	147.0	143.2	3	1
Product revenue	**228.2**	**217.6**	**5**	**3**
Other	0.7	0.7	—	—
Total revenue	**228.9**	**218.3**	**5**	**3**
Cost of sales	–8.1	–6.3	29	27
Gross profit	**220.9**	**212.1**	**4**	**2**
Sales, marketing and distribution expenses	–34.9	–32.8	6	5
R&D expenses	–26.2	–23.8	10	7
Segment earnings	**159.8**	**155.4**	**3**	**1**
Margin as %	**69.8**	**71.2**	**—**	**—**

[1] acc = At constant currency

Professional Services

This segment–referred to as Consulting until the end of 2018–was realigned in 2019 with a focus on the implementation of solutions in cooperation with customers and partners. Professional Services generated revenue of €187.2 million (2018: €182.6 million) in fiscal 2019. This represents a 2 percent increase, or 1 percent at constant currency. Segment earnings increased by 12 percent, or 11 percent at constant currency, to €22.7 million (2018: €20.3 million). This increase is mainly attributable to a slight decline in cost of sales at constant currency, as these costs account for the largest share of expenses in this segment by far. Sales and marketing expenses, in contrast, increased slightly. Accordingly, the segment margin was 12.1 percent (2018: 11.1 percent) for 2019 as a whole.

Software AG's strategic consulting services remained highly relevant for its customers in fiscal 2019. The Company has set sustainable profitability and high service quality as its objectives–not rapid growth. The Professional Services business line was again able to support the sustainable success of the other two product-driven business lines.

2019 Segment Report for Professional Services

in € millions	2019	2018	+/– as %	+/– as % acc[1]
Total revenue	**187.2**	**182.6**	**2**	**1**
Cost of sales	–146.2	–144.9	1	–1
Gross profit	**41.0**	**37.8**	**9**	**7**
Sales, marketing and distribution expenses	–18.2	–17.4	5	3
Segment earnings	**22.7**	**20.3**	**12**	**11**
Margin as %	**12.1**	**11.1**	**—**	**—**

[1] acc = At constant currency

The Group's Financial Position

General principles and objectives of Software AG's financial management

The primary objective of Software AG's financial management is to support the Group's profitable growth and ongoing portfolio optimization through an appropriate financing structure—regardless of short-term fluctuations in capital market conditions. Software AG ensures the solvency of all subsidiaries in the Group through central **liquidity management**. The Company has sufficient liquid assets available for this from net cash provided by operations and existing credit agreements. A high equity ratio and free cash flow provide the financial flexibility for accelerated organic growth and targeted acquisitions.

The corporate Finance department implements financial policy and risk management based on guidelines determined by the Management Board. Software AG's liquidity position is centrally controlled through active **working capital management**. Financial investments are essentially oriented toward the short term, which means that Group funds are invested at near money-market rates. Software AG consistently minimizes its default risk through broadly diversified investments and using stringent criteria in selecting transaction partners.

Furthermore, Software AG's corporate Finance department also monitors the currency risks for all Group companies, controls internal allocation of currency positions and minimizes remaining balances using derivative financial instruments. In doing so, only existing balance sheet items or expected cash flows are hedged.

Financing analysis

Software AG's net liquidity as of December 31, 2019 was €217.0 million (2018: €149.0 million). The increase compared to the previous year resulted primarily from the balance of positive operating cash flow in the amount of €172.0 million, the usually negative net cash from investment activities of €15.2 million, and the negative cash flow from financing activities of €118.5 million, consisting of €52.8 million in dividend payments, €49.4 million in repayments on short-term financing, and €16.2 million in repayments of lease liabilities. Free cash flow declined by 21 percent in comparison to the previous year, to €145.8 million (2018: €184.1 million). This decline was primarily due to the reduction in net cash flow from operating activities by €23.1 million compared to the previous year due to increased expenses for sales and marketing.

Based on the positive operating cash flow, net loan repayments in the amount of €49.4 million (2018: €7.7 net borrowing) were carried out. Payments included €5.1 million (2018: €46.7 million) for acquisitions (net) and €52.8 million (2018: €48.3 million) for dividends.

Shareholders' equity was €1,357.5 million (2018: €1,239.1 million) at the end of fiscal 2019, which reflects a 10 percent increase year-on-year. Retained earnings increased, reflecting the balance of net income of €155.0 million less dividend payments of €52.8 million. Other reserves came to –€41.3 million (2018: –€59.1 million). This negative figure for other reserves is due primarily to the adjustment in the measurement of pension provisions, at –€44.5 million and to the adjustment in fair value of financial instruments, at –8.4 million. The change from –€59.1 million in 2018 to –€41.3 million in 2019 resulted mainly from the effect of

Multi-Period Financial Position Summary

in € millions	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015
Cash and cash equivalents	513.6	462.4	365.8	374.6	300.6
Current financial liabilities	96.4	111.9	210.3	101.5	113.0
Non-current financial liabilities	200.2	201.4	100.3	200.0	213.2
Net liquid assets/net debt	217.0	149.0	55.2	73.1	–25.7
Equity	1,357.5	1,239.1	1,118.3	1,196.8	1,089.7
Equity ratio as %	64	62	59	61	60
Total assets	**2,116.1**	**2,007.9**	**1,907.5**	**1,957.2**	**1,814.8**

the strong U.S. dollar, which had a positive impact on currency exchange differences of foreign operations, accounting for €32.5 million. This was offset by the negative impact of the adjustment of pension provisions in the amount of –€12.7 million. The value of treasury shares remained stable compared to the previous year, at €0.8 million (2018: €0.8 million). Capital reserves remained at the previous year's level, at €22.6 million (2018: €22.6 million).

Software AG's equity-to-assets ratio increased to 64.2 percent, compared to 61.7 percent in 2018, and thus increased significantly despite the dividend payout. Software AG's share capital, at 74,000,000 shares as of December 31, 2019, was unchanged compared to the previous year.

Financing instruments

Software AG's financing is based largely on continued strong free cash flow. In addition, bank loans, promissory note loans, factoring and finance leasing models are used for any additional financing needs. A primary financing risk arises from the possibility that the Company would not be able to satisfy existing financial liabilities, which include loan agreements, lease agreements and trade accounts payable. Active working capital management and Group-wide liquidity control limit this risk. Financial obligations can be balanced by available cash and bilateral lines of credit. The loans used are predominantly at variable interest rates and have remaining terms to maturity of no more than five years. Variable interest payments are based on the prevailing interest rate on the reporting date. Liabilities in foreign currency are calculated at the exchange rate as of December 31, 2019.

Strategic financing measures

Software AG's strong free cash flow is the backbone of its financing strategy. In combination with a high equity ratio, it offers financial flexibility for organic and inorganic growth. Financial investments are generally oriented toward the short term to ensure near-money market interest rates on the Group's funds. The Company broadly diversifies its investments and uses stringent criteria in selecting transaction partners. The loans used are predominantly at variable interest rates and have terms to maturity of no more than five years. Combined with a comfortable liquidity position, this results in a financing structure that is independent of short-term capital market conditions, thereby ensuring the solvency of all subsidiaries.

Investment analysis

Capital expenditure for property, plant and equipment and intangible assets generally play a minor role at software companies such as Software AG. No significant or large-scale investments in fixed assets were made in fiscal 2019.

Liquidity analysis

Cash flow declined somewhat in fiscal 2019. **Net cash provided by operating activities** declined 12 percent to €172.0 million (2018: €195.1 million).

This decline was the net result of a noticeable increase in receivables and other assets, which, at €31.1 million, were €62.9 million higher than in the previous year, and in tax payments, which, at €65.7 million, were €9.2 million higher than in the previous year. This was offset by positive cash flow effects in the amount of €40.5 million due to an increase of €1.0 million in payables and other liabilities, which had been reduced by €39.5 million in the previous year. In addition, a €15.4 million increase in depreciation and amortization resulting mainly from first-time application of IFRS 16 had a positive impact on operating cash flow.

Software AG continued to engage in consistent receivables and cost management to keep cash flow high.

Cash outflows from investing activities decreased 74 percent, from €58.4 million in 2018 to €15.2 million in 2019. This decline was largely due to a reduction in net payments for acquisitions, which dropped €41.6 million to €5.1 million.

Cash outflows from financing activities increased 192 percent from €40.6 million in fiscal 2018 to €118.5 million in 2019. This increase in financing cash outflows was largely attributable to higher repayments of current financial liabilities, at €49.4 million, representing an increase of €57.0 million over the previous year. Furthermore, lease liabilities in the amount of €16.2 million were reduced for the first time in fiscal 2019 due to adoption of accounting in accordance with IFRS 16. In 2018, this item was reported as part of operating cash flow, on which it had a negative impact. In addition, cash outflows from financing activities were burdened by a €4.5 million increase in dividend payments, to total €52.8 million, after the dividend per share was raised from €0.65 in the previous year to €0.71 in fiscal 2019.

Free cash flow was €145.8 million (2018: €184.1 million) in fiscal 2019, and was thus 21 percent below the high level of the previous year. This is 16.4 percent of total Group revenue, compared to 21.3 percent in 2018. The cash-conversion ratio (free cash flow to net income: €145.8 million / €155.3 million) was 93.9 percent (2018: 111.4 percent).

Free cash flow per share declined by 21 percent from €2.49 in 2018 to €1.97 in 2019. Software AG defines free cash flow as cash flow from operating activities less cash flow from investing activities, not including proceeds from the sale of current financial assets, cash outflows for investments in current financial assets, proceeds from the sale of disposal groups, net cash outflows for acquisitions and repayment of lease liabilities.

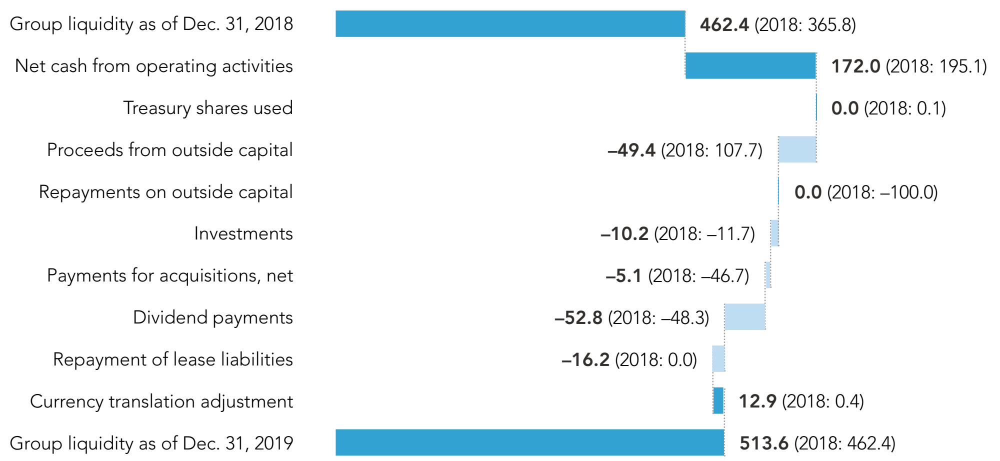
All in all, Software AG's statement of cash flows reflects its value-oriented focus on profitable growth. Specifically, this means that the Company employs its cash flow for future-oriented investments, dividends and share buyback programs.

Statement of Cash Flows for 2019

in € millions	2019	2018
Net cash from operating activities	172.0	195.1
Net cash from investing activities	–15.2	–58.4
Net cash from financing activities	–118.5	–40.6
Net change in cash and cash equivalents	51.3	96.5
Cash and cash equivalents at end of period	513.6	462.4
Free cash flow	**145.8**	**184.1**

2019 Group Liquidity

in € millions

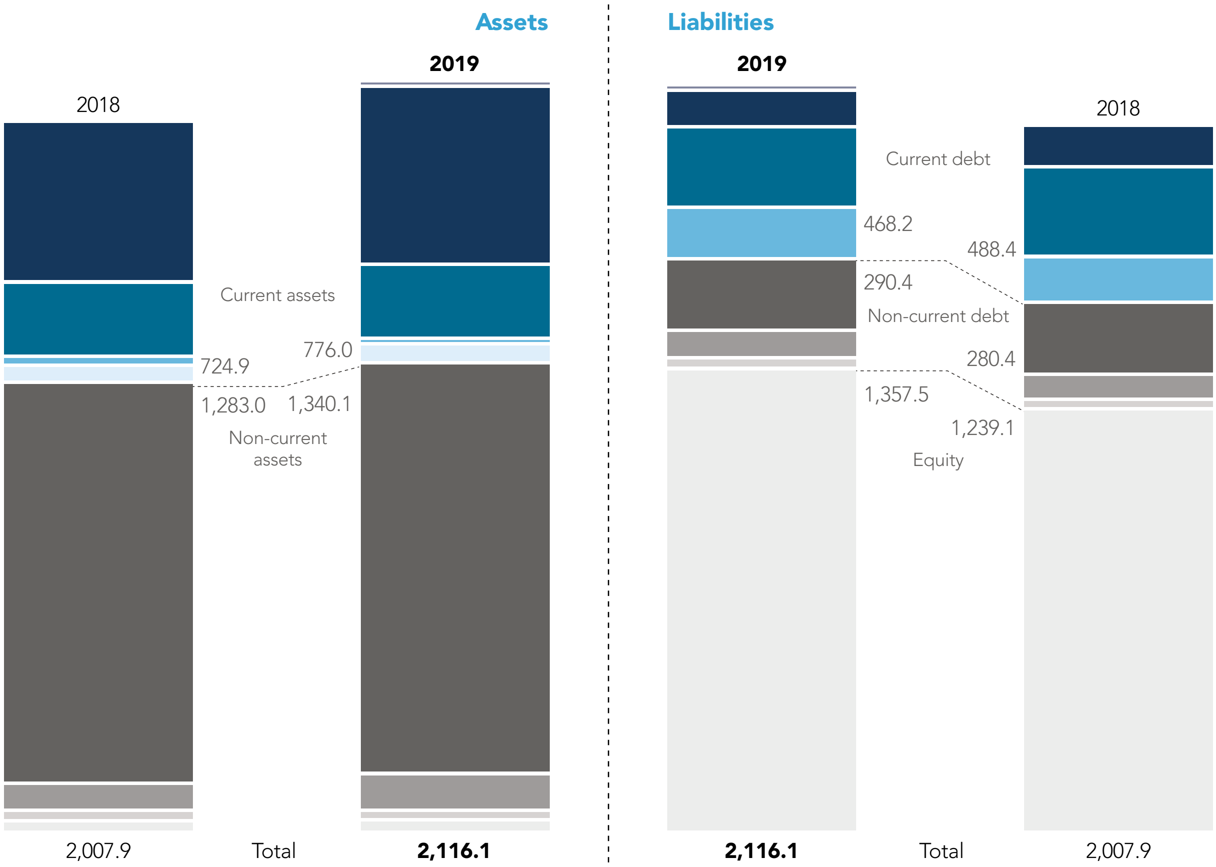


Asset structure analysis

Software AG continued to have a strong balance sheet. Assets as of December 31, 2019 increased to €2,116.1 million, compared to €2,007.9 million the year before.

Balance Sheet Structure

in € millions



4.8	(0.0)	Assets held for sale
513.6	(462.4)	Cash and cash equivalents
206.6	(207.5)	Trade receivables, contract assets, and other receivables
5.7	(15.3)	Other financial assets
45.2	(39.7)	Other non-financial assets
1,200.7	(1,172.4)	Fixed assets (Goodwill 980.1/964.4)
96.5	(68.7)	Trade receivables, contract assets, and other receivables
17.1	(19.6)	Other financial assets
25.8	(22.3)	Other non-financial assets

5.1	(0.0)	Liabilities directly related to assets held for sale
96.4	(111.9)	Financial liabilities
225.8	(253.2)	Other current liabilities
140.9	(123.3)	Contract liabilities/ deferred income
200.2	(201.4)	Financial liabilities
70.0	(62.8)	Other non-current liabilities
20.2	(16.2)	Contract liabilities/deferred income
1,357.5	(1,239.1)	Equity

On the **assets** side, current assets rose to €776.0 million (2018: €724.9 million); cash and cash equivalents increased since the beginning of 2019. The increase compared to the previous year resulted primarily from the balance of positive operating cash flow in the amount of €172.0 million, the usually negative net cash used in investment activities of €15.2 million, and the negative net cash used in financing activities of €118.5 million.

Assets held for sale, which were reported in the balance sheet for the first time in the year under review, in the amount of €4.8 million (2018: €0.0 million), were due to the planned sale of the Spanish consulting business.

Other current financial assets declined by €9.6 million to €5.7 million (2018: €15.3 million). This decline resulted primarily from the reduced market values of hedging instruments for share price-based remuneration models in relation to the decrease in Software AG's share price. Added to this were lower trade receivables, contract assets, and other receivables in the amount of €206.6 million (2018: €207.5 million). Other current non-financial assets increased by €6.2 million. This increase resulted primarily from an increase of €5.8 million in prepaid expenses for advance payments applying to the following year, 2020.

Non-current assets also rose, by €57.1 million to €1,340.1 million (2018: €1,283.0 million). This increase resulted from a currency-related increase in goodwill by €15.7 million to €980.1 million (2018: €964.4 million). Furthermore, property, plant and equipment increased from €71.0 million in the previous year by €33.0 million to €104.0 million. This increase was primarily due to the capitalization of rented office premises, leased company cars and operating and office equipment in the framework of first-time application of the new IFRS 16 standard on lease accounting. In addition, non-current trade receivables , contract assets, and other receivables increased by €27.8 million to €96.5 million (2018: €68.7 million). A key reason for this increase is the increased use of subscription agreements as of the end of 2019, which entailed a distribution of cash flows over a longer period. This was offset by an amortization-related decline in intangible assets by €20.4 million to €116.6 million (2018: €137.0 million).

Like current other financial assets, non-current other financial assets also declined; however, by only €2.5 million, to €17.1 million (2018: €19.6 million). This decline is also mainly attributable to the reduced market value of hedging instruments for stock option plans, due to the drop in the Software AG share price.

On the **liabilities** side, current debt declined by 4 percent as of December 31, 2019 to €468.2 million (2018: €488.4 million). Current financial liabilities, in particular, declined by 14 percent to €96.4 million (2018: €111.9 million), due mainly to repayments of financial liabilities. In addition, other current non-financial liabilities declined by 20 percent to €116.4 million (2018: €145.8 million), primarily due to lower obligations to employees. In the previous year, this item contained a high obligation related to payment of a balance due in January 2019 under the 2016 Management Incentive Plan (MIP).

Liabilities directly related to assets held for sale, which were reported in the balance sheet for the first time in the year under review, amounted to €5.1 million (2018: €0.0 million) and was due to the planned sale of the consulting business in Spain.

Other current provisions increased by 25 percent to €38.1 million (2018: €30.6 million). This increase was primarily due to higher provisions for severance and variable remuneration.

Trade accounts payable and other payables declined to €35.8 million (2018: €38.8 million).

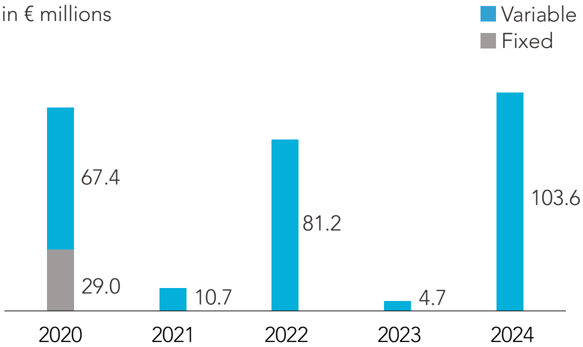
Non-current debt increased by 4 percent to €290.4 million (2018: €280.4 million). This increase resulted primarily from the increased provisions for pensions and similar obligations, which rose by €13.4 million from €34.6 million in 2018 to €48.0 million in 2019. These provisions increased significantly, mainly due to the market-related decline in the discount rate in the United Kingdom from 3.0 percent to 2.0 percent, in Germany from 2.0 percent to 1.0 percent and in Switzerland from 1.0 percent to 0.0 percent.

Other provisions declined by €2.9 million to €7.4 million (2018: €10.3 million). This decline resulted primarily from share price changes in share price-based liabilities to employees and Board members and to amounts paid out under the Performance Phantom Share (PPS) plan.

Software AG's recurring income from maintenance revenue leads to current and non-current deferred income, which accounts for a significant percentage of liabilities. As of December 31, 2019, it amounted to €161.1 million (2018: €139.5 million) in total. The bulk of the year-on-year increase of €21.6 million resulted from the increased maintenance business, which accounted for €18.0 million. Currency effects were a less significant factor, in particular the increased value of the U.S. dollar, accounting for €3.6 million.

At the end of fiscal 2019, Software AG's net cash position was €217.0 million (2018: €149.0 million). Shareholders' equity was €1,357.5 million (2018: €1,239.1 million), and was thus up 10 percent year-on-year. This increase in shareholders' equity was largely a result of the balance of high net income in the amount of €155.3 million and dividends paid out in the amount of €52.8 million. Software AG's equity-to-assets ratio was 64.2 percent, compared to 61.7 percent as of December 31, 2018.

Maturity Profile of Financial Liabilities



Off-balance sheet assets

In addition to the assets reported in the Consolidated Balance Sheet, Software AG has off-balance sheet assets. Off-balance sheet assets include the Software AG brand and internally developed software products, which are important intangible assets. Employees, their skills and their dedication are also critical to Software AG's success.

Multi-Period Assets Summary

in € millions	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2015
Assets					
Current assets	776.0	724.9	650.3	642.0	584.2
Non-current assets	1,340.1	1,283.0	1,257.2	1,315.2	1,230.6
	2,116.1	**2,007.9**	**1,907.5**	**1,957.2**	**1,814.8**
Equity and liabilities					
Current liabilities	468.2	488.4	582.6	467.6	439.5
Non-current liabilities	290.4	280.4	206.6	292.8	285.5
Equity	1,357.5	1,239.1	1,118.3	1,196.8	1,089.7
	2,116.1	**2,007.9**	**1,907.5**	**1,957.2**	**1,814.8**

Software AG's Financial Position

Separate statement for the parent company

The financial statements of Software AG (parent company) were prepared pursuant to the provisions of the German commercial code.

Software AG's financial performance

The key items from the **income statement** are as follows:

in € millions	2019	2018	+/– as %
Licenses	48.2	47.0	2.6
Maintenance	105.8	102.8	2.9
Software as a Service	5.5	4.4	25.0
Services	108.4	99.4	9.1
Total revenue	**267.9**	**253.6**	**5.6**
Operating income and expenses	–256.5	–250.8	2.3
Income from investments and profit transfer	101.4	61.2	65.7
Operating earnings before interest and taxes	**112.8**	**64.0**	**76.2**
Net financial income/ expense	–1.3	–1.0	30.0
Earnings before taxes	111.5	63.0	77.0
Taxes	–16.0	–13.3	20.3
Net income / loss for the year	**95.5**	**49.7**	**92.2**

- **Licenses** resulted from license-related royalties from subsidiaries and from Software AG's own license sales in Germany.

- **Maintenance** includes maintenance-related royalties from subsidiaries and maintenance revenue from third-party products.

- **Software as a Service** (Saas) revenue resulted from SaaS-related royalties from subsidiaries and from Software AG's own SaaS sales in Germany.

- **Services** include management fees crossed-charged to the subsidiaries as well as services rendered by central support and cross-charged research and development costs.

- **Operating income and expenses** include changes in inventories of work in progress, other operating income and expenses, expenses for purchased goods and services, personnel expenses and depreciation, amortization and impairment on intangible and tangible fixed assets. The net result remained nearly unchanged year-on-year.

- **Income from investments and profit transfer** includes dividends from subsidiaries, income and expenses arising from profit transfer agreements and impairment of financial assets and marketable securities. The increase resulted primarily from the €90.9 million rise in dividend disbursements from subsidiaries and the €47.4 million rise in impairment of financial assets.

- **Net financial income/expense** is the result of offsetting other interest and similar income against interest and similar expenses. The year-on-year increase was primarily due to the low earnings on interest for loans to subsidiaries.

Software AG’s financial position

Software AG’s **total assets** decreased by a total of €74.9 million, from €925.5 million on December 31, 2018 to €850.6 million on December 31, 2019.

The following table depicts the primary changes compared with the prior year:

in € millions	2019	2018	+/–
Intangible assets	10.1	12.4	–2.3
Property, plant and equipment	39.7	38.8	0.9
Financial assets	698.2	772.7	–74.5
Inventories	0.1	0.1	0.0
Receivables and other assets	76.7	88.2	–11.5
Cash and cash equivalents and short-term securities	15.8	6.7	9.1
Prepaid expenses	10.0	6.6	3.4
Assets	**850.6**	**925.5**	**–74.9**
Equity	311.4	268.5	42.9
Provisions	101.3	97.7	3.6
Liabilities to banks	258.9	308.5	–49.6
Remaining liabilities	178.8	250.6	–71.8
Deferred income	0.2	0.2	0.0
Equity and liabilities	**850.6**	**925.5**	**–74.9**

- **Intangible assets** decreased by €2.3 million due to amortization and additions from the current year.
- **Financial assets** went down by €74.5 million mainly because of amortization of Software AG’s shareholding in Cumulocity GmbH in the amount of €47.4 million and the decrease in loans to subsidiaries of €31.8 million.
- **Receivables and other assets** went down by €11.5 million as of December 31, 2019. This is due primarily to the year-on-year decrease in the positive fair value of derivatives in the amount of €12.4 million.
- **Cash and cash equivalents** went up by €9.1 million. Software AG predominantly generates liquidity based on royalties, dividend disbursements, Group financing and management fees from subsidiaries. For this reason, the cash flows of Software AG depend to a great extent on decisions regarding dividend payouts of subsidiaries and financing arrangements between the parent company and subsidiaries. A cash flow statement for Software AG alone would therefore have little meaning, for which reason it does not prepare such a statement.
- **Prepaid expenses** went up from last year by €3.4 million. This is due mainly to earlier recognition and payment of incoming invoices from Software AG’s suppliers.
- Software AG’s **equity** increased by €42.9 million year-on-year. This increase resulted mainly from the balance of €95.5 million in net income and €52.5 million in dividends paid out to Software AG shareholders in fiscal 2019.
- **Provisions** remained nearly unchanged from the previous year.
- **Liabilities to banks** went down by €49.6 million. This is primarily in connection with the subsidiaries’ higher dividend disbursements.
- **Remaining liabilities** went down by €71.8 million. This change resulted primarily from the €51.8 million decrease in liabilities to affiliated companies, particularly because of the significant rise in dividend payments. Furthermore, liabilities to employees declined by €13.5 million because of the payout of share-based variable remuneration components.

Outlook

Software AG’s future financial performance depends upon the financial standing of the Software AG Group and decisions regarding the payout of Group-internal dividends. Please refer to the Outlook in the Group Management Report. p. 108

Combined Non-Financial Statement

Fundamental Aspects

Reporting system

Software AG's Combined Non-Financial Statement relates to the fiscal year from January 1 to December 31, 2019. The report has been published in this format as part of the Combined Management Report since fiscal 2017.

The Combined Non-Financial Statement contains the information required by section 289c of the German Commercial Code (HGB) to enable readers to understand the Company's business growth, financial results, its situation and the effects of its activities on the aspects stated in section 289c (2) of the HGB. When preparing this report and thus when analyzing the requirement to report, Software AG made use of the option provided by section 289d of the HGB to prepare the Combined Non-Financial Statement based on the Global Reporting Initiative (GRI), an international standards framework.

The contents of the Combined Non-Financial Statement relate to Software AG and the Group. The Software AG Group's non-financial indicators are based on data that generally corresponds to the scope of consolidated financial reporting. Any deviations are explained accordingly. The measures presented for the individual aspects are ongoing, unless stated otherwise.

External audit of the Combined Non-Financial Statement

Software AG's Combined Non-Financial Statement is audited by the auditing firm BDO AG Wirtschaftsprüfungsgesellschaft (BDO), Hamburg, Germany. Auditing was conducted with the goal of attaining a limited level of assurance, based on the (revised) ISAE 3000 Standard.

Explanation of the business model

For information on Software AG's business operations and business model, please refer to Fundamental Aspects p. 33 of the Group in the Combined Management Report. The materiality analysis is presented in the Key Topics section. p. 86

Corporate social responsibility and sustainability

Responsible conduct and sustainability are guiding principles for Software AG. Software AG defines sustainability not only as the creation of long-term values for its stakeholders, but its customer relationships, its technology, its partnerships, its investments in the Company and its employees' expertise as well. These have been its core values for many years. Software AG will continue developing these for the benefit of its shareholders and the Company as a whole.

Software AG ensures its accountability by assigning non-financial matters to the roles and responsibilities of its Management Board members accordingly. The topics of environment, social matters and corporate governance (which include combating corruption and bribery) are assigned to the CEO and therefore have the highest level of priority.

Software AG is certain that moral principles and economic success not only go together, they belong together. Out of respect for future generations, it is important to Software AG to conserve resources in order to achieve sustainable economic, environmental and social progress.

To Software AG, responsible conduct means:

- Playing a role in customers' long-term success
- Continually improving standards
- Being a long-term and therefore reliable partner
- Allowing staff to develop along with the Company
- Adding value to society
- Pursuing the highest social standards in daily activities
- Promoting education and innovation globally and locally at Software AG locations

Values such as trust, respect, open-mindedness and transparency shape Software AG's global operations. Software AG is a multinational corporation with operations in more than 70 countries. This means many different cultures and legal systems converge. The Company therefore instituted a global Code of Conduct in 2011. It describes the values shared by all employees worldwide that form the basis for Software AG's conduct as a company—with customers, partners and employees alike.

Stakeholders

Software AG has internal and external stakeholders. The internal stakeholder groups comprise the employees, the Management Board, the Supervisory Board, the Compliance Board and the Works Council. The external stakeholder groups include the customers, investors, partner network, suppliers, future employees, universities and research institutions, local communities and key multipliers such as analysts and the media.

Appreciation of stakeholders

Software AG attaches great importance to fostering an ongoing dialog with its stakeholder groups. This is also reflected by the Company's structure, which incorporates numerous departments dedicated to maintaining a dialog with the most important stakeholder groups. These include Sales, Customer Support, Human Resources, Internal Communications, Marketing, University Relations and Investor Relations.

The main stakeholder groups also have a direct voice in the Company, for example through the international user groups, employee representatives, the Supervisory Board, the Annual Shareholders' Meeting and the Scientific Advisory Board.

The following table shows some examples of the groups and the intervals between their meetings and surveys:

Stakeholder Group	Committee/Medium	Interval/Meetings
Investors, employees, main shareholder (Software AG Foundation)	Elected representatives on the Supervisory Board	Regular meetings
Investors	Annual Shareholders' Meeting	One general meeting annually
Employees	Works Council (Germany)	Regular general and employee meetings
Employees	Employee survey	One global survey annually, topical surveys
Customers	Global customer survey	One survey annually
Customers	International IT leadership meeting	Annual strategy meeting
Customers	International user groups	One trans-regional conference annually, regular regional meetings
Research & Development	Scientific Advisory Board	Regular meetings

Key topics

Materiality analysis

Software AG began conducting a materiality analysis involving its internal and external stakeholders in order to identify the non-financial issues that were of relevance to the Company in fiscal year 2017. To carry out the materiality analysis, Software AG worked with an external consulting company from Darmstadt, Germany, which specializes in implementing sustainable concepts. A joint workshop was held to identify the most important internal and external stakeholders as well as potentially relevant issues on which the stakeholders were to be questioned. Based on these issues, a questionnaire was developed for the internal and external stakeholders, taking into account the GRI standards. This survey was repeated in fiscal 2018.

In February 2019, Software AG announced a new medium-term strategy to accelerate revenue growth. There were no essential changes in the conditions surrounding Software AG's business activities in fiscal 2019 because the measures will largely be implemented in fiscal 2020. The materiality analysis conducted in 2018 yielded insignificant differences to 2017. These were due to the addition of only a few additional topics for fiscal year 2018. Accordingly, it is assumed that the topics and issues considered important in fiscal 2018 remain the same.

List of key topics

As part of the materiality analysis conducted most recently in fiscal year 2018, Software AG identified the following topics as still highly relevant for fiscal 2019:

Highly relevant topics[1]	GRI standard	Minimum content (according to HGB) and other aspects deemed to be material	Page
Customer satisfaction	n/a	Customer concerns	98
High quality of Software AG products and services	n/a	Customer concerns	99
Availability of product support for customers	n/a	Customer concerns	100
Protection of customer data	GRI 418	Customer concerns	101
Transparent and trusting corporate culture	n/a	Employee concerns (section 289c (2), no. 2)	95
Equal treatment of all Software AG employees	GRI 405	Employee concerns (section 289c (2), no. 2)	91
Employee training programs and further education	GRI 404	Employee concerns (section 289c (2), no. 2)	95
Taking employee concerns into consideration	n/a	Employee concerns (section 289c (2), no. 2)	92
Flexible working hours/part-time model	n/a	Employee concerns (section 289c (2), no. 2)	93
Equal opportunity for all Software AG employees	GRI 405	Employee concerns (section 289c (2), no. 2)	91
Software AG products should contribute to improving economic performance for Software AG customers	n/a	Customer concerns	98
Policies and procedures to combat corruption	GRI 205	Anti-corruption aspects (section 289c (2), no. 5)	97
Adherence to competition laws and antitrust laws and regulations	GRI 206	Anti-corruption aspects (section 289c (2), no. 5)	97
Low staff turnover	GRI 401	Employee concerns (section 289c (2), no. 2)	93
Regular performance assessments and feedback for career development and professional growth	GRI 404	Employee concerns (section 289c (2), no. 2)	95

Additional topics[2]			
Dialog at the regional level and local community development Local communities	GRI 413	Social matters (section 289c (2), no. 3)	101
Prevention of human rights violations and child labor	GRI 412/408	Respect of human rights (section 289c (2), no. 4)	90
Energy consumption	GRI 302	Environmental matters (section 289c (2), no. 1)	103

[1] A business and impact relevance in the sense of section 289c (3) HGB is assumed for all of the issues considered highly relevant by all stakeholders.
[2] In order to fully report on HGB requirements, Software AG will go into environmental and social matters as well as respect of human rights in greater detail.

Code of Conduct and Conventions and Recommendations of International Organizations

The majority of Software AG's concepts and due diligence processes regarding the aspects listed above are described in detail in the Company's various Codes of Conduct. For that reason, they are only summarized below:

Global Code of Business Conduct and Ethics

The **Global Code of Business Conduct and Ethics (Code of Conduct)** contains policies for sound and responsible corporate governance. It sets out what Software AG considers to be ethically correct conduct in its day-to-day business. The relationships of Software AG employees to customers, partners and competitors follow these guidelines. All employees must read and understand the contents of the Code of Conduct. To this end, all employees attend mandatory, Web-based training programs and receive certification upon completion of the programs. The Code of Conduct is currently available in eight languages. In addition, the Company has other specific guidelines for conduct with partners and suppliers.

The Code of Conduct covers the following topics, among others:

- Software AG's values and professional conduct
- Staff health and safety
- Equal treatment and anti-discrimination
- Data protection and trade secrets
- Fair competition and antitrust law
- Compliance and anti-corruption
- Protection of Company property
- Conduct in the event of conflicts of interest and for clarification of ethical issues

Compliance with the Code of Conduct

Software AG has introduced various mechanisms to help its employees comply with the Code of Conduct. For example,

- All new employees must complete an online training program, which integrates hands-on examples, to familiarize them with the different aspects of Software AG's Code of Conduct.

- The online training is offered through Software AG's learning management system, which checks that employees complete the training. The duration of the training program varies, depending on the employee's individual speed, and is therefore not documented.

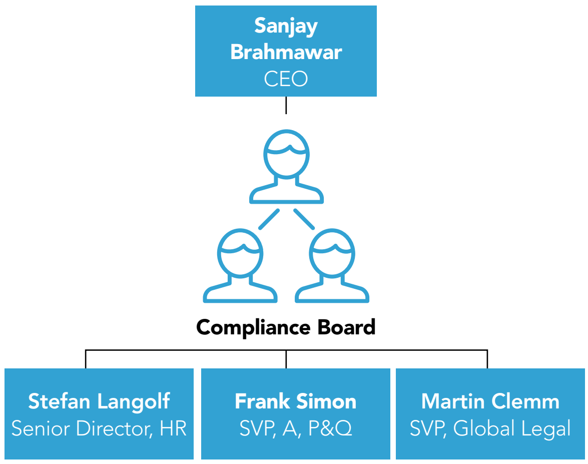
- At the end of the Web-based training program, they complete a multiple-choice test; after passing the test, they are issued a certificate.

- The Compliance Board can be contacted (also anonymously) regarding all questions and approvals. Software AG has set up an email-based reporting system at complianceboard@SoftwareAG.com for reporting incidents.

Software AG has established a Compliance Board, which is responsible for introducing, implementing and monitoring the Compliance Program. This Board reviews and assesses compliance issues and concerns and ensures that employees behave in compliance with the law, that internal rules and processes are followed, and that conduct complies with Software AG's Code of Conduct.

The Compliance Board reports directly to the CEO and consists of the following members:

Compliance Board



During the reporting year, the Compliance Board was comprised of:

- through August 2019, Christine Schwab, starting September 2019, Stefan Langolf (Sr. Director, HR)
- Frank Simon (Sr. VP, Audit, Processes and Quality)
- through May 2019, Dr. Benno Quade, starting June 2019, Martin Clemm (Sr. VP, Global Legal & General Counsel)

The essential duties and responsibilities of the Compliance Board include:

- Further developing, regularly reviewing and updating the Code of Conduct to ensure its sustainable application worldwide
- Monitoring the implementation and application of the Code of Conduct
- Conducting training programs on compliance issues and on the Code of Conduct
- Advising employees on compliance issues and on the Code of Conduct
- Investigating compliance violations and making recommendations for appropriate measures in response to non-compliance
- In the event of non-compliance, the Compliance Board examines whether the compliance rules (including the Code of Conduct), procedures, training and organizational framework conditions need to be adjusted.

In fiscal year 2019, the Compliance Board received a total of 36 (2018: 68) inquiries from Software AG employees and one from third parties.

Illegal intentions or intentional misconduct on the part of employees cannot be completely ruled out. Violations of the Code of Conduct can be sanctioned by disciplinary measures (in addition to possible legal penalties).

Scope

The Code of Conduct applies to Software AG worldwide, including but not limited to, external staff and agents acting on behalf of Software AG.

Partner Code of Conduct

Software AG's business relationships with its partners are regulated by its Code of Conduct for Software AG Partners and self-assessment. It requires partners to provide information and commit in writing to comply with Software AG's Code of Conduct. To this end, they sign the Code of Conduct for Software AG Partners and carry out a self-assessment. The Compliance Board plays a regulatory and auditing role.

Supplier Code of Conduct

There are also conduct guidelines for suppliers: Software AG's binding Supplier Code of Conduct is available in eight languages and must be confirmed in writing by all suppliers of the Software AG Group. An enforcement guideline regulates the process for existing and new suppliers as well as archiving signed Codes of Conduct. In addition, it gives the Compliance Board the right to perform regular audits to ensure that suppliers are adhering to the Code of Conduct. For suppliers that have their own code of conduct, the Compliance with Supplier Code of Conduct Checklist serves as a basis for comparison and to check their compliance with Software AG's requirements.

Conventions and recommendations of international organizations

In addition to the laws and regulations in the countries where Software AG operates, there are several conventions and recommendations by international organizations. They are primarily addressed to the member states and not directly to individual companies. However, they are a very important guideline for the conduct of a multinational company and its employees. Software AG therefore attaches great importance to compliance with these guidelines worldwide. The most important agreements of this kind are listed below:

- Universal Declaration of Human Rights (UNO), 1948
- European Convention for the Protection of Human Rights and Fundamental Freedoms, 1950
- Tripartite Declaration of Principles of the ILO (International Labor Organization) on Multinational Enterprises and Social Policy, 1977
- ILO Declaration on Fundamental Principles and Rights at Work, 1998 (especially regarding the following topics: elimination of child labor, abolition of forced labor, prohibition of discrimination, freedom of association and right to collective bargaining)
- OECD Convention on Combating Bribery of Foreign Officials in International Business Transactions, 1997
- OECD Guidelines for Multinational Enterprises, 2000

General Aspects

Software AG has established concepts related to the respect of human rights and combating corruption and bribery as well as to employee, customer, environmental and social matters. The key topics relating to these aspects are discussed below.

Respect of human rights (section 289c (2), no. 4 HGB)

Prevention of human rights violations and child labor

Concepts and due diligence processes
Respect and protection of human rights constitute the foundation of Software AG's international operations. To ensure compliance with human rights and the prevention of child labor, Software AG has established a binding Code of Conduct for employees, suppliers and partners respectively. The Code of Conduct is a comprehensive management approach that sets out what Software AG considers to be ethically correct conduct in business. It also addresses issues such as equal rights, (sexual) harassment, child labor and compliance with basic codes of conduct and human rights. In addition, it refers to major international agreements and recommendations of international organizations.

Substantial risks and key performance indicators (performance indicators pursuant to GRI 408 and 412)
Globally active companies face the fundamental risk that the protection of children and young people may not be consistently guaranteed within their business relationships and supplier chains. For this reason, Software AG has taken targeted measures with its Code of Conduct to exclude the risk of child labor. Software AG mitigates the risks arising from working with partners and suppliers by requiring them to commit to excluding child labor and respecting human rights in the respective Codes of Conduct (Partner Code of Conduct, Supplier Code of Conduct). Furthermore, with regard to its own business activities, an academic degree or many years of vocational training are an absolute prerequisite for people working in the IT industry and, in turn, for the vast majority of Software AG employees. The Company therefore sees no risk of child labor within its own business operations or in connection with the use of Software AG's products and services. For this reason, Software AG has not implemented any additional internal procedures or control indicators to exclude child labor other than those set forth in the Code of Conduct.

Likewise, Software AG believes that its worldwide operations do not pose a significant risk of its activities having a serious negative impact on human rights. Software AG is not aware of any cases where products or product components have been linked to human rights violations. Software AG assumes that its business partners comply with the relevant laws and the Code of Conduct. Software AG's Code of Conduct ensures that its business partners adhere to ethical principles of conduct that go beyond the legislation of the respective countries. As a result of these measures, Software AG believes that the risk of its business partners violating human rights and infringing on the rights of children and young people is very low.

Employee concerns (section 289c (2), no. 2 HGB)

Equal treatment of all Software AG employees

Concepts and due diligence processes

The Management Board of Software AG believes that diversity fosters an innovative corporate culture and that all individuals have a right to equal opportunities. The Supervisory Board of Software AG is aware of the opportunities offered by diversity within the Company and continued promoting its existing diversity concept in fiscal year 2019. This concept set an example of diversity among members of the Management Board and the Supervisory Board. In addition, Software AG's Code of Conduct requires that employees interact in a non-discriminatory manner by setting out Software AG's fundamental guidelines and procedures governing equal treatment.

Substantial risks and key performance indicators (performance indicators pursuant to GRI 405)

As a global corporation, Software AG benefits from the diversity of its employees. A further increase in the diversity of the workforce and an innovative corporate culture offer great opportunities for the sustainable development of the Company's business model. For Software AG, the low percentage of women studying STEM disciplines represents a high risk for an unequal distribution of male and female employees in technical fields in the future. For this reason, the Company has been making considerable efforts in Germany and other countries to increase the appeal of IT professions for women. In Germany, the Company offers information events and short internships for youths as well as internships lasting several weeks for students in Germany, the USA and Brazil. Moreover, Software AG participates in diverse projects as a certified "MINT-Minded Company" exclusively for female students and women to boost their interest in STEM professions. In Germany, Software AG is a formal member of the "International Women for Leadership" initiative.

Software AG India developed a program specifically for women who have temporarily left the workforce. The SoftwareAGain Initiative empowers women in computer science and software engineering to find their way back into the professional world. These existing initiatives will be a focal point in 2020 as well.

The diversity concept for populating the Management Board and Supervisory Board was taken into consideration in 2019 as part of the selection process in the search for a female Chief HR Officer.

Furthermore, Software AG sees no significant risks associated with its business relationships, products or services that would likely have serious negative effects on equal treatment. Fundamental key indicators of measuring and steering diversity are listed in the following table:

Management Board and Supervisory Board by Gender and Age Group

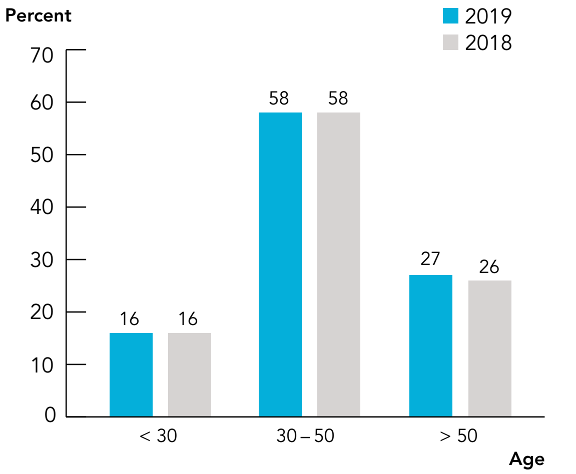
	Dec. 31, 2019	
Supervisory Board	**as %**	**by age group**
thereof male	83.3	>50 years
thereof female	16.7	30–50 years
Management Board		**by age group**
thereof male	60	>50 years
thereof male	20	30–50 years
thereof female	20	30–50 years

Employees[1] by Gender and Age Group

as %	Dec. 31, 2019	Dec. 31, 2018
Female by age group	**29.4**	**29.9**
<30	5.5	4.9
30–50	16.5	17.3
>50	7.5	7.7
Male by age group	**70.5**	**69.9**
<30	10.4	10.7
30–50	41.1	40.5
>50	19.0	18.7
Diverse by age group	**0.0**	**0.2**
30–50	0.0	0.1
>50	0.0	0.1
Total	**100**	**100**

[1] Adjusted for dormant employment contracts. There were no significant changes or seasonal fluctuations in the number of employees during the year.

Age Group Trend



Total Number of Employees[1] by Gender

Full-time employees	Dec. 31, 2019	Dec. 31, 2018	+/– as %
Male	3,422	3,359	2
Female	1,429	1,347	6
Diverse	2	11	–82
Total full-time employees	**4,853**	**4,717**	**3**

Total Number of Employees[1] by Region

Full-time employees	Dec. 31, 2019	Dec. 31, 2018	+/– as %
EMEA	1,645	1,631	1
DACH	1,268	1,247	2
thereof at HQ (Darmstadt)	862	844	2
thereof in DACH, excluding HQ	406	403	1
APJ	1,230	1,123	10
NAM	601	602	0
LATAM	109	114	–4
Total full-time employees	**4,853**	**4,717**	**3**

Total Number of Employees[1] by Employment Type and Gender

	Dec. 31, 2019	Dec. 31, 2018	+/– as %
Full-time	**4,544**	**4,402**	**3**
thereof male	3,327	3,263	2
thereof female	1,215	1,128	8
thereof diverse	2	11	–82
Part-time	**309**	**315**	**–2**
thereof male	95	96	–1
thereof female	214	219	–2
thereof diverse	0	0	0
Total employees	**4,853**	**4,717**	**3**

All information is based on key personnel data from Software AG’s global database. The data was retrieved as of December 31, 2019, and all information is presented as FTE (full-time equivalents). Staff members who are not salaried employees of Software AG do not account for a significant proportion of the organization’s activities.

Taking employee concerns into consideration

Concepts and due diligence processes

After the new CEO Sanjay Brahmawar came on board in summer 2018, meetings with employees were held all over the world. He thematically addressed the feedback from employees at the meetings, and this became the starting point for the Helix strategy project that Software AG launched in the second half of 2018. In 2019, Helix focused on transforming people and culture as well as sustainable, profitable growth. Hence, the goals for the next five years are also outlined. To learn about employee concerns and take an appropriate stance on them, the My Voice global employee survey was conducted on the topic of “people and culture” in the latter half of 2019. The results were published internally. To help ensure employee satisfaction, international workshops were established. This also underscores the importance of employee satisfaction to the Company. Further initiatives such as “Give Back to the World” will be carried out as part of Helix. The employees themselves are responsible for their content and implementation.

[1] Each in full-time equivalents, adjusted for dormant employment contracts. Not including employees of FACT AG. There were no significant changes or seasonal fluctuations in the number of employees during the year.

Substantial risks and key performance indicators
Software AG benefits in a wide array of ways from the MyVoice employee survey. For example, their feedback can be used to improve processes, correct mismanagement or rectify shortcomings in employee benefits. Taking employee concerns into account leads to greater employee satisfaction and loyalty overall.

In 2019, in addition to the global employee survey, different departments at Software AG conducted approximately 30 (2018: 14) other surveys related to topics including employee and customer satisfaction as well as other internal concerns. The reason for the increase in topical surveys as compared to last year was the intensified internal marketing of the suvey tool Software AG began using in 2018.

Flexible working hours/part-time model

Concepts and due diligence processes
The need for flexible working hours and models varies from one Software AG location to the next. Software AG gives employees in Germany the opportunity to adjust their work hours to best suit their personal needs within the Company's requirements, offering flexible work hours, diverse part-time models, and a 50-plus initiative. In India, the previously mentioned SoftwareAGain program offers a gradual increase in work hours.

Employees and managers all over the world have the flexibility to work from home entirely, partially or spontaneously as needed within individual agreements, operational needs and local labor laws covering work hours as well as the requirements of international collaboration and personal concerns.

Substantial risks and key performance indicators
When it comes to competing for the best talent, Software AG benefits from its diverse offering in the area of work hours and employment models. This offering contributes significantly to the Company's above-average work/life balance ratings on the employer rating platforms Glassdoor (4.2) and Germany's Kununu (3.84). Software AG works to continually adapt its programs to meet its employees needs and improve the positive ratings it receives on employer evaluation platforms. Likewise, the Company also drives many initiatives supporting culture and collaboration, which help attract the best talent to come work for Software AG.

Low staff turnover

As the industry faces a shortage of skilled IT workers, Software AG is implementing targeted measures to promote employee growth, solid succession planning and specific training to win new employees for the Company and retain expert staff. At the same time, the supportive measures also contribute to lowering staff turnover.

Concepts and due diligence processes
Precise observation and analysis of the turnover rate in different locations and departments is a key measure of employee satisfaction, success in recruiting the best talent as well as Software AG's reputation and overall appeal in the individual departments and locations. High turnover rates require a prompt identification of the underlying problem and appropriate countermeasures. Furthermore, Software AG offers a range of development and training-programs for youth, college students and young employees to begin fostering young talent as early as possible. An additional countermeasure involves the transition from one generation to the next. Software AG promotes collaboration between young and old in a wide variety of areas.

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Substantial risks and key performance indicators (performance indicators pursuant to GRI 401)
High turnover leads to a loss of employee expertise and therefore poses a threat to the continuity of the Company's market presence. The necessary new hires mean increased initial training activities, and the work and productivity normally delivered by the resources needed for training activities is at least partially lost. Turnover figures were only available on a local basis for Software AG because a global HR information system was just implemented in May 2019. The system can already be used for generating KPIs, and a further simplification of HR processes is in progress. Software AG promotes dialog between different generations and combines existing expertise with know-how for the digital future.

Promoting Young Talent and Staff Members

Target Audience	Initiatives (examples)
Youth	**Calliope Mini-Courses in Germany** • Programming classes for elementary, middle and high school students on YouTube. **Girl's Day in Germany and Slovakia** • Girls try out technical careers for a day. **Student Internships** • Students have the opportunity to try out technical or administrative professions at Software AG. **Participation in Vocational Training Fairs for Students** • Hobit 2019, the SV Darmstadt 98 Vocational Training Fair, "Seize the Future" Internship Fair in Saarbrücken, career information evening by the Main-Taunus Rotary Club **Industry Kids Day at Software GmbH Austria** • Companies give young people ages 5–14 a look at the industry with independently led "junior labs." **Talent at Home in Spain and India** • Software AG employees' children are invited to spend a day observing people at work at Software AG. **Hesse Technical School** • High school graduates with (technical) university entrance qualifications get the chance to learn first-hand about STEM fields through a combination of trial classes and company internships. **International Assignments** • Software AG enables students to participate in projects abroad as part of their vocational training.
College students	**Master's Degree in Digital Transformation Management** • Software AG helped in the creation of a master's program in Digital Transformation Management. Students in the program have the opportunity to complete this degree while working. **University Relations Program** • Through the University Relations program, Software AG maintains close contact with colleges and universities and provides them with education packages containing select software products for teaching and research free of charge. • Guest speaking engagements at universities and visits to Company facilities promote awareness of Software AG's technology and corporate culture. **Hackathons** • In 2019, students in Darmstadt and India participated in hackathons to develop projects and applications for systems together in the shortest possible time. Through Software AG's talent community in LinkedIn, students all over the world had the opportunity to complete a two to three month internship abroad in Software AG subsidiaries. **Software Campus** • As a founding partner of Software Campus, Software AG is making an active contribution to opening up excellent career prospects in Germany to tomorrow's IT managers.
Rising talent	**Future Talents Program** • The Future Talents Program was developed to identify new talent, promote their development and motivate them to become the next generation of creative thinkers, key employees and leaders at Software AG. **Leadership Essential Program for New Leaders** • This program prepares potential managers to overcome the challenges that leadership roles bring.
Leadership	**Corporate Executive Program** • The Corporate Executive Program is specifically designed for leaders and experts to step up as multipliers to tell Software AG's digitalization story to the external market. **Leadership Essential Program for Experienced Leaders** • Employees who already hold a leadership role and want to improve their personnel management skills. **Succession Planning** • An initial succession plan was drafted for the Executive Leadership Team (ELT) in 2019. It will be further developed in 2020 and expanded to additional tiers of management.

Transparent and trusting corporate culture

Concepts and due diligence processes

Software AG's corporate culture encompasses the values, norms and attitudes that shape the decisions, actions and conduct of its members. Software AG employees live these values and norms every day. To ensure responsible corporate governance on a long-term basis, the shared guidelines for conduct have been set out in the previously mentioned Code of Conduct. In addition, Software AG embedded the Leadership Principles it adapted in 2017 into all management training programs.

- The leadership principles are supplemented by the b^5 values from the Helix strategy: Be a performer, Be engaged, Be one team, Be an innovator and Be accountable.

- Software AG's focus is on each individual employee so everyone can contribute their strengths to enhance the Company's success (example from Be engaged: "Call me, don't email.").

- The b^5 values are part of the culture-changing BeYourBestYou initiative, which also includes the following initiatives:
  - Growth days: Time budget for learning and continuing education activities
  - Give Back to the World Day: A day for environmental and social causes "Volunteer one day a year for a social or environmental project and give back to the world."
  - Team empowerment budget: helping team wishes come true
  - b^5 ambassadors: Employees are multipliers and contacts for the #BeYourBestYou initiative to firmly establish it at every location worldwide.

  In addition to these global initiatives promoting employee loyalty and fostering talent, there are many local activities that are suited to the specific conditions at each location. These include buddy and mentoring programs, projects in support of women, and special reward and recognition programs.

Substantial risks and key performance indicators

Software AG could not identify any significant risks to a transparent corporate culture associated with its own business activities, relationships with suppliers and partners, or its own products and services.

Measures promoting a transparent and trusting corporate culture will continue to be implemented and expanded.

Regular performance assessments and feedback for career development and professional growth

Concepts and due diligence processes

Regular performance and career development reviews are mandatory at Software AG. These reviews are supported by appropriate software and take place in the first and second quarter of a year for the previous year. Furthermore, Software AG regularly honors the best employees or teams in the specific categories of Sales, Professional Services and R&D based on predefined performance criteria.

Information on substantial risks and key performance indicators (performance indicators pursuant to GRI 404)

Regular performance reviews and career development meetings are a key tool for employee motivation and loyalty to ensure that the Company not only hires the best talents in the market, but retains them as well. A structured process for succession planning was initiated, because it is the only way to ensure that employees continue to learn and develop professionally based on market requirements. The internal competition for the best employee or team awards in a quarter or year leads to an internal performance competition that employees find very motivating due to the recognition they earn.

Training programs and further education measures

Concepts and due diligence processes

Software AG's Corporate University offers numerous training courses for all employees which can be accessed via the iLearn learning management system. The program includes online and face-to-face courses by the Company's own trainers and external trainers. The Corporate University uses modern training formats ranging from lightweight brief video tutorials to MOOCs (massive open online courses) to TV formats broadcast live or recorded in a professional in-house studio. Employees can schedule training in iLearn for themselves at any time, generally without requiring their manager's approval. Training courses that are subject to a fee require the approval of an employee's manager; additional courses are provided by the Human Resources department, business school programs and the Corporate University.

The entire training program is made available to all employees online in iLearn. In 2019, Software AG offered a total of more than 1,800 courses (2018: 1,600), mostly as e-learning courses. Software AG deliberately focuses on offering a mix of training solutions offered by third parties and those developed in-house, as past experience has shown that such a mix resonates better with employees.

The Corporate University's course offerings are closely aligned with the requirements of the market, Software AG's users and products, the organization and its management and employees. Close attention was paid in 2019 to supporting Helix through suitable training offerings. Examples include companywide change training in the form of an interactive video with more than 400 registrations, and training sessions conducted by b^5 ambassadors and the Growth Catalysts (a team of 100 selected employees and managers from all departments who act as change angels).

The Company has mapped out development paths to prepare employees for product certification or to provide training and further education for Software AG product consultants. Employees and their managers agree on an individual learning plan, which is documented and monitored in iLearn. iLearn's global training encompasses standardized training programs, such as basic training for new employees. Furthermore, the Corporate University offers programs for specific target groups like the Global Architect Program for consultants, appealing training and further education for young talents like the Future Talent Program, and training on focal topics such as design thinking. This particularly demonstrates Software AG employees' powerful innovativeness and keen interest in creative work methods. Since the start of the design thinking training offensive in 2017, more than 800 employees have completed the training in-house.

A major global initiative for manager training was launched in 2018: the Leadership Essentials Program. By the end of 2019, around 200 managers from all departments and countries had completed this program. To build on this, an Advanced Leadership Program is planned for 2020 that focuses on Software AG's cultural turnaround and transformation. This will further expand the top executive leadership teams. In addition, developing the "leaders of tomorrow" will enjoy even greater emphasis in 2020.

Information on substantial risks and key performance indicators (performance indicators pursuant to GRI 404)

In a highly competitive market environment, neglecting ongoing training for their own employees poses a risk for companies. For that reason, Software AG is committed to the continuous training and further education of its employees, seeing it as an opportunity for achieving a significant competitive advantage. This is because Software AG's employees contribute decisively to the Company's business success with their professional and personal skills.

The satisfaction of course participants is continuously monitored, which involves evaluating the training offered and adapting it to meet demand. The system provides reports with information on registration, number and satisfaction of participants. According to feedback received, more than 85 percent of participants on average were satisfied with the courses (2019: 87.8). Since 2019, Software AG also measures the time that learners invest in their continuing education—called growth days. The objective is to promote employees taking the initiative to further their training, especially in topics that go beyond their current job requirements or lie outside their comfort zone. All topics are relevant that are of interest to employees and promote their personal growth at Software AG. Accepted learning formats range from external seminars to offerings from recognized learning platforms (Coursera, Udemy, LinkedIn Learning, etc.), to attending conferences, to utilizing mentoring and coaching, and to reading specialized literature. Employees have the opportunity to enter the time spent on these educational opportunities in their own learning account in iLearn.

In total, there were nearly 45,000 registrations in iLearn for courses, programs and certifications, which corresponds to a net learning time of 147,000 hours. This amounts to approximately 10 percent more learning hours than in 2018. Net learning time refers to only the time spent "processing" content or the playing time of videos or e-learning sessions. If one considers preparation and follow-up work as well as completing exercises, experience shows that real learning time is twice that amount for all courses on average. Therefore, the self-set goal of 50 hours per employee was clearly exceeded. The relatively steep rise in registrations year-on-year is a result of a change in how data is collected. Previously, only registrations made by employees actively employed at the time of data capture were counted. As of 2019, the complete history of all employees is used. The increased willingness to learn among employees is also evident by the increase in training sessions that are subject to a fee. The Company's investment in this type of training rose by 16 percent over the 2018 figure to around €2.6 million.

Combating corruption and anti-competitive behavior (section 289c (2), no. 5 HGB)

A company's reputation is one of its most important assets and the basis of all relationships between employees, customers, partners, shareholders and a company's competitors. Alongside its efforts to survive in a highly competitive market, Software AG makes it a priority to act and do business responsibly and with integrity.

Concepts and due diligence processes

Software AG has therefore introduced a Code of Conduct that requires fair (competitive) conduct; all employees have to comply with the applicable antitrust and competition laws. Appropriate training and the clear rules of the Code of Conduct promote integrity and fair business practices at Software AG in the many countries where it operates. Employees with questions about competition and antitrust can consult the Software AG legal department responsible for the region or the Compliance Board. Software AG makes every effort to maintain integrity and fairness and to establish appropriate control measures.

The Code of Conduct includes the following prohibited actions (without restriction):

- Agreements with competitors that harm customers, such as price-fixing, collusive arrangements regarding tenders and agreements that exclude competition for customers or contracts
- Agreements according to which the freedom of a customer or supplier to sell a product is unreasonably restricted, including agreements setting a resale price for a product or service, setting unreasonable terms and conditions for the sale of products, technologies or services and agreements according to which other Software AG products and services are purchased
- Attempts to monopolize, for example by exploiting a dominant market position in order to exclude others from competition
- Acquisition of information on the competition using illegal or unethical methods

The Compliance Board reviews and assesses compliance issues and concerns and helps ensure that employees behave in compliance with the law, that internal rules and processes are followed, and that conduct complies with Software AG's Code of Conduct. The Compliance Board reports to the CEO. In the event of potential compliance violations, the Compliance Board can commission internal audits. These are approved by the CEO and carried out by Internal Audit. The results of the audit and the resulting corrective measures are reported to, reviewed and evaluated by the Compliance Board and the CEO.

Software AG's Senior Vice President for Audit, Processes and Quality regularly reports the results of internal audits to the Supervisory Board's Audit Committee. This also applies to the results of the audits commissioned by the Compliance Board. The reports also cover other topics such as the continuous improvement of Software AG's compliance instruments and the effectiveness of internal controls.

Substantial risks and key performance indicators (performance indicators pursuant to GRI 205 and 206)

Risks from corruption and anti-competitive behavior arise in international business activities due to differences in understanding of ethical and moral business practices from one country to the next. Software AG's goal is for all employees to adhere to its Code of Conduct. Software AG's employees are regularly informed about the regulations and measures for combating corruption and anti-competitive behavior. Furthermore, the Code of Conduct training is part of the onboarding process that all employees go through worldwide when they join the Company. In fiscal 2019, a total of 670 (2018: 605) new Software AG employees completed the training on the Code of Conduct and p. 88
received the required certification. All of Software AG's business partners are required to sign Software AG's Supplier Code of Conduct. The Compliance Board assesses and rules upon exceptions to this rule.

Software AG has added issues related to fraud detection and prevention to its annual internal audit plan for countries with a specific fraud detection index. The Company does not have a risk management department that explicitly deals with the detection of fraud at its locations.

On July 31, 2018, the Spanish Antitrust Authority (Comisión Nacional de los Mercados y la Competencia, CNMC) imposed fines on a total of eleven companies, including Software AG Spain, in antitrust proceedings from the year 2015. The CNMC felt it proved that Software AG Spain was involved in price fixing, covert tenders, and other anti-competitive activities. The fine imposed on Software AG Spain amounts to €6,016 thousand and was paid on January 19, 2019 in accordance with the court order. Software AG Spain has filed an appeal against this administrative ruling. A decision is expected in 2020. Following the recommendation of Software AG's Compliance Board, the CEO has decided on and implemented a variety of measures to prevent comparable incidents in the future. These include hiring a local in-house attorney in Spain, close legal monitoring (internal and external) of public tenders, and training for managers and employees (both face-to-face and video training sessions). Overall, Software AG continues to estimate the risk from corruption and anti-competitive behavior to be low due to the measures it has taken.

Customer concerns

Customer satisfaction

Good working partnerships are based on trust, commitment and exchange. For Software AG, the success of its customers is and remains a goal to which the Company is firmly committed. For this reason, it regularly surveys its customers and also expects and encourages company employees to suggest customer-centric solutions. In addition, it applies design-thinking methods so that it can quickly provide its customers with solutions that offer high benefits.

Concepts and due diligence

A key objective of Software AG is to promote innovation and competitive differentiation among its customers and to support their successful digital transformation. The three objectives of Software AG's Customer Satisfaction Program are closely linked to this.

Communication: Software AG attaches great importance to open communication with its customers. To improve its processes, products and services, it collects and reviews customer feedback on a regular basis.

Collaboration: Software AG collaborates closely within its own organization, within its partner network and with its customers to ensure that its customers get the maximum benefit from Software AG technology.

Co-innovation: Software AG uses state-of-the-art design-thinking methods in R&D to deliver constructive and relevant customer solutions as quickly as possible.

Measuring customer satisfaction

Software AG continuously conducts surveys in order to understand its customers' experiences with Software AG. Depending on the type of collaboration with Software AG, customers are also regularly asked about their experiences with Software AG. The aim of these surveys is to ensure that all customers are completely satisfied with the collaboration at all stages of the interaction.

2019 was also a year of transformation with regard to how Software AG measures customer satisfaction. The worldwide customer survey was discontinued as it was disconnected from specific touchpoints within the customer lifecycle and hence did not deliver the expected response rates and actionable insights. Going forward, Software AG is going to measure the Net Promotor Score (NPS) in the direct context of a customer touchpoint (e.g., sales process, project delivery, support incident, product usage, etc.). This will give Software AG a comprehensive insight into the customer experiences along the entire lifecycle and specific actions Software AG can take on those insights.

Software AG has been measuring product NPS in the context of the support incident process for many years already. With an NPS of 40 it reached an all-time high value in 2019 (2018: 36; 2017: 31). Since NPS measures customer satisfaction and loyalty, it forms part of the strategic KPIs on corporate level and is also cascaded into the business lines.

Substantial risks and key performance indicators

Software AG could not identify any significant risks to customer satisfaction associated with its own business activities, relationships with suppliers and partners, or its own products and services.

The contribution of Software AG products to improving economic performance for Software AG customers

Concepts and due diligence

Within the Software AG sales methodology (Engage²), each sale generates a value proposition for each customer, sometimes quantified in the form of a business case as well. It lays the foundation for setting a fair price and is part of the discounting or Global Deal Desk (GDD) approval process, but is not part of the contract. Instead, it serves merely as an illustration of the value advantage. Sometimes this business case will be substantiated with previous successes (customer success stories) that were approved by other Software AG customers as part of a use case. Software AG may also draw on independent analysts at times to inquire about customer numbers to maintain a neutral, advertising-free perspective. One example is the Forrester study, "The Total Economic Impact™ Of The Software AG Digital Business Platform" from April 2018.

Software AG has created a new slogan, "turn data into value," to express its goal of enabling customers to increase the value they derive from existing and new data through data integration, data analytics (time series data insights, streaming analytics, etc.), and smart data-backed decisions. Customers are often surprised by the valuable insights they can glean from their data. In any case, Software AG is willing and open to conducting business value discussions with all its clients.

Substantial risks and key performance indicators

The Company does not internally evaluate Sales employees or consultants on achieving these goals and there are neither explicit indicators nor a process for ascertainment, except that every customer ideally should be won as a reference customer. Since business cases are not part of the contract, there are no risks from not achieving this objective.

Assurance of Software AG's high-quality products and services

Concepts and due diligence

Software AG's actions are driven by the desire to create added value for its customers and thus to contribute to their success. Software AG wants to enable its customers to differentiate themselves from their competitors in the digital world. In order to achieve this goal together, each Software AG employee is committed to the following values:

- The customer is at the heart of all dealings, from collaboration and co-innovation in the development of new products through to the way Software AG sells its services and solutions
- Compliance with laws and regulations regarding quality, safety and performance requirements in all countries where Software AG sells its products and services
- Support and continuous improvement of Software AG's business continuity and quality management program

Software AG will pursue these commitments in a transparent and consistent manner with the help of clearly documented processes, performance indicators (such as quality objectives, routine quality management reviews) and a corporate culture focused on quality. Software AG implements measures that aim for continuous certification in the areas of quality management, business continuity and information security. With the measures described below, the Company is working to reduce the possible risks that can arise from insufficient product quality.

ISO 9001-certified quality management system

Software AG's ISO 9001-certified quality management system (QMS) provides a basis for high levels of customer satisfaction, high-quality support services and software as well as continuous improvement. The product development, Global Support and Professional Services systems and all supporting functions are part of Software AG's QMS. They lay down the processes, roles and rules that apply to every employee in her or his daily work routine.

Quality specifications for product development

Software AG's investments in quality management are closely linked to its commitment to customer-centric development. This means that the customer is closely involved in the cycle, starting from the idea through to the product. Regular software releases, updates and continuous improvements provide a sound foundation for operational efficiency and excellence.

The quality management system

- Verifies compliance with laws and regulations regarding quality, safety and performance
- Ensures Software AG's ability to provide support services to its customers
- Clearly defines transparent processes
- Is the basis for continuous innovation within an agile development environment
- Integrates feedback to ensure that Software AG can deliver high-quality software to help its customers gain a competitive advantage

ISO 22301-certified business continuity management system

Software AG's ISO 22301-certified business continuity management system focuses on ensuring the Company's support services. It is highly digitalized. It incorporates proven governance processes and makes provisions for incident response teams and duplications of critical infrastructure and applications. This ensures that the central systems needed by Software AG's customers are available. The system enables Software AG to quickly provide its customers with the services they need, also in crisis situations. The system is constantly adapted to changing requirements and regularly monitored; its efficiency is continuously improved.

ISO 27001-certified cloud Information Security Management System

The Software AG Cloud ISMS defines its approach to managing security for cloud services in a holistic, comprehensive manner and provides a suite of information security measures to:

- Protect cloud information assets from unauthorized access, use, disclosure, disruption, modification, inspection, recording or destruction
- Proactively identify security risks, prevent, detect and respond to security breaches and violations
- Comply with legal, regulatory and contractual requirements
- Adopt an overarching management process to ensure information security controls meet information security needs on an ongoing basis

Software AG is certified for compliance with ISO/IEC 27001:2013, ISO/IEC 27017:2015, and ISO/IEC 27018:2014. For more information on the scope of Software AG's standard cloud services, please refer to https://www.softwareag.com/iso-certified-cloud.

This certification is crucial to win and maintain the trust of potential and existing cloud customers and to meet the compliance requirements that they place on their suppliers.

For more information on all certifications, please visit the Quality and Continuity section of the website at https://www.softwareag.com/corporate/company/quality_and_continuity/default.html.

Integrated Management System

Software AG has integrated all three management systems into one Integrated Management System (IMS) to fully exploit synergies and reduce interface problems and duplication of efforts regarding governance processes.

Availability of product support for customers

Concepts and due diligence

In the digital world, customers expect Software AG to provide global 24/7 support, ensuring the continuity of their core business systems. To meet these expectations, Software AG's Global Support strives to meet the highest quality of standards at all organizational levels. This is achieved through:

- Empowerment of employees
- Ongoing improvement of employees' skills
- Continuous measurement and monitoring of customer satisfaction
- Utilization of innovations to improve customer experience and efficiency

Global Support quality guidelines

Software AG's Global Support is certified according to ISO 9001. This certification speaks for the high quality of Software AG's processes and tools. The success of its customers is Software AG's top priority, from the very first day they start using the Company's products. With Enterprise Active Support, Software AG provides fast, agile and proactive customer support for all of its products.

Customers who choose Enterprise Active Support benefit from industry-leading performance and fast response times in any time zone. Enterprise Active Support services include:

- 24/7 support, including telephone support
- Technical support for critical cases
- Access to Empower, the 24/7 customer support portal and self-service extranet
- New product versions, patches and fixes
- Web-based consulting sessions
- Multiregional support
- For more information on these services, please refer to the fact sheet at https://resources.softwareag.com/services/enterprise-active-support-fact-sheet.

Software AG's Global Support helps customers in the event of a problem with a wide range of problem-solving measures. These include guiding customers in error analysis and diagnostics. In the event of multiple potential resolutions, Global Support advises customers on selecting the optimal solution. When relevant, Software AG also provides proactive problem resolutions such as identifying potential code fixes.

Moreover, Global Support provides a self-service portal known as Empower. This robust online portal supports customers proactively and delivers timely information and problem resolutions. From Empower, customers can access an extensive knowledge center containing white papers, articles about existing issues, information about fixes and a wealth of other relevant information. Empower is also a direct link to Software AG's groups and discussion forums, where customers can connect with the wider Software AG community.

Software AG's Global Support works with a comprehensive, flexible escalation process. Customers can engage a Strategic Support Manager to arrive at optimal solutions.

Customer satisfaction always takes center stage at Software AG's global support organization. It continually reviews, revises and invests in processes, knowledge and tools to improve customer service. Global Support also has a continuous feedback channel. As soon as a problem is resolved, customers are surveyed about their experience with Global Support and Software AG. This customer input is utilized for continuous growth and improvement.

Protection of customer data

The protection of personal data is a fundamental right of all individuals. Article 8 of the Charter of Fundamental Rights of the European Union (EU) defines the protection of personal data as a fundamental right; the protection of personal data is also part of the EU data protection laws in accordance with the EU Data Protection Regulation (GDPR). Software AG respects the privacy of its customers' and their customers' personal data and therefore takes appropriate measures.

Concepts and due diligence

Software AG has appointed a Data Protection Officer and formed a data protection team to advise the business lines on data protection. An integrated data protection management system (DMS) was implemented in accordance with the requirements of the GDPR. The system documents, monitors and, if necessary, adapts the data protection aspects. The general processes for handling data protection incidents and violations are integral components of the DMS, and thus include incidents and violations that affect customer data. Software AG is implementing this DMS with its own products ARIS, ARIS Risk & Compliance Manager, Alfabet and webMethods AgileApps.

The effectiveness of the data protection processes is reviewed within the scope of the ISO 9001 audit. The results and findings are documented, and progress is measured in a central audit system. Management is regularly informed in relevant meetings.

The special data protection measures that were implemented for cloud services were audited for the first time in 2019 per ISO-27018 as part of the ISO-27001 certification for the Cloud Service unit.

Substantial risks and key performance indicators (performance indicators pursuant to GRI 418)

In 2019, there were no incidents at Software AG in which customer data was violated or lost. No incidents were reported in accordance with the provisions of the applicable data protection laws. Overall, the Company classifies the situation with regard to protection of customer data as neutral in terms of risk and opportunities considering the measures mentioned above.

Social matters (section 289c (2), no. 3 HGB)

Dialog at the regional level and local community development

Concepts and due diligence

Software AG pursues the goal of networking with the communities where it operates and contributing to their well-being as a good corporate citizen. Software AG's concept is to address social concerns at the regional level. The management is involved accordingly in developing measures for local issues. Ever since Software AG was founded, social commitment has been a central part of its corporate culture. The Company is proud that so many colleagues around the world are involved in numerous volunteer projects and is happy to support and reward this commitment. The social commitment of Software AG's employees is reflected in many local projects at its locations throughout the world. Information on individual projects is regularly updated at https://www.softwareag.com/csr/en/default.

The cornerstones for sustainability and accountability were laid by the Company's founder, Dr. Peter Schnell, and his principles are still firmly anchored in Software AG's corporate culture today. He established the Software AG Foundation 28 years ago, which is an anchor investor with a shareholding of almost 34 percent.

Software AG is building a bridge with its worldwide "Move Your Feet to Give a Hand" campaign between Company sports, team spirit, and charitable and athletic commitment. Software AG, the representatives of the Supervisory Board and the Software AG Foundation donate a fixed amount of money for each kilometer run by employees at official running competitions. In 2019, staff members covered a distance of 10,208 kilometers (2018: 7,459) and raised a donation of €43,500 (2018: €32,500). Since the campaign began 12 years ago, Software AG's employees have covered 105,618 kilometers in total, more than two times around the world. Employees can make suggestions on which non-profit organizations the money should go to.

In the year of its 50th anniversary, Software AG launched "Give Back to the World Day" to show its commitment to social and environmental responsibility. Software AG employees can take one work day per year to support environmental or social projects. In the first year, more than 500 employees from 13 different locations took part in 20 projects. The projects focused on environmental protection and supporting children:

- As part of the "Give Back to the World Day," Software AG employees did their part to help curb climate change: In Darmstadt, Germany, employees planted 1,000 trees in the municipal forest. In Bangalore (India), they cleaned up a lake and planted trees as well, and in San Jose (USA) they helped with maintenance in a historic rose garden.

- Teams from Darmstadt and Sophia worked on animal welfare projects. They helped build and clean enclosures at shelters for injured animals as well as collected donations for the 5,000+ cats and dogs at Smeura Animal Shelter in Romania.

- Software AG employees in Bangalore collected donations for an NGO project that provides children with lunch. In Spain, they collected donations for charities that provide apartments for families with children suffering from long-term illnesses. The team in Sydney, Australia provided volunteer services for homeless and disadvantaged people in the suburb of Parramatta. In the United Kingdom, employees of Software AG cleaned and renovated a facility for autistic and disabled children and adults; in South Africa, they donated school books, toys and blankets to a center for women and children in crisis situations. These are just a few of the examples of how Software AG employees are involved in providing a secure future for children.

- Moreover, supporting socially disadvantaged people in Santa Clara County (USA) and purifying drinking water as well as connecting a school to the power grid in the Indian village of Pikol, which was impacted by the Odisha flood, are just a couple of examples of the solidarity of Software AG employees with people in need.

- For the "Give Back to the World Day" initiative, Professional Services employees worked together to renovate a youth education center in a socially disadvantaged area of Santa Clara (USA).

With this initiative, Software AG employees have the opportunity to get involved in assisting people who need help and to convert good wishes into good deeds to create a better future together.

At its corporate headquarters in Darmstadt, Software AG is firmly rooted in the region and is involved in projects to work with and on behalf of a wide range of stakeholder groups. In December 2019, Software AG extended its sponsorship agreement with the SV Darmstadt 98 soccer club (the Lilies) through 2024. Software AG has sponsored the Lilies since the 2008/2009 season and is also involved with the club's social campaign "Under the Sign of the Lily" to support people with developmental or physical disabilities.

The ongoing digitalization of education has also become a central field for action in the German government's digital agenda—in classrooms, lecture halls, vocational schools and companies. Digitalization is a topic that broadly affects business and society at large, resulting in the need for basic broad-based digital education in schools, from elementary school onwards. Since 2007, Software AG has had its own University Relations program, p. 44 another example of the Company's social responsibility. Its goal is to develop digital competencies at universities and colleges worldwide, and in schools since 2017 as well. Software AG collaborates on this very closely with the German state government of Hesse.

Software AG remained committed to strengthening the IT industry in Germany and Europe in 2019. The Company is a member of numerous industry networks that actively shape the business and policy landscape. Likewise, Software AG is participating in various research and innovation projects as a business partner. p. 57

Substantial risks and key performance indicators (performance indicators pursuant to GRI 413)

Software AG has not identified any significant risks in the area of social matters. Rather, it sees an opportunity here to give back to society—and especially the local communities of its operations worldwide—as part of its dedication to corporate social responsibility. Another example of the Company's social commitment is the local programs that support community development. Every full-time employee of Software AG in North America is entitled to dedicate eight hours a year to volunteering. There is a similar program in Germany which enables employees to take paid leave to do voluntary youth work. The "Give Back to the World Day" initiative has created a new framework for this social engagement.

Environmental matters (section 289c (2), no. 1 HGB)

Software AG's technological solutions are already helping many customers to make optimal and sustainable use of their resources. Software AG feels a strong sense of responsibility for the environment: The 1,385 employees in Germany are supplied with green electricity. In addition, the waste heat from the servers at corporate headquarters in Darmstadt is reused to heat the building. The cafeteria offers the staff in Darmstadt a wide range of organic meals made with locally sourced products.

Energy consumption

Concepts and due diligence processes

Software AG is convinced that innovative technology developments always offer an opportunity to increase efficiency and conserve resources. This, in turn, has a positive effect on the environmental balance. As an IT company, Software AG wants to help reduce its carbon footprint by focusing on cutting its own energy consumption and using renewable energies for all of its operations in Germany.

Software AG takes a holistic approach to all aspects of energy management, demand and procurement for all its operations and is working toward reducing its energy footprint by saving energy and using more renewable energies. Electricity is the most important source of energy. The Company prefers electricity from renewable sources. In Germany, Software AG already obtains 100 percent of its electricity from renewable sources or produces it on-site itself.

To control power consumption for all its locations, Software AG continually implements energy-saving measures, such as retrofitting lighting systems, replacing motors and upgrading building technology. When planning the construction of new buildings, it pays close attention to making use of natural light, installing shading systems and state-of-the-art building technology. Software AG is also looking for ways to improve the energy intensity and performance of its data centers and to reduce energy consumption through innovation. All in all, the Company achieved a reduction in energy consumption at the locations[1] under review from last year.

Substantial risks and key performance indicators (performance indicators pursuant to GRI 302)

Energy efficiency is of key importance to Software AG: It helps reduce costs, achieve sustainability goals and reduce (environmental) risks. However, it is not only about saving money. Software AG's product portfolio forms the basis for the business operations of numerous companies worldwide. Software AG enables them to use resources intelligently and efficiently. In this way, customers leverage Software AG's solutions to improve their own energy footprint and reduce their CO_2 emissions.

On the whole, Software AG's business model incurs only a very low risk of negatively impacting the environment. The Company also sees the issue of environmental concerns as risk-neutral with regard to further consideration of its supply chain, products and services.

Energy consumption was reduced in 2019 from 121 to 119 kWh/m² (–2 percent) and per employee from 2,553 kWh/EMP to 2,514 kWh/EMP (–2 percent) due to continuous upgrades in building technology, additional insulation and more energy-efficient systems including lighting systems (retrofitting with LEDs), modern window shades and air conditioning systems as well as more efficient IT components and servers.

Energy consumption in 2019

Key indicators of energy consumption[1]

Year	Employee (EMP)	m²	kWh/year	kWh/m²	kWh/EMP
2018	3,327	70,250	8,494,935	121	2,553
2019	3,265	68,949	8,209,159	1,19[2]	2,514

[1] locations for which no separate account data is available are not included. The data collected represents about 80 percent of Software AG's total floor area. Data from the USA was not available at the data collection deadline.
[2] Because the office in Bracknell, U.K. relocated in 2019, only a limited comparison to the previous year is possible.

Forecast

Economic Conditions in Upcoming Fiscal Years

Future overall economic situation

The global economy is not expected to slow down any further in the next two years. It is already beginning to show marginal signs of stabilization. The outlook in emerging economies, in particular, seems to be brightening. Eased monetary policy and stimulus from fiscal policies are helping things along. The IfW forecasts worldwide GDP growth of 3.1 percent for 2020, which is slightly higher than last year. For 2021, 3.4 percent growth is projected. There is a risk that overall conditions regarding international trade could worsen and put a greater burden on the investment climate.

The American economy is gradually losing momentum, which became evident in recent quarters. Key factors likely contributing to the slowdown are the expiration of fiscal incentives, the weaker global economy and greater uncertainty relating to trade policy. The IfW expects a continuation of this general economic trend, while production will remain on an upward trajectory. For 2020, a growth rate of 1.5 percent is anticipated, and for 2021 a slightly stronger rate of 1.7 percent.

The eurozone economy is expected to see a modest upswing in the next two years. Auspicious financing conditions and moderately expansive fiscal policies are likely to trigger some positive effects. Additionally, the improved labor market and the associated increase in wages and consumer demand will also have a favorable impact. Should global trade experience the recovery expected over the course of 2020, foreign trade will also be a stimulating factor in the eurozone. Similar to last year, growth of 1.2 percent is anticipated for 2020. Growth of 1.5 percent is projected for 2021. The German economy is also showing some encouraging signs. In the first half of 2020, these were primarily from domestic sectors such as retail and construction. But manufacturing is also expected to regain momentum starting in the second half of the year. The IfW projects 1.1 percent growth for Germany's economy in 2020, and 1.5 percent in 2021.

China's economy is likely to continue decelerating over the next two years. Growth rates of 5.9 percent and 5.7 percent are expected respectively in 2020 and 2021. The remaining emerging economies will experience only marginal expansion due to the weak overall economy and plethora of domestic problems.

Key Data on Germany's Economic Development

2018 to 2021[1]	2018	2019 Forecast	2020 Forecast	2021 Forecast
GDP, price-adjusted	1.5	0.5	1.1	1.5
GDP, deflator	1.5	2.0	1.9	1.8
Consumer prices	1.7	1.4	1.5	1.6
Labor productivity (hourly concept)	0.3	–0.1	0.3	1.2
Employed domestically (1,000 people)	44,854	45,253	45,488	45,719
Unemployment rate as %	5.2	5.0	4.9	4.9

[1] Gross domestic product, consumer prices, labor productivity: year-on-year change as percentage; unemployment rate: determined by the German Federal Employment Agency
Source: Institute for the World Economy (IfW), Economic Reports, Global Economy in Winter 2019 No. 62 (2019|Q4), Dec. 11, 2019

GDP in Specific Countries and Regions

GDP [1]	2019 Forecast	2020 Forecast	2021 Forecast
USA	2.3	1.5	1.7
Japan	1.0	0.5	1.3
Eurozone	1.2	1.2	1.5
United Kingdom	1.3	0.6	1.4
China	6.2	5.9	5.7
Latin America	–0.5	0.8	2.1
India	5.0	6.3	6.6
East Asia	4.5	4.7	4.7
Russia	0.8	1.3	1.8
Global economy, total	**3.0**	**3.1**	**3.4**

[1] Change year-on-year as percentage
Source: Institute for the World Economy in Kiel, Germany (IfW), Economic Reports, World Economy in Winter 2019 No. 61 (2019|Q4), Dec. 11, 2019

Sector development

Companies have begun investing more in IT again as economic and political uncertainty wanes. Market analysts at Gartner estimate that global IT spending will rise 3.4 percent to total approximately $3.9 trillion in 2020. In 2021, they expect growth of 3.7 percent year-on-year and the $4 trillion notch to be surpassed for the first time. Because a recession did not occur in 2019, it is also not considered a likely scenario for 2020 or beyond. On the contrary, companies expect revenue growth and are increasing their IT expenditures accordingly. The best forecasts are for Software AG's segments of activity. The enterprise software market is expected to grow at a rate of 10.5 percent to $503 billion in 2020 and 10.5 percent to $556 billion in 2021. Gartner expects IT services to see an increase of 5.0 percent to reach $1.08 trillion in 2020 and a rise of 5.5 percent to total $1.14 trillion in 2021. EITO and Bitkom predict that Germany's ICT market will grow 1.5 percent to €172.2 billion in 2020.

Forecast of Global IT Spending

in $ billions	2020 Spending	2020 Growth (as %)	2021 Spending	2021 Growth (as %)
Enterprise software	503	10.5	556	10.5
IT services	1,081	5.0	1,140	5.5
Total IT	**3,865**	**3.4**	**4,007**	**3.7**

Source: Gartner Says Global IT Spending to Reach $3.9 trillion in 2020
www.gartner.com/en/newsroom (January 15, 2020)

The Group's focus

Software AG achieved growing revenue and a continued high level of profitability in fiscal 2019. This performance was propelled by the launch of the Group's new strategy, Helix, in early 2019. This multi-year transformation is based on Software AG's core strengths and heritage while driving change within the business to better meet changing market and customer demand and capitalize on growth opportunities. The goal is to guide Software AG to sustained profitable growth and to the top of the technology sector.

The Group's focus is formed around the three key pillars of its Helix transformation.

Focus

Software AG will focus on growth markets and products, concentrating investments on the areas of its product portfolio and the market segments it operates in that offer the best growth opportunity. In 2019, this included reconfiguring the Digital Business Platform (DBP) product portfolio into three business lines with their own go-to-market:

- Integration & API
- IoT & Analytics
- Business & IT Transformation

Execution

Software AG will accelerate its shift from a classic licensing model to a business model geared toward subscription-based sales. This is Software AG's response to market trends, which not only addresses clear customer preferences, but will also reduce quarterly earnings fluctuations and improve visibility of sales in the medium term. Software AG will also create a simpler, more disciplined go-to-market model and sales approach. This will include a new performance matrix operating model to ensure end-to-end accountability from product through to sales for driving growth, go-to-market approaches and sales strategies for cross-selling and upselling.

Team

Software AG is a people business. As such, the Company is focusing on developing and cultivating talented employees who, together with the Management Board and Executive Leadership Team (ELT), will drive transformation. Furthermore, Software AG aims to foster and strengthen its culture—a unique mix of tradition and innovation.

The team also extends beyond Software AG, with its partner ecosystem. With partners, Software AG will scale its go-to-market and seek to grow partner revenue significantly.

Expected Financial Performance

Anticipated revenue and earnings

The expected financial performance as described below is based on an assumption of stable geneneral conditions, precluding unforeseeable special effects. The impact of the Corona virus epidemic is not currently quantifiable and was therefore not factored into the forecaset.

Based on the assumptions that bookings develop in line with the guidance provided to the capital markets and subscription-based licenses continue to increase, Software AG's Management Board assumes that the full-year DBP segment margin will decline by 20 to 30 percent, the Adabas & Natural (A&N) margin by around 10 percent and Professional Services by around 20 percent. The decrease in margins in all business lines is the result of continuing investments aimed at driving Software AG's medium-term growth as part of the Helix strategy project. But, particularly in the DBP segment, the margin decline is also due to Software AG's new contract model based on subscriptions. The result is that portions of subscription-based license revenue, that were previously recognized upon conclusion of a deal, will now be recognized in installments over the term of the agreement.

Assuming stable conditions apply, Software AG's Management Board therefore anticipates that the Company's IFRS net income to drop by 20 to 30 percent. This corresponds largely to the operating EBITA margin (non-IFRS), which is expected to be 20 to 22 percent in 2020. IFRS net income is not a relevant indicator for Software AG's management, because overall it mixes absolute revenue and costs and the respective currency effects from different businesses and is thus of little informational value.

In 2020, Software AG will focus primarily on cloud computing, machine learning and artificial intelligence (AI) as well as Internet of Things (IoT). These are four pivotal technologies that will guide organizations into the world of new data-driven business models.

Software AG's total guidance—including expected performance in DBP, DBP Cloud & IoT and A&N bookings and revenue, as well as Professional Services revenue and operating EBITA margin—was approved by the Management Board and Supervisory Board. It is based on the national subsidiaries' individual guidance. Factors used in their planning are anticipated economic developments in the specific regions, current order backlog, existing pipelines, anticipated renewal rates for recurring revenue (maintenance and subscription) and expected utilization of consulting resources in the Professional Services business.

Based on bookings as communicated in its guidance (see the following table), Software AG's Management Board expects revenue performance as described below. The Company foresees a decrease in DBP (excl. Cloud & IoT) revenue growth in the low single-digit range year-on-year in fiscal 2020. Cloud & IoT revenue is expected to grow between 40 and 60 percent year-on-year. A&N is expected to deliver predominantly flat to moderately declining revenue growth year-on-year. Provided the current corporate structure remains largely stable despite the Helix project and given the anticipated disposal of its Spanish consulting business in mid-2020, Software AG expects revenue in Professional Services to decrease by a high single-digit rate. Overall, Group revenue is expected to be more stable than in the previous year. This guidance is based on prevailing exchange rates in 2019. The positive effects of Software AG's strategic transformation (Helix) are reflected primarily in the expected increase in bookings. whereas investments made in 2020 are likely to weigh on the operating profit margin (non-IFRS).

Software AG's EBITA margin (non-IFRS) target is between 20.0 and 22.0 percent. The table below shows the full forecast for the 2020 fiscal year:

Outlook for Fiscal Year 2020

	FY 2019 in € millions	Outlook FY 2020 as of Jan. 29, 2020 as %
DBP, excl. DBP Cloud & IoT bookings	241.1	+10 to +15[1]
DBP Cloud & IoT bookings	65.9	+40 to +60[1]
A&N bookings	100.8	–3 to +3[1]
Operating margin (EBITA, non-IFRS)[2]	29.2%	20.0 to 22.0

[1] At constant currency, not including hosting services
[2] Before adjusting for non-operating factors (see non-IFRS definition of earnings on p. 50)

Medium-term business performance

Software AG seeks to achieve profitable growth in the medium-term. A sizable increase in the percentage of recurring revenue should result from the adoption of new license models. The Company will also continue prioritizing a strong level of operating free cash flow.

Outlook for the Software AG parent company (separate financial statements)

The financial performance of the Software AG parent company depends upon the financial standing of the Software AG Group and is determined by profit transfers and decisions regarding the payout of Group-internal dividends. For more information, please refer to the forecast on expected financial performance of the Software AG Group.

Anticipated performance of key items in the income statement

The cost of sales, mainly consisting of personnel costs for consulting services and costs associated with developing a cloud infrastructure, is expected to rise year-on-year by a high single-digit rate. R&D expenses are likely to see a year-on-year increase of around 10 percent, particularly to fuel innovation in the Cloud and IoT business. This includes expansion of R&D resources at low-cost locations. Sales and marketing expenses are expected to increase by 10 to 15 percent to boost growth in the DBP and Cloud & IoT business line and serve the A&N customer base. Operating administrative expenses will also rise by an upper single-digit rate. These investments will enable future administrative and process-related growth and will reflect, in particular, the key importance of staff development through the HR department.

Anticipated dividend development

Consistent dividend policy

Software AG pursues a sustainable dividend policy, which is geared toward long-term development of its enterprise value. This continuity is in the interest of reliable shareholder relationships and their appreciation for value. The Management and Supervisory Boards will therefore propose a **dividend** of €0.76 per share for the 2019 fiscal year at the Annual Shareholders' Meeting on May 20, 2020. Last year's dividend was €0.71 per share. This marks an increase of €0.05 per share (+7 percent). Subject to the approval of the Annual Shareholders' Meeting and assuming 74.0 million (2018: 74.0 million) dividend-bearing shares, this would amount to a total disbursement sum of €56.2 million (2018: €52.5 million). Based on the closing share price in 2019 (Xetra closing price on Dec. 30, 2019: €30.15/2018: €31.59), this proposal is equal to a dividend yield of 2.52 percent (2018: 2.24 percent). This is a relatively attractive yield in the current capital market climate. Software AG's Management Board resolved in fiscal 2019 to increase the dividend ratio range (previously between 25 and 33 percent) to between 30 and 40 percent of the average net income (attributable to shareholders of Software AG) and free cash flow. Based on average free cash flow (€145.8 million / 2018: €184.1 million) and net income (€155.3 million / 2018: €164.9 million), the dividend ratio would equal 37.4 percent (2018: 30.1 percent). This dividend policy is a clear indication of the Company's value focus and will continue in the future.

Anticipated Financial Position

Planned financing activities

Due to Software AG's high level of cash flow and comfortable liquidity, the Company does not foresee a need for external financing. External financing measures are taken almost exclusively for financing larger acquisitions. Because the timing of such acquisitions is not exactly foreseeable, neither an exact point in time nor the necessary financing can be named. Should a large acquisition arise, financing measures could be taken at any time.

Planned investments

Software AG is always prepared to take advantage of opportunities that arise for technology-driven acquisitions. Software AG has access to attractive financing options thanks to its high and stable cash flow. Given favorable circumstances, larger strategic acquisitions could therefore occur.

Anticipated liquidity

Based on Software AG's positive outlook for revenue and earnings, the Company expects an ongoing stable trend in free cash flow. As in past years, free cash flow should be similar to net income in 2020. This would mean that operating cash inflows would again be higher than dividend payments and contractual credit repayments, resulting in a further increase in liquidity and thus even more financial options for possible acquisitions.

Management's general statement on the anticipated development and position of the Group

With the first year of Helix now complete, we have seen the investments made in 2019 establish solid foundations for growth. The goal in 2020 is to invest in building further momentum towards sustained profitable growth.

- To drive growth and maximize current market opportunities, Software AG will increase key investments in sales resources, the business model shift to subscription, marketing, the partner ecosystem and its people and culture

- Software AG recognizes two distinct market opportunities where the Company can take increased market share: hybrid integration and IoT

- On the basis of the planned investments outlined, Software AG is aiming to surpass €1 billion in Group revenue in 2023.

Opportunity and Risk Report

Opportunity and Risk Management

Goals

Software AG's primary goal is to generate long-term, self-propelling growth and thereby increase enterprise value. To that end, the Company combines established business activities with an involvement in promising new market segments and regions. It is gradually transitioning its sales model from one that recognizes sales revenue once at the beginning of a contract to a sustainable model whereby revenue is recognized on an annual basis. The Company knowingly accepts a temporary dilution of its non-IFRS EBITA margin during the transition period. In order to ensure the long-term, sustainable development of Software AG, it forgoes short-term opportunistic earnings increases and the potentially resulting short-lived positive effects on share price. With a strategy that is based on sustainable, long-term success, the Company strives for balance between opportunities and risks and takes on risks only if the business activities associated with them have a high probability of enhancing the value of Software AG. It is always a prerequisite that Software AG can evaluate risks and that they remain manageable and controllable. Furthermore, risks and opportunities associated with ongoing operations are systematically monitored, for example, by keeping a constant eye on product and service quality and managing exchange rate developments.

Organization

A Group-wide opportunities and risk management system enables Software AG to identify potential risks early to then accurately assess and minimize them to the greatest extent possible. Risks are to be understood as deviations from planned values. Strictly speaking and as referred to in everyday language, risks are defined as negative deviations and opportunities as positive deviations from planned values. By continuously monitoring risks, Software AG can constantly evaluate the overall status systematically and in a timely manner and better assess the effectiveness of appropriate countermeasures. In doing so, operational risks as well as financial, economic, legal and market risks are included. Opportunities are generally congruent to the operational and functional risk structure in all risk areas. Software AG uses various controlling tools for ongoing monitoring of the risk areas identified, which address the development of the entire company as well as department-specific issues. The Management Board receives ongoing information as to current and future risks and opportunities as well as the aggregated risk and opportunity situation via established channels. Software AG updates and monitors the applicable specifications for preventing and reducing threats on an ongoing basis throughout the Group.

Responsibility

Risks and opportunities throughout the world are managed and controlled by the teams at corporate headquarters responsible for risk management for both Software AG and its subsidiaries. Corporate headquarters compiles risk and opportunity reports, initiates further development of the risk management system and elaborates risk-mitigating guidelines for the entire Group. It constantly reviews the functioning and reliability of the system as well as reporting. Software AG's internal control system has operationalized business risks by way of internal policies on business policies and practices, as well as Group-wide specification of effective internal controls, compliance with which is continually monitored. The defined policies regulate internal procedures and areas of responsibility at global and local levels. They are designed to provide information for management and to monitor the operating business risks of the Software AG Group. In order to enhance transparency, administration, communication and compliance assessment of the policies are carried out centrally on an ongoing basis. Group business processes are managed and monitored centrally using software applications based primarily on Software AG technology. Another component of risk and opportunity management is the transfer of operating risks to insurance carriers. The General Services department at corporate headquarters coordinates this function globally.

Structure of the opportunity and risk management system

Controlling

Controlling—which is under unified global leadership—monitors operating business risks, such as those from Professional Services, in real time and reports management-relevant figures continuously to the Management Board. In addition, both operational and strategic risks are analyzed by means of a structured reporting system. It shows developments in all relevant departments using KPIs and reports them continuously, monthly and quarterly (depending on KPI) to the Management Board. Furthermore, if exceptional circumstances relating to potential business opportunities or risks arise, ad hoc analyses are conducted and reported to the Management Board.

Finance

The Finance department is responsible for establishing all guidelines for financial reporting in accordance with International Financial Reporting Standards (IFRS). All accounting decisions relevant to the Company's financial statements as well as the revenue calculation process are monitored and/or executed by the global Corporate Finance department. This ensures compliance with IFRS accounting regulations throughout the Company.

Treasury

The Corporate Treasury team creates daily cash reports and weekly hedging transaction reports for the Management Board. It also presents the European Monetary Infrastructure Regulations (EMIR) reports on a monthly basis. All high-risk foreign-currency and hedging transactions may be conducted only by the Corporate Treasury team, which reports directly to the CFO. A global treasury policy prohibits the national subsidiaries from engaging in any high-risk transactions with derivatives. Internal Audit evaluates compliance with this policy on a regular basis. The global process of receivables management is monitored centrally by the Treasury department.

Internal Audit

Software AG's Internal Audit is an active component of the Company's risk management system. Through a systematic and targeted approach, it ensures the effectiveness of risk management along with the evaluation and continual improvement of the internal control system (ICS) and the management and supervision processes. It is also geared to the creation of added value for Software AG by rating the efficacy and efficiency of business processes. Internal Audit reports directly to the CEO and operates worldwide.

Risk management in the financial reporting process

The risk of financial reporting errors was largely eliminated through implementation of the following processes:

- Detailed, global, IFRS-compliant accounting standards must be used. Compliance with these standards is monitored by Corporate Finance and verified by Internal Audit.

- The national subsidiaries' accounting departments are monitored by the local Finance, Controlling, and Administration (FC&A) managers, who are in turn supervised by regional FC&A managers. The subsidiaries report their figures to Corporate Accounting, which is part of the Corporate Finance team. There, the figures from the national subsidiaries are consolidated using the SAP/BCS software tool. At the same time, Corporate Controlling consolidates the countries' profit and loss statements using Office Plus (management information system). Finally, the two consolidated Group profit and loss statements are compared with each other, any deviations are investigated, and any discrepancies that arise are corrected.

- Worldwide separation of the functions of generating and reviewing accounting figures is guaranteed by segregation into two areas: Corporate Finance and Corporate Controlling. Both of them, with different managers, report to the CFO separately.

- As part of monthly report generation, the Corporate Finance and Corporate Controlling departments analyze and review the figures from all reporting entities. Any differences that arise are corrected on a monthly basis.

- All internal Group supplier and service relationships are centrally coordinated and legally regulated through cooperation agreements. Central departments within Corporate Finance and Corporate Controlling handle internal service allocation. In addition, an inter-company transactions policy standardizes internal Group approval processes throughout the world. The revenue calculation process is rigorously monitored by means of globally managed approval processes as of the commencement of contract negotiations. The Global Deal Desk a preventative internal control system and is employed worldwide. All offers to conclude contracts with customers go through this approval process, in which the Legal department as well as Corporate Finance, Corporate Controlling and the Management Board are also involved.

- Internal Audit continually reviews all key customer contracts worldwide with a view to compliance with the approval process and correct representation in accounting.

- A global policy regulates access rules for the local and central accounting programs, which are monitored by the General Information Services (GIS) department.

- Only employees of Corporate Accounting have access to data from the SAP/BCS consolidation program.

- All Group reports are reviewed by a second person in Corporate Finance in accordance with the dual-control policy.

- External experts are commissioned on a regular basis to evaluate such complex matters as stock option plans, pension provisions, legal risks and purchase-price assignments within the framework of acquisitions.

Strategic risk and opportunity management

The strategic risk management system is composed of a central interdisciplinary core team of directors from Corporate Finance, Internal Audit and Legal who report to the CFO in this function. A manager from the relevant field of expertise serves as risk advisor and is responsible for monitoring, assessing and managing identified strategic risks. The risk advisors are recommended by the core team and chosen by the responsible member of the Management Board. Risks are evaluated according to a uniform valuation system. The system takes into account the potential impact on Group EBIT for the next three years to determine the risk category. This impact is calculated taking into account the risk-mitigating measures taken by management.

Expected impact on EBIT in the next 3 years (cumulative)	Risk category
€20 to €50 million	low
€50 to €200 million	medium
> €200 million	high

The impact on EBIT over the next three years is divided into three categories. Effects of up to €50 million on Group EBIT in the next three years are categorized as low risk. Effects on EBIT between €50 and €200 million are categorized as medium risk. And, risks affecting EBIT by more than €200 million in the next three years are categorized as high risk.

In a separate step, these impacts on EBIT in the next three years are categorized according to probability into three risk levels.

Probability	Risk level
0 % – 33 %	unlikely
34 % – 66 %	likely
> 67 %	highly likely

Probability between 0 and 33 percent is valued at an unlikely risk level, between 34 and 66 percent at likely and above 66 percent at highly likely. The risk categories and levels are aggregated and assigned an equivalence marker based on expected values.

These are then assigned to one of three cumulative risk signal levels

Risk signal	Risk relevance
green	insignificant
yellow	medium
red	significant

All strategic risks and opportunities are evaluated based on this uniform risk matrix. Risks and opportunities not considered of strategic nature are not included in the risk matrix. All Software AG managers are responsible for reporting newly identified strategic risks/opportunities to the core team at corporate headquarters. The team then informs the Management Board for advice on possible strategies for handling them. The core team reports to the Management Board regularly about the ongoing development of the identified risks/opportunities. The Management Board regularly presents the risk management system to the Audit Committee of the Supervisory Board and discusses with it the level of the identified risks/opportunities as well as appropriate measures for managing risks/opportunities.

Ensuring the effectiveness of the risk management system and internal control system

Internal Audit regularly reviews the effectiveness of the risk management system and the internal control system. When necessary, suggestions for improvement are prepared and implemented, which is monitored centrally. Corporate Finance and Corporate Controlling regularly conduct an internal review of accounting-relevant control processes and modifies them for new developments.

Key individual risks and opportunities

Software AG presents key risk/opportunity areas and individual risks and opportunities discerned from the totality of risks and opportunities identified through the risk and opportunity management system in the Risk and Opportunity Report.

Environment and sector risks/opportunities

Market risks

Among other things, market risks are related to the different economic developments in individual countries or regions. The technological evolution of the individual sectors of the IT industry can impact the business potential of the individual business lines positively or negatively. Software AG’s balanced revenue mix reduces dependence on a single geographical or professional IT submarket. Software AG markets technologies that are not specific to certain industries, ruling out a dependence on individual industries or customers. Thanks to its technological innovations, ongoing R&D investments and purchase of new technologies as part of technology-driven acquisitions, the Company significantly expanded its product portfolio and will continue to do so in the future. That enables greater flexibility for customers’ existing IT infrastructures and, in turn, significant cost savings. And, it ensures a long-term broad customer base for Software AG. The ROI is relatively fast for Software AG customers. Hence, new products are a logical way to cope with market-related cost pressures even in weak economic periods. The overwhelming majority of customers use Software AG software for business-critical applications for years and often decades when running satisfactorily. Therefore, its revenue flow is stable, especially from maintenance services.

Market opportunities

Software AG sees itself as a technology leader in the enablement of enterprise digitalization. This strong trend in the IoT segment is a big opportunity for Software AG’s future development. Software AG anticipates strong, dynamic growth in upcoming years in the IoT market in particular. Software AG’s new strategic focus which incorporates the results of a comprehensive strategy project, will enable the Company to further intensify its focus on technological and regional growth markets. Furthermore, Software AG will continue its A&N 2050+ program. And, because of the significance of its “ecosystems” in successful software sales, it will also enhance its partner model. These measures generate better-than-average opportunities for Software AG to grow and claim market share in core markets.

Brexit

In light of the exit of the United Kingdom from the European Union, uncertainties have arisen with respect not only to the future of Britain's economy but of Europe's as well. Britain left the European Union on January 31, 2020, following Boris Johnson's election in November 2019. The EU and Britain will negotiate the economic conditions of all future cooperation by the end of 2020. The results of these negotiations between the EU and the U.K. will have a major impact on economic relations and future development of both economic areas.

The specific effects of Brexit are not yet clear. It is therefore impossible to make exact predictions other than the existing uncertainty. Exactly how Brexit will affect internal contracts at Software AG subsidiaries is currently being assessed. The Company does not, however, expect any material effects on continued economic development of the Software AG Group. The British market is one of Software AG's most important markets. But Software AG has a long track record of successful operations in many non-EU countries such as the USA, Brazil, India and others. Based on this experience, Software AG does not anticipate that Brexit will have a material impact on its future business growth in Britain. Furthermore, the fact that Software AG operates in all key financial centers of the European Union should have a risk-mitigating effect. Any financial companies that leave the United Kingdom to resettle in another EU country such as Germany, France or Ireland can be served by Software AG subsidiaries in the relevant location.

USA

The USA is Software AG's most important market. Software AG operates its own sales organization in the USA. It also has significant portions of corporate departments like Marketing and R&D there with key local IP rights, which result in considerable royalties for the Company in the USA. A large percentage of Group profits is generated and taxed in the USA. The tax reform passed in late 2017 has reduced Software AG's tax burden considerably since fiscal 2018 as compared to previous years. The corporate tax rate went down from over 37.0 percent in past years to about 30.0 percent. Tax expenses are also expected to stabilize at this low level in upcoming years, provided conditions remain constant. Because key parts of the Software AG Group are based in the USA, it does not anticipate any major disadvantages from the current administration's "America First" strategy. It also does not currently foresee any substantial risks to its global business resulting from the USA's global trade policy. To date, Software AG's business has not seen any negative effects from the U.S. government's strategy, which is now in its third year. The extent of the negative impact of ongoing trade conflicts between the USA and China and the USA and the European Union on the Software AG Group's global development is not yet clear. Market opportunities should still outweigh risks because the U.S. economy is still robust.

The coronavirus pandemic

The rapidly spreading coronavirus pandemic has begun to burden the global economy, mainly due to whole cities in China being put under quarantine and the resulting factory closures. This is interrupting global production and supply chains and hindering the manufacture and sale of many products. This situation combined with precautionary measures being encouraged by the media and governments elicited some initial reactions of panic with the general public, which could have the cumulative result of an economic recession. The OECD predicts that global growth could see a 50 percent decline in 2020 if the coronavirus situation does not stabilize.

A few major corporations have already announced investment cuts; and many companies have also put a freeze on business travel. This poses a significant obstacle to conducting contract negotiations with customers. Both travel and investment freezes adopted by a portion of Software AG customers could have a negative effect on Software AG's revenue in 2020.

Due to the limited amount of time between the rapid spread of the coronavirus pandemic and preparation of the 2019 Annual Report, it was not possible to conduct a detailed analysis of the potential impact the virus could have on Software AG's anticipated business performance in 2020. Software AG is not generally affected by interruptions in supply chains because of its business model. Software AG's business could, however, be negatively affected in the event of prolonged economic recession.

Corporate strategy risks and opportunities

Product innovation and portfolio

The software sector is subject to very fast innovation cycles with respect to new products as well as to go-to-market models, such as usage-based models (pay per use) in the IoT and cloud markets. These are based on constantly changing customer, market and integration requirements. New innovation trends are very difficult to predict and are sometimes identified too late. The risk of not being able to identify new innovation trends or identifying them too late exists due the the uncertain nature of future development of the software market. A key challenge, typical of this industry, associated with the innovation risk is allocation of the Company's resources such as R&D, Product Marketing, Marketing, Sales and M&A to those products with future revenue potential. This can lead to an insufficient focus on growth-relevant products. If the product portfolio does not address customer needs, revenue potential will decrease. Large competitors have greater financial resources for innovation and ongoing development of their product portfolios. Software AG's business development is thus susceptible to being negatively affected by new competitor products. Furthermore, the focus on Software AG's existing markets can also not be impaired. To better address customer needs in product development, R&D was reorganized in the Digital Business Platform (DBP) business line based on a new matrix structure to reflect the product lines: Integration & Application Programming Interfaces (API), Business Transformation (ARIS & Alfabet) and IoT & Analytics.

Assessment of future market development is conducted through continuous cooperation with leading technology analysts such as Gartner and Forrester.

Rapid product innovation is critical. But striking a balance between fast product innovation on one hand and high product quality on the other is of utmost importance. Considerable reputation risks will arise if the delivered quality of products does not live up to the quality Software AG promises its customers.

To minimize this innovation risk, significant investments have been and are being made in the development of the product portfolio. Investments in product quality were increased significantly, particularly in IoT and webMethods.i.o. (iPaas solution). These investments allow product defects to be corrected as early as possible. Software AG also ensures product quality through implementation of product standards, the Chief Quality Officer and the ISO 9001:2015-certified quality management system. Product quality and user-friendliness as well as customer support are monitored using these mechanisms on an ongoing basis.

Building a cloud business is extremely challenging and cost-intensive. Technological and legal risks are notably higher in the cloud business than in the previously prevalent on-premise business due to data protection and security. New startups, without a long history in on-premise business, can employ the cloud business model from the beginning, which gives them a headstart in developing and implementing this model. Software AG is accounting for the increased risk associated with the cloud business with a dedicated, externally ISO 27001-certified information security management monitoring system and a cross-departmental response team for arising data protection and information security failures. Software AG also augmented its work with contracted digital forensic specialists.

With the intent of shortening time-to-market, Software AG's products are also supplemented by acquisitions when it comes to newer development trends. Expansion of the IoT business and the DBPproduct line's technology leadership—confirmed multiple times by distinguished technology analysts like Gartner and Forrester—are generating major market opportunities for Software AG. In light of the ever-faster moving trend toward Industry 4.0 and the advancing digitalization of organizations in the private and public sectors, Software AG can help shape markets from its position of innovation leadership.

The product portfolio and innovation risks described here were categorized as risk signal yellow (2018: yellow) at the end of 2019.

Market risks and opportunities: Digital Business Platform

A detailed evaluation of Software AG's research and development activities was carried out as part of the Helix strategy project. This analysis led to the conclusion that a greater product focus could result in more efficient and effective use of resources.

Collaboration between Sales, Product Marketing, Product Managements, R&D with customers was further improved in fiscal 2019 as part of the Helix strategy project and the implementation of a new matrix structure. This structure reduces the complexity of the Digital Business Platform by dividing it into more streamlined and coherent product offerings, based on the following lines, Integration & API, Business Transformation (ARIS & Alfabet) and IoT & Analytics, while maintaining the technical interoperability of the DBP components. This ensures the right roadmap prioritization of customer and market requirements for product development. It also offers a considerable opportunity for further expanding the competitive advantages of Software AG products and receiving excellent ratings by the relevant technology studies. A stronger R&D focus can also improve customer satisfaction and business success. It also reduces the product development-related risk of not adequately addressing customer requirements. In addition, product line general managers monitor individual product revenue so as to identify negative developments early and trigger and execute management activities accordingly.

These efforts are intended to reduce sales complexity and shift the focus to the strength of the individual product offerings, which is continuously verified by technology analysts. The Management Board sees opportunities in raising the visibility of products with existing and target customers, sharpening Software AG's identity and significantly improving customer satisfaction and success. In the Management Board's estimation, this will all contribute to significantly increasing the Company's share in the high-growth Integration & API, Business Transformation and IoT & Analytics markets. The complete DBP business line offers major opportunities for Software AG's future business development, especially due to its technology lead and fast development of the IoT market as well as the rapidly growing enterprise digitalization trend.

Growth in Integration & API

The Integration & API product line from the DBP segment generates the largest volume of business of all Software AG product lines. Software AG's growth depends on the growth of this product line. This product line reported a drop in revenue in fiscal 2019, however. The intensity level of competition is very high in this business. Due to the necessity of fast innovation cycles, there is a high risk associated with correctly balancing the speed of development and the required product quality. Any quality issues that arise must be resolved quickly. Because the focus of Software AG's marketing was on the IoT & Analytics product line, marketing resources available to that product line needed to be amplified. Growth is significantly easier for startup cloud competitors without a long history in the on-premise business as they do not have to surmount transition obstacles.

The following measures were taken to manage the strategic risks in this product line:

- Market observation and trend tracking, including collaboration with leading tech analysts, Gartner and Forrester
- Evaluation of customer requirements through collaboration with customers on product development (customer-centric innovation)
- Further improvement of product quality monitoring
- Reallocation of marketing resources to this product line
- Reallocation of R&D resources to this product line to ensure cloud availability
- Amplification of cloud operation resources
- A cloud-oriented sales strategy in direct and partner channels
- Closer collaboration between Business Development teams and Sales
- Establishment of dedicated sales resources for this product line in key focus countries

The Integration & API product line offers major opportunities for Software AG's future business development, especially through its technology lead and the rapidly growing trend of enterprise digitalization. These risks were given the red risk signal at the end of 2019 (2018: red).

Development of Business Transformation

The Business Transformation product line from the DBP segment consists primarily of the ARIS and Alfabet products and accounts for the second-highest growth rate of all Software AG products. These products are particularly well suited as entry products to Software AG technology. But because the average deal size in this product line is second-lowest of all product lines, the sales efficiency of direct sales channels is lower. Software AG's sales focus for these products is directed more toward other channels such as partners and online. More parters are needed to support customers in the implementation of these software products. These, however, are not yet available to Software AG to the necessary extent and are currently being amplified. The products in this product line are suited for cloud operations. A new ARIS process mining cloud solution is scheduled for release in April 2020. But competitors have a significantly higher share of cloud revenue than Software AG in the field of process mining software. To accelerate growth and the transition to a cloud business in this product line, a dedicated Sales unit, Software as a Service (SaaS) teams and Customer Success Managers are necessary in the focus countries USA, U.K., France and Germany. These units are currently being established. Marketing resources also need to be amplified for this product line.

These risks were given the green risk signal at the end of 2019. Strategic risks for this product line were not assessed separately in 2018, but as part of DBP. There is therefore no rating for last year.

Dynamic growth in IoT

Software AG's new strategy foresees business in the IoT & Analytics product line from the DBP (Cloud & IoT business) segment as its key future growth driver. IoT is a fast-growing market subject to intense competition. The market is expanding through hyperscalers (computing networks to achieve major scaling in cloud computing and big data), system integrators as well as vendors that are developing their own IoT system landscapes. Software AG's competition includes large IT corporations such as Microsoft and PTC. Because IoT products are based on new software that is enhanced at a rapid pace, there are still inherent differences in product quality. High R&D investments are necessary to resolve open technical issues and ensure the enhancements required by customers. These challenges grow with the number of customers and revenue in this product line. Software AG offers an IoT platform and implementation services. But many customers want an end-to-end IoT solution.

To lead this product line to dynamic growth, the following measures were taken:

- Ongoing monitoring of IoT markets and focused innovative development of products to ensure technological USPs
- Focused R&D investments to ensure the IoT platform's quality, stability and availability
- Expansion of innovation capacities in R&D, Product Management and Marketing, co-innovation with customers and corporate acquisitions to complete the product portfolio
- Land-and-expand sales strategy, centrally managed but integrated in local business
- Dedicated sales activities to land new customers and Customer Success teams to expand deal sizes with individual customers
- Further expand strategic partnerships in different directions to implement the IoT software platform as a leading base technology in as many key IoT partnerships as possible
- Monitor sales activities to track customer expectations
- Invest in dedicated IoT partner teams and build a partner ecosystem
- Form a business plan based on the business requirements of the focus countries (USA, U.K., France and Germany)
- Expand the IoT partner business for non-focus countries

Executing a land-and-expand strategy in the cloud and IoT markets requires continued development of corporate culture and sales compensation models. Software AG's existing sales culture, based on perpetual licenses and full license revenue recognition as of the date the contract is signed, must be transformed into a sustainable sales culture—with license revenue recognition distributed over time through subscriptions and cloud agreements. The buying behavior of enterprise customers in the software market has changed with demand for subscription and SaaS products rising continuously. Software AG's Management Board therefore defined a "subscription-first" approach as part of the new strategy, whereby all Software AG products will be offered primarily as subscriptions in 2020. This will satisfy customer demand for pay per use and subscription options and, regardless of the deployment model, give them access to the advantages of this form of consumption. Software AG will continue delivering a hybrid product offering—on-premise and cloud/SaaS. 2019 was a transition period to prepare for this change, which will be rolled out in 2020.

The risk associated with information security and data protection is significantly higher in the cloud business than in the existing business because Software AG presents itself as a data processing company. This transfers the risk to Software AG as the cloud provider. This transformation means an increased legal risk associated with cloud agreements. So, to minimize this risk, an information security management system (ISMS) in accordance with ISO 27001 was implemented and externally certified.

The risks associated with the Cloud & IoT business, which is currently under development, were rated at risk signal yellow (2018: green).

Market risks and opportunities: Adabas & Natural (A&N)

Software AG's traditional A&N product family is currently in an advanced stage of the product lifecycle. The age structure of A&N employees poses a challenge for Software AG and its customers. The necessary generational shift across all customer-oriented functions must be well organized. Otherwise there is a risk of losing customer contacts and expertise with the corresponding negative effects on sales opportunities. There is hardly any new customer business in this segment. The product portfolio is based on existing customers. Growing cost pressure on customers has the effect of more migration of mainframes to open systems. But resources are tight when it comes to supporting customers with this migration. There is also the risk of customers changing to new products by competitors, which would have negative effects on revenue and profit margin. It would also reduce the cross-sell potential of other Software AG products. Software AG's strategy is based in part on extending customers' existing license rights and/or selling add-on products. The potential offered by renewing licenses is lower compared to past years. Nevertheless, A&N product customers continue to be extremely loyal to Software AG. This is because A&N products are highly valued due to their:

- high availability
- high performance
- low operating costs
- high strategic relevance for customers' operation of applications running on A&N
- future guarantee

This presents the opportunity to attract customers with positive Software AG experience to long-term maintenance and modernization of their IT infrastructure while keeping A&N technology. Software AG is the best partner for that. Retaining and acquiring product expertise make this possible. Ongoing innovation and R&D activities lead to significantly better prospects for the A&N business line. Software AG began communicating its A&N 2050+ program in 2015. It is fundamentally willing to continue developing A&N and providing A&N customers installation support through the year 2050 and beyond. This initiative resonated extremely well with customers and increased the level of loyalty among the customers base.

Software AG is countering these risks with the following measures:

- The A&N 2050+ program can significantly delay the anticipated long-term revenue decline
- Customer support for migration of mainframes to open system platforms on A&N technology (re-hosting) to cut hardware costs for customers and prolong maintenance periods
- Expansion of A&N service capacities to support local partners and their re-hosting activities
- Ongoing development of hosting and private cloud availability for A&N products generates new business
- Realigning sales models toward subscription
- Generation change training programs for young A&N staff in R&D and Pre-Sales working at Software AG and at customers
- Extended application support to serve customers with current A&N staff
- Expansion of offshore R&D and support centers
- Focus on key operating system platforms like z/OS, Linux and Windows
- A&N modernization to extend the product lifecycle, e.g. development and sale of zIIP functionality for online transactions and Adabas for zIIPTM
- Regular customer satisfaction surveys

These measures can significantly slow the downward trend of A&N sales while offering opportunities for generating additional sources of revenue. For these reasons, total revenue for this segment increased by 5 percent (3 percent at constant currency) year-on-year in fiscal 2019. This is the upper end of the forecast range, which was raised during the year.

Software AG expects continued stabilization of product bookings in the A&N business line in 2020 with growth between –3 to +3 percent. Software AG also foresees a stabilization of A&N product bookings in the years thereafter. Customer evaluations show that the overwhelming majority of all A&N installations are business-critical for customers. This means that many customers' economic livelihood depends on the performance and availability of the A&N products. Those customers have invested heavily in this technology, which they cannot and will not forgo. Therefore, there is the opportunity that this business line will continue generating high revenues in the future.

There are significant opportunities associated with product innovation and modernization/digitization packages in the A&N product line; this type of offering can make the need for large, cost-intensive projects to replace A&N technology superfluous. In this way, A&N remains a future-proof technology, which can make a positive impact on A&N customers' investment decisions.

These risks were given risk signal yellow at the end of 2019 (2018: yellow).

Acquisitions

Software AG expands its technology offering and its global presence through targeted acquisitions. Acquisitions present the opportunity to participate in waves of innovation, to expand the product portfolio and increase relevance in the market and with prospective customers. Acquisitions help shorten time-to-market significantly for new products that address the latest trends. The uncertainty of future market and technology trends means that there is a risk associated with determining the right target companies. Selection of an unsuitable target company leads to management resources and investment funds being tied up without sufficient return on investment. This can result in risks associated with possible impairment losses, the unnecessary use of Software AG's cash and a decrease of its growth potential.

The long-lasting period of low interest rates caused prices of potential target companies to rise and profitability to drop. Potential target companies are therefore rare, too highly priced and often not the right size. Companies with groundbreaking technology are rarely put up for sale and have a high price.

Due to its early stage, th IoT market is still extremely fragmented nevertheless highly innovative. This results in significantly greater opportunities for acquisitions in this business. Software AG is therefore currently focusing on the acquisition of IoT technology companies.

The following risk-mitigating processes have been defined for the time prior to and after acquisitions:

Pre-acquisition phase

To mitigate the selection risk, Software AG's M&A department is continuously observing and evaluating the market for technology developments both in the Silicon Valley and Europe alike. To reduce risks associated with due diligence processes, Software AG conducts a critical business model analysis of all potential target companies. Its current due diligence process identifies problems, rejection criteria and uncontrollable risks early. In-depth due diligence is carried out with respect to technological, strategic and operational integration. Prior to a takeover, an intensive review is conducted to ascertain whether the technologies of the company in question effectively expand Software AG's product portfolio, how market access and market penetration will change, and what potential synergies can be realized. Every acquisition is preceded by a precise analysis of the financial fitness of the target company by experienced due diligence teams. These teams consist of a core team and experienced specialists from the relevant business units. They assess whether the target company's corporate culture can be harmonized with Software AG's. In order to ensure consistent integration planning, staff members who will be responsible for integration later are included in due-diligence processes at an early point in time.

The risks associated with the pre-acquisition phase were given risk signal green in fiscal 2019, unchanged from 2018.

Post-acquisition phase

Furthermore, there is a risk that the companies acquired will not be integrated successfully. Insufficient integration could result in growth and profitability issues as well as failure to achieve combined business plan targets. It would become difficult to quickly exploit revenue and cost synergies. There is an additional potential risk associated with the loss of key specialists when not enough attractive positions are created quickly. Especially smaller-scale acquisitions pose the challenge that managers who have worked as generalists must transition to the role of specialist in a larger organization following an acquisition. The main challenges include the integration of the product portfolio, the processes, the organization, the staff, and the different corporate cultures.

Through established control mechanisms, any possible integration risks or opportunities are identified during the due-diligence stage. The implemented integration processes are coordinated centrally to ensure integration of all departments and to quickly create revenue and cost synergies. Possible areas of employment for future new employees are assessed as well as ways for ensuring knowledge transfer. The acquired company's budget is detailed for the post-acquisition period in order to guarantee continued business operations. Specific KPIs are identified and monitored for each integration. A key component of these activities is the integration of sales. It entails dovetailing the new sales models and product offerings with the Software AG sales organization and harnessing revenue potential. This enables sales of newly acquired products to existing customers (upsell) and sales of existing products to new customers (cross sell). The acquired sales organization can act as an overlay function for the existing sales organization.

Opportunities and risks associated with integration in the post-acquisition phase were rather low at the end of 2019 due to two small-scale acquisitions in fiscal 2016, one small-scale acquisition in fiscal 2017, two small-scale acquisitions in fiscal 2018 and none in fiscal 2019.

Because an intensification of acquisition activities is planned in the near term, the integration risk was assigned a yellow risk signal (2018: yellow).

Risks and opportunities associated with the strategic realignment (Helix)

While the opportunities associated with the strategic realignment were already discussed in the relevant sections, Software AG's Management Board is also aware that it represents a substantial multi-year change project for the Company. Such a change/transformation process can lead to considerable risks when guidance and management of the process is not clearly structured. The greatest risk is that the organization could become structurally overwhelmed by too many simultaneous initiatives and the existing governance structures hamper change and/or become ineffective due to imprecise / uncoordinated change. The Management Board is combating the considerable risk inherent to any such major change project with the following measures:

- A central Transformation Office under the leadership of an experienced Senior Vice President of Strategy and Change was set up with 3.5 employees (two change managers and one long-serving Software AG program manager), whose core function it will be to structure, guide (workstream partnering), monitor and coordinate all change activities. The Transformation Office reports to the Chief Human Resources Officer.

- A detailed execution plan with all change workstreams has been created to coordinate scheduling of initiatives and measures, monitor progress of the transformation, provide complete transparency of the change/transformation program and manage responsibilities.

- Responsibility for transformation initiatives was largely handed over to the relevant departments. Workstream leads in the relevant departments ensure execution of their respective parts of the overall execution plan. Organizational and content-related coordination between workstreams is managed by the Transformation Office as well as in regularly scheduled result-to-action (RTA) meetings. Here all workstreams present their progress, KPIs and any points in need of clarification. Because intense collaboration is vital to the change process, this forum provides a way to manage all change processes across departments.

- Quarterly business reviews were established to assess and drive regional adaptation to the transformation process. They provide a comprehensive summary of the regions and units with respect to business performance and transformation. Measures are defined based on results.

- The existing governance structures incorporate transformation/change components ensuring that all deviations from the execution plan are identified early and escalated to the right people if necessary. A change/impact analysis, for example, is generated on a regular basis to identify the main risks and define measures to counter them.

- External consulting and guidance of the change and transformation process, primarily in the areas of people and culture and subscription, will ensure that change/transformation management and plan execution meet Software AG's high level of quality standards.

Because corporate culture and its adaptation to the new strategy are critical to the success of transformation, particular attention is given to the following measures: Employees are actively included and trained in the change process. Talent is fostered. Communication with staff members is target-specific. Feedback sessions and round tables are held. Employee surveys are conducted; and behaviors that may hinder the change process are identified and addressed. A company-wide "simplification initiative" adapts processes to the transformation and presents it to employees in a direct and tangible manner.

The risk is rated as red (2018: red) in the first years of implementation. But the opportunities associated with the strategic realignment far outweigh this risk.

Product distribution risks and opportunities

Sales efficiency and sales risks and opportunities

The complexity of Software AG's products together with the complexity of the requirements of its customers alike require a high level of experience and expertise on the part of the Sales force. This leads to relatively long sales cycles. Sales and marketing expenses continued to rise in 2019, at 108 percent of license revenue and 98 percent higher than the previous year. An ineffective sales organization can be an indication of an inadequate sales approach or uncompetitive products regarding capability, price or possible use. Software AG's planned shift to an annual subscription model from the existing sales model based predominantly on perpetual licenses could mean that customers terminate agreements more quickly when products do not fully meet their wishes. Higher average deal size and better scalability can improve sales efficiency. To achieve that, a sales focus on large key customers is essential. This increases the dependence of license revenue on a smaller number of large customers. Software AG's complex product portfolio and long sales cycles cause annual license revenue to accumulate heavily in the fourth quarter. Insufficient average deal sizes closed by the Direct Sales organization with full administrative support from Legal and Finance and insufficient use of standard agreements and processes leads to a reduction in sales efficiency and profitability. Some of the smaller country subsidiaries have too few technology consultants (Pre-Sales staff) and skills to provide customers with technical consulting on the entire platform. Not enough standard contracts are used—even for small-scale deals—due to the "customer first" approach in place.

Software AG intends to continually increase sales efficiency and thereby further accelerate DBP deal size growth with the following measures:

- Accelerate rollout of transition to recurring license models such as subscriptions and usage-based licenses in all product lines with better scalability and forecast accuracy

- Reduce complexity of product offerings and pricing with simpler product bundles

- Introduce improved sales methods and expand success management

- Implement the land-and-expand sales approach to reduce sales expenses.

- Rollout a Customer Success Manager organization in 2020

- Reorganize Sales including the new function of Chief Operating Officer (COO)

- Increase use of standard contracts for small-scale deals with customers

- Greater focus on pipeline management

- Stronger customer segmentation and clearer definition of new customer area (white space) for indirect sales

The risk rating signal remained unchanged from last year at red due to the continued relevance of sales-efficiency topics. This assessment was confirmed by the strategy transformation project. The Helix project also revealed unique opportunities for Software AG resulting from a focused and consistent go-to-market strategy and optimized Sales discipline. A product focus and the necessary sales staff enablement in the regions on one hand and a newly established performance matrix on the other offer considerable opportunities for sales optimization and thus sales success.

Partnership risks and opportunities

Software AG's growth strategy is anchored in the expansion of its partner ecosystem to broaden vertical and regional market reach. Developing DBP-based solutions and applications as well as implementing software via partners can accelerate growth. The potential risk of ineffective partner selection could lead to too little involvement of the partner ecosystem in sales and thus negatively affect the exploitation of new market segments and Software AG's market relevance and technology acceptance. Software AG's work with global system integrators such as Wipro, Tata Consulting Services, Capgemini, etc. is still very focused on sales collaboration. From 2020 onward, Software AG wants to shift this collaboration toward independent sales via partners. This new partner sales approach has not yet been sufficiently market-tested and therefore holds risks for the future. The lack of trained Software AG consultants at system integrators could lead to a shortage of consulting services. Problems and delays during projects due to partners could result in warranty claims from customers, cause Software AG's image suffer and negatively affect customer satisfaction. Insufficient product know-how among partners can weaken public perception and jeopardize sales success. The partner ecosystem is not yet sufficiently focused on new account business. Division of markets according to responsibilities for partner or direct sales needs to be improved. The risk therefore exists that direct and partner sales do not complement each other effectively enough. Because the uniqueness of Software AG products still has the potential to be improved, sales can be expanded significantly through hyperscale platforms like Microsoft Azure and Amazon Web Services.

Insufficient partner governance could result in potential legal and image risks and jeopardize the success of Software AG's partner business.

In order to strengthen its partner business, Software AG introduced the following measures:

- Set up a Global Partner Management team to expand partner relationships and networks on all levels
- Establish a Pre-Sales team to support global system integrators across all pre-sales activities
- Changed sales compensation model to help collaboration between the direct sales organization and partner sales
- Development and expansion of an effective and scalable partner enablement and qualification program to improve service capacity and quality
- Stronger obligation on software sales organizations to incorporate global system integrators into strategic key account relationships
- Clear definition of new account business (white space) to be managed by partners
- Set up channel-based partner organization with well trained staff to generate new customer relationships with partners
- Offer sufficient, foreseeable margins to win value-added resellers
- Develop simple and unique software solutions/bundle use cases
- Simplify Software AG's pricing
- Implement processes and systems in all regions to simplify partner relationships
- Improve the uniqueness of Software AG products to increase appeal for partner organizations, particularly hyperscalers
- Develop simpler business models for alliances and sales partnerships including revenue obligations
- Placement of the IoT platform with a growing number of OEM partners to increase opportunity for future success
- Ongoing enhancement of specific partner channel compliance instruments, consistent use of standard partner power-up contracts and partner training on Software AG's business model

Part of the Company's strategic transformation is to maximize the considerable opportunities presented in the partner business by pursuing a consistent and comprehensive concept to build a global partner ecosystem. It can be assumed that establishing a new performance matrix and focusing on the highest-potential partnership models in the different product groups can generate medium-term revenue growth through the partner ecosystem.

The risks associated with partnerships were given risk signal yellow (2018: green) at the end of 2019.

Personnel risks and opportunities

Employer appeal

Software AG is a people business. Therefore, one of the central challenges is having a sufficient number of highly qualified employees at all relevant sites at all times. The ability of an employer to hire and, above all, retain qualified and motivated employees is key to success. Software AG is in a transformation phase in the highly competitive Cloud & IoT market. This transformation requires finding the right talent outside the Company and existing highly qualified employees driving the change process from the inside. Uncertainty about Software AG's future success in these new markets could have a negative impact on its image as an employer both among highly qualified applicants and existing specialists. The demographic trend in some countries and markets could also result in a reduction in potential growth due to a shortage of qualified young talent. The advancing age structure in the A&N business line could lead to a loss in expertise.

Software AG takes the following measures to counter this risk:

- Staff development and cultural turnaround were a focus of 2019 and will continue to be in the future
- Improved employer image
- Ongoing evaluation of market-oriented remuneration and target salaries based on global benchmarks
- Needs-based training for all staff and managers worldwide
- Implementation of improvement measures determined in the employee survey
- Continuous monitoring of Software AG-related activities in social media
- Intensified talent recruiting in other countries
- Development programs for high-potential employees and future managers
- Sufficient number of highly qualified young staff in all regions
- Staff development programs for all staff worldwide
- Targeted efforts to develop young talent for the generation transfer as part of the A&N 2050+ program
- Optimized distribution of employees at high and low-cost locations

Software AG assumes that these measures provide a sound basis for ensuring Software AG's long-term success.

The war for talent will get fiercer in the IT sector; Software AG's strategic transformation and the employee value proposition (b[5]) created as part of Helix will help boost Software AG's image as a growing software company.

Due to the implemented measures to address the intense competition among employers for talent, personnel-related topics were given a green risk signal (2018: green) at the end of 2019.

Legal risks

Intellectual property (IP) right protection

This strategic risk mainly consists of of the two subcategories described below:

Protection of Software AG partners' intellectual property rights

Because Software AG licenses third-party products, it must to defend those rights granted to customers such as licenses to certain resources. Unauthorized undetected use by customers can result in liability risks relating to past license fees owed to software distributors. To mitigate this risk, audit rights have been included in all customer contracts which entitle Software AG to monitor customers' use of products in accordance with contractual stipulations. All third-party software sales agreements will be reviewed for unfavorable terms and modified as needed by a central department. In addition, Software AG continued developing and optimizing its procurement process.

Patent litigation

Patent law, especially in the U.S. due to the large number of software patents granted combined with the peculiarities of U.S. procedural law, favors the bringing of patent lawsuits. This situation is often exploited by non-practicing entities (patent trolls). They are often financed by hedge funds to assert patent lawsuits against software companies. This also affects Software AG. Patent litigation in the U.S. entails the risk of higher procedural costs to defend against claims without provision for reimbursement in American procedural law. The risk associated with patent trolls has lessened in recent years due to a new legal ruling by U.S. courts. Furthermore, large U.S. software companies have joined forces to form the LOT Network (a non-profit community formed to enable patent licensing among members and combat patent trolling). Software AG is currently assessing the option of joining this network to strengthen its own position. The last patent troll lawsuit ended in settlement in fiscal 2019. Since this case, which lasted many years, there have been no further attacks by patent trolls in recent years. There is also a risk of being sued for patent infringements by competitor software companies. The Company has an Intellectual Property Rights team to counter patent law suits. In addition to tasks associated with patent law protection, the team handles Software AG's own patent applications and coordinates its defense against patent suits. The Company's portfolio of patents is the best protection against claims from other market participants, because it offers opportunities for cross-licensing agreements. For these reasons, Software AG will drive expansion of its patent base. But entering patenting processes also leads to risks. For example, intellectual property rights can be lost in such processes due to conditions by the patent issuing organization. These rights can also be lost when built into open-source software. Software AG owns a large number of patents, which can be used to protect its business and defend it against patent suits. These patents could also contribute to generating additional licensing revenues in the future.

To defend itself against future patent-related lawsuits, all relevant technical and marketing documentation was systematically stored in a central location, which makes the necessary documents available quickly in the event of a legal suit. This documentation process is employed for newly acquired companies as well. All new products are evaluated internally for potential patent infringements before public publication. R&D and Product Marketing employees receive training on the subject of patent protection laws. Implemented measures and processes reduce this risk considerably for Software AG. No new patent suits have been filed against Software AG since 2012. It is currently unforeseeable to what extent future patent suits will be fueled by the increasingly nationalistic tendencies worldwide.

Like last year, the risk associated with the protection of intellectual property rights was rated at a green risk signal as of December 31, 2019.

Information security and data protection

As a provider of maintenance, cloud and consulting services, Software AG works with sensitive customer data and thus acts as a processor. Software AG also manages sensitive information about its own business, employees and customers, prospective customers, partners and suppliers and is responsible for that data in this role. The Company is legally required to protect this data while the number of external hacker attacks is constantly rising. The spread of cloud computing also increases vulnerability to data hacking. In data processing agreements (DPAs) with customers, Software AG guarantees compliance with data protection laws, particularly with the EU's General Data Protection Regulation (GDPR). Significant investments are necessary for ensuring the necessary level of data protection. Penalties of up to 4 percent of Software AG's total annual revenue can be issued in the event of infringements against these laws. Sizable investments are necessary on an ongoing basis to take these security measures and comply with regulations.

Software AG counteracts these risks by implementing a data protection management system (DPMS), which can define processes and guarantee information security and data protection. The Company's order processing agreements contain limitations of liability in the event of data loss. Complete IT security can never be guaranteed. The following security risk reduction measures are therefore undergoing constant improvement:

- Continuous monitoring of risk factors and expansion of data security through systematic data security strategy
- Implementation of early detection system for data breaches
- Disciplined execution of defined emergency measures in the event of an attack or system failure
- An ISO 27001-certified information security management system (ISMS) was instituted for cloud business customers
- Internal data security guidelines and standard processes, a data security committee and an IT security organization were established to monitor internal Software AG IT data security and develop data security measures as well as guidelines on an ongoing basis.
- When Software AG enters DPAs with customers, the risks it assumes are minimized to the extent to which legally admissible

The risk posed by information security and data protection was given a yellow risk signal (2018: green) as of December 31, 2019.

Other legal risks

Regulatory, compliance and litigation risks

Regulatory and political changes, such as embargoes, can influence Software AG's business operations in difference national markets. That could have a negative impact on the Group's future business and financial performance. Uncertainties regarding regional legal systems could hinder or prevent the assertion of Software AG's rights (e.g. commercial property rights).

A multinational software company like the Software AG Group is subject to global risks associated with legal disputes and government and official processes. Software AG cannot rule out that litigation and proceedings will have negative effects on the earnings of the Company; as a rule, the Group's financial position can even be negatively affected when law suits are won, given the high cost of defense attorneys and other defense services needed to thwart accusations, for example in the U.S. Despite detailed risk assessment and forward-looking risk provisions, there is a risk that the actual cost of litigation is higher than the assumed risk value.

For information on specific legal disputes, please refer to Note 36 in the Notes to the Consolidated Financial Statements and Other Provisions in the Separate Annual Financial Statements of Software AG (Parent Company). p. 212

Financial operating risks

Exchange rate risks

The Software AG Group is exposed to exchange rate risks through its global business activities. Software AG's sales organizations operate in the currency of the countries in which the sales are transacted. This can result in currency risks and opportunities for Group revenue. For more information on Currency Split, refer to the graphic in the section, Financial Position of the Group, in the Economic Report. p. 65

Exchange rate fluctuation impact on Group revenue in 2019:

Currency fluctuation in 2019	Change in exchange rates volume-weighted 2019 vs. 2018	Impact on revenue in 2019 in € millions
U.S. dollar 30.6% of revenue	+5.2%	+13.4
Pound sterling 4.9% of revenue	+1.1%	+0.5
Israeli shekel 5.5% of revenue	+6.8%	+3.1
Australian dollar 3.5% of revenue	–2.0%	–0.6
Brazilian real 2.9% of revenue	–2.5%	–0.7
Canadian dollar 2.4% of revenue	+3.5%	+0.7
South African rand 2.5% of revenue	–5.0%	–1.2
Other currencies 14.3% of revenue	+1.0%	+1.3
Currency effects on total revenue	**+2.0%**	**+16.5**

The sales-related expenses are in the same currency as the sales themselves, however. This natural hedging relationship is strengthened in the USA due to the fact that components of Software AG's research and development and global marketing are based in the USA Software AG further utilizes derivative financial instruments for hedging. This mitigates the effects of exchange rate fluctuations on Group results. Furthermore, portions of the Company's liquid assets are held in the USA. Its hedging instruments are used to cover existing foreign currency receivables and payables and anticipated cash flows. Income generated in foreign currencies from individual Group companies is also hedged against changes in value due to exchange rate fluctuations. All exchange rate risks are monitored centrally.

Risks from financial instruments

Liquidity and cash-flow risks concerning derivative financial instruments are eliminated by the fact that Software AG secures only existing balance sheet items or highly likely cash flows. Based on the financial instruments open on the balance sheet date, an increase in the market interest rate level by 100 basis points would have increased Group net income in 2019 by €2.0 million (2018: €1.4 million). Provided conditions such as revenue structure and balance sheet relationships remained constant and no further hedging transactions took place, this approximate correlation could be applied to future fiscal years as well. Under these conditions, a 10 percent decrease in the euro's value against the U.S. dollar as of December 31, 2019 would have caused Group net income in 2019 to increase by €1.9 million (2018: €1.4 million). Such a depreciation of the euro against the U.S. dollar would not have had any effect on remaining reserves in shareholders' equity (2018: increase of €2.8 million). Constant monitoring of the relevant banks' creditworthiness helps Software AG minimize the risk of losing business partners with whom derivative financial instruments are concluded.

Other financial risks

Other financial risks include predominantly the risk of bad debt losses. No cluster risks exist due to Software AG's diversified markets and customer structure. Due to the long-range average, default risks are quite marginal as a result of the generally high level of creditworthiness on the part of its customers. To reduce the impact of this risk, Software AG uses an automated approval process for customer contracts, known as the Global Deal Desk, based on its own technology. To protect cash holdings, Software AG constantly monitors partner banks' creditworthiness and adjusts investment decisions accordingly.

General Statement on the Group's Risk Situation

The Software AG Group's overall consolidated risk situation is less favorable than last year. In 2019, 30.8 percent (2018: 54.5 percent) of Software AG's strategic risks were categorized as risk signal green, 46.1 percent (2018: 27.3 percent) as yellow, and 23.1 percent (2018: 18.2 percent) as red.

The Management Board assumes that the strategic risks are limited and manageable. No individual or consolidated risks can be identified that, due to the extent of their impact or their likelihood of occurring, are likely to jeopardize the going concern of the Company now or in the future.

Risk Summary

	Impact on EBIT in the next 3 years	Probability	Risk signal	Trend
Corporate strategy risks and opportunities				
Product innovation and portfolio	medium	likely	yellow	increasing
Growth in Integration & API	medium	highly likely	red	increasing
Development of Business Transformation	low	likely	green	increasing
Dynamic growth in IoT & Analytics	medium	likely	yellow	increasing
Market risks and opportunities: A&N product line	medium	likely	yellow	constant
Acquisitions Pre-acquisition phase (selection)	medium	unlikely	green	constant
Acquisitions Post-acquisition phase (integration)	medium	likely	yellow	constant
Strategic realignment (Helix)	medium	highly likely	red	constant
Product distribution risks and opportunities				
Sales efficiency and sales risks and opportunities	medium	highly likely	red	constant
Partnership risks and opportunities	medium	likely	yellow	increasing
Personnel risks and opportunities				
Employer appeal	low	unlikely	green	constant
Legal risks				
Intellectual property (IP) right protection	low	unlikely	green	declining
Information security and data protection	medium	likely	yellow	increasing

Software AG’s Rating

The necessity for an external rating did not arise because of Software AG’s solid financial structure and employed financing instruments. There is currently no official external rating of Software AG. Nevertheless, there are some facts that shed light on Software AG’s external rating.

Based on the financial statements from December 31, 2018, as in previous years, Software AG was given central bank eligibility by the German Central Bank (Deutsche Bundesbank). This means that lending banks can use credit claims with Software AG as collateral for refinancing with the Deutsche Bundesbank.

Software AG’s own banks classified its creditworthiness in the high end of the investment-grade range at the end of 2019.

Remuneration Report

The Remuneration Report is prepared in accordance with the recommendations of the German Corporate Governance Code from February 7, 2017 (hereinafter referred to as GCGC) and the provisions of the German financial reporting standard in its revised 2017 version no. 17 (DRS 17).

It contains the information required and/or recommended by the German Commercial Code (HGB), the GCGC and and International Financial Reporting Standards (IFRS). The Remuneration Report is part of the Combined Management Report and provides details on the compensation system for the Management and Supervisory Boards as well as the amounts and structure of their compensation. As required by the new GCGC, remuneration of Board members is presented as individual members' total amounts, broken down into non-performance-based components and one-year and multi-year performance-based components with long-term share-based incentive components. Furthermore, as recommended by the GCGC, the allocation of different compensation components is shown.

Allocation (1)

			Sanjay Brahmawar Chief Executive Officer Joined Aug. 1, 2018	
in €			**2018**	**2019**
Non-performance-based components	Fixed compensation (base salary)		416,666.65	999,999.96
	Additional benefits[1]		18,939.29	59,086.27
	Total		**435,605.94**	**1,059,086.23**
Performance-based components	One-year variable remuneration		629,694.45	1,003,333.33
	Multi-year variable remuneration			
	with long-term share-based incentive	Performance Phantom Shares – PPS[2]	0.00	11,544.60
		Management Incentive Plan V – (MIP V) (2015 – 2018)[3]	0.00	0.00
		Management Incentive Plan 2016 – (MIP 2016) (2016 – 2019)[4]	0.00	0.00
Total allocation			**1,065,300.39**	**2,073,964.16**
Service cost			226,794.17	555,192.12
Total allocation (GCGC)			**1,292,094.56**	**2,629,156.28**

[1] Additional benefits include provision of a company car, family home travel, voluntary social security and accident insurance premiums, rent reimbursements and severance payments. Mr. Brahmawar's additional benefits included rent reimbursements of €25 thousand and family home travel of €28 thousand.

[2] The allocation for the Performance Phantom Share (PPS) plan refers to payment on Management Board members' PPS balance as of the Annual Shareholders' Meeting equal to the approved dividend of €0.71 per share for each PPS and partial exercise of existing PPS balances. Payments made to Dr. Sigg in the amount of €16 thousand were dividends on his balance as presented above and in the amount of €87 thousand were scheduled payments under that plan. Mr. Zinnhardt invested 80,131 phantom shares at a value of €2,492 thousand in Software AG and received payment for 37,652 PPS at a value of €1,221 thousand as of December 31, 2019. The remaining disbursement of €57 thousand relates to the dividends described above.

Allocation

The following tables show the allocation of fixed remuneration, additional benefits and one-year variable remuneration for the year under review and the partially prolonged amounts of multi-year variable remuneration with long-term share-based incentive paid during fiscal 2019.

	Karl-Heinz Streibich **Chief Executive Officer** **Served October 1, 2003 – July 31, 2018**	**Dr. Elke Frank** **Chief Human Resources Officer** **Joined Aug. 1, 2019**	**Eric Duffaut** **Chief Customer Officer** **Served Oct. 1, 2014 – Oct. 31, 2018**
	2018	**2019**	**2018**
	406,958.37	208,333.35	500,000.00
	13,491.19	504,704.33	1,690,471.89
	420,449.56	**713,037.68**	**2,190,471.89**
	2,803,792.74	167,222.24	1,180,000.00
	3,407,365.90	0.00	3,192,533.72
	3,395,200.00	0.00	1,697,600.00
	0.00	0.00	0.00
	10,026,808.20	**880,259.92**	**8,260,605.61**
	0.00	0.00	0.00
	10,026,808.20	**880,259.92**	**8,260,605.61**

[3] Payments from MIP V in 2018 resulted from the automatic exercise by all entitled members of the Management Board of this plan in accordance with the plan's guidelines.
[4] The allocations from MIP 2016 resulted from the automatic exercise of this plan by the entitled member of the Management Board, Mr. Zinnhardt, in accordance with the plan's guidelines.

Allocation (2)

in €				Dr. Wolfram Jost Chief Technology Officer Joined July 9, 2010 – resigned from Management Board Jan. 8, 2019 Employment contract ended June 30, 2019 2018	2019
Non-performance-based components	Fixed compensation (base salary)			714,913.33	0.00
	Additional benefits[1]			2,052,413.01	0.00
	Total			**2,767,326.34**	**0.00**
Performance-based components	One-year variable remuneration			1,384,500.00	0.00
	Multi-year variable remuneration				
	with long-term share-based incentive	Performance Phantom Shares – PPS[2]		2,372,775.18	0.00
		Management Incentive Plan V – (MIP V) (2015 – 2018)[3]		1,697,600.00	0.00
		Management Incentive Plan 2016 – (MIP 2016) (2016 – 2019)[4]		1,212,350.10	0.00
Total allocation				**9,434,551.62**	**0.00**
Service cost				218,732.88	0.00
Total allocation (GCGC)				**9,653,284.50**	**0.00**

[1] Additional benefits include provision of a company car, family home travel, voluntary social security and accident insurance premiums, rent reimbursements and severance payments. Mr. Brahmawar's additional benefits included rent reimbursements of €25 thousand and family home travel of €28 thousand.

[2] The allocation for the Performance Phantom Share (PPS) plan refers to payment on Management Board members' PPS balance as of the Annual Shareholders' Meeting equal to the approved dividend of €0.71 per share for each PPS and partial exercise of existing PPS balances. Payments made to Dr. Sigg in the amount of €16 thousand were dividends on his balance as presented above and in the amount of €87 thousand were scheduled payments under that plan. Mr. Zinnhardt invested 80,131 phantom shares at a value of €2,492 thousand in Software AG and received payment for 37,652 PPS at a value of €1,221 thousand as of December 31, 2019. The remaining disbursement of €57 thousand relates to the dividends described above.

[3] Payments from MIP V in 2018 resulted from the automatic exercise by all entitled members of the Management Board of this plan in accordance with the plan's guidelines.

[4] The allocations from MIP 2016 resulted from the automatic exercise of this plan by the entitled member of the Management Board, Mr. Zinnhardt, in accordance with the plan's guidelines.

	John Schweitzer Chief Revenue Officer Joined Nov. 1, 2018		Dr. Stefan Sigg Chief Research & Development Officer Joined April 1, 2017		Arnd Zinnhardt Chief Financial Officer Joined May 1, 2002 – resigned from Management Board March 31, 2020 Employment contract ends Sept. 30, 2020	
	2018	**2019**	**2018**	**2019**	**2018**	**2019**
	102,559.20	625,324.64	500,000.04	558,333.35	441,715.32	441,715.32
	7,078.92	88,596.13	33,112.11	33,449.71	39,619.09	37,905.67
	109,638.12	**713,920.78**	**533,112.15**	**591,783.06**	**481,334.41**	**479,620.99**
	221,895.28	839,422.49	377,816.67	309,361.09	2,035,317.12	1,351,251.61
	0.00	5,261.37	5,245.50	103,355.12	1,973,150.68	1,277,947.37
	0.00	0.00	0.00	0.00	1,697,600.00	0.00
	0.00	0.00	0.00	0.00	0.00	1,161,303.78
	331,533.40	**1,558,604.64**	**916,174.32**	**1,004,499.27**	**6,187,402.21**	**4,270,123.75**
	0.00	0.00	492,900.72	474,290.82	172,704.36	214,541.70
	331,533.40	**1,558,604.64**	**1,409,075.04**	**1,478,790.09**	**6,360,106.57**	**4,484,665.45**

Benefits Granted (1)

in €			Sanjay Brahmawar Chief Executive Officer Joined Aug. 1, 2018 2018	2019	2019 (min.)	2019 (max.)
Non-performance-based components	Fixed compensation (base salary)		416,666.65	999,999.96	999,999.96	999,999.96
	Additional benefits[1]		18,939.29	59,086.27	59,086.27	59,086.27
	Total		**435,605.94**	**1,059,086.23**	**1,059,086.23**	**1,059,086.23**
Performance-based components	One-year variable remuneration[2]		629,694.45	1,003,333.33	0.00	1,666,666.67
	Multi-year variable remuneration					
	with long-term share-based incentive	Performance phantom shares – PPS[3]	527,353.39	571,729.79	0.00	3,011,763.60
		Management Incentive Plan 2018 – (MIP 2018)[4]	294,782.03	0.00	0.00	0.00
		Management Incentive Plan 2019 – (MIP 2019)[5]	0.00	1,216,744.78	0.00	3,600,000.00
Total (DRS 17)			**1,887,435.81**	**3,850,894.13**	**1,059,086.23**	**9,337,516.50**
Service cost			226,794.17	555,192.12	555,192.12	555,192.12
Total (GCGC)			**2,114,229.98**	**4,406,086.25**	**1,614,278.35**	**9,892,708.62**
Share price gains/losses and max. possible loss from vested share-based remuneration components[6]			0.00	–21,625.80	0.00	–692,414.40
Total economic allocation			**2,114,229.98**	**4,384,460.45**	**1,614,278.35**	**9,200,294.22**

[1] Additional benefits include provision of a company car, family home travel, voluntary social security and accident insurance premiums, rent reimbursements and severance payments. Mr. Brahmawar's additional benefits included rent reimbursements of €25 thousand and family home travel of €28 thousand; Mr. Zinnhardt's additional benefits included severance payments of €2,545 thousand.

[2] The one-year variable remuneration depends, firstly, on the achievement of the Company's revenue and earnings targets communicated to the capital market for the respective fiscal year and, secondly, on the achievement of individual strategic, qualitative or quantitative objectives specifically defined according to the responsibilities of the member of the Management Board. The possible range of meeting a target is between 0 and 200 percent. One-third of over achievement (greater than 100 percent) of an objective is not paid in cash, but rather must be invested in phantom shares. The highest attainable one-year variable remuneration decreases accordingly.

[3] Members of the Management Board invest a portion of their variable compensation in phantom shares, which have a vesting period of one, two and three years for each third of the phantom shares respectively. The investment amount depends on the achievement of the Company's revenue and earnings targets communicated to the capital market for the respective fiscal year and of individual strategic, qualitative or quantitative objectives, specifically defined according to the responsibilities of the member of the Management Board. The possible range of meeting a target is between 0 and 200 percent. When performance is greater than 100 percent, the conversion amount increases by one-third of the over-performance amount of the one-year variable remuneration, which is not paid out but invested in phantom shares. Conversion to PPS is based on the average price of Software AG's share in February of the following year less 10 percent. When the vesting period is over, members of the Management Board can choose if they want to receive payment of the due amount or to reinvest it partially or entirely in phantom shares. The term of this reinvestment is limited to a maximum of six years and four months after the term of the Management Board member's contract has ended. Members of the Management Board can request to receive payment at any time during defined windows of time.

[4] MIP 2018 was launched in December 2017, whereby members of the Management Board were awarded stock options in four tranches with a term of 3.3 years ending on August 27, 2021. The base price of these stock options is €45.27 and is the weighted average price of Software AG's share on the 20 trading days after November 15, 2017. A quarter of these stock options will become exercisable at the respective average share price on the first 20 trading days in November 2020, in February 2021, in May 2021 and in August 2021. The performance target requires Software AG's share price (including dividends paid out in the meantime) to exceed the base price of €45.27 by 20 percent on ten consecutive trading days in the period from December 1, 2019 to November 30, 2020. Mr. Brahmawar's award under this plan was presented in the 2018 Remuneration Report and the other Management Board members' awards in the 2017 Remuneration Report. The 100,988 MIP 2018 stock options awarded to Mr. Duffaut and Dr. Jost respectively in fiscal 2017 were discarded when they left the Company.

	Karl-Heinz Streibich Chief Executive Officer Served Oct. 1, 2003 – July 31, 2018			Dr. Elke Frank Chief Human Resources Officer Joined Aug. 1, 2019
	2018	2019	2019 (min.)	2019 (max.)
	406,958.37	208,333.35	208,333.35	208,333.35
	13,491.19	504,704.33	504,704.33	504,704.33
	420,449.56	**713,037.68**	**713,037.68**	**713,037.68**
	2,803,792.74	167,222.24	0.00	277,777.80
	234,672.75	46,836.44	0.00	313,930.50
	0.00	0.00	0.00	0.00
	0.00	253,481.63	0.00	750,000.00
	3,458,915.05	**1,180,577.99**	**713,037.68**	**2,054,745.98**
	0.00	211,996.67	211,996.67	211,996.67
	3,458,915.05	**1,392,574.66**	**925,034.35**	**2,266,742.65**
	–4,654,233.60	0.00	0.00	–15,612.15
	–1,195,318.55	**1,392,574.66**	**925,034.35**	**2,251,130.50**

[5] MIP 2019 was launched in March 2019. and the first rights under this plan were allocated to members of the Management Board in June. The plan differentiates between two types of stock appreciation rights (SARs): retention shares (RSARs) and performance shares (PSARs). Provided specific conditions are met, both types grant entitlement to payment of a monetary amount equal to the volume weighted share price on the 20 trading days up to and including March 24, 2023. The number of RSARs allocated was determined as part of the award. The number of PSARs relevant to disbursement is based on the number of rights allocated times a factor which is the result of the performance of Software AG's share price relative to a benchmark index. The Nasdaq 100 was defined as the benchmark index. The resulting factor can be between zero and two. Outperformance is calculated as [(the difference between the volume weighted average settlement price and the base price of €31.14) divided by the base price] minus [(the final reference index price minus the original reference index price) divided by the original reference index price of $7,539.286]. Both the original and final reference index prices were and are calculated as the arithmetic mean of the daily closing prices during the periods of 20 trading days from February 27, 2019 and March 24, 2019 and on the 20 trading days up to and including March 24, 2023. Dividend payments are not taken into account when calculating the performance factor.

[6] The lower intrinsic values of the PPS balances resulting from Software AG's share price decrease are shown in the 2019 column as remuneration diminishing. The 2019 (max.) column shows the maximum possible losses from vested share-based remuneration components of the phantom share plan. This column also recognizes the negative values for MIP 2017, which expired in fiscal 2019, for Dr. Sigg and Mr. Zinnhardt.

Benefits Granted (2)

in €			Eric Duffaut Chief Customer Officer Served Oct. 1, 2014 – Oct. 31, 2018 2018
Non-performance-based components	Fixed compensation (base salary)		500,000.00
	Additional benefits[1]		1,690,471.89
	Total		**2,190,471.89**
Performance-based components	One-year variable remuneration[2]		1,180,000.00
	Multi-year variable remuneration		
	with long-term share-based incentive	Performance phantom shares – PPS[3]	38,026.95
		Management Incentive Plan 2018 – (MIP 2018)[4]	0.00
		Management Incentive Plan 2019 – (MIP 2019)[5]	0.00
Total (DRS 17)			**3,408,498.84**
Service cost			0.00
Total (GCGC)			**3,408,498.84**
Share price gains/losses and max. possible loss from vested share-based remuneration components[6]			113,596.77
Total economic allocation			**3,522,095.61**

[1] Additional benefits include provision of a company car, family home travel, voluntary social security and accident insurance premiums, rent reimbursements and severance payments. Mr. Brahmawar's additional benefits included rent reimbursements of €25 thousand and family home travel of €28 thousand; Mr. Zinnhardt's additional benefits included severance payments of €2,545 thousand.

[2] The one-year variable remuneration depends, firstly, on the achievement of the Company's revenue and earnings targets communicated to the capital market for the respective fiscal year and, secondly, on the achievement of individual strategic, qualitative or quantitative objectives specifically defined according to the responsibilities of the member of the Management Board. The possible range of meeting a target is between 0 and 200 percent. One-third of over achievement (greater than 100 percent) of an objective is not paid in cash, but rather must be invested in phantom shares. The highest attainable one-year variable remuneration decreases accordingly.

[3] Members of the Management Board invest a portion of their variable compensation in phantom shares, which have a vesting period of one, two and three years for each third of the phantom shares respectively. The investment amount depends on the achievement of the Company's revenue and earnings targets communicated to the capital market for the respective fiscal year and of individual strategic, qualitative or quantitative objectives, specifically defined according to the responsibilities of the member of the Management Board. The possible range of meeting a target is between 0 and 200 percent. When performance is greater than 100 percent, the conversion amount increases by one-third of the over-performance amount of the one-year variable remuneration, which is not paid out but invested in phantom shares. Conversion to PPS is based on the average price of Software AG's share in February of the following year less 10 percent. When the vesting period is over, members of the Management Board can choose if they want to receive payment of the due amount or to reinvest it partially or entirely in phantom shares. The term of this reinvestment is limited to a maximum of six years and four months after the term of the Management Board member's contract has ended. Members of the Management Board can request to receive payment at any time during defined windows of time.

[4] MIP 2018 was launched in December 2017, whereby members of the Management Board were awarded stock options in four tranches with a term of 3.3 years ending on August 27, 2021. The base price of these stock options is €45.27 and is the weighted average price of Software AG's share on the 20 trading days after November 15, 2017. A quarter of these stock options will become exercisable at the respective average share price on the first 20 trading days in November 2020, in February 2021, in May 2021 and in August 2021. The performance target requires Software AG's share price (including dividends paid out in the meantime) to exceed the base price of €45.27 by 20 percent on ten consecutive trading days in the period from December 1, 2019 to November 30, 2020. Mr. Brahmawar's award under this plan was presented in the 2018 Remuneration Report and the other Management Board members' awards in the 2017 Remuneration Report. The 100,988 MIP 2018 stock options awarded to Mr. Duffaut and Dr. Jost respectively in fiscal 2017 were discarded when they left the Company.

Dr. Wolfram Jost Chief Technology Officer Joined July 9, 2010 – resigned from Management Board Jan. 8, 2019 Employment contract ended June 30, 2019				John Schweitzer Chief Revenue Officer Joined Nov. 1, 2018			
2018	**2019**	**2019 (min.)**	**2019 (max.)**	**2018**	**2019**	**2019 (min.)**	**2019 (max.)**
714,913.33	0.00	0.00	0.00	102,559.20	625,324.64	625,324.64	625,324.64
2,052,413.01	0.00	0.00	0.00	7,078.92	88,596.13	88,596.13	88,596.13
2,767,326.34	**0.00**	**0.00**	**0.00**	**109,638.12**	**713,920.77**	**713,920.77**	**713,920.77**
1,384,500.00	0.00	0.00	0.00	221,895.28	839,422.49	0.00	1,483,591.48
24,977.55	0.00	0.00	0.00	243,482.70	659,812.82	0.00	3,591,781.10
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	540,162.32	0.00	1,602,278.80
4,176,803.89	**0.00**	**0.00**	**0.00**	**575,016.10**	**2,753,318.40**	**713,920.77**	**7,391,572.15**
218,732.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,395,536.77	**0.00**	**0.00**	**0.00**	**575,016.10**	**2,753,318.40**	**713,920.77**	**7,391,572.15**
207,866.13	0.00	0.00	0.00	0.00	–8,602.44	0.00	–419,338.61
4,603,402.90	**0.00**	**0.00**	**0.00**	**575,016.10**	**2,744,715.96**	**713,920.77**	**6,972,233.54**

[5] MIP 2019 was launched in March 2019. and the first rights under this plan were allocated to members of the Management Board in June. The plan differentiates between two types of stock appreciation rights (SARs): retention shares (RSARs) and performance shares (PSARs). Provided specific conditions are met, both types grant entitlement to payment of a monetary amount equal to the volume weighted share price on the 20 trading days up to and including March 24, 2023. The number of RSARs allocated was determined as part of the award. The number of PSARs relevant to disbursement is based on the number of rights allocated times a factor which is the result of the performance of Software AG's share price relative to a benchmark index. The Nasdaq 100 was defined as the benchmark index. The resulting factor can be between zero and two. Outperformance is calculated as [(the difference between the volume weighted average settlement price and the base price of €31.14) divided by the base price] minus [(the final reference index price minus the original reference index price) divided by the original reference index price of $7,539.286]. Both the original and final reference index prices were and are calculated as the arithmetic mean of the daily closing prices during the periods of 20 trading days from February 27, 2019 and March 24, 2019 and on the 20 trading days up to and including March 24, 2023. Dividend payments are not taken into account when calculating the performance factor.

[6] The lower intrinsic values of the PPS balances resulting from Software AG's share price decrease are shown in the 2019 column as remuneration diminishing. The 2019 (max.) column shows the maximum possible losses from vested share-based remuneration components of the phantom share plan. This column also recognizes the negative values for MIP 2017, which expired in fiscal 2019, for Dr. Sigg and Mr. Zinnhardt.

Benefits Granted (3)

						Dr. Stefan Sigg Chief Research & Development Officer Joined April 1, 2017
in €			**2018**	**2019**	**2019 (min.)**	**2018 (max.)**
Non-performance-based components	Fixed compensation (base salary)		500,000.04	558,333.35	558,333.35	558,333.35
	Additional benefits[1]		33,112.11	33,449.71	33,449.71	33,449.71
	Total		**533,112.15**	**591,783.06**	**591,783.06**	**591,783.06**
Performance-based components	One-year variable remuneration[2]		377,816.67	309,361.09	0.00	513,888.87
	Multi-year variable remuneration					
	with long-term share-based incentive	Performance phantom shares – PPS[3]	567,060.31	360,994.94	16,118.42	1,624,365.16
		Management Incentive Plan 2018 – (MIP 2018)[4]	0.00	0.00	0.00	0.00
		Management Incentive Plan 2019 – (MIP 2019)[5]	0.00	608,384.16	0.00	1,800,000.00
Total (DRS 17)			**1,477,989.13**	**1,870,523.25**	**607,901.48**	**4,530,037.09**
Service cost			492,900.72	474,290.82	474,290.82	474,290.82
Total (GCGC)			**1,970,889.85**	**2,344,814.07**	**1,082,192.30**	**5,004,327.91**
Share price gains/losses and max. possible loss from vested share-based remuneration components[6]			–87,398.10	–533,681.33	0.00	–1,331,257.51
Total economic allocation			**1,883,491.75**	**1,811,132.74**	**1,082,192.30**	**3,673,070.40**

1 Additional benefits include provision of a company car, family home travel, voluntary social security and accident insurance premiums, rent reimbursements and severance payments. Mr. Brahmawar's additional benefits included rent reimbursements of €25 thousand and family home travel of €28 thousand; Mr. Zinnhardt's additional benefits included severance payments of €2,545 thousand.

2 The one-year variable remuneration depends, firstly, on the achievement of the Company's revenue and earnings targets communicated to the capital market for the respective fiscal year and, secondly, on the achievement of individual strategic, qualitative or quantitative objectives specifically defined according to the responsibilities of the member of the Management Board. The possible range of meeting a target is between 0 and 200 percent. One-third of over achievement (greater than 100 percent) of an objective is not paid in cash, but rather must be invested in phantom shares. The highest attainable one-year variable remuneration decreases accordingly.

3 Members of the Management Board invest a portion of their variable compensation in phantom shares, which have a vesting period of one, two and three years for each third of the phantom shares respectively. The investment amount depends on the achievement of the Company's revenue and earnings targets communicated to the capital market for the respective fiscal year and of individual strategic, qualitative or quantitative objectives, specifically defined according to the responsibilities of the member of the Management Board. The possible range of meeting a target is between 0 and 200 percent. When performance is greater than 100 percent, the conversion amount increases by one-third of the over-performance amount of the one-year variable remuneration, which is not paid out but invested in phantom shares. Conversion to PPS is based on the average price of Software AG's share in February of the following year less 10 percent. When the vesting period is over, members of the Management Board can choose if they want to receive payment of the due amount or to reinvest it partially or entirely in phantom shares. The term of this reinvestment is limited to a maximum of six years and four months after the term of the Management Board member's contract has ended. Members of the Management Board can request to receive payment at any time during defined windows of time.

4 MIP 2018 was launched in December 2017, whereby members of the Management Board were awarded stock options in four tranches with a term of 3.3 years ending on August 27, 2021. The base price of these stock options is €45.27 and is the weighted average price of Software AG's share on the 20 trading days after November 15, 2017. A quarter of these stock options will become exercisable at the respective average share price on the first 20 trading days in November 2020, in February 2021, in May 2021 and in August 2021. The performance target requires Software AG's share price (including dividends paid out in the meantime) to exceed the base price of €45.27 by 20 percent on ten consecutive trading days in the period from December 1, 2019 to November 30, 2020. Mr. Brahmawar's award under this plan was presented in the 2018 Remuneration Report and the other Management Board members' awards in the 2017 Remuneration Report. The 100,988 MIP 2018 stock options awarded to Mr. Duffaut and Dr. Jost respectively in fiscal 2017 were discarded when they left the Company.

	Arnd Zinnhardt Chief Financial Officer Joined May 1, 2002 resigned from Management Board March 31, 2020 – Employment contract ends Sept. 30, 2020			
	2018	**2019**	**2019 (min.)**	**2019 (max.)**
	441,715.32	441,715.32	441,715.32	441,715.32
	39,619.09	2,582,647.83	2,582,647.83	2,582,647.83
	481,334.41	**3,024,363.15**	**3,024,363.15**	**3,024,363.15**
	2,035,317.12	1,351,251.61	0.00	2,244,604.00
	1,568,235.46	707,613.17	56,893.01	3,642,936.58
	0.00	0.00	0.00	0.00
	0.00	608,384.16	0.00	1,800,000.00
	4,084,886.99	**5,691,612.09**	**3,081,256.16**	**10,711,903.73**
	172,704.36	214,541.70	214,541.70	214,541.70
	4,257,591.35	**5,906,153.79**	**3,295,797.86**	**10,926,445.43**
	–593,298.92	–651,912.69	0.00	–3,313,833.28
	3,664,292.43	**5,254,241.10**	**3,295,797.86**	**7,612,612.15**

[5] MIP 2019 was launched in March 2019. and the first rights under this plan were allocated to members of the Management Board in June. The plan differentiates between two types of stock appreciation rights (SARs): retention shares (RSARs) and performance shares (PSARs). Provided specific conditions are met, both types grant entitlement to payment of a monetary amount equal to the volume weighted share price on the 20 trading days up to and including March 24, 2023. The number of RSARs allocated was determined as part of the award. The number of PSARs relevant to disbursement is based on the number of rights allocated times a factor which is the result of the performance of Software AG's share price relative to a benchmark index. The Nasdaq 100 was defined as the benchmark index. The resulting factor can be between zero and two. Outperformance is calculated as [(the difference between the volume weighted average settlement price and the base price of €31.14) divided by the base price] minus [(the final reference index price minus the original reference index price) divided by the original reference index price of $7,539.286]. Both the original and final reference index prices were and are calculated as the arithmetic mean of the daily closing prices during the periods of 20 trading days from February 27, 2019 and March 24, 2019 and on the 20 trading days up to and including March 24, 2023. Dividend payments are not taken into account when calculating the performance factor.

[6] The lower intrinsic values of the PPS balances resulting from Software AG's share price decrease are shown in the 2019 column as remuneration diminishing. The 2019 (max.) column shows the maximum possible losses from vested share-based remuneration components of the phantom share plan. This column also recognizes the negative values for MIP 2017, which expired in fiscal 2019, for Dr. Sigg and Mr. Zinnhardt.

Benefits Granted

Fixed compensation

The fixed compensation agreed to by the members of the Management Board is paid monthly, 12 times a year.

Additional benefits

Additional benefits consist of the provision of an appropriate company car, voluntary social security benefits, accident insurance premiums, rent reimbursements, family home travel and severance payments.

One-Year Variable Remuneration

Eighty percent of the one-year variable remuneration depends on achievement of the Group revenue and earnings targets that are communicated to the capital market. In addition, each member of the Management Board agrees to different quantitative and qualitative targets relevant to the respective area of responsibility, which are in the interest of the medium to long-term strategic development of the Company. The bonuses are calculated based on the extent to which targets are achieved. If the level of achievement is zero, no variable remuneration is paid. The the maximum achievable level is 200 percent. One-third of any percentage of performance exceeding 100 percent will not be paid in cash, but put aside as performance phantom shares (PPS) and paid out at a later point in time based on future share price performance. The highest attainable one-year variable compensation decreases accordingly.

Multi-Year Variable Remuneration

Performance-based components with long-term share-based incentive

Performance Phantom Share (PPS) Plan

A portion of the variable management remuneration is paid out as a medium-term component on the basis of a PPS plan. As in the previous year, the portion accruing for fiscal year 2019 will be converted into virtual (phantom) shares on the basis of the average share price of Software AG stock in February 2020, less 10 percent (reference share price). The resulting number of shares will become due in three identical tranches with terms of one, two, and three years. On the due dates in March 2021 to 2023, the number of PPS will be multiplied by the then-applicable share price for February. The remuneration cap recommended by the then-applicable GCGC was first instituted in 2014. Pursuant to this cap policy, neither old PPS balances nor newly issued PPS will be fully included in future share price increases, but only up to a maximum of twice the reference price at issue of the corresponding PPS tranche. This payment cap is determined annually for the balance of PPS allocated to the members of the Management Board based on the average award price.

Company officers will receive an amount per phantom share equal to the dividend paid to Software AG shareholders per share.

Company officers may elect to let the Company dispose of any PPS that have become due after the defined vesting period for up to six years and four months after the term of the respective Management Board contract has ended and thus continue to participate in the success of the Company.

The respective disbursement amount is determined on the date of disbursement using the disbursement price per share, multiplied by the number of phantom shares due to be converted. For tranches that aren’t renewed, the disbursement share price is equal to the average closing price of Software AG’s share in Xetra trading on the Frankfurt stock exchange on trading days during the month of February before phantom share disbursement. For tranches that are disbursed within the extension period, the disbursement share price is equal to the average closing price for Software AG’s share in Xetra trading on the sixth to tenth trading days after the decision to exercise the phantom shares. The decision to exercise options can be made during the period from the date of publication of the financial results until the following fifth trading day. This plan led to expenses relating to the members of the Management Board in the amount of €2,358 thousand (2018: €3,131 thousand) in fiscal year 2019. The following table illustrates the PPS to be issued based on the average share price in February 2020 and the effects this remuneration plan had on Software AG's profit/loss in fiscal 2019:

Performance Phantom Shares

	PPS granted in 2019 No.	Expense from PPS[1] granted in 2019 in €
Sanjay Brahmawar (CEO)	16,839	573,037.52
Dr. Elke Frank (since Aug. 1, 2019)	1,408	46,836.44
John Schweitzer	20,689	660,333.02
Dr. Stefan Sigg	10,367	362,906.91
Arnd Zinnhardt	19,561	714,814.51

[1] This expense is due to allocation for fiscal 2019 at a price of €33.27 (2018: €32.43) per PPS at the time of award, disbursement of dividends on the PPS balance in the amount of €90 thousand, and interest expenses for hedging the price of PPS balances amounting to €11 thousand.

Stock option plans

1. Management Incentive Plan 2016 (MIP 2016)

Management Incentive Plan 2016, a plan based on Software AG's share price performance, was approved in December 2015. The rights had a term of three years. Exercise benefits were paid out conditional upon an exercise threshold. The exercise threshold was reached when Software AG's volume-weighted average price (VWAP) in Xetra trading exceeded the price of €30.00 on ten consecutive trading days during the period between December 1, 2017 and November 30, 2018. The exercise threshold was reached in the first ten trading days of December 2017. The stock option plan was exercised at the end of the term in December 2018. When the exercise target was achieved, the gross exercise benefit was equal to Software AG's VWAP of €35.49 per stock option during the period from November 15 to December 15, 2018.

The maximum possible exercise benefit per option was capped at 200 percent of the reference price of €25.94, or €51.88. The price of €35.49 was thus employed for the exercise at the end of the year. Remuneration for this plan was disbursed in January 2019. The reference price is equal to the average Software AG VWAP from November 15 to December 15, 2015.

The fair value on the date of award was €18.68 per stock appreciation right.

With the exception of the 32,722 rights paid off in December 2018 in connection with the premature exit of one Management Board member, all other 130,888 rights were paid off in January 2019. The disbursement amount per right was €35.49.

No further expenses were incurred under this plan in fiscal 2019 (2018: €857 thousand).

2. Management Incentive Plan 2017 (MIP 2017)

The share-based Management Incentive Plan 2017 (MIP 2017) was instituted in December 2016 whereby members of the Management Board were awarded stock options in four tranches with a term of 3.3 years ending on August 28, 2020. The base price of these stock options is €33.18 and is the VWAP of Software AG's share on the 20 trading days after November 15, 2016. A quarter of these stock options will become exercisable at the respective average share price on the first 20 trading days in November 2019, in February 2020, in May 2020 and in August 2020. The performance target requires Software AG's share price (including dividends paid out in the meantime) to exceed the base price of €33.18 by 20 percent on ten consecutive trading days in the period from December 1, 2018 to November 30, 2019. The maximum possible compensation under this program was set at €1,413 thousand for Dr. Sigg and at €1,884 thousand for Mr. Zinnhardt. The average fair value on Dr. Sigg's date of award was €5.39 per option and on Mr. Zinnhardt's €4.79 per option.

Because of Software AG's weak share price in the performance target period from December 1, 2018 until November 30, 2019 mentioned above, the performance target was not met. As a result, the stock options could not and cannot be exercised by their beneficiaries. Due to its expiration in 2019, the following earnings resulted from this plan with respect to the active members of the Management Board:

Management Incentive Plan 2017

	Balance Dec. 31, 2019 MIP 2017 stock appreciation rights No.	Income from MIP 2017 stock appreciation rights in €
Sanjay Brahmawar (CEO)	0	0.00
Dr. Elke Frank (since Aug. 1, 2019)	0	0.00
John Schweitzer	0	0.00
Dr. Stefan Sigg	0	–148,800.10
Arnd Zinnhardt	0	–208,023.45

Management Incentive Plan 2018

	Committed MIP 2018 stock appreciation rights in 2017 and 2018 No.	Balance on Dec. 31, 2019 MIP 2018 stock appreciation rights No.	Expenses from MIP 2018 stock appreciation rights in €
Sanjay Brahmawar (CEO)	70,228	70,228	3,231.97
Dr. Elke Frank (since Aug. 1, 2019)	0	0	0.00
John Schweitzer	0	0	0.00
Dr. Stefan Sigg[1]	100,988	100,988	–11,731.16
Arnd Zinnhardt[2]	100,988	100,988	5,533.02

[1] The negative expense for Mr. Sigg resulted from the lower fair values of the stock options due to the decrease in share prices.
[2] Expenses under this plan relating to Mr. Zinnhardt were spread over time until the expiration of his Management Board contract.

3. Management Incentive Plan 2018 (MIP 2018)

The share-based management incentive Plan 2018 (MIP 2018) was instituted in December 2017, whereby members of the Management Board were awarded stock options in four tranches with a term of 3.3 years ending on August 27, 2021. The base price of these stock options was €45.27 and was the VWAP of Software AG's share on the 20 trading days starting on November 15, 2017. A quarter of these stock options will become exercisable at the respective average share price on the first 20 trading days in November 2020, in February 2021, in May 2021 and in August 2021. The performance target requires Software AG's share price (including dividends paid out in the meantime) to exceed the base price of €45.27 by 20 percent on ten consecutive trading days in the period from December 1, 2019 to November 30, 2020. The maximum possible compensation under this program was set at €1,313 thousand for Mr. Brahmawar (CEO), due to having joined the Company on August 1, 2018, and at €2,095 thousand for the other entitled members of the Management Board.

The average fair value on the date of Mr. Brahmawar's award equaled €4.20 and for the other Board members €6.72 per stock option.

The following stock appreciation rights were allocated and expenses incurred under MIP 2018 in 2017 and 2018:

4. Management Incentive Plan 2019 (MIP 2019)

Management Incentive Plan 2019 (MIP 2019) was instituted in March 2019, and the first rights under the new MIP 2019 were allocated to members of the Management Board in June. The plan differentiates between two types of stock appreciation rights (SARs): retention shares (RSARs) and performance shares (PSARs). Provided specific conditions are met, both types grant entitlement to payment of a monetary amount equal to Software AG's VWAP on the 20 trading days up to and including March 24, 2023. The number of RSARs allocated was determined as part of the award. The number of PSARs relevant to disbursement is based on the number of rights allocated times a factor which is the result of the performance of Software AG's share price relative to a benchmark index. The NASDAQ-100 was defined as the benchmark index. The resulting factor can be between zero and two. Outperformance is calculated as [(the difference between the volume weighted average settlement price and the base price of €31.14) divided by the base price] minus [(the final reference index price minus the original reference index price) divided by the original reference index price of $7,539.286]. The original and reference index price and the final reference index price were and are calculated as the arithmetic mean of the daily closing prices on the 20 trading days from February 27, 2019 and March 24, 2019 and on the 20 trading days before and including March 24, 2023. Dividend payments are not taken into account when calculating the performance factor.

Management Incentive Plan 2019

	Allocation (balance) on Dec. 31, 2019 MIP 2019 RSARs No.	Allocation (balance) on Dec. 31, 2019 MIP 2019 PSARs No.	Allocation (total balance) Dec. 31, 2019 MIP 2019 No.	Total expense from MIP 2019 stock appreciation rights in €
Sanjay Brahmawar (CEO)	19,512	29,267	48,779	213,076.23
Dr. Elke Frank (since Aug. 1, 2019)	4,065	6,097	10,162	44,389.87
John Schweitzer	8,662	12,993	21,655	94,592.89
Dr. Stefan Sigg	9,756	14,634	24,390	106,539.85
Arnd Zinnhardt[1]	9,756	14,634	24,390	188,361.68

[1] Expenses under this plan relating to Mr. Zinnhardt were spread over time until the expiration of his Management Board contract.

For further information on total remuneration of the Management Board, remuneration of former members of the Management Board, and pension provisions for former members of the Management Board, please refer to the Notes to the Consolidated Financial Statements and the Notes to Financial Statements for Software AG (parent company).

Other remuneration components

A member of the Management Board whose employment is terminated within 12 months of a change of control without good cause will receive a severance payment equal to one-and-a-half (in four Management Board members' contracts) or three annual salaries (in one Management Board member's contract) based on the most recently agreed annual target remuneration. In case of resignation by a member of the Management Board, the above mentioned regulation is not applicable if the position of the Management Board member has only been altered marginally with the change of control.

When an employment contract is terminated prematurely but not by the member of the Management Board, the severance payment is limited to the target compensation for one year (in four Management Board members' contracts) or two years (in one Management Board member's contract), but no more than the remaining term of the contract.

In the event of illness, the members of the Management Board will receive full pay based on the annual target remuneration for a period of six months. After six months, the variable remuneration component will be reduced by 1/12 for every month that follows. Salary payments will cease at the end of the term of the contract in any event. Any health insurance benefits received by the Board member must be credited against such payments.

In case of permanent disability, the employment contract of the Management Board member concerned will terminate at the end of the third month in which the permanent disability was determined. When in doubt, permanent disability is determined by an expert assessment. In the case of four Management Board members' contracts, a permanent disability is deemed to be present when the Board member has been unable to work for 12 consecutive months. From the time of departure until completion of their 62nd year of age, one member of the Management Board receives a monthly disability pension of €13.0 thousand (2018: €0), one member €13.4 thousand (2018: €13.2 thousand), one member €14.7 thousand (2018: €14.5 thousand), and the CEO receives €19.8 thousand (2018: €19.5 thousand). The disability pension is increased annually by the percentage by which the consumer price index for Germany published by the Federal Statistical Office has increased in comparison to the previous year.

The Company maintains accident insurance policies for the Management Board members with an insured amount equaling €1,500 thousand in the event of death and €3,000 thousand in the event of disability. Furthermore, Software AG carries director and officer (D&O) insurance which covers members of the Management Board; the deductible is currently 10 percent of the damages but no more than 1.5-times the fixed annual salary of the Management Board member.

Members of the Management Board who reside in Germany receive pensions for life after completing their 62nd year of age, regardless of their age when they join the Company.

The monthly pension for one member of the Management Board is €13.0 thousand (2018: €0), for one member €13.4 thousand (2018: €13.2 thousand), for one member €14.7 thousand (2018: €14.5 thousand), and for the CEO €19.8 thousand (2018: €19.5 thousand). Claims from the American member of the Management Board to pension or disability pension are served by the applicable social security system for U.S.-based employees, which stipulates that payments be made to an external insurance carrier. No pension provisions are therefore necessary for this member of of the Management Board.

Pensions are increased annually by the percentage by which the consumer price index for Germany published by the Federal Statistical Office has increased in comparison to the previous year. This pension obligation also includes a survivor annuity of 60 percent of the Management Board member's pension. In the event that a Management Board member leaves the Company prior to the age of 62 and before reaching the 15th year as a member of the Company's Management Board, the benefit entitlement is retained, but is reduced on a pro-rated basis. In the event that a Management Board member leaves the Company prior to the age of 62, but after reaching the 15th year as a member of the Company's Management Board, the full benefit entitlement is retained. As part of increased flexibility of pension benefit policies (in Germany) in fiscal 2015, members of the Management Board (at the time) were granted the option to receive pension benefits as a one-time lump sum instead of pension benefit payments. The amount of the one-time lump sum payment is calculated based on the surrender value of the Company's life insurance policies taken out and pledged to members of the Management Board as reinsurance cover for pension entitlements. Beneficiaries must declare their choice to exercise the option of a one-time lump sum payment no later than three months and one week before the regularly scheduled beginning of their pension.

The change in present value from pension commitments (IFRS) in 2019 and the present value of pension commitments as of December 31, 2019 is as follows:

Pension Commitments

in €	Change in present value (DBO) from pension commitments in 2019	Present value of pension commitments Dec. 31, 2019
Sanjay Brahmawar (CEO)	783,038.00	1,057,541.00
Dr. Elke Frank (since Aug. 1, 2019)	255,680.00	255,680.00
John Schweitzer	0.00	0.00
Dr. Stefan Sigg	818,516.00	1,687,539.00
Arnd Zinnhardt	1,335,691.00	4,920,071.00

In addition, a German Management Board member who has served on the Board for more than three years can, at the discretion of the Company, be given the opportunity to waive portions of their future variable target remuneration to finance additional supplementary benefits. In such a case, the Company pays an annual amount corresponding to the amount waived, raised to the percentage of the average target performance ratio for the preceding three full fiscal years before the respective waiver, into a pension plan negotiated by the Company for the benefit of the Management Board member. This option has thus far not been granted to any Management Board member.

In addition, all Management Board members are entitled to be provided with a suitable company car or car allowance.

No commitments beyond those outlined above have been made regarding severance pay in the event an employment contract is not extended or a shareholder change occurs, nor regarding continuation of salary payments in the event of early termination of employment or severance annuities. There are also no entitlements to payments based on customary practice.

Remuneration of the Management Board in 2018

The specific components of the Management Board's compensation in 2018 are included in the complete tables in accordance with the GCGC. These components will therefore not be repeated here. Accordingly, this portion of the Remuneration Report will deal solely with the development of compensation relating to stock options and pension commitments in 2018.

No further expenses were incurred under MIP V in fiscal 2018. All expenses were recognized from 2014 to 2017.

The following expenses were incurred under MIP 2016 in fiscal 2018:

MIP 2016

	Balance on Dec. 31, 2018 MIP 2016 stock appreciation rights No.	Expenses from MIP 2016 stock appreciation rights in €
Sanjay Brahmawar (CEO since Aug. 1, 2018)	0	0.00
Karl-Heinz Streibich (CEO until July 31, 2018)	65,444	116,715.56
Eric Duffaut[1] (until Oct. 31, 2018)	32,722	268,107.34
Wolfram Jost[2] (until Jan. 8, 2019)	0	261,981.64
John Schweitzer (since Nov. 1, 2018)	0	0.00
Dr. Stefan Sigg (since April 1, 2017)	0	0.00
Arnd Zinnhardt	32,722	210,935.30

[1] Expenses under this plan relating to Mr. Streibich and Mr. Duffaut were spread over time until their respective Management Board contracts expired.
[2] Dr. Wolfram Jost opted to receive payment for his MIP 2016 balance of 32,722 stock appreciation rights at a share price of €37.05 in 2018 when he left the Company.

The following MIP 2017 stock appreciation rights were allocated and expenses incurred under MIP 2017 in fiscal 2018:

MIP 2017

	Balance on Dec. 31, 2018 MIP 2017 stock appreciation rights No.	Income[1] from MIP 2017 stock appreciation rights in €
Sanjay Brahmawar (CEO since Aug. 1, 2018)	0	0.00
Karl-Heinz Streibich[2] (CEO until July 31, 2018)	252,548	840,773.56
Eric Duffaut[2] (until Oct. 31, 2018)	126,274	120,218.86
Dr. Wolfram Jost (until Jan. 8, 2019)	126,274	93,491.37
John Schweitzer (since Nov. 1, 2018)	0	0.00
Dr. Stefan Sigg	94,706	90,574.05
Arnd Zinnhardt	126,274	186,947.09

[1] Income resulted from the decrease in Software AG's share price in fiscal 2018.
[2] Expenses under this plan relating to Mr. Streibich and Mr. Duffaut were spread over time until their respective Management Board contracts expired.

The following MIP 2018 stock appreciation rights were allocated and expenses incurred under MIP 2018 in fiscal 2018:

MIP 2018

	Committed MIP 2018 stock appreciation rights in 2018 No.	Balance on Dec. 31, 2018 MIP 2018 stock appreciation rights No.	Expenses from MIP 2018 appreciation rights in €
Sanjay Brahmawar[1] (CEO since Aug. 1, 2018)	70,228	70,228	16,791.04
Karl-Heinz Streibich[2] (CEO until July 31, 2018)	0	117,820	134,550.71
Eric Duffaut (until Oct. 31, 2018)	0	0	–4,062.71
Dr. Wolfram Jost (until Jan. 8, 2019)	0	0	–3,173.00
John Schweitzer (since Nov. 1, 2018)	0	0	0.00
Dr. Stefan Sigg	0	100,988	42,179.49
Arnd Zinnhardt	0	100,988	42,179.49

[1] Because Mr. Brahmawar joined Software AG on August 1, 2018, like the other Management Board members, he received a percentage of the former CEO's shares, who had already received his MIP 2018 stock options in December 2017.
[2] Expenses under this plan relating to Mr. Streibich were spread over time until the expiration of his Management Board contract.

The change in present value from pension commitments (IFRS) in 2016 and the present value of pension commitments as of December 31, 2017 is as follows:

Present Value from Pension Commitments

in €	Change in present value (DBO) from pension commitments 2018	Present value of pension commitments as of Dec. 31, 2017
Sanjay Brahmawar (CEO since Aug. 1, 2018)	274,503.00	274,503.00
Karl-Heinz Streibich (CEO until July 31, 2018)	780,307.00	10,517,664.00
Eric Duffaut (until Oct. 31, 2018)	0.00	0.00
Dr. Wolfram Jost (until Jan. 8, 2019)	762,459.00	2,725,840.00
John Schweitzer (since Nov. 1, 2018)	0.00	0.00
Dr. Stefan Sigg	459,372.00	869,023.00
Arnd Zinnhardt	849,472.00	3,584,380.00

Supervisory Board Remuneration

Remuneration for Supervisory Board members consists of fixed short-term compensation. Members receive additional remuneration for their work on the Committees (Committee for Compensation and Succession Issues, Audit Committee, Strategy Committee, Mediation Committee and Nominating Committee).

The fixed annual compensation per Supervisory Board member was €66,000 (2018: €66,000). Total remuneration paid to the members of the Supervisory Board in fiscal year 2019 was€618 thousand (2018: €614 thousand).

Remuneration of the Chairperson/ Deputy Chairperson

The Chairperson of the Supervisory Board receives 2.2-times the remuneration stated, and the Deputy Chairperson 1.5-times such amount.

Other arrangements

Members of the Supervisory Board also receive €2,000 each time they attend a meeting of one of their committees in person. Attendance compensation is paid only once for multiple committee sessions occurring on the same day or for a session that takes place over consecutive days. The attendance compensation is €4,000 for the committee chairs. This policy took effect on January 1, 2017.

Remuneration is payable one week after approval of the financial statements for the year by the Supervisory Board or, if applicable, the Annual Shareholders' Meeting. Members of the Supervisory Board who were on the Board for only a part of the fiscal year will receive remuneration for each day during the first month of activity and one-twelfth of the annual remuneration for each additional month.

Remuneration of Supervisory Board members for fiscal year 2019 was as follows:

Supervisory Board Remuneration

in €	Fixed remuneration	Remuneration for committee work	Total
Dr. Andreas Bereczky (Chair)	145,200.00	44,000.00	189,200.00
Guido Falkenberg (Deputy Chair)	99,000.00	18,000.00	117,000.00
Eun-Kyung Park	66,000.00	8,000.00	74,000.00
Alf Henryk Wulf	66,000.00	22,000.00	88,000.00
Markus Ziener	66,000.00	14,000.00	80,000.00
Christian Zimmermann	66,000.00	4,000.00	70,000.00

The Supervisory Board's total remuneration is included in the Notes to the Consolidated Financial Statements and the Notes to the financial statements for Software AG (parent company).

Remuneration of Supervisory Board members for fiscal year 2018 was as follows:

Prior-Year Supervisory Board Remuneration

in €	Fixed remuneration	Remuneration for committee work	Total
Dr. Andreas Bereczky (Chair)	145,200.00	40,000.00	185,200.00
Guido Falkenberg (Deputy Chair)	99,000.00	20,000.00	119,000.00
Eun-Kyung Park	66,000.00	12,000.00	78,000.00
Alf Henryk Wulf	66,000.00	20,000.00	86,000.00
Markus Ziener	66,000.00	8,000.00	74,000.00
Christian Zimmermann	66,000.00	6,000.00	72,000.00

Members of the Supervisory Board are insured under the Company's Director & Officer (D&O) insurance policy. The deductible is equal to 10 percent of the damages but no more than 1.5-times the annual remuneration.

Takeover-Related Disclosures

Subscribed Capital and Voting Rights

Software AG's share capital totaled €74,000,000 before deducting treasury shares and is divided into 74,000,000 bearer shares. Each share represents €1.00 of the Company's share capital. Each share entitles its holder to one vote. Shareholders can exercise their rights at the Annual Shareholders' Meeting, when they exercise their voting rights in accordance with legal stipulations and the Company's Articles of Incorporation.

Conditional Capital

There was no conditional capital to report.

Authorized Capital

In accordance with the resolution passed at the Annual Shareholders' Meeting on May 31, 2016, there is authorized capital to report. The Management Board is authorized, with the consent of the Supervisory Board, to increase the Company's share capital on one or more occasions on or before May 30, 2021 up to a total of €39,500,000 issuing up to 39,500,000 new bearer shares against cash contributions or contributions in kind (authorized capital).

Share Buyback

Furthermore, the Company is authorized to purchase treasury shares up to 10 percent of the existing share capital at the time of the resolution of the par value on or before May 30, 2021 in order to realize benefits associated with the acquisition of treasury shares in the interest of the Company and its shareholders. The treasury shares may be purchased on the stock market or through a public purchase offer addressed to all shareholders of the Company.

p. 193 For more information on conditional capital, authorized capital and the acquisition of treasury stock, please refer to Note [29] in the Notes to the Consolidated Financial Statements.

Significant Shareholders

The Software AG Foundation, Darmstadt, Germany, holds approximately 34 percent of the outstanding shares in Software AG. The foundation is a separate non-profit legal entity and is devoted worldwide to the themes of therapeutic pedagogy, social therapy, education, services to youth and senior citizens, environment and research. No other shareholders hold more than 10 percent of Software AG's share capital.

Appointment/Dismissal of Management Board Members and Changes in the Articles of Incorporation

Management Board members are appointed and dismissed in accordance with section 84 et seqq. of the German Stock Corporation Act. Any changes in the Articles of Incorporation are resolved by the Annual Shareholders' Meeting by a majority of at least three-fourths of the share capital represented at the time of the resolution in accordance with section 179 of the German Stock Corporation Act.

Change of Control

Liabilities to banks in the amount of €200.0 million (2018: €200.0 million) could become due, in full or in part, in the case of a change of control on the part of the creditors (as of December 31 of the respective year). A member of the Management Board whose employment is terminated within 12 months of a change of control without good cause will receive a severance payment equal to one and a half (in four Management Board members' contracts) or three annual salaries (in one Management Board member's contract) based on the most recently agreed annual target remuneration. In case of resignation by a member of the Management Board, the above mentioned regulation is not applicable if the position of the Management Board member has only been altered marginally with the change of control.

In the event of a change of control, any stock appreciation rights granted by the Company under Management Incentive Plans 2017, 2018 and 2019 must be paid out at fair value to the relevant plan participants within the term of the rights.

Other takeover-related disclosures not mentioned in this section do not apply to Software AG.

Statement on Corporate Governance

Software AG submitted its Statement on Corporate Governance / Consolidated Statement on Corporate Governance on February 28, 2020 and published it on March 2, 2020 at www.softwareag.com/statement

This statement includes the Declaration of Compliance with the German Corporate Governance Code pursuant to section 161 of the German Stock Corporation Act (AktG), which was issued separately and published on January 28/January 31, 2020 at www.softwareag.com/declaration.

Consolidated Financial Statements

Due to rounding, some numbers may not exactly add up to the totals provided and percentages may not exactly reflect the absolute figures.

Consolidated Income Statement

For fiscal years 2019 and 2018

in € thousands	Note	2019	2018
Licenses		245,100	249,365
Maintenance		434,959	415,400
SaaS		22,651	17,555
Services		187,196	182,540
Other		701	851
Total revenue	**[5]**	**890,607**	**865,711**
Cost of sales	[6]	–203,095	–194,965
Gross profit		**687,512**	**670,746**
Research and development expenses		–131,269	–124,423
Sales, marketing and distribution expenses	[7]	–265,012	–244,721
General and administrative expenses	[8]	–74,767	–73,952
Other income	[9]	15,100	16,163
Other expenses	[10]	–16,721	–12,220
Other taxes	[13]	–6,805	–7,044
Operating income		**208,038**	**224,549**
Financing income	[11]	13,299	10,482
Financing expenses	[11]	–6,218	–6,161
Net financial income/expenses		**7,081**	**4,321**
Earnings before income taxes		**215,119**	**228,870**
Income taxes	[12]	–59,802	–63,675
Net income		**155,317**	**165,195**
thereof attributable to shareholders of Software AG		154,974	164,875
thereof attributable to non-controlling interests		343	320
Earnings per share in € (basic)	[15]	2.09	2.23
Earnings per share in € (diluted)	[15]	2.09	2.23
Weighted average number of shares outstanding (basic)		73,979,889	73,978,520
Weighted average number of shares outstanding (diluted)		73,979,889	73,980,884

Statement of Comprehensive Income

For fiscal years 2019 and 2018

in € thousands	Note	2019	2018
Net income		**155,317**	**165,195**
Currency translation differences from foreign operations		32,494	11,557
Net gain/(loss) from cash flow hedges		1,258	–6,472
Currency translation gain/loss from net investments in foreign operations		–1,736	1,768
Items to be reclassified to the income statement if certain conditions are met		**32,016**	**6,853**
Netgain/(loss) from equity instruments designated to measurement at fair value through other comprehensive income		–1,514	–4,858
Net actuarial gain/loss on pension obligations	[28]	–12,668	5,772
Items not to be reclassified to the income statement		**–14,182**	**914**
Gain/loss recognized in equity	**[29]**	**17,834**	**7,767**
Total comprehensive income		**173,151**	**172,962**
thereof attributable to shareholders of Software AG		172,808	172,642
thereof attributable to non-controlling interests		343	320

Consolidated Balance Sheet

As of December 31, 2019 and 2018

Assets

in € thousands	Note	2019	2018
Current assets			
Assets held for sale	[4]	4,795	0
Cash and cash equivalents		513,632	462,362
Other financial assets	[16]	5,720	15,302
Trade receivables, contract assets and other receivables	[17]	206,596	207,494
Other non-financial assets	[18]	26,299	20,109
Income tax receivables	[19]	18,943	19,680
		775,985	**724,947**
Non-current assets			
Intangible assets	[20]	116,601	136,972
Goodwill	[20]	980,088	964,377
Property, plant and equipment	[21]	103,977	71,023
Other financial assets	[16]	17,078	19,563
Trade receivables, contract assets and other receivables	[17]	96,544	68,675
Other non-financial assets	[18]	3,024	2,924
Income tax receivables	[19]	10,835	9,416
Deferred tax receivables	[22]	11,955	10,007
		1,340,102	**1,282,957**
Total Assets		**2,116,087**	**2,007,904**

Equity and Liabilities

in € thousands	Note	2019	2018
Current liabilities			
Liabilities from assets held for sale	[4]	5,092	0
Financial liabilities	[23]	96,389	111,888
Trade and other payables	[24]	35,793	38,831
Other non-financial liabilities	[25]	116,367	145,839
Other provisions	[26]	38,099	30,630
Income tax liabilities	[27]	35,569	37,953
Contractual obligations/deferred income		140,893	123,276
		468,202	**488,417**
Non-current liabilities			
Financial liabilities	[23]	200,225	201,432
Trade and other payables	[24]	90	3,245
Other non-financial liabilities	[25]	1,343	266
Other provisions	[26]	7,360	10,320
Provisions for pensions and similar obligations	[28]	47,963	34,621
Income tax liabilities	[27]	2,643	2,898
Deferred tax liabilities	[22]	10,594	11,398
Contractual obligations/deferred income		20,212	16,245
		290,430	**280,425**
Equity	**[29]**		
Share capital		74,000	74,000
Capital reserves		22,580	22,612
Retained earnings		1,302,257	1,201,689
Other reserves		–41,304	–59,138
Treasury shares		–757	–757
Attributable to shareholders of Software AG		**1,356,776**	**1,238,406**
Non-controlling interests		**679**	**656**
		1,357,455	**1,239,062**
Total Equity and Liabilities		**2,116,087**	**2,007,904**

Consolidated Statement of Cash Flows [30]

For fiscal years 2019 and 2018

in € thousands	2019	2018
Net income	155,317	165,195
Income taxes	59,802	63,675
Net financial income / expense	–7,081	–4,321
Amortization / depreciation of non-current assets	47,451	32,069
Payments for optional cash-settled claims to share-based compensation	–32	–53
Other non-cash income / expense	5,304	–1,033
Changes in receivables and other assets	–31,092	31,810
Changes in payables and other liabilities	973	–39,513
Income taxes paid	–65,685	–56,472
Interest paid	–6,220	–6,779
Interest received	13,299	10,480
Net cash flow from operating activities	**172,036**	**195,058**
Proceeds from the sale of property, plant and equipment / intangible assets	1,624	304
Purchase of property, plant and equipment / intangible assets	–11,634	–10,222
Proceeds from the sale of non-current financial assets	2,060	1,811
Purchase of non-current financial assets	–1,989	–2,836
Proceeds from the sale of current financial assets	809	271
Purchase of current financial assets	–953	–994
Net payments for acquisitions	–5,135	–46,693
Net cash flow from investing activities	**–15,218**	**–58,359**

in € thousands	2019	2018
Use of treasury shares	0	88
Dividends paid	–52,846	–48,348
Proceeds / payments for current financial liabilities	–49,353	7,673
Repayment of lease liabilities	–16,249	0
New non-current financial liabilities	0	100,028
Repayment of non-current financial liabilities	–5	–100,021
Net cash flow from financing activities	**–118,453**	**–40,580**
Change in cash and cash equivalents	38,365	96,119
Change in cash and cash equivalents from currency translation	12,905	428
Net change in cash and cash equivalents	**51,270**	**96,547**
Cash and cash equivalents at beginning of period	462,362	365,815
Cash and cash equivalents at end of period	**513,632**	**462,362**

Consolidated Statement of Changes in Equity [29]

For fiscal years 2019 and 2018

in € thousands	Subscribed capital		Capital reserves	Retained earnings
	Common shares outstanding (no.)			
Equity as of Jan. 1, 2018	**73,976,239**	**76,400**	**22,715**	**1,172,853**
Total comprehensive income				**164,875**
Transactions with shareholders				
Dividend payment				–48,085
Issue and use of treasury shares	3,650		–103	
Redemption of treasury shares		–2,400		–87,954
Transactions between shareholders				
Equity as of Dec. 31, 2018	**73,979,889**	**74,000**	**22,612**	**1,201,689**
Application of IFRS 16				–1,881
Equity as of Jan. 1, 2019	**73,979,889**	**74,000**	**22,612**	**1,199,808**
Total comprehensive income				**154,974**
Transactions with shareholders				
Dividend payment				–52,526
Other changes			–32	1
Transactions between shareholders				
Equity as of Dec. 31, 2019	**73,979,889**	**74,000**	**22,580**	**1,302,257**

	Other reserves				Treasury shares	Attributable to shareholders of Software AG	Non-controlling interests	Total
	Currency translation differences from foreign operations	Net gain/loss on remeasuring financial assets	Net actuarial gain/loss on pension obligations	Currency translation gain/loss from net investments in foreign operations				
	–39,333	**3,154**	**–37,617**	**6,891**	**–91,249**	**1,113,814**	**599**	**1,114,413**
	11,557	**–11,330**	**5,772**	**1,768**		**172,642**	**320**	**172,962**
						–48,085	–263	–48,348
					138	35		35
					90,354	0		0
	–27,776	**–8,176**	**–31,845**	**8,659**	**–757**	**1,238,406**	**656**	**1,239,062**
						–1,881		–1,881
	–27,776	**–8,176**	**–31,845**	**8,659**	**–757**	**1,236,525**	**656**	**1,237,181**
	32,494	**–256**	**–12,668**	**–1,736**		**172,808**	**343**	**173,151**
						–52,526	–320	–52,846
						–31		–31
	4,718	**–8,432**	**–44,513**	**6,923**	**–757**	**1,356,776**	**679**	**1,357,455**

Notes to the Consolidated Financial Statements

Due to rounding, some numbers may not exactly add up to the totals provided and percentages may not exactly reflect the absolute figures.

General

[1] Basis of Presentation

Software AG's consolidated financial statements are prepared in accordance with the International Accounting Standards Board (IASB), International Financial Reporting Standards (IFRS), as applicable in the European Union (EU) and in accordance with the additional provisions required under German commercial law as set forth in section 315e (1) of the German Commercial Code (HGB). The IFRS applicable as of December 31, 2019 were observed, as were the corresponding interpretations of the International Financial Reporting Interpretations Committee (IFRIC).

Software AG is a registered stock corporation under German law with registered offices in Darmstadt, Germany. It is listed in the commercial register of the Darmstadt District Court under number HRB 1562. It is the principal parent company of a Group that is globally active in the fields of software development, licensing and maintenance as well as IT services. The functional currency of Software AG is the euro.

Software AG's Management Board prepared the consolidated financial statements on March 2, 2020. Software AG's Audit Committee discussed the consolidated financial statements in its meeting on March 20, 2020. The Supervisory Board approved the consolidated financial statements in its meeting on March 20, 2020.

The consolidated financial statements of Software AG are expressed in thousands of euros unless otherwise stated. The figures presented in the report were rounded according to customary business practice. Due to rounding, some numbers in this report may not exactly add up to the totals given and some percentages my not exactly reflect the absolute figures.

The separate financial statements of the companies of the consolidated Group were prepared on the date of the consolidated financial statements.

[2] Scope of Consolidation

The consolidated financial statements include Software AG and all of the entities it controls. Control exists when Software AG can exercise power of control over the entity, is impacted by fluctuating returns on its share in the entity and can influence the amount of the returns.

The following affiliated entities are part of the Group of Software AG (parent company):

a) Domestic entities	**Ownership interest %**	**Equity[1] Dec. 31, 2019 in € thousands**	**Earnings[1] 2019 in € thousands**
SAG Deutschland GmbH, Darmstadt, Germany and its foreign subsidiaries	100	22,478	5,275
• Alfabet Saudi Arabia LLC, Riyadh, Saudi Arabia	95	–175	–335
in which Software AG (Gulf) S.P.C. also has a direct stake	5		
SAG Consulting Services GmbH, Darmstadt, Germany	100	149	272
SAG LVG mbH, Darmstadt, Germany and its foreign subsidiaries	100	959	0
• Software Dutch License Company C.V, Al's Gravenhage, Netherlands (liquidated as of March 29, 2019)	99	–4	21
FACT Unternehmensberatung GmbH, Darmstadt, Germany and its subsidiary	100	700	361
• FACT Informationssysteme und Consulting AG, Neuss, Germany	55	1,508	761
itCampus Software- und Systemhaus GmbH, Leipzig, Germany	100	55	304
SAG Cloud GmbH, Darmstadt, Germany and its subsidiaries	100	365	–8
• Software AG Cloud Americas, Inc., Wilmington (New Castle), USA	100	260	57
• Software AG CLOUD APJ PTY LTD, North Sydney, Australia	100	14	0
Cumulocity GmbH, Düsseldorf, Germany	100	3,654	–3,601

b) Foreign entities	Ownership interest %	Equity[1] Dec. 31, 2019 in € thousands	Earnings[1] 2019 in € thousands
Software A.G. Argentina S.R.L., Buenos Aires, Argentina	95	2,981	927
in which SAG Deutschland GmbH also has a direct stake	5		
Software AG Sydney PTY LTD, North Sydney, Australia	100 inactive	0	0
Software AG (Gulf) S.P.C., Manama, Bahrain and its subsidiary	100	7,210	2,404
• Software AG International FZ-LLC, Dubai, United Arab Emirates	95	2,442	526
in which SAG Deutschland GmbH also has a direct stake	5		
TrendMiner NV, Hasselt, Belgium and its subsidiaries	100	–299	831
• TrendMiner B.V., BL Breda, Netherlands	100	–889	–347
• TrendMiner GmbH, Cologne, Germany	100	223	368
• TrendMiner Inc., Houston, Texas, USA	100	–2,206	–525
IDS Scheer Sistemas de Processamento de Dados, São Paulo, Brazil	100	50	–9
Software AG Development Center Bulgaria EOOD, Sofia, Bulgaria	100	2,875	698
Software AG China Ltd., Shanghai, China	100	–5,568	–1,123
Software AG (Hong Kong) Limited, Hong Kong, China	100	–2,891	–148
Software AG Denmark A/S, Hvidovre, Denmark and its subsidiary	100	5,712	1,720
• Software AG Nordic A/S, Oslo, Norway	100 inactive	23	–5
Software AG Finland Oy, Helsinki, Finland	100	1,512	856
Software AG France S.A.S, Paris La Défense Cedex, France	100	25,004	2,889
Software AG (U.K.) Limited, Derby, U.K. and its subsidiaries	100	49,354	15,331
• Software AG Belgium S.A., Watermael-Boitsfort, Belgium	76	6,404	1,974
in which Software AG also has a direct stake	24		
• PCB Systems Limited, Derby, U.K.	100 inactive	2,125	0
• SAG SALES CENTRE IRELAND LIMITED, Dublin, Ireland	100	412	140
SGML Technologies Limited, Derby, U.K.	100 inactive	2,068	0
Software AG India Sales Private Ltd, Bangalore, Karnataka, India	100	3,373	313
Software AG (India) Private Limited, Bangalore, India	100	15	–4
PT SoftwareAG Indonesia Operations, Jakarta, Indonesia	99	1,229	1,084
in which SAG Deutschland GmbH also has a direct stake	1		
S.P.L. Software Ltd, OR-Yehuda, Israel and its subsidiary	100	79,048	8,536
• Software A.G. (Israel) Ltd, OR-Yehuda, Israel	100	22,263	2,040
Software AG Italia S.p.A, Milan, Italy	100	700	–782
SAG Software AG Luxembourg S.A., Capellen, Luxembourg	100	500	125

[1] The figures specified are based on unconsolidated IFRS figures. Equity is translated into euros at the closing rate and earnings at the average exchange rate for the year.

b) Foreign entities	Ownership interest %	Equity[1] Dec. 31, 2019 in € thousands	Earnings[1] 2019 in € thousands
Software AG Nederland B.V., Den Haag, Netherlands	100	12,665	2,657
Software GmbH Österreich, Vienna, Austria	100	6,777	857
Software AG (Philippines), Inc., Makati City, Philippines	100	673	71
Software AG Polska Sp. z o.o., Warsaw, Poland	100	5,543	2,244
Limited Liability Company Software AG (RUS), Moscow, Russia	100	1,904	830
IDS Scheer Saudi Arabia LLC, Riyadh, Saudi Arabia (liquidated as of March 7, 2019)	95	0	0
in which SAG Software Systems AG also has a direct stake	5		
Software AG Sweden AB, Kista, Sweden	100	2,917	1,071
SAG Software Systems AG, Zurich, Switzerland	100	1,329	1,127
Software AG (Singapore) Pte LTD, Singapore	100	9,629	1,013
Software AG Development Centre Slovakia s.r.o., Košice, Slovakia	100	452	108
Software AG España, S.A. Unipersonal, Tres Cantos, Madrid, Spain and its subsidiaries	100	71,654	9,934
• Software AG España Consulting SL, Tres Cantos, Madrid, Spain (founded on December 2, 2019)	100	3	0
• Software AG Brasil Informática e Serviços Ltda, São Paulo, SP, Brazil	100	17,826	300
• Software AG Factoria S.A., Santiago de Chile, Chile	100	–1	–1
• Software AG De Panamá, S.A., Corregimiento de Pueblo nuevo, Panama and its subsidiary	100	–722	–12
•• Software AG De Costa Rica, S.A., San José, Costa Rica	100	35	–10
• Software AG (Portugal) Alta Tecnologia Informática, Ltd., Lisbon, Portugal	97	1,908	302
in which Software AG also has a direct stake	3		
• Software AG De Puerto Rico, Inc., San Juan, Puerto Rico	100	944	137
• A. Zancani & Asociados, C.A., Chacao Caracas, Venezuela	100 inactive	0	0
• Software AG Venezuela, C.A., Caracas, Venezuela	100	1	0
Software AG South Africa (Pty) Ltd, Bryanston, South Africa	100	6,417	5,126
Software AG Bilgi Sistemleri Ticaret A.S., Istanbul, Turkey	100	1,082	–311
Software AG, Inc., Reston, VA, USA and subsidiaries	100	400,814	84,009
• Software AG (Canada) Inc., Kitchener, Ontario, Canada	100	16,582	6,741
• Software AG, S.A. de C.V. (Mexico), Distrito Federal, Mexico	100	2,809	1,007
• Operadora JackBe Mexico, Mexico City, Mexico	100	478	–3
• Software AG USA, Inc., Reston, VA, USA and subsidiaries	100	582,968	109,747
•• Software AG Australia (Holdings) Pty. Ltd., North Sydney, Australia and its subsidiary	100	–16,944	–2,075
••• Software AG Australia Pty. Ltd., North Sydney, Australia	100	69,024	6,832
•• Software AG Bangalore Technologies Private Ltd., Derarabisanahalli Bangalore, India	100	10,145	4,901

b) Foreign entities	Ownership interest %	Equity[1] Dec. 31, 2019 in € thousands	Earnings[1] 2019 in € thousands
• Software AG Chennai Development Center India Pvt Ltd, Chennai, India	100	2,252	441
• Terracotta Software India Pvt. Ltd., Bangalore, Karnataka, India	100 inactive	129	4
• Software AG Kochi Pvt. Ltd., Bangalore, Karnataka, India	98	278	11
in which Software AG, Inc. also has a direct stake	2		
• Software AG Ltd. Japan, Minato-ku, Tokyo, Japan	100	3,130	1,692
• Software AG Operations Malaysia Sdn Bhd., Selango, Malaysia	100	2,193	–197
• Software AG Korea, Ltd., Seoul, South Korea	100	1,801	298
• Software AG Distribution LLC, Reston, VA, USA	100	5,384	55,447
• Software AG Government Solutions, Inc., Herndon, VA, USA	100	44,926	9,658

[1] The figures specified are based on unconsolidated IFRS figures. Equity is translated into euros at the closing rate and earnings at the average exchange rate for the year.

Changes in the consolidated Group

The scope of consolidation changed as compared to December 31, 2018 as follows:

	Germany	Foreign	Total
Dec. 31, 2018	**10**	**71**	**81**
Additions	0	1	1
Disposals (including mergers)	0	5	5
Dec. 31, 2019	**10**	**67**	**77**

The disposals relate to the merger of two consolidated companies and to the liquidation of three companies. The addition relates to the founding of SAG España Consulting in Tres Cantos, Spain. The change to the scope of consolidation had no significant effect on comparability to last year.

[3] Accounting Policies

Use of estimates

In the preparation of the consolidated financial statements, estimates and assumptions are made for certain items that have an impact on the recognition and measurement of recognized assets, liabilities, income, expenses and contingent liabilities. These estimates and assumptions are based on historical data and are reviewed on an ongoing basis. Actual amounts may differ from the estimates made. The primary areas of application for estimates and assumptions are revenue recognition, share-based remuneration accounting, acquisition accounting, subsequent accounting of goodwill and other intangible assets, measurement of pension obligations, assessment of legal risks, measurement of trade receivables and income tax and deferred tax accounting.

Principles of consolidation

The separate financial statements of the entities included in the consolidated financial statements were prepared in accordance with uniform accounting policies pursuant to IFRS as of the balance sheet date for the consolidated financial statements (December 31, 2019). The initial consolidation method applied to business combinations was based on the respective date of foundation in the case of companies founded by Software AG. Acquired companies are included for the first time on the date Software AG achieves control. Changes in ownership interests that do not lead to a loss of control are excluded from income and reported within equity.

Since the transition to IFRS on January 1, 2003, goodwill previously recognized in line with the Commercial Code has been measured in accordance with IAS 36.

Revenue, expenses and income as well as receivables and payables arising between consolidated entities have been eliminated. Intercompany earnings are eliminated where they have not arisen from services to third parties. Group equity and net income attributable to minority interests are reported separately from equity and net income attributable to the shareholders of the parent company.

Mergers

All mergers are recognized according to the purchase method. For every transaction, Software AG decides whether it recognizes the non-controlling interest in the acquired company at fair value or based on the corresponding share of identifiable net assets.

Currency translation

Financial statements of foreign subsidiaries are translated in accordance with the functional currency concept using the modified closing rate as set out in IAS 21. Since the subsidiaries operate independently from an organizational, financial, and business standpoint, the respective local currency is identical with the functional currency.

Income and expenses are translated at the relevant monthly average rate, assets and liabilities are translated at the closing rate, and the respective equity of the subsidiaries is translated at historical rates into euros.

Currency translation differences arising from equity consolidation are offset against equity and reported in a separate column in the Statement of Changes in Equity.

In the schedule of changes in property, plant and equipment, the balances at the beginning and the end of the fiscal year are translated at the applicable closing rates, and other items are translated at average rates. Any differences arising from exchange rate fluctuations are reported as currency translation differences as a separate line item under cost and accumulated depreciation.

In the separate financial statements of the consolidated entities, foreign currency receivables and payables are translated at the closing rate. Exchange rate gains and losses not yet realized as of the balance sheet date are included in profit or loss for the period, except for translation differences arising from non-current, intercompany monetary items that are part of a net investment in a foreign company. These differences are recognized directly in equity under "other reserves."

Software AG recognizes Venezuela and, since 2018, Argentina as hyperinflationary economies as defined by IAS 29. This had no material impact on the consolidated financial statements.

The exchange rates used for the translation of the most important currencies changed as follows compared to the previous year:

Closing Rate

€1	Dec. 31, 2019	Dec. 31, 2018	Change as %
U.S. dollar	1.1234	1.1450	1.9%
Brazilian real	4.5157	4.4440	–1.6%
Pound sterling	0.8508	0.8945	4.9%
Australian dollar	1.5995	1.6220	1.4%
Israeli shekel	3.8845	4.2972	9.6%
South African rand	15.7773	16.4594	4.1%
Canadian dollar	1.4598	1.5605	6.5%

Average Rate

€1	Dec. 31, 2019	Dec. 31, 2018	Change as %
U.S. dollar	1.1196	1.1815	5.2%
Brazilian real	4.4135	4.3087	–2.4%
Pound sterling	0.8773	0.8847	0.8%
Australian dollar	1.6106	1.5799	–1.9%
Israeli shekel	3.9908	4.2438	6.0%
South African rand	16.1731	15.6134	–3.6%
Canadian dollar	1.4857	1.5302	2.9%

Total revenue

The following accounting policies for recognition of revenue apply:

Categories of sales revenue

Software AG sales revenues consist primarily of revenue from granting software licenses of temporary or indefinite duration, revenue from Software as a Service (SaaS) offerings, maintenance revenue and revenue from services. With respect to SaaS offerings, a customer is not entitled to terminate a hosting agreement or take the software into its own possession, either to operate in its own IT infrastructure or to engage an entity other than Software AG to provide software hosting or management services. These categories of sales revenue also reflect the impact of economic factors on type, amount, date and uncertainty of revenue and cash flows.

Identification of the contract

A contract is an agreement between two or more parties that establishes enforceable rights and obligations and determines that enforceability is a question of law. Software AG enters written agreements only. An agreement must be signed by both parties within a reporting period to be able to recognize revenue in that period. Revenue resulting from an agreement signed at a later point in time is recognized in the period in which the agreement was signed.

Revenue from an agreement which grants the customer the right to terminate with no resulting materially disadvantageous payments, is only recognized in the period that is not subject to the termination right.

With respect to business with resellers, a contract exists only if the existence of an agreement between the reseller and an end user (end-user agreement) can be verified and all other criteria for revenue recognition are met.

Identification of contractual obligations

Software AG's contracts with customers often include various products and services. The products and services described in the section, Categories of Sales Revenue, are usually to be treated as separate contractual performance obligations. The relevant portion of the contractual price is recognized separately. The determination as to whether a product or a service is treated as a separate contractual performance obligation nevertheless requires judgment to be exercised.

When customers purchase products or services, Software AG sometimes offers them options for buying additional products or services. Software AG exercises its own judgment when determining whether such options give the customer a substantive right that it wouldn't have without signing this agreement. In making this determination, the Company considers whether the options entitle the customer to a discount that is greater than the discount provided with the relevant products or services sold with the option.

Determination of transaction price

Software AG also exercises judgment when determining the consideration expected to be received in exchange for the transfer of products or services to a customer. This includes estimations as to whether and to what extent the customer is entitled to subsequent concessions or payments and whether the customer will pay the contractually agreed consideration as expected. In this exercise of judgment, primarily previous experiences with a specific or a comparable customer are considered. These estimates are reviewed at every balance sheet date. Software AG's contracts generally do not contain variable considerations. There may, however, be individual cases when retrospective adjustments are made to the transaction price, which must be recognized as revenue corrections on the date they were made.

Some agreements include significant financing elements. Software AG recognizes financing elements when the period of time between the transfer of purchased products or services to the customer and payment of these products or services by the customer is at least one year.

Division of transaction price

The transaction price is generally divided between the individual contractual performance obligations based on the individual sales prices. Software licenses of indefinite duration are often sold in combination with maintenance and service contracts. In this case, when an agreement involves multiple elements, revenue recognition is based on the individually identifiable performance obligations of the transaction. Because it is impossible to calculate reliable individual sale prices for software licenses, revenue is divided between the different revenue types using the residual method. Under the residual method, all determinable individual sale prices are deducted from the total transaction value, and the residual amount is distributed among the software licenses using list prices.

Temporary software licenses are often sold in combination with maintenance services. The two performance obligations are usually inextricably linked (subscriptions). The Company exercises its own judgment in dividing up the transaction price. The transaction price for software licenses of indefinite duration is used as the basis for dividing the transaction price. The average term of these subscription agreements is estimated and is currently three years.

Recognition of sales revenue

Software AG accounts for revenue from SaaS based on time elapsed during the period in which the relevant services are rendered.

Software license revenues are recognized as of the date on which the customer is granted access to the software and the license period begins when access is granted. Software AG recognizes revenues for these on-premise licenses as of the date on which the customer receives access to and thus control over the software. When deciding whether software offerings grant customers the right to use Software AG's intellectual property and not the right to access its intellectual property, the usefulness of its software for customers—without subsequent updates—is considered.

Maintenance revenues are recognized proportionately over the term of the maintenance contract period.

Revenue resulting from services invoiced on the basis of hours performed is recognized according to services rendered by a Software AG entity. Revenues and expenses from fixed-price service contracts are recognized in accordance with the percentage-of-completion (POC) method if Software AG's service generates an asset that does not provide Software AG with any alternative options for use and Software AG is legally entitled to payment for services already rendered. Should Software AG's service from a fixed-price contract generate or improve an asset and should the customer have control over the asset, the PoC method is also used for revenue recognition. The stage of completion of a contract is calculated on the basis of the proportion of contract costs incurred for work performed as of the balance sheet date to the estimated total contract costs. Some of the costs for making this calculation are estimated using the number of consulting hours/consulting days charged.

Software AG's contracts generally do not contain withdrawal, reimbursement or other similar obligations.

Incremental costs when acquiring new orders

The assets that Software AG capitalizes as costs associated with acquiring a new customer order consist primarily of sales employee commissions. The assets are amortized over the expected contract term using the straight-line method. Amortization periods range from 2.5 to 4.5 years. The amortization of capitalized costs for the acquisition of new orders is included in sales and marketing expenses.

Software AG recognizes incremental costs for acquiring new orders as expenses as of the date on which they are incurred when the amortization period is not assumed to be longer than one year.

Cost of sales

Cost of sales includes all production-related full costs based on normal capacity utilization. In particular, the cost of sales includes the individual unit costs that can be directly allocated to orders as well as fixed and variable overheads.

Research and development expenses

Research and development expenses are recognized in the income statement when incurred.

New products are not technologically realizable until shortly prior to being ready for market launch. In the run-up to technological realizability, research and development processes are closely linked. Any research and development expenses incurred after technological realizability has been achieved are immaterial.

Sales, marketing and distribution expenses

Sales, marketing and distribution expenses include costs for personnel, materials, write-downs allocated to the sales cost center and marketing and advertising costs.

General and administrative expenses

General and administrative expenses include costs for personnel, materials and write-downs allocated to the administration cost center.

Government grants

Government grants are not recognized until there is reasonable assurance that the conditions attached to them will be complied with and that the grant will be received by Software AG. This is normally the case upon receipt of payment. Government grants are reported under other income.

If loans from the government are granted at an interest rate below the market rate, the interest-rate advantage is valued as the difference between the original carrying amount of loan, calculated in accordance with IRFS 9, and the payments received. The interest-rate advantage is reported under other income, as soon as all conditions for receiving government grants have been met.

Borrowing costs

Borrowing costs that are directly attributable to the acquisition, construction, or production of a qualifying asset are capitalized as part of the cost of the asset. Other borrowing costs are recognized as an expense for the period in which they were incurred. No borrowing costs were capitalized in fiscal 2019 or 2018.

Share-based payment

In accordance with IFRS 2, share-based payment transactions are generally divided into cash-settled and equity-settled transactions. Both types of payment transactions are measured at their fair value as of the grant date. The value is then recognized over the vesting period as remuneration expenses. Rights granted under cash-settled share-based payment transactions are remeasured at fair value on each reporting date until settlement. There are currently no rights with the option of equity settlement.

If Software AG has a choice of settling either in cash or by providing equity instruments (shares), the right granted is accounted for as an equity-settled transaction, unless there is a present obligation to settle in cash.

Non-derivative financial assets

Software AG recognizes non-derivative financial assets as of the date it acquires the contractual right to receive cash or other financial assets from another entity. Standard purchases and sales are measured at fair value as of the value date.

Subsequent measurement is carried out based on the following categories of financial assets:

a) amortized cost (AC)

b) fair value through profit or loss (FVPL)

c) fair value through other comprehensive income (FVOCI)

Software AG classified its balance of equity securities at fair value through other comprehensive income. Software AG generally uses the option that allows it to classify each new equity security individually as fair value through comprehensive income or fair value through profit or loss.

Trade receivables

Trade receivables are classified based on the business model (hold-to-collect versus hold-to-sell). Receivables which are not intended for sale and/or sale is not an option are measured at amortized cost. Receivables categorized as hold to collect and sell are recognized at fair value through other comprehensive income provided deviations from recognition at amortized cost are material. If the deviations are immaterial, receivables categorized as hold to collect and sell are also allocated to financial assets measured at amortized cost.

Software AG applies a simplified impairment model based on an impairment matrix. This impairment matrix is based primarily on historical data on credit losses and current data on receivables overdue.

Furthermore, outstanding receivables are monitored on an ongoing basis at local and central levels to determine if the relevant receivables show any objective indications of jeopardized creditworthiness. If, using this approach, Software AG arrives at the assumption that realization of a receivable is improbable, the receivables above the values in the impairment matrix are written down in part or in whole.

Derivative financial instruments

If the derivative financial instruments are financial assets or financial liabilities in accordance with IAS 32, they are recognized at fair value. Instruments for which hedge accounting is not applied are classified as fair value through profit or loss. Changes in the fair value of the instruments are recognized directly in profit or loss.

If the criteria for hedge accounting in accordance with IFRS 9 are met, the derivative financial instrument is designated as a hedging instrument and accounted for pursuant to the hedge accounting provisions of IFRS 9.

Accordingly, in the case of cash flow hedges, the effective portion of changes in the fair value of derivatives is recognized directly in equity. The ineffective portion is recognized directly in profit or loss. Cumulative amounts previously recognized in equity are reclassified to the income statement for the fiscal years in which the hedged item affects profit or loss.

The Company did not recognize any fair value hedges.

Derecognition of financial assets

A financial asset (including trade receivables) is derecognized if any of the following criteria is met:

- The contractual rights to receive cash flows from the financial asset have expired.

- Software AG has transferred its contractual rights to receive cash flows from the financial asset to a third party or has assumed a contractual obligation to pay the cash flows immediately to a third party in connection with a "pass-through arrangement." Here, essentially all opportunities and risks related to ownership of the financial asset or the power of control over the asset must be transferred.

If Software AG transfers its contractual rights to receive cash flows from the asset or enters a pass-through arrangement, Software AG evaluates if and to what extent it retains the opportunities and risks related to ownership. As part of the transfer or sale of trade receivables, the assessment of the related opportunities and risks primarily focuses on the credit risk associated with the receivables. If Software AG does not transfer or retain essentially all opportunities and risks associated with ownership of this asset, and does not transfer the power of control over the asset, Software AG continues to recognize the transferred asset according to the scope of its continuing involvement. In this case, Software AG also recognizes an associated liability. The transferred asset and the associated liability are recognized in such a way that accounts for the rights and obligations retained by Software AG.

Non-derivative financial liabilities

In accordance with IFRS 9, Software AG classifies non-derivative financial liabilities at amortized cost or at fair value through profit or loss.

Subsequent measurement of financial liabilities classified for measurement at amortized cost is carried out using the effective interest rate.

Financial liabilities are derecognized when the contractual obligation has been settled, canceled or has expired.

Cash and cash equivalents

Cash and cash equivalents include cash on hand, bank balances and term deposits with maturities of up to three months as well as short-term, highly liquid securities classified as current assets that are readily convertible to known amounts of cash and are only subject to negligible risk of changes in value.

Intangible assets

Intangible assets for which a useful life can be established are measured at cost less any accumulated amortization and impairment losses. The amortization period and method of amortization for key intangible assets are as follows:

	Amortization period in years	Amortization method
Acquired software	5–12.5	straight line
Acquired customer base	5–17	straight line
Acquired order portfolio	—	in accordance with order completion

Intangible assets with an indefinite useful life are measured at cost less any accumulated impairment losses. Intangible assets with an indefinite useful life are tested for impairment at least once per year. Or, as soon as there is any indication that goodwill might be impaired, an impairment test is carried out.

Goodwill

Goodwill resulting from mergers is recognized at cost. Goodwill is not amortized. Instead, it is tested for impairment at least once per year (as of December 31) and written down to its recoverable amount in case of impairment. Or, as soon as there is any indication that goodwill might be impaired, an impairment test is carried out. Any impairment losses are reported directly in the income statement and cannot be recovered in the following period.

Property, plant and equipment

Property, plant and equipment are carried at cost less any accumulated depreciation. When items of property, plant and equipment are sold or scrapped, the corresponding cost and any accumulated depreciation are derecognized, and any gains or losses from disposal are recognized in the consolidated income statement.

The cost of items of property, plant and equipment consists of the purchase price, including any import duties and non-refundable purchase taxes and any directly attributable costs required to prepare the asset for operation in its intended use. Any subsequent expenditure, such as service or maintenance charges arising once the asset has been put into operation, is recognized as an expense in the period in which it is incurred. Subsequent expenditures relating to an item of property, plant and equipment are only capitalized if the expenditure improves the condition of the asset beyond its originally assessed standard of performance.

Items of property, plant and equipment are generally depreciated using the straight-line method in accordance with their useful economic lives.

	Years
Buildings	25–50
Improvements to buildings/leasehold	5–15
Operating and office equipment	3–13
Computer hardware and accessories	1–7

Right-of-use assets are written down either over the term of useful economic life or the term of the lease—whichever is shorter. The terms of useful economic life and methods of depreciation are reviewed on a regular basis to ensure that they are in accordance with the expected pattern of economic benefits of the asset in question.

Assets under construction are recognized at cost. Depreciation on these items begins only after they have been put into operation.

Impairment of intangible assets and property, plant and equipment

As soon as there is any indication that an intangible asset with an indefinite useful life or an item of property, plant and equipment might be impaired, an impairment test is carried out and, if an impairment loss is ascertained, the carrying amount of the asset is written down to its lower recoverable amount. The recoverable amount is the higher of the asset's fair value less costs to sell and its value in use. The value in use is the present value of estimated future cash flows expected to arise from the continued use of the asset and from its disposal at the end of its useful life. Impairment losses are reversed provided the reasons for a previously scheduled impairment no longer exist.

Impairment losses are reported under costs of the relevant functional area or under other expenses.

Leases

Leases are agreements whereby the lessor transfers the right to use an identified asset to the lessee for a defined period of time and in exchange for payment of a fee.

As of January 1, 2019, Software AG as lessee began recognizing right-of-use assets for leased objects and liabilities for the assumed payment obligations in the amount of the present value of future lease payments.

As of the beginning of use, Software AG recognizes in its balance sheet all leases as right-of-use assets and lease liabilities in the amount of the present value of the future lease payments.

Lease payments are all fixed payments less future incentive payments by the lessor.

The following additional types of payments are recognized:

- variable payments that are coupled to a rate or index
- expected payments from residual value guarantees
- payments to exercise secure buy or terminate options
- contractual penalty payments for termination of a lease if the assumed lease term provides for the exercise of a termination option

The series of payments is discounted at an incremental borrowing rate appropriate to the lease, since the implicit interest rate of the lease is not usually known. All other variable payments are recognized as expenses.

When determining lease length, consideration is given to any facts and circumstances that offer an economic incentive to exercising existing options. The assumed term thus includes periods covered by extension options if sufficient certainty exists that the option will be exercised. A change to the term is considered if the sufficient certainty about exercise or non-exercise of an existing option changes.

Deferred taxes

Deferred tax assets and liabilities are recognized for temporary differences between the carrying amounts in the tax accounts (tax base) and the carrying amounts in the Consolidated Balance Sheet. Deferred tax assets also include claims for tax reductions resulting from the anticipated use of tax loss carryforwards in subsequent years, the realization of which is deemed probable.

Deferred taxes are calculated on the basis of tax rates anticipated to apply in the relevant countries in accordance with the legal situation prevailing at the time of realization (reversal of tax deferrals).

Deferred tax assets and liabilities are not discounted. The carrying amounts of the recognized assets and liabilities are regularly examined and adjusted if necessary.

Other provisions

Other provisions are reported when the Company has a current legal or constructive obligation towards a third party due to a past event that is likely to result in a future outflow of resources and for which the amount of the obligation can be reliably estimated. Estimates are regularly reviewed and adjusted.

If the effect of discounting is significant, the provision is recognized in the amount of the present value of the expected future cash flows.

Provisions for pensions and similar obligations

The present value of pension obligations for defined benefit plans and the associated expenses are determined using actuarial principles in accordance with the projected unit credit method set out in IAS 19 (revised in 2011, IAS 19R). This approach takes into account anticipated future increases in pensions and salaries in addition to the pensions known as of the balance sheet date.

Pension provisions are reported at the full present value of the defined obligation, less the fair value of the reinsurance cover taken out for life insurance policies—provided they are pledged and thus protected from access by other creditors—or less the fair value of the plan assets accumulated to cover pension entitlements. The result of the recalculated net obligation is recognized as other comprehensive income in the Statement of Comprehensive Income. It is comprised of actuarial gains and losses, the return on plan assets and changes in the effects of the asset cap less amounts previously recognized as net interest.

Payments for defined contribution pension plans are recognized as expenses in profit or loss for the period provided the employee has met the stated performance target.

Contractual obligations/deferred income

Deferred income consists of advance payments received from customers for maintenance and Software as a Service (SaaS) to be rendered in future periods. The deferred item is reversed and recognized in profit or loss in the period in which the service is rendered.

Treasury shares

The amount paid for treasury shares, including directly attributable costs, is deducted from shareholders' equity. Treasury shares are reported as a separate item in the equity statement.

New accounting rules to be applied starting in the fiscal year

Software AG introduced IFRS 16 (Leases) using the modified retrospective approach as of January 1, 2019. Software AG therefore recognizes the accumulated effect of first-time application of the standard as an adjustment to the opening balance of retained earnings as of the date of first-time application. Last year's figures were not adjusted.

There were effects from application of the new standard on the accounting of rental contracts and leases where Software AG is lessee, as IFRS 16 requires that basically all leases be recognized in the lessee's balance sheet. A lessee recognizes an asset that represents its right to use the underlying asset and a lease liability that reflects its obligation to make payments on the lease. The type of expense associated with these rental agreements and leases also changed accordingly. Depreciation expenses are recognized for the right-of-use asset and interest expenses are recognized for the lease liability. These changes apply to rental agreements and leases that were previously classified as operating leases in accordance with IAS 17. Software AG exercised the exception option provided by the standard to not capitalize short-term leases and leases associated with low-value assets.

The following adjustments to opening balances resulted from first-time application of IFRS 16 as of January 1, 2019:

- Property, plant and equipment: increase of €36,460 thousand
- Deferred tax receivables: increase of €8,165 thousand
- Trade and other payables: decrease of €2,474 thousand
- Financial liabilities: increase of €41,062 thousand
- Deferred tax liabilities: increase of €7,918 thousand

The net effect on retained earnings as of January 1, 2019 was a decrease of €1,881 thousand. Reconciliation of lease liabilities in accordance with IFRS 16 as of January 1, 2019 is as follows:

in € thousands	
Other financial commitments from rental agreements and leases in accordance with IAS 17 as of December 31, 2018	**46,160[1]**
Practical expedients for short-term leases/practical expedients for leases for low-value assets	–1,500
Commitments from operating leases (undiscounted)	44,660
Discounting effect	–3,598
Carrying amount of lease liabilities in accordance with IFRS 16 as of Jan. 1, 2019	**41.062**

[1] The amount presented in the 2018 Annual Report for contractually agreed minimum payments in the amount of €59,175 thousand was adjusted because it included payments for non-lease components.

The average incremental borrowing rate was 4.75 percent.

Furthermore, Software AG also applied IFRIC 23 and the amendments to IAS 19, IAS 28 and IFRS 9. They had either no impact or no material impact on Software AG's consolidated financial statements.

Published but not yet applicable accounting rules

The IASB has published various standards, interpretations and amendments to standards that are not yet required to be applied and with regard to which Software AG has not opted for early application to the consolidated financial statements for the year ended December 31, 2019. However, Software AG does not expect these future changes to have a significant impact on its consolidated financial statements.

[4] Discontinued Operations / Disposal Group

Groups of assets and liabilities held to sell

Software AG and Babel Tenedora de Participaciones, S.L announced on January 14, 2020 the signing of a merger agreement of Software AG's Software AG España service operations under Babel's direction. Because the sale of Software AG España's service operations was already assumed to be highly probable in December 2019, the assets and liabilities to be sold were reclassified to a disposal group as of December 31, 2019. The corresponding assets and liabilities were measured as of December 31, 2019 in accordance with IFRS 5, not at their carrying amount but at fair value less costs to sell.

The following table shows the disposal group's values as of December 31, 2019:

in € thousands	**Carrying amount prior to remeasurement**
Trade receivables, contract assets and other receivables	9,362
Other financial assets	64
Other non-financial assets	30
Property, plant and equipment	376
Deferred tax receivables	128
Disposal group assets	**9,960**
Financial liabilities	101
Trade and other payables	2,178
Other non-financial liabilities	2,807
Other provisions	6
Disposal group liabilities	**5,092**
Total disposal group assets less liabilities	**4,868**
Result from measurement at fair value less costs to sell	–5,165
Disposal group's fair value less costs to sell	**–297**

The transfer of Software AG España's service operations to Babel is anticipated to occur in summer 2020. Expenses arising from the measurement of the disposal group in the amount of €5,165 thousand were reported under other expenses (see Note [10]). p. 175

Notes to the Consolidated Income Statement

[5] Total Revenue

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Revenue by segment and region is presented in the segment report in Note [31]. All revenue presented resulted solely from customer contracts. Revenue in fiscal 2019 included €131,962 thousand (2018: €123,935 thousand) in revenue that was recognized in the balance of contractual obligations, reported as deferred income, at the beginning of the period. The transaction price allocated to the remaining obligations as of December 31, 2019 was €559,303 thousand (2018: €585,170 thousand).

Software AG anticipates recognition of the corresponding revenue over the following periods of time:

in € thousands	2020	2021	2022–2025
Anticipated revenue to be recognized	332,367	92,860	134,076

[6] Cost of Sales

The cost of sales in fiscal years 2019 and 2018 was as follows:

in € thousands	2019	2018
Personnel expenses	156,637	153,805
Other costs of sales	38,235	33,288
Amortization of intangible assets	8,223	7,872
	203,095	**194,965**

[7] Sales, Marketing and Distribution Expenses

Sales, marketing and distribution expenses in fiscal years 2019 and 2018 were as follows:

in € thousands	2019	2018
Personnel expenses	207,025	193,116
Other sales and distribution expenses	23,818	21,247
Other marketing expenses	20,492	17,081
Amortization of intangible assets	13,677	13,277
	265,012	**244,721**

[8] General and Administrative Expenses

General and administrative expenses in fiscal years 2019 and 2018 were as follows:

in € thousands	2019	2018
Personnel expenses	72,851	71,335
Other general and administrative expenses	1,916	2,617
	74,767	**73,952**

[9] Other Income

Other income includes the following items:

in € thousands	2019	2018
Foreign exchange gains	9,980	12,271
Earnings from retrospective adjustment of the purchase price allocation of TrendMiner N.V.	2,609	0
Government grants in the form of low-interest-rate loans	1,639	3,843
Income from the reversal of provisions and deferred liabilities	0	49
Miscellaneous other income	872	0
	15,100	**16,163**

[10] Other Expenses

Other expenses consist of the following items:

in € thousands	2019	2018
Foreign exchange losses	8,449	11,337
Expenses due to impairments losses on the disposal group	5,165	0
Expenses relating to legal disputes	2,900	0
Miscellaneous other expense	207	883
	16,721	12,220

[11] Net Financial Income/Expense

Financial income includes interest on financial assets in the amount of €11,484 thousand (2018: €9,704 thousand). Financial expense includes interest expenses for financial liabilities in the amount of €3,219 thousand (2018: €3,710 thousand).

[12] Income Taxes

Software AG's income taxes can be broken down by origin as follows:

in € thousands	2019	2018
Current domestic taxes	–12,699	–13,677
Current foreign taxes	–46,547	–44,640
	–59,246	–58,317
Deferred domestic taxes	–2,517	–3,124
Deferred foreign taxes	1,961	–2,234
	–556	–5,358
	–59,802	–63,675

In Germany, a uniform corporate income tax of 15 percent applies. Based on the average municipal trade tax collection rate and a solidarity surcharge of 5.5 percent on corporate tax, the income tax rate for German entities will be 31.83 percent (2018: 31.83 percent) in 2019. Tax rates abroad range between 10 and 37.5 percent (2018: between 10 and 39 percent).

The income tax expense of €59,802 thousand for fiscal year 2019 (2018: €63,675 thousand) is €8,670 thousand lower than the expected income tax expense of €68,472 thousand (2018: €72,850 thousand) that resulted from applying the domestic tax rate of 31.83 percent currently applicable (2018: 31.83 percent) at Group level. The Group's effective income tax rate is 27.80 percent (2018: 27.82 percent).

The difference between the expected and current tax expense can be attributed to the following:

in € thousands	2019	2018
Earnings before income taxes	215,119	228,870
Expected income tax (31.83%; 2018: 31.83%)	–68,473	–72,850
Difference vs. foreign tax rates and changes in tax rates	13,652	12,340
Aperiodic income tax effects	2,854	5,851
Tax increases (–) due to tax-exempt income or non-tax deductible expenses	–7,838	–4,232
Adjustment of tax loss carryforwards and changes in valuation adjustments to deferred tax assets	110	–85
Non-deductible foreign and withholding taxes	–104	–4,638
Other adjustments	–3	–61
Reported income tax expense	–59,802	–63,675

Aperiodic income tax effects amounted to €2,854 thousand and included aperiodic deferred income tax effects totaling €1,845 thousand.

Expense from deferred taxes totaled €556 thousand and consisted of €989 thousand (2018: -€323 thousand in expenses) in tax income relating to temporary differences that arose.

The changed income tax rates led to a total positive effect of €653 thousand (2018: negative effect of –€760 thousand) in fiscal 2019, primarily in the USA.

The expense from deferred taxes fell by €738 thousand (2018: €715 thousand) and the current tax expense by €446 thousand (2018: €88 thousand) as a result of the reversal of loss carryforwards in 2019.

[13] Other Taxes

Other taxes decreased by €238 thousand to €6,805 thousand (2018: €7,044 thousand) and included royalty-related indirect taxes in Brazil, property taxes, vehicle taxes, withholding taxes in Austria and other indirect taxes.

[14] Personnel Expenses

Personnel expenses in fiscal years 2019 and 2018 were as follows:

in € thousands	2019	2018
Wages and salaries	417,885	413,815
Social benefits	61,431	57,653
Pension expenses	10,936	10,204
	490,252	**481,672**

In fiscal 2019, the average number of employees (part-time employees are taken into account on a pro-rata basis only) by area of activity was as follows:

	2019	2018
Maintenance and Services	1,869	1,913
R&D	1,374	1,245
Sales and Marketing	951	916
Administration	633	612
	4,827	**4,686**

In absolute terms (part-time employees are counted in full), the Group employed 5,119 (2018: 4,938) people as of December 31, 2019.

[15] Earnings per Share

Earnings per share are calculated by dividing net income for the period attributable to Software AG's shareholders by the weighted average number of shares issued during the period under review. Software AG has only issued common shares. In fiscal year 2019, the average weighted number of shares was 73,979,889 (2018: 73,978,520).

A total of 5,750 (2018: 6,650) stock options were exercised in 2019. In order to service stock options, 0 (2018: 3,650) treasury shares were used. Accordingly, the number of shares outstanding did not increase (2018: 3,650). No treasury shares were repurchased (2018: 0) and no treasury shares were redeemed (2018: 2,400,000) in fiscal 2019. The number of treasury shares therefore did not change year-on-year and remained at 20,111 (2018: 20,111). The treasury shares are not expected see a dilution effect, since they can be sold at market prices.

No further stock options (2018: 5,750) from Management Incentive Plan III (MIP III) may be exercised.

in € thousands	Dec. 31, 2019	Dec. 31, 2018
Net income	155,317	165,195
Less earnings attributable to non-controlling interests	–343	–320
Net income attributable to shareholders of Software AG	154,974	164,875
Weighted average number of shares outstanding	73,979,889	73,978,520
Effect of dilutive share-based payment	0	2,364
Weighted average number of shares outstanding (diluted)	73,979,889	73,980,884
Earnings per share in € (basic)	2.09	2.23
Earnings per share in € (diluted)	2.09	2.23

Notes to the Consolidated Balance Sheet

[16] Other Financial Assets

Other financial assets as of December 31 were as follows:

	Dec. 31, 2019			Dec. 31, 2018		
in € thousands	**Current**	**Non-current**	**Total**	**Current**	**Non-current**	**Total**
Equity securities	0	3,377	3,377	0	3,873	3,873
Investment funds	2,275	1,534	3,809	2,125	994	3,119
Loans and other financial receivables	2,009	9,175	11,184	2,015	9,737	11,752
Derivatives	1,436	2,992	4,428	11,162	4,959	16,121
Total	**5,720**	**17,078**	**22,798**	**15,302**	**19,563**	**34,865**

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For more information on the valuation of financial assets, please refer to Note [32].

[17] Trade Receivables, Contract Assets and Other Receivables

Trade receivables, contract assets and other receivables as of December 31 were as follows:

	Dec. 31, 2019			Dec. 31, 2018		
in € thousands	**Current**	**Non-current**	**Total**	**Current**	**Non-current**	**Total**
Trade receivables	135,155	12,156	147,311	159,009	6,006	165,015
Not yet settled or invoiced services (contract assets)	70,882	83,614	154,496	47,757	61,967	109,724
Other receivables	559	774	1,333	728	702	1,430
Total	**206,596**	**96,544**	**303,140**	**207,494**	**68,675**	**276,169**
of which pertaining to the hold-to-collect business model			238,569			217,855
of which pertaining to the hold-to-collect-and-sell business model			64,571			58,314

Contract assets represent payments due from customers for underlying services that have been rendered by Software AG but, due to contractual provisions, will be invoiced later. They are reclassified to trade receivables when the invoice is issued. The increase in contract assets resulted primarily from the higher percentage of subscriptions, mainly at the end of fiscal 2019. Subscriptions usually have payment due dates distributed over the contractually agreed term.

Gross receivables and impairments for expected credit losses were as follows:

in € thousands	Dec. 31, 2019	Dec. 31, 2018
Trade receivables, contract assets before impairments	303,070	277,070
Impairments for expected credit losses	1,263	2,331
Carrying amount	**301,807**	**274,739**

Total amortization of trade receivables and contract assets was less than €500 thousand in fiscal 2019.

The following trade receivables were not yet due or past due as of the reporting date:

in € thousands	Dec. 31, 2019	Dec. 31, 2018
Carrying amount	147,311	165,015
of which neither impaired nor past due as of the balance sheet date	109,270	131,487
of which past due in the following time periods as of the balance sheet date		
1 to 3 months	30,903	25,817
4 to 6 months	5,630	3,049
7 to 12 months	1,005	2,868
> 12 months	503	1,794

[18] Other Non-Financial Assets

Other non-financial assets can be broken down as follows:

in € thousands	Dec. 31, 2019	Dec. 31, 2018
Prepaid expenses	19,351	13,731
Capitalized costs from acquisition of new customer orders (sales commission)	5,740	5,312
Receivables from finance authorities	1,674	2,489
Other	2,558	1,501
	29,323	**23,033**

[19] Income Tax Receivables

Tax receivables in the amount of €29,778 thousand (2018: €29,096 thousand) consist primarily of receivables due to excessive advance payments made in relation to income taxes.

[20] Intangible Assets and Goodwill

Changes in intangible assets and goodwill as of December 31, 2019

in € thousands	Goodwill	Intangible assets	Total
Cost			
Balance as of Jan. 1, 2019	**966,277**	**522,229**	**1,488,506**
Currency translation differences	15,711	9,075	24,786
Additions	0	1,027	1,027
Disposals	0	–438	–438
Balance as of Dec. 31, 2019	**981,988**	**531,893**	**1,513,881**
Accumulated impairment/amortization			
Balance as of Jan. 1, 2019	**–1,900**	**–385,257**	**–387,157**
Currency translation differences	0	–7,192	–7,192
Additions	0	–23,242	–23,242
Disposals	0	399	399
Balance as of Dec. 31, 2019	**–1,900**	**–415,292**	**–417,192**
Residual carrying amount as of Jan. 1, 2019	964,377	136,972	1,101,349
Residual carrying amount as of Dec. 31, 2019	980,088	116,601	1,096,689

Changes in intangible assets and goodwill as of December 31, 2018

in € thousands	Goodwill	Intangible assets	Total
Cost			
Balance as of Jan. 1, 2018	**923,315**	**485,440**	**1,408,755**
Currency translation differences	12,668	11,561	24,229
Additions from acquisitions	30,294	23,407	53,701
Additions	0	1,983	1,983
Disposals	0	–162	–162
Balance as of Dec. 31, 2018	**966,277**	**522,229**	**1,488,506**
Accumulated impairment/amortization			
Balance as of Jan. 1, 2018	**–1,900**	**–353,776**	**–355,676**
Currency translation differences	0	–9,201	–9,201
Additions	0	–22,442	–22,442
Disposals	0	162	162
Balance as of Dec. 31, 2018	**–1,900**	**–385,257**	**–387,157**
Residual carrying amount as of Jan. 1, 2018	921,415	131,664	1,053,079
Residual carrying amount as of Dec. 31, 2018	964,377	136,972	1,101,349

Intangible assets mainly include software, customer bases and brand names obtained in connection with acquisitions.

The following intangible assets with limited useful lives were of particular significance for the consolidated financial statements:

in € thousands	Carrying amount as of Dec. 31, 2019	Carrying amount as of Dec. 31, 2018	Remaining amortization period in years
Software obtained through Cumulocity acquisition	7,418	9,396	3.8
Software obtained through TrendMiner acquisition	7,515	9,043	5.0
Software obtained through Zementis acquisition	7,545	8,188	9.5
Software obtained through Built.io acquisition	6,641	7,886	4.8

In addition, the following important intangible assets with indefinite useful lives existed as of December 31, 2019:

in € thousands	Carrying amount as of Dec. 31, 2019	Carrying amount as of Dec. 31, 2018	Reason for assuming indefinite useful life
Brand names (ARIS & others) obtained through IDS Scheer AG acquisition	22,300	22,300	Use and future expansion of the brand name is planned for an indefinite period of time.
Brand name (webMethods) obtained through webMethods acquisition	22,253	21,836	Use and future expansion of the brand name is planned for an indefinite period of time.

Brand names are not subject to amortization. Any changes in the carrying amounts result from currency translation effects.

The carrying amounts of goodwill were allocated to the segments as follows:

Segment

in € thousands	Dec. 31, 2019	Dec. 31, 2018
Adabas & Natural (A&N)	329,918	322,908
Digital Business Platform (DBP)	626,137	617,869
Professional Services	24,033	23,600
Goodwill	**980,088**	**964,377**
of which from acquisition of SAG Inc. USA 2001	174,591	174,591
of which from acquisition of webMethods Inc. USA 2007	242,936	238,062
of which from acquisition of IDS Scheer AG 2009	240,759	240,759

The carrying amounts of intangible assets with indefinite useful lives were allocated to the segments as follows:

Segment

in € thousands	Dec. 31, 2019	Dec. 31, 2018
Adabas & Natural (A&N)	0	0
Digital Business Platform (DBP)	43,445	41,535
Professional Services	5,476	5,439
Intangible assets with indefinite useful lives	**48,921**	**46,974**

The segments represent the smallest cash-generating units in the Group. They represent the smallest identifiable group of cash inflow-generating assets which are largely independent of inflows from other assets.

Goodwill as well as intangible assets with an indefinite useful life are tested for impairment at least once per year by comparing the carrying amount of the cash-generating unit to which the goodwill or the intangible asset is allocated with the recoverable amount. Testing for impairment involves regularly checking the recoverable amount with regard to fair value less costs to sell.

Fair value less costs to sell is calculated using discounted cash flows based on strategic budgets calculated and approved by management, which are for a period of four (2018: five) years. Budget planning for 2020 was largely carried out as in previous years. Due to the Helix strategy project's (refer to the Management Report) focus on growth, bookings were prioritized for planning (refer to the Management Report) and not revenue, as in the past. Future revenue was calculated indirectly based on bookings, rather than directly as in past years. Segment planning includes the derived revenue, as described above, for each segment as well as the directly attributable costs for each segment. The non-directly attributable costs are coded to the segments. Revenue in the DBP segment is budgeted separately for Digital Business Platform (excl. Cloud & IoT) and for Cloud & IoT. The somewhat separately derived revenue streams in the DBP segment does not mean that there is also a high degree of independence with regard to liquidity inflows as defined by IAS 36 due to the tightly enmeshed sales methods. Planning for the years 2021 to 2023 reflects the Company's realignment developed as part of the Helix strategy project. This medium-term plan prioritizes consideration of overall development given the transition from perpetual licenses to temporary licenses—primarily transfer of use in nature (rental licenses and subscriptions).

Planning is based on past experience, insights derived from current operating results, and management estimates of future developments. Revenue trends at country level, for instance, is one element of management estimates of future developments that is particularly prone to uncertainty. This approach is rated as level 3 of the valuation hierarchy in accordance with IFRS 13.

The forecasts take into account historical values and estimates of future developments. Costs to sell are assumed to amount to 2 percent (2018: 2 percent) of the relevant fair value.

The expected cash flows for the A&N segment were calculated as described above and discounted using a post-tax weighted average cost of capital (WACC) of 6.5 percent (2018: 7.5 percent). The sustainable growth rate was assumed to be 0 percent (2018: 0 percent). An approximately unchanged revenue level is assumed for the period of detailed planning. A discount of 20 percent (2018: 20 percent) on the last year of detailed planning was used to determine sustainable cash flows. Even using a discount of 90 percent on the last year of detailed planning, the fair value less costs to sell would exceed the carrying amount.

A sustainable growth rate of 1 percent (2018: 1 percent) and a WACC after tax of 6.0 percent (2018: 6.1 percent) were used in calculations for the Digital Business Platform (DBP) segment. An average annual revenue growth rate of approximately 15 percent (2018: 11 percent) was assumed in the period of detailed planning. In addition, following a significant reduction to the EBITA margin in its guidance for 2020 as compared to fiscal 2019, Software AG expects the EBITA margin to double by 2023 and to reach a level slightly above that of fiscal 2019. However, even if revenue growth were 50 percent less than forecast and margin growth (EBITA margin) were 50 percent less than forecast for the period of detailed planning, fair value less costs to sell would be higher than the carrying amount.

Software AG assumed a WACC after tax of 6.4 percent (2018: 6.4 percent) and a sustainable growth rate of 1 percent (2018: 1 percent) for perpetual annuity for the Professional Services segment. An average annual revenue growth rate of approximately 2 percent was assumed in the period of detailed planning. Based on that, fair value less costs to sell was slightly higher than the corresponding carrying amount. Because guidance for year 2020 in the Professional Services segment foresees a decrease in EBITA margin of more than 50 percent as compared to 2019, the planned margin increase in the following years (2021 – 2023), to a value below the achieved margin in 2019, reflects a critical assumption for impairment tests. Given a 25 percent reduction in margin (EBITA margin) growth for the period of detailed planning as compared to 2020 guidance, fair value less costs to sell would equal the carrying amount.

[21] Property, Plant and Equipment

Changes in property, plant and equipment as of December 31, 2019

in € thousands	Land and buildings	Operating and office equipment	Total
Cost			
Balance as of Jan. 1, 2019	**89,627**	**35,188**	**124,815**
Right-of-use assets from first-time application of IFRS 16	55,225	9,866	65,091
Adjusted balance as of Jan. 1, 2019	**144,852**	**45,054**	**189,906**
Currency translation differences	1,047	771	1,818
Reclassification of disposal group	–1	–375	–376
Additions	9,948	13,745	23,693
Disposals	–7,949	–9,175	–17,124
Balance as of Dec. 31, 2019	**147,897**	**50,020**	**197,917**
Accumulated depreciation			
Balance as of Jan. 1, 2019	**–33,041**	**–20,751**	**–53,792**
Right-of-use assets from first-time application of IFRS 16	–24,727	–3,904	–28,631
Adjusted balance as of Jan. 1, 2019	**–57,768**	**–24,655**	**–82,423**
Currency translation differences	–434	–521	–955
Additions	–14,014	–10,195	–24,209
Disposals	5,410	8,237	13,647
Balance as of Dec. 31, 2019	**–66,806**	**–27,134**	**–93,940**
Residual carrying amount as of Jan. 1, 2019 (prior to initial application of IFRS 16)	56,586	14,437	71,023
Residual carrying amount as of Dec. 31, 2019	81,091	22,886	103,977

Changes in property, plant and equipment as of December 31, 2018

in € thousands	Land and buildings	Operating and office equipment	Total
Cost			
Balance as of Jan. 1, 2018	**90,182**	**32,391**	**122,573**
Currency translation differences	103	82	185
Additions from acquisitions	28	73	101
Additions	956	7,038	7,994
Disposals	–1,642	–4,396	–6,038
Balance as of Dec. 31, 2018	**89,627**	**35,188**	**124,815**
Accumulated depreciation			
Balance as of Jan. 1, 2018	**–31,178**	**–18,580**	**–49,758**
Currency translation differences	–16	–122	–138
Additions	–3,461	–6,165	–9,626
Disposals	1,614	4,116	5,730
Balance as of Dec. 31, 2018	**–33,041**	**–20,751**	**–53,792**
Residual carrying amount as of Jan. 1, 2018	59,004	13,811	72,815
Residual carrying amount as of Dec. 31, 2018	56,586	14,437	71,023

Most of the land and buildings are owned by the parent company and the Spanish subsidiary. The properties pertain mainly to the central administrative buildings of these entities.

Operating and office equipment mainly includes office furniture and IT equipment. The capital expenditure of €13,745 thousand (2018: €7,038 thousand) primarily relates to expenses for the initial purchase of computer equipment. Property, plant and equipment totaling €103,977 thousand (2018: €71,023 thousand) includes right-of-use assets in the amount of €33,267 thousand.

[22] Deferred Taxes

Deferred taxes were composed of the following as of the balance sheet date (before offsetting):

	Deferred tax assets		Deferred tax liabilities	
in € thousands	**Dec. 31, 2019**	**Dec. 31, 2018**	**Dec. 31, 2019**	**Dec. 31, 2018**
Intangible assets	1,706	1,503	30,115	33,183
Property, plant and equipment	747	747	11,900	2,309
Receivables and financial assets	5,472	5,678	8,890	6,835
Prepaid expenses	0	0	247	0
Other obligations	19,753	10,321	2,686	3,332
Provisions for pensions and similar obligations	12,663	9,173	0	0
Deferred income	2,335	2,545	164	19
Tax loss carryforwards	12,686	14,320	0	0
Total	**55,362**	**44,287**	**54,002**	**45,678**
Amount offset	–43,407	–34,280	–43,407	–34,280
Amount recognized in the balance sheet	11,955	10,007	10,595	11,398

Deferred tax assets on tax loss carryforwards fell from the prior year by €1,634 thousand. The decrease is due to ongoing consumption due to taxable income.

As of December 31, 2019, the consolidated Group had unutilized tax loss carryforwards in the amount of €12,030 thousand (2018: €14,236 thousand) for which no deferred tax assets were recognized. Of the losses carried forward for which no deferred taxes were recognized, €6,800 thousand will expire in the period from 2020 to 2028, €163 thousand in the period from 2029 to 2038, and €5,067 thousand can be utilized indefinitely.

As of the reporting date, taxable temporary differences associated with investments in subsidiaries existed in the amount of €16,563 thousand (2018: €12,945 thousand), on which no deferred tax liabilities had been recognized in accordance with IAS 12.39 given that neither disposals nor profit distributions are planned in the near future.

In fiscal year 2019, deferred taxes totaling €14,746 thousand (2018: €9,943 thousand) were offset against equity. These amounts mainly resulted from actuarial gains/losses recognized directly in equity based on changes in the measurement of pension obligations as well as from financial instruments also recognized directly in equity.

The current taxes that were offset against equity totaled €2,581 thousand (2018: €0) in 2019. The amounts resulted from recognition of translation currency effects in equity from loans to foreign operations.

[23] Financial Liabilities

Financial liabilities can be broken down as follows:

in € thousands	Dec. 31, 2019	Dec. 31, 2018
Current financial liabilities		
Liabilities to banks	80,326	104,008
Other current financial liabilities	14,819	5,957
Derivatives	1,244	1,923
	96,389	**111,888**
Non-current financial liabilities		
Liabilities to banks	175,047	200,063
Other non-current financial liabilities	24,556	109
Derivatives	622	1,260
	200,225	**201,432**

Financial liabilities changed as follows:

in € thousands		Liabilities to banks	Financial liabilities	Lease liabilities (IFRS 16)	Derivatives	Total
	Dec. 31, 2018	**304,071**	**6,066**	**0**	**3,183**	**313,320**
	Application of IFRS 16			41,062		41,062
	January 1, 2019	**304,071**	**6,066**	**41,062**	**3,183**	**354,382**
Change in cash and cash-equivalents	**Payments**					
	Repayment of current and non-current financial liabilities, net	–49,358	–498			–49,856
	Open purchase price payables		–5,135			–5,135
	Lease liabilities			–16,249		–16,249
Non-cash changes	**Financial purchase of assets**					
	Capital increase ADAMOS		1,000			1,000
	Additions lease liabilities			10,349		10,349
	Measurement					
	Interest adjustment for government loans	160				160
	Accrued interest on leases			1,717		1,717
	Other adjustments	501	–1	1,063	–1,317	246
	Dec. 31, 2019	**255,374**	**1,432**	**37,942**	**1,866**	**296,614**
	Total change +/–	**48,697**	**4,634**	**–37,942**	**1,317**	**16,706**
					Thereof current financial liabilities	96,389
					Thereof non-current financial liabilities	200,225

in € thousands		Liabilities to banks	Financial liabilities	Derivatives	Total
	Dec. 31, 2017	**307,116**	**1,044**	**2,437**	**310,597**
Change in cash and cash-equivalents	**Proceeds**				
	New non-current financial liabilities, net	100,028			100,028
	New current financial liabilities, net	7,673			7,673
	Payments				
	Repayment of non-current financial liabilities, net	–107,694			–107,694
Non-cash changes	**Financial purchase of assets**				
	Open purchase price payables		5,000		5,000
	Measurement				
	Interest adjustment for a government loan	–2,037			–2,037
	Other adjustments	–1,015	22	746	–247
	December 31, 2018	**304,071**	**6,066**	**3,183**	**313,320**
	Total change +/–	**–3,045**	**5,022**	**746**	**2,723**
		Thereof current financial liabilities			111,888
		Thereof non-current financial liabilities			201,432

Liabilities to banks and other financial liabilities had the following maturities as of the reporting date:

in € thousands	Up to 1 year	>1 year
Loans with variable interest rates	51,327	175,047
Loans with fixed interest rates	29,000	0

The fair values of the liabilities to banks with variable interest rates are equal to their carrying amounts. The fair values of the liabilities with fixed interest rates amounted to €29,154 thousand. The fair values were calculated by discounting the future cash flows using current market rates.

[24] Trade Payables and other Liabilities

Trade payables and other liabilities can be broken down as follows:

in € thousands	Dec. 31, 2019	Dec. 31, 2018
Payables to suppliers	27,972	31,339
Payments received on account of orders	7,053	6,174
Other liabilities	858	4,563
	35,883	**42,076**

[25] Other Non-Financial Liabilities

Other non-financial liabilities relate to the following items:

in € thousands	Dec. 31, 2019	Dec. 31, 2018
Liabilities due to employees	84,626	111,175
Tax liabilities	20,846	22,128
Liabilities for social security	6,545	6,874
Remaining other current liabilities	5,693	5,928
	117,710	**146,105**

[26] Other Provisions

Other provisions changed as follows:

in € thousands	Other personnel-related provisions	Miscellaneous other provisions	Total other provisions
Balance as of Jan. 1, 2019	**23,526**	**17,424**	**40,950**
Currency translation differences	18	38	56
Additions	11,816	3,986	15,802
Utilization	–3,392	–7,301	–10,693
Reversal	–102	–554	–656
Balance as of Dec. 31, 2019	**31,866**	**13,593**	**45,459**
of which with a remaining term of more than 1 year	7,316	44	7,360
Balance as of Jan. 1, 2018	**59,762**	**18,243**	**78,005**
Currency translation differences	–3	–52	–55
Additions to the group of consolidated companies	1	0	1
Additions	10,723	1,177	11,900
Utilization	–46,888	–1,077	–47,965
Reversal	–69	–867	–936
Balance as of Dec. 31, 2018	**23,526**	**17,424**	**40,950**
of which with a remaining term of more than 1 year	10,232	88	10,320

Miscellaneous other provisions

Miscellaneous other provisions can be broken down as follows:

in € thousands	Dec. 31, 2019	Dec. 31, 2018
Litigation	11,976	15,440
Asset retirement obligations	890	828
Other onerous contracts	297	676
Anticipated losses related to Professional Services projects	11	70
Other provisions	419	410
	13,593	**17,424**

For further information on litigation, please refer to
p. 212 Note [36].

[27] Income Tax Liabilities

in € thousands	2019	2018
Balance as of Jan. 1	**40,851**	**32,014**
Currency translation differences	–110	–579
Additions to the group of consolidated companies	0	9
Additions	11,552	15,578
Utilization	–12,172	–4,298
Reversal	–1,909	–1,873
Balance as of Dec. 31	**38,212**	**40,851**
of which with a remaining term of more than 1 year	2,643	2,898

[28] Provisions for Pensions and Similar Obligations

Defined benefit plans

	Defined benefit obligation (DBO)		Fair value of plan assets		Effects of asset caps		Net defined benefit balance	
in € thousands	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Germany	53,088	42,467	22,740	21,712	0	0	30,348	20,755
U.K.	96,486	79,381	84,168	69,553	0	0	12,318	9,828
Switzerland	6,957	6,649	4,324	4,772	0	0	2,632	1,877
Other insignificant pension plans and similar plans							2,665	2,161
							47,963	**34,621**

Pension benefits in Germany consist of fixed commitments to a select group of people. They are partially covered by life reinsurance policies. There are no minimum funding requirements or laws in Germany.

Pension benefits in the United Kingdom relate to commitments made by Software AG (UK) Limited. They comprise post-employment benefits for employees as well as benefits payable to their surviving dependents on the employees' death during their active service period.

The commitments in Switzerland result from legal requirements of the BVG (law on occupational, survivor and disability planning). The law stipulates that every employer must grant entitled employees benefits after termination of their employment.

The defined benefit commitments result in risks to the Company due to possible fluctuations in obligations from defined benefit plans and fluctuations in plan assets. Fluctuations in defined benefit obligations result primarily from changes to financial assumptions such as discount interest rates and changed demographic assumptions (changing life expectancies). Possible changes in expected long-term wage and salary increases have no significant impact on the obligations due to the structure of the commitments. The fair value of plan assets and the fluctuation thereof depends mainly on the situation of the capital markets. Software AG seeks to account for this by controlling its asset investments.

	Defined benefit obligation (DBO)		Fair value of plan assets		Net defined benefit balance	
in € thousands	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Balance as of Jan. 1	**128,497**	**134,866**	**–96,037**	**–92,603**	**32,460**	**42,263**
Current service cost	3,154	2,765		0	3,154	2,765
Net interest income/expense	3,238	2,997	–2,595	–2,129	643	868
	6,392	**5,762**	**–2,595**	**–2,129**	**3,797**	**3,632**
Income/expense resulting from adjustments						
Return on plan assets less income recognized as net interest income/expense	0	0	–6,171	4,772	–6,171	4,772
Expectation adjustment	1,548	–65	0	0	1,548	–65
Net actuarial gain/loss from changes to demographic assumptions	–2,780	30	0	0	–2,780	30
Net actuarial gain/loss from changes to financial assumptions	22,252	–10,949	0	0	22,252	–10,949
	21,020	**–10,984**	**–6,171**	**4,772**	**14,848**	**–6,212**
Currency-related changes	2,640	–140	–3,557	–121	–916	–260
Employer contributions	671	0	–5,562	–6,701	–4,891	–6,701
Employee contributions	366	375	–366	–376	0	–1
Plan-related payments	–1,489	–1,383	1,489	842	0	–542
Settlement payments	–1.566	0	1,566	280	0	280
	–2.018	**–1,008**	**–2,873**	**–5,956**	**–4,891**	**–6,964**
Balance as of Dec. 31	**156,531**	**128,497**	**–111,233**	**–96,037**	**45,298**	**32,460**

The significant assumptions used for calculating the present value of the defined benefit obligations (DBO) are as follows:

as %	**2019**	**2018**
Discount rate		
Germany	1.00	2.00
U.K.	2.00	3.00
Switzerland	0.00	1.00
Salary trend		
Germany	2.00	2.00
U.K.	4.50	5.00
Switzerland	1.50	1.50
Pension trend		
Germany	1.75	1.75
U.K.	2.75	3.25
Switzerland	0.00	0.00

A change in the above assumptions by a half of a percentage point would have the following impact on the respective DBOs:

Change in DBO			
in € thousands	Germany	U.K.	Switzerland
Discount rate (–0.5%)	5,201	11,095	676
Discount rate (+0.5%)	–4,547	–11,095	–673
Salary trend (–0.5%)	–229	–965	85
Salary trend (+0.5%)	236	612	–92
Pension trend (–0.5%)	–3,882	4,342	n/a[1]
Pension trend (+0.5%)	4,345	–4,342	408

[1] Pension trend was assumed at 0 percent for Switzerland (see above)

Sensitivities were calculated by varying the respective parameter with otherwise constant assumptions.

The plan assets can be broken down as follows:

	Fair value	
in € thousands	2019	2018
Equities	63,555	37,529
Life insurance policies	27,065	26,484
Cash and cash equivalents	15,588	4,453
Fixed-interest securities	5,025	27,571
	111,233	**96,037**

There was a market price quote in an active market for every component of the plan assets except for the life insurance policies.

Contributions from the Software AG Group to defined benefit plans for fiscal year 2020 are expected to amount to €7,604 thousand.

Expected benefit payments during the next 10 years are expected to be as follows:

in € thousands	Expected benefit payments
2020	4,600
2021	3,310
2022	3,559
2023	3,313
2024	4,926
2025–2029	21,173

Defined contribution plans

There is a minor volume of defined contribution pension commitments. Defined contributions are paid to external insurance companies or funds. Furthermore, Software AG makes contributions to the state and/or public pension fund primarily in Germany. Defined contribution pension commitments accounted for expenses of €15,564 thousand (2018: €14,944 thousand) in 2019.

[29] Equity

Share capital

As of December 31, 2019, Software AG's share capital totaled €74,000 thousand (2018: €74,000 thousand). Software AG's share capital is divided into 74,000,000 (2018: 74,000,000) registered shares each worth €1. Each share entitles its holder to one vote.

Conditional capital

Like last year, there was no conditional capital as of December 31, 2019.

Authorized capital

As of December 31, 2019, the Management Board was authorized, subject to the consent of the Supervisory Board, to increase the Company's share capital on one or more occasions on or before May 30, 2021 by up to a total of €39,500 thousand by issuing up to 39,500,000 new registered shares in return for cash contributions and/or contributions in kind (authorized capital).

The Management Board did not make use of this authorization in fiscal year 2019.

Acquisition of treasury shares

At the beginning of the reporting period, Software AG held 20,111 treasury shares representing €20,111 or 0.03 percent of the share capital.

The balance of treasury shares remained unchanged year-on-year as of December 31, 2019. There were no transactions in the fiscal year.

Software AG's balance of treasury shares changed as follows in the previous year:

Date/period	No. of shares	Reason for change
Jan. 1, 2018	**2,423,761**	
Q1 2018	–2,400,000	Redemption and capital decrease
Q2 2018	–3,650	Used for settling share-based plans (MIP III)
Dec. 31, 2018	**20,111**	

Pursuant to the Annual Shareholders' Meeting resolution from May 31, 2016, Software AG is authorized until May 30, 2021 to purchase Software AG shares totaling a maximum of 10 percent of the share capital at the time of the resolution. The shares purchased, together with other treasury shares that the Company has already purchased and still holds or that are attributable to it in accordance with sections 71d and 71e of the German Stock Corporation Act, may not account for more than 10 percent of the respective share capital at any time.

Equity management

The Software AG Group has an obligation to achieve long-term, profitable growth. Since software companies typically have a low level of capital expenditure for property, plant and equipment, equity is not a focus of corporate management. The dividend is based on Software AG's averaged net income (attributable to Software AG shareholders) and free cash flow. This results in a total dividend sum of €56,224 thousand (2018: €52,526 thousand) and a payout ratio of €37.4 percent (2018: 30.1 percent).

Dividend

Pursuant to the proposal of the Management Board and the Supervisory Board, the Annual Shareholders' Meeting resolved on May 28, 2019 to appropriate €52,526 thousand (2018: €48,085 thousand) for a dividend payout from the net retained profits of €85,520 thousand (2018: €83,914 thousand) reported by Software AG, the controlling Group company, in fiscal 2018. This corresponds to a dividend of €0.71 (2018: €0.65) per share. A total amount of €32,994 thousand (2018: €35,829 thousand) was carried forward.

Based on the number of shares outstanding as of March 2, 2020, the Management Board and Supervisory Board will propose to the Annual Shareholders' Meeting to distribute the net retained profits of €128,479 thousand reported by Software AG in fiscal 2019, as follows: to appropriate €56,224 thousand for dividends and to carry forward €77,255 thousand. This corresponds to a dividend of €0.76 per share.

Other reserves

Other reserves changed as follows, taking into account tax effects:

in € thousands	2019 Pre-tax amount	2019 Tax effect	2019 Net amount	2018 Pre-tax amount	2018 Tax effect	2018 Net amount
Currency translation differences from foreign operations	32,494	0	32,494	11,557	0	11,557
Net gain/loss on remeasuring financial assets	379	–635	–256	–14,165	2,835	–11,330
Currency translation gain/loss from net investments in foreign operations	844	–2,580	–1,736	1,768	0	1,768
Net actuarial gain/loss on pension obligations	–18,106	5,438	–12,668	6,478	–706	5,772
Gain/loss recognized in equity	**15,611**	**2,223**	**17,834**	**5,638**	**2,129**	**7,767**

Cash flow hedges had the following effects on the income statement and other comprehensive income:

in € thousands	Total profit/(loss) recognized in other comprehensive income from hedges	Ineffective portion recognized in earnings	Items from the income statement	Costs recognized in other comprehensive income from hedges	Amount reclassified from other comprehensive income to the income statement	Items from the income statement
Fiscal year ending Dec. 31, 2019 Expected payments relating to awards to members of the Management Board, managers and employees	–433	0	n/a	0	–2,277	Functional costs
Fiscal year ending Dec. 31, 2018 Expected payments relating to awards to members of the Management Board, managers and employees	–11,608	0	n/a	0	2,862	Functional costs

Other Disclosures

[30] Notes to the Statement of Cash Flows

Cash and cash equivalents include €13 thousand (2018: €12 thousand), which were held by the sales subsidiary in Venezuela. Due to current legal limitations relating to foreign currency transactions in Venezuela, Software AG has only limited access to these funds.

Dividends paid reported in the statement of cash flows include dividend payments of €320 thousand (2018: €263 thousand) to minority shareholders of subsidiaries.

Net payments for acquisitions in the amount of €5,135 thousand (2018: €46,693 thousand) in 2019 resulted from payment of the remainder of an open purchase price payment in connection with the acquisition of shares in TrendMiner NV, Hasselt, Netherlands, in 2018 in the amount of €5,135 thousand (2018: €47,080 thousand) and cash and cash equivalents received in the amount of €0 (2018: €387 thousand).

Operating cash inflows and outflows are managed centrally based on free cash flow. Software AG defines free cash flow as cash flow from operating activities less cash flow from investing activities, not including cash outflows for investments in current financial assets, proceeds from the sale of current financial assets, proceeds from the sale of disposal groups or net cash outflows for acquisitions, less cash flows from the repayment of lease liabilities. Accordingly, free cash flow totaled €145,848 thousand (2018: €184,115 thousand) in fiscal 2019. Free cash flow is controlled at Group level, not based on the business segments. For this reason, no data is collected on cash flow in the segments.

Software AG has a credit line of about €196,000 thousand. Approximately €137,000 thousand of that was unused as of December 31, 2019.

[31] Segment Reporting

Notes on segment reporting

Segmentation is in accordance with the internal control of the Group. Internal control focuses primarily on product revenue at constant currency for the two product segments. Margins and earnings are controlled largely at Group level. Of considerably less importance are the segments' contributions and earnings at secondary level of control. Software AG therefore reports on the following three segments:

- Digital Business Platform
  (DBP: integration, business process management and big data with the webMethods, ARIS, Alfabet, Apama and Terracotta product families)

- Adabas & Natural
  (A&N: data management with the Adabas and Natural product families)

- Professional Services
  (implementation of solutions in cooperation with customers and partners)

The segment contribution does not include the amortization expense associated with acquisitions of intangible assets. These charges are therefore shown separately under reconciliation. This presentation corresponds with internal control and reporting lines (management approach). The majority of sales and marketing expenses are classified based on revenue percentage. A focus on absolute earnings contributions therefore only makes sense in certain scenarios given the interdependency between the two product segments. Research and development expenses are assigned to the segments based on expense components directly attributable to the R&D department as well as the overhead coded to R&D. They have no direct impact on internal management.

The table below shows the segment data for the 2019 and 2018 fiscal years:

Segment Report for Fiscal Years 2019 and 2018

	Digital Business Platform (including Cloud & IoT) (DBP)			Adabas & Natural (A&N)		
in € thousands	2019 IFRS	2019 acc [1]	2018 IFRS	2019 IFRS	2019 acc [1]	2018 IFRS
Licenses	163,893	160,872	174,915	81,207	79,417	74,450
Maintenance	287,926	282,020	272,231	147,033	144,803	143,169
SaaS	22,651	22,259	17,555	0	0	0
Product revenue	**474,470**	**465,151**	**464,701**	**228,240**	**224,220**	**217,619**
Services	0	0	0	0	0	0
Other	0	0	47	701	701	703
Total revenue	**474,470**	**465,151**	**464,748**	**228,941**	**224,921**	**218,322**
Cost of sales	–40,579	–40,254	–35,945	–8,069	–7,981	–6,263
Gross profit	**433,891**	**424,897**	**428,803**	**220,872**	**216,940**	**212,059**
Sales, marketing and distribution expenses	–198,226	–194,459	–181,200	–34,874	–34,445	–32,820
Segment contribution	**235,665**	**230,438**	**247,603**	**185,998**	**182,495**	**179,239**
Research and development expenses	–105,104	–104,134	–100,612	–26,165	–25,579	–23,811
Segment earnings	**130,561**	**126,304**	**146,991**	**159,833**	**156,916**	**155,428**
General and administrative expenses						
Other income						
Other expenses						
Other taxes						
Operating income						
Financing income						
Financing expenses						
Net financial income/expenses						
Earnings before income taxes						
Income taxes						
Net income						

[1] Items presented at constant currency are translated using monthly average rates from the previous year. Currency translation effects on balance sheet items related to intra-group transactions are not taken into account in expenses.

	Professional Services			Reconciliation		Total		
	2019 IFRS	**2019 acc [1]**	**2018 IFRS**	**2019 IFRS**	**2018 IFRS**	**2019 IFRS**	**2019 acc [1]**	**2018 IFRS**
						245,100	240,289	249,365
						434,959	426,823	415,400
						22,651	22,259	17,555
	0	**0**	**0**	**0**	**0**	**702,710**	**689,371**	**682,320**
	187,196	184,010	182,540			187,196	184,010	182,540
	0	0	101			701	701	851
	187,196	**184,010**	**182,641**	**0**	**0**	**890,607**	**874,082**	**865,711**
	–146,224	–143,574	–144,885	–8,223	–7,872	–203,095		–194,965
	40,972	**40,436**	**37,756**	**–8,223**	**–7,872**	**687,512**		**670,746**
	–18,235	–17,894	–17,425	–13,677	–13,276	–265,012		–244,721
	22,737	**22,542**	**20,331**	**–21,900**	**–21,148**	**422,500**		**426,025**
	0	0	0	0	0	–131,269		–124,423
	22,737	**22,542**	**20,331**	**–21,900**	**–21,148**	**291,231**		**301,602**
						–74,767		–73,952
						15,100		16,163
						–16,721		–12,220
						–6,805		–7,044
						208,038		**224,549**
						13,299		10,482
						–6,218		–6,161
						7,081		**4,321**
						215,119		**228,870**
						–59,802		–63,675
						155,317		**165,195**

DBP Segment with Revenue Distribution for Fiscal Years 2019 and 2018

	DBP (Cloud & IoT)		
in € thousands	2019 IFRS	2019 acc[1]	2018 IFRS
Licenses	12,624	12,530	8,702
Maintenance	6,992	6,928	4,061
SaaS	22,651	22,259	17,555
Product revenue	**42,267**	**41,717**	**30,318**
Services	0	0	0
Other	0	0	1
Total revenue	**42,267**	**41,717**	**30,319**
Cost of sales			
Gross profit			
Sales, marketing and distribution expenses			
Segment contribution			
Research and development expenses			
Segment earnings			

[1] Items presented at constant currency are translated using monthly average rates from the previous year. Currency translation effects on balance sheet items related to intra-group transactions are not taken into account in expenses.

	DBP (excluding Cloud & IoT)			DBP (including Cloud & IoT)		
	2019 IFRS	2019 acc[1]	2018 IFRS	2019 IFRS	2019 acc[1]	2018 IFRS
	151,269	148,342	166,213	163,893	160,872	174,915
	280,934	275,092	268,170	287,926	282,020	272,231
	0	0	0	22,651	22,259	17,555
	432,203	**423,434**	**434,383**	**474,470**	**465,151**	**464,701**
	0	0	0	0	0	0
	0	0	46	0	0	47
	432,203	**423,434**	**434,429**	**474,470**	**465,151**	**464,748**
				–40,579	–40,254	–35,945
				433,891	**424,897**	**428,803**
				–198,226	–194,459	–181,200
				235,665	**230,438**	**247,603**
				–105,104	–104,134	–100,612
				130,561	**126,304**	**146,991**

Information on geographic regions

Revenue is distributed across geographic regions as follows (based on headquarters of the respective Group entity):

Geographic distribution of revenues

	2019			
in € thousands	**Germany**	**USA**	**Other countries**	**Software AG Group**
Licenses	28,197	85,241	131,662	245,100
Maintenance	62,513	150,899	221,547	434,959
SaaS	4,445	6,924	11,282	22,651
Services	32,808	28,039	126,349	187,196
Other	701	0	0	701
Total	**128,664**	**271,103**	**490,840**	**890,607**

	2018			
in € thousands	**Germany**	**USA**	**Other countries**	**Software AG Group**
Licenses	30,295	95,945	123,125	249,365
Maintenance	60,911	143,684	210,805	415,400
SaaS	4,769	4,664	8,122	17,555
Services	34,974	24,834	122,732	182,540
Other	665	47	139	851
Total	**131,614**	**269,174**	**464,923**	**865,711**

Countries included in "other countries" are presented separately once the revenue generated in the country in question reaches a significant level. Revenue generated in the USA was reported separately as it was greater than 10 percent of Group revenue. These revenues are generated in U.S. dollars, so when comparing consecutive periods, exchange rate fluctuations should be considered.

Non-current assets

Non-current assets are comprised of intangible assets and property, plant and equipment.

in € thousands	2019	2018
USA	584,869	580,048
Germany	431,763	427,478
Other countries	184,034	164,846
Software AG Group	**1,200,666**	**1,172,372**

[32] Additional Information on Financial Instruments and Risk Management

The table below shows the carrying amounts of financial assets and liabilities as well as fair values in accordance with the levels of the fair-value hierarchy. The three levels are defined as follows:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: Inputs other than quoted market prices included within Level 1 that are observable for the asset or liability either directly or indirectly.

Level 3: Inputs for the asset or liability that are not based on observable market data.

December 31, 2019

	Measurement category		Carrying amount	
in € thousands	**At amortized cost**	**At fair value**	**Other at FVPL (mandatory)**	**Fair value of hedging instruments**
Assets				
Cash and cash equivalents	513,632			
Trade receivables, contract assets and other receivables	303,140			
Other financial assets				
Financial assets available for sale				
Shareholders' equity		3,377		
Investment funds		3,809		
Loans and other financial receivables	11,184			
Derivative financial instruments				
Designated as hedging instrument				
Stock options		3,581		3,581
Forward equity contracts		99		99
Not designated as hedging instrument				
Forward currency contracts		628	628	
Forward equity contracts		120	120	
Liabilities				
Trade and other payables	35,883			
Financial liabilities				
Non-derivative financial liabilities				
Loans	255,374			
Other non-derivative financial liabilities	39,375			
Derivative financial liabilities				
Not designated as hedging instrument				
Forward currency contracts		51	51	
Forward equity contracts		1,815	1,815	

				Fair value			
Financial assets at amortized cost	**Equity instruments FVOCI**	**Other financial liabilities**	**Total**	**Level 1**	**Level 2**	**Level 3**	**Total**
513,632			513,632				
303,140			303,140				
	3,377		3,377			3,377	3,377
	3,809		3,809	3,809			3,809
11,184			11,184				
			3,581		3,581		3,581
			99		99		99
			628		628		628
			120		120		120
			35,883				
		255,374	255,374		255,528		255,528
		39,375	39,375		39,375		39,375
			51		51		51
			1,815		1,815		1,815

December 31, 2018

	Measurement category		Carrying amount	
in € thousands	**At amortized cost**	**At fair value**	**Other at FVPL (mandatory)**	**Fair value of hedging instruments**
Assets				
Cash and cash equivalents	462,362			
Trade receivables, contract assets and other receivables	276,169			
Other financial assets				
Financial assets available for sale				
Shareholders' equity		3,873		
Investment funds		3,119		
Loans and other financial receivables	11,752			
Derivative financial instruments				
Designated as hedging instrument				
Stock options		4,959		4,959
Not designated as hedging instrument				
Forward currency contracts		69	69	
Forward equity contracts		446	446	
Receivables from mature equity derivatives				
Stock options		10,647		10,647
Liabilities				
Trade and other payables	42,076			
Financial liabilities				
Non-derivative financial liabilities				
Loans	304,071			
Other non-derivative financial liabilities	6,067			
Derivative financial liabilities				
Not designated as hedging instrument				
Forward currency contracts		629	629	
Forward equity contracts		2,554	2,554	

					Fair value			
	Financial assets at amortized cost	**Equity instruments FVOCI**	**Other financial liabilities**	**Total**	**Level 1**	**Level 2**	**Level 3**	**Total**
	462,362			462,362				
	276,169			276,169				
		3,873		3,873			3,873	3,873
		3,119		3,119	3,119			3,119
	11,752			11,752				
				4,959		4,959		4,959
				69		69		69
				446		446		446
				10,647		10,647		10,647
				42,076				
			304,071	304,071		304,480		304,480
			6,067	6,067		6,067		6,067
				629		629		629
				2,554		2,554		2,554

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The following table illustrates how the fair values of financial assets and liabilities are determined:

Financial assets/ financial liabilities	Hierarchy level	Measurement approach and key inputs	Significant unobservable inputs	Correlation between unobservable inputs and fair value
Interest rate swaps	2	Discounted cash flow approach; future cash flows are estimated based on forward interest rates (observable interest rate curves as of balance sheet date) and fixed interest rates, discounted at an interest rate that accounts for the credit risk associated with the counter parties.	n/a	n/a
Forward currency contracts	2	Discounted cash flow approach; future cash flows are estimated based on forward exchange rates (observable exchange rates as of balance sheet date) and fixed forward exchange rates, discounted at an interest rate that accounts for the credit risk associated with the counter parties.	n/a	n/a
Stock options	2	Option pricing model, which accounts for influential option pricing factors (share price, exercise price of the option, share price volatility, dividends as dividend yield, interest rates, option's remaining term)	n/a	n/a
Equity forward contracts	2	The fair values are measured based on the intrinsic values of the forward equity contracts, which are calculated using the share prices from an active market.	n/a	n/a
Investment funds	1	Prices quoted on active market.	n/a	n/a
Shareholders' equity (currently non-listed securities only)	3	Comprehensive valuation approach based on multiple quantitative and qualitative factors such as current/ planned earnings, liquidity, recent/planned transactions	n/a	n/a

The fair values of cash and cash equivalents, time deposits, current receivables, trade payables and other current financial liabilities correspond approximately with their carrying amounts, primarily due to the short terms of these instruments.

The Company uses various parameters to measure non-current receivables, mainly interest rates and the customers' individual credit ratings. Software AG calculates bad debt allowances to reflect expected defaults based on the measurement results. Accordingly, the carrying amounts of these receivables corresponded approximately with their fair values as of December 31, 2019 and December 31, 2018.

Software AG calculates the fair values of liabilities to banks and other financial liabilities as well as other non-current financial liabilities by discounting the estimated future cash flows using the interest rates applicable to similar financial liabilities with comparable maturities.

The net gain/loss from loans and receivables is only affected significantly by currency translation and interest effects. The net gain from derivatives without qualifying hedging relationships amounted to €2,284 thousand (2018: €8,110 thousand) in fiscal 2019. The net gain from derivatives designated as cash flow hedges was included in the income statement and amounted to €5,388 thousand in fiscal 2019 (2018: €12,873 thousand).

Equity instruments were impaired in the amount of €1,616 thousand (2018: €4,858 thousand) which were recognized in other comprehensive income in fiscal 2019.

Market risk and the use of derivative financial instruments

As a result of its international operating activities as well as its investing and financing activities, Software AG is exposed to various financial risks. Management continuously monitors these risks. Derivative financial instruments are used in accordance with internal guidelines in order to reduce risks arising from changes in interest rates, exchange rates, cash flows, or the value of cash investments. Derivatives are generally entered into to hedge existing balance sheet exposures and highly probable forecast transactions.

a) Interest rate risk

The Company is subject to interest rate fluctuations that affect both assets and equity and liabilities on the balance sheet.

On the assets side, income from investing available cash and cash equivalents and future interest income resulting from discounting non-current receivables are particularly subject to interest rate risk. On the equity and liabilities side, interest expenses for current and non-current financial liabilities as well as pension provisions and other items related to long-term borrowings are especially exposed to interest rate risk.

The sensitivity analysis required by IFRS 7 relates to interest rate risk arising from monetary financial instruments bearing variable interest rates.

Based on the current structure of the interest-bearing financial instruments, a hypothetical increase in the market interest level of 100 basis points would raise earnings by €2,048 thousand (2018: €1,392 thousand).

b) Exchange rate risks

In order to hedge the risk of future fluctuations in exchange rates, the Company enters into currency forward contracts. Foreign currency receivables and liabilities are offset if possible, and only the remaining net exposure is hedged selectively. Estimated cash flows can also be hedged in accordance with internal guidelines.

Hedging transactions are measured at their fair value. The amounts are reported in the balance sheet under other financial assets or financial liabilities. Since hedging transactions are not normally designated as hedge accounting, changes in fair value are immediately recognized through profit or loss in the Consolidated Income Statement.

The sensitivity analysis required by IFRS 7 relates to exchange rate risk arising from monetary financial instruments that are denominated in a currency other than the functional currency in which they are measured. Exchange differences arising from the translation of financial statements into the Group currency (translation risk) and non-monetary items are not taken into account. Most significant monetary financial instruments are denominated in the functional currency. For Software AG, significant effects on earnings (earnings before income taxes) result only from the relationship of the euro to the U.S. dollar. Hedging transactions are based on existing hedges or estimated cash flows and thus reduce any potential effects on earnings. In the case of designated cash flow hedges, exchange rate changes affect other reserves included in equity.

Based on the monetary financial instruments available as of the reporting date, a devaluation of the euro in the amount of 10 percent against the U.S. dollar would have increased earnings by €1,935 thousand (2018: €1,376 thousand) and other reserves by €0 thousand (2018: €2,818 thousand). This amount only represents a theoretical risk for Software AG as these instruments are hedges of balance sheet transactions, rather than open trading positions.

c) Market risk

In line with Group policy, assets are controlled in terms of maturity, interest type, and rating such that the Company does not expect any significant fluctuations in value.

d) Credit risk

Software AG is exposed to default risk in its operating business and in connection with certain financial transactions if contracting parties fail to meet their obligations. Major cash investments as well as derivative financial instruments are entered into with banks with credit ratings of at least investment grade and whose credit default swap (CDS) rates are monitored continuously. The theoretical maximum default risk exposure is indicated by the carrying amounts. The guidelines defined by management ensure that the credit risk from financial instruments is spread across various banks.

Receivables are monitored as part of operations on an ongoing basis. The need for impairment is evaluated on every balance sheet date using an impairment matrix for determining expected credit loss. As of December 31, 2019, there was no indication of the existence of any risk beyond that taken into account through bad debt allowances. There is no concentration of credit risks with respect to single customers as a result of the size of Software AG's customer base or due to the distribution of its revenues across various sectors and countries. The theoretical maximum exposure to credit risk is reflected in the carrying amounts of the receivables, without taking any collateral into account.

e) Liquidity risk

A liquidity risk arises from the possibility that Group entities may not be able to satisfy their existing financial liabilities, for example, arising from loan agreements, lease agreements or trade accounts payable. The risk is limited by active working capital management and Group-wide liquidity control and is, if necessary, balanced by available cash and bilateral lines of credit.

Under credit agreements having a total volume of €200.0 million (2018: €200.0 million), Software AG is required to limit net debt within the Group to a maximum of 3.25-times EBITDA and not fall below an interest coverage ratio of 4.25. As of year-end 2019, the Company's net debt in relation to EBITDA was significantly lower than this limit and the interest coverage ratio was significantly higher.

The table below shows the contractually fixed payments arising from financial liabilities. Liabilities in foreign currency are calculated at the exchange rate as of December 31, 2019.

2019

in € thousands	Up to 1 year	>1 to 5 years	> 5 years	Total
Trade payables and other financial liabilities (of these item)	28,812	18	0	28,830
Financial non-derivative liabilities	81,756	175,051	0	256,807
Lease liabilities	13,390	22,885	1,667	37,942
Derivative financial liabilities	1,244	622	0	1,866

2018

in € thousands	Up to 1 year	>1 to 5 years	> 5 years	Total
Trade payables and other financial liabilities (of these items)	32,656	3,245	0	35,901
Financial non-derivative liabilities	109,965	100,173	100,000	310,138
Derivative financial liabilities	1,923	1,260	0	3,183

Volume and measurement of derivative financial instruments

Derivative financial instruments are used only to hedge existing or estimated currency risk, interest rate risk, or other market risk.

The table below shows the notional amounts, the carrying amounts, and the fair values of derivative financial instruments as of December 31, 2019 and December 31, 2018. The fair values of forward currency contracts are determined on the basis of forward foreign exchange rates. The fair values of stock options and equity forward contracts used to hedge the performance phantom share plan as well as the MIP plans are based on market prices, which reflect the current market situation and are equivalent to the replacement costs as of the balance sheet date.

	2019			2018		
in € thousands	**Notional amount**	**Fair value**	**Carrying amount**	**Notional amount**	**Fair value**	**Carrying amount**
Derivatives with positive fair value						
Derivatives (without qualifying hedging relationship)		749	749		516	516
Forward currency contracts remaining term < 1 year	11,897	628	628	12,673	69	69
Forward equity contracts	3,930	120	120	6,686	446	446
Derivatives (cash flow hedges)		3,680	3,680		4,959	4,959
Stock options/forward equity contracts	86,369	3,680	3,680	103,788	4,959	4,959
Receivables from mature equity derivatives		0	0		10,647	10,647
Stock options	0	0	0	n/a	10,647	10,647
Derivatives with negative fair value						
Derivatives (without qualifying hedging relationship)		–1,866	–1,866		–3,183	–3,183
Forward currency contracts remaining term < 1 year	4,275	–51	–51	49,879	–589	–589
Forward currency contracts remaining term > 1 year				349	–40	–40
Stock options/forward equity contracts	14,690	–1,815	–1,815	12,090	–2,554	–2,554

The derivative financial instruments are designated to hedge the fair value of recognized assets or liabilities. Changes in the value of hedging instruments were recognized through profit or loss in the Consolidated Income Statement.

Forward currency contracts and currency option transactions are entered into for the purpose of hedging foreign exchange risks related to future cash flows.

In order to hedge the risks arising from changes in value of the phantom share program and the MIPs, the Company has entered into hedging instruments on Software AG stock with banks.

The financial instruments for hedging currency and interest rate risk have maximum terms to maturity of 1.0 years. Hedging transactions on the phantom share and MIP plans have remaining maximum terms of 3.2 years.

Cash investment policy

Software AG takes a conservative approach with regard to its cash investments. The Company invests primarily in short-term time deposits and short-term fixed-income securities with a credit rating of at least “investment grade.” Software AG has introduced a process in order to monitor the creditworthiness of the banks with which it maintains relationships whereby performance of the relevant credit default swaps (CDS) and external ratings are monitored continuously and investment decisions are adapted accordingly. Interest rates for investments in foreign currencies abroad were up to 60 percent p.a. in fiscal 2019.

[33] Disclosures on Leases

As lessee

Software AG rents and leases office buildings and, to a minor extent, vehicles and hardware. These rental agreements and leases were previously categorized as operating leases in accordance with IAS 17 (until adoption of IFRS 16 as of January 1, 2019). Software AG also rents IT equipment with contract terms that are typically between one and three years. These lease agreements are either short-term or for an underlying object of low value. Software AG opted for the simplified option granted by IFRS 16 and does not recognize right-of-use assets or lease liabilities for these agreements.

Right-of-use assets associated with rented office buildings, vehicles and hardware are presented under property, plant and equipment (see Note [21]) and changed in 2019 as follows: p. 183

in € thousands	Land and buildings	Operating and office equipment	Total
Balance as of Jan. 1, 2019	**30,498**	**5,962**	**36,460**
Depreciation in the fiscal year	–10,344	–3,040	–13,384
Additions	8,256	2,093	10,349
Disposals	–1,104	–11	–1,115
Currency translation differences	945	12	957
Balance as of Dec. 31, 2019	**28,251**	**5,016**	**33,267**

Lease liabilities associated with rented office buildings, vehicles and hardware are presented as financial liabilities and changed in 2019 as follows:

in € thousands	Lease liabilities
Balance as of Jan. 1, 2019	**41,062**
Changes in the fiscal year (for more information, refer to Note [23])	–3,120
Balance as of Dec. 31, 2019	**37,942**
Thereof current	13,390
Thereof non-current	24,552

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The following amounts for leases were recognized in the income statement in 2019 in accordance with IFRS 16:

in € thousands	2019
Expenses from leases included in operating income	
Depreciation in the fiscal year	13,384
Expenses for short-term leases and leases for assets of low value	1,235
Expenses from leases included in net financial income/expense	
Interest expenses for lease liabilities	1,717

Expenses from leases recognized in the income statement in 2018 in accordance with IAS 17 totaled €17,680 thousand.

As lessor

Software AG leases out parts of its own office buildings or those rented, but only to a very minor extent.

[34] Contingent Liabilities

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For more information on reportable contingent liabilities, please refer to the section on Litigation in Note [36].

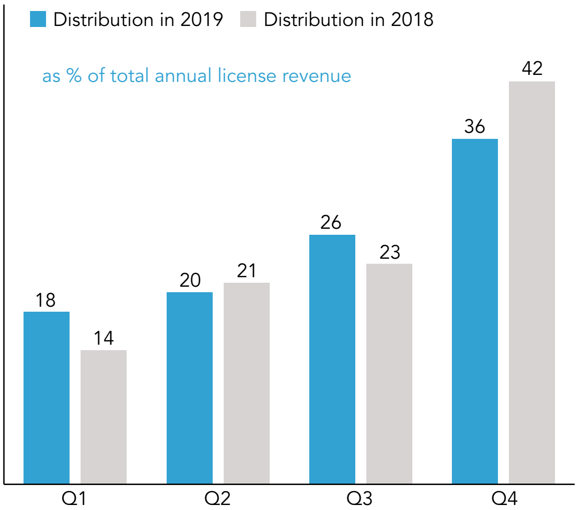
[35] Seasonal Influences

Revenues and pre-tax earnings were distributed over fiscal year 2019 as follows:

in € thousands	Q1 2019	Q2 2019	Q3 2019	Q4 2019	2019
License revenue	42,580	50,174	64,142	88,204	245,100
as % of license revenue for the year	18	20	26	36	100
Total revenue	201,416	210,018	224,157	255,016	890,607
as % of revenue for the year	22	24	25	29	100
Earnings before taxes	42,141	47,772	59,793	65,413	215,119
as % of earnings for the year	20	22	28	30	100

Based on historical data, the revenue and earnings distribution from 2019 is not fully representative. The distribution of revenue and earnings is regularly affected by large individual deals and is thus difficult to predict.

The following graph illustrates the development of license revenues in 2019 and 2018:



[36] Litigation

In February 2010, a software company in Virginia, USA sued Software AG together with 11 additional defendants, including IBM and SAP, for infringement of several of its software patents. The lawsuit was filed with a court in Virginia. By order of the court, the proceedings were suspended for Software AG and all other defendants except for one, which was actively pursued. The court dismissed the case to set a precedent, upon which the plaintiff filed an appeal. The court of appeals rejected the appeal in January 2012. In response to further legal action brought by the plaintiff, the appellate court partially acknowledged the case and partially referred it back to the court of first instance in October 2013. In September 2014, the court ordered for proceedings to remain suspended until the U.S. Patent Office made a decision regarding its review of the patents in question, which was initiated by the defendants. In summary proceedings in May 2015, the court decided in favor of one defendant; the plaintiff filed an appeal against the decision and, as reported on August 18, 2016, won in part. After the original judge withdrew herself from the case, a new judge was assigned. The U.S. Patent Office has since confirmed a decision relating to the invalidity of a TecSec patent. After a jury in a parallel case voted to fine Adobe $1.75 million, on September 24, 2019, the presiding judge ordered Software AG and all other remaining defendants to conclude their discovery and documentation within six months. In response, Software AG was the first party to make a settlement payment in the amount of $975,000 to avoid a potential compensation payment for violation of five patents and significantly higher, non-refundable court, legal and e-discovery fees. That concluded the proceedings for Software AG.

A number of legal actions have been filed with the Regional Court of Saarbrücken, Germany, in connection with the control and profit transfer agreement with IDS Scheer AG. In these proceedings, the petitioners are seeking an increase in their cash settlements and annual compensatory payments. Software AG considers the objections as to valuation to be groundless. The Regional Court of Saarbrücken ruled on June 6, 2018 to reject the plaintiff's appeal. Multiple plaintiffs filed complaints against the decision within the appeal period. There were no significant developments regarding this case in 2019.

In connection with the merger of IDS Scheer AG and Software AG, a large number of legal challenges were filed with Regional Court of Saarbrücken, in which the plaintiffs seek a legal review of the set exchange ratio and cash compensation. Software AG considers the objections as to valuation to be groundless. In its decision of March 15, 2013, the Regional Court of Saarbrücken determined that the market value ratio method be employed for valuation and that cash compensation in the amount of €7.22 plus interest for every share held by outside shareholders be paid. This could result in a maximum risk of approximately €7.6 million plus interest. Software AG appealed the decision. The court-ordered expert witness submitted a report in the third quarter of 2017. Software AG presented a detailed opinion on the report in the fourth quarter of 2017. The court resolved on January 12, 2018 that the expert witness must appear for a hearing to explain the report and make additions to it prior to the appointment. This has not yet occurred. The date has not yet been scheduled. Provisions are set up based on the estimated probable actual resource outflow.

The Spanish cartel authority (Comisión Nacional de los Mercados y la Competencia, CNMC) searched the offices of Software AG España, S.A. Unipersonal (Software AG Spain) on October 28 and 29, 2015 for suspicion of an inadmissible anti-competitive agreement. On April 25, 2016 the CNMC published on its website that it was initiating antitrust proceedings against 11 companies, including Software AG Spain. CNMC extended the case to three additional companies on October 19, 2017. CNMC is accusing Software AG Spain of inadmissible price fixing and covert tenders. Following a hearing on June 12, 2018, the CNMC ruled on July 31, 2018 to impose a penalty on 11 companies, including Software AG Spain. The penalty for Software AG Spain was €6 million, which was paid by court order on January 28, 2019. Software AG appealed the agency's decision and submitted its concluding argument on May 23, 2019.

After a customer of Software AG in the USA, Shelby County, Tennessee, requested exemption from possible claims filed against the county and/or its employees by Software AG in 2017 and 2018, Software AG Cloud Americas, Inc. was added as a defendant in a class-action lawsuit in the U.S. District Court for the Western District of Tennessee on January 18, 2019. The backdrop to this are various lawsuits against a customer of Software AG, Shelby County, Tennessee. The class-action suit has not yet been admitted by the courts and is currently in the early discovery phase.

The risk evaluation for other litigation and legal risks was updated; and provisions were set up based on a new calculation of the probable actual resource outflow.

Provisions for litigation totaled €11,976 thousand (2018: €15,440 thousand) as of December 31, 2019.

In addition, contingent liabilities in the amount of €20,818 thousand (2018: €20,678 thousand) existed. But since a resource outflow as of the balance sheet date was not probable, no provisions were set up. Those relate to individual lawsuits and €8,200 (2018: €8,200 thousand) for tax-related risks.

There were no other changes with respect to the legal disputes reported as of December 31, 2018, nor were there any new legal disputes or other legal risks that could potentially have a significant effect on the Group's financial position, financial performance or cash flows.

[37] Stock Option Plans

Software AG has various stock option plans for members of the Management Board, managers and other Group employees.

Share-based remuneration resulted in a total expense of €11,341 thousand (2018: €10,969 thousand) in fiscal 2019.

No expenses for share-based compensation transactions were capitalized as inventories or non-current assets.

Management Incentive Plan 2019

In May and June 2019, the first rights under the new Management Incentive Plan 2019 were allocated to members of the Management Board, executives and employees in key positions.

The plan differentiates between two types of stock appreciation rights (SARs): retention shares (RSARs) and performance shares (PSARs).

Provided specific conditions are met, both types grant entitlement to payment of a monetary amount equal to the average share price on 20 trading days up to the due date.

The number of PSARs relevant to disbursement is based on the number of rights allocated times a factor which is the result of the performance of Software AG's share price relative to a benchmark index. The Nasdaq 100 was defined as the benchmark index. The resulting factor can be between zero and two.

Outperformance is calculated as follows:

[(Average settlement price for PSARs, minus base price) divided by base price] minus [(final reference index price minus beginning reference index price) divided by beginning reference index price].

Dividend payments are not taken into account when calculating the performance factor.

The factor to use is calculated based on the outperformance achieved as follows:

Outperformance	Factor
≥ 20%	2
< 20% ≥ 18%	1.9
< 18% ≥ 16%	1.8
< 16% ≥ 14%	1.7
< 14% ≥ 12%	1.6
< 12% ≥ 10%	1.5
< 10% ≥ 8%	1.4
< 8% ≥ 6%	1.3
< 6% ≥ 4%	1.2
< 4% ≥ 2%	1.1
< 2% ≥ 0%	1.0
< 0%	0

	PSARs	RSARs 1st Tranche	RSARs 2nd Tranche	RSARs 3rd Tranche	RSARs 4th Tranche
Term of rights (disbursement date)	March 2023	March 2020	March 2021	March 2022	March 2023
Fair value on Dec. 31, 2019 (in €)	17.72	30.93	30.41	29.76	29.01
No. of rights allocated in 2019	152,693	65,077	65,077	65,077	116,828
No. of rights expired in 2019	–10,565	–3,523	–3,523	–3,523	–8,401
Rights outstanding on Dec. 31, 2019	142,128	61,554	61,554	61,554	108,427
Cap per right in €	73.80	73.80	73.80	73.80	73.80

Fair values of PSARs were calculated based on the prices of hedging transactions entered into with a bank; the parameters of the transactions generally correspond to the employees' awards. Fair values of RSARs were calculated based on an option price model that factors in model-influencing option price parameters.

A total expense of €5,028 thousand was incurred under this plan in fiscal 2019. This figure is the balance of an expense of €4,988 thousand in original commitments plus €39 thousand in expenses from hedging the commitments as cash flow hedges.

Provisions totaled €4,988 thousand as of December 31, 2019.

Allocation was based on the following parameters:

Reference price at issue/base price	€45.27
Term of rights	
Tranche 1	36 months
Tranche 2	39 months
Tranche 3	42 months
Tranche 4	45 months
Exercise target	€54.32
Relevant period for reaching the exercise threshold (only applies to members of the Management Board)	Dec. 1, 2019 until Nov. 30, 2020
Cap	€67.91

Management Incentive Plan 2018

As in the previous year, a share-performance-based Management Incentive Plan 2018 for members of the Management Board, upper management and key members of staff was approved in December 2017. It consists of standard European call options to be settled in cash. Allocation took place in four tranches, differing only by terms. Gains on the exercise for members of the Management Board are paid contingent upon an exercise threshold. The exercise threshold has been reached if Software AG's volume weighted average share price (VWAP) in Xetra trading exceeds a defined price on ten consecutive trading days during the relevant period of time. The relevant share price is equal to the exercise target (€54.32) less dividends received since the beginning of the plan.

In December 2017, 1,464,122 rights were awarded under Management Incentive Plan 2018.

The rights granted under Management Incentive Plan 2018 changed as follows in fiscal year 2019:

Balance as of Dec. 31, 2017	**1,464,122**
Granted	288,912
Expired	–378,226
Balance as of Dec. 31, 2018	**1,374,808**
Granted	0
Expired	–219,000
Balance as of Dec. 31, 2019	**1,155,808**

Fair values were calculated based on the prices of hedging transactions entered into with a bank; the parameters of the transactions correspond to the employees' awards.

The fair values as of December 31, 2019 and December 31, 2018 were:

in €	2019	2018
Tranche 1	0.29	1.02
Tranche 2	0.50	1.23
Tranche 3	0.73	1.43
Tranche 4	0.88	1.51

A total expense of €2,268 thousand (2019: €3,943 thousand) was incurred under this plan in fiscal 2019. This figure is the balance of €194 thousand (2018: -€589 thousand) in earnings from original commitments plus €2,462 thousand (2018: €3,354 thousand) in expenses from hedging the commitments as cash flow hedges.

Provisions totaled €395 thousand (2018: €589 thousand) as of December 31, 2019.

Management Incentive Plan 2017

A share-performance-based Management Incentive Plan 2017 for members of the Management Board, upper management and key members of staff was approved in December 2016. It consists of standard European call options to be settled in cash. Allocation took place in four tranches, differing only by terms.

Allocation was based on the following parameters:

Reference price at issue/base price	€33.18
Term of rights	
Tranche 1	36 months
Tranche 2	39 months
Tranche 3	42 months
Tranche 4	45 months
Exercise target	€39.82
Relevant period for reaching the exercise threshold (only applies to members of the Management Board)	Dec. 1, 2018 to Nov. 30, 2019
Cap	€49.77

Gains on the exercise for members of the Management Board are paid contingent upon an exercise threshold. The exercise threshold was €39.82 less dividends paid since the beginning of the plan. The exercise threshold would have been reached if Software AG's daily VWAP in Xetra trading had exceeded the defined price on ten consecutive trading days during the relevant period of time in 2019. Because the threshold was not met in 2019, all rights of Management Board members became null and void.

In December 2016, 1,654,570 rights were awarded under Management Incentive Plan 2017.

The rights granted under Management Incentive Plan 2017 changed as follows in fiscal years 2019 and 2018:

Balance as of Dec. 31, 2017	**1,785,676**
Granted	0
Expired	–82,575
Balance as of Dec. 31, 2018	**1,703,101**
Granted	0
Expired	–1,162,576
Balance as of Dec. 31, 2019	**540,525**

Rights outstanding on December 31, 2019 were divided into tranches as follows:

	Number of rights	Remaining term in years
Tranche 1	0	N/A
Tranche 2	180,175	2 months
Tranche 3	180,175	5 months
Tranche 4	180,175	8 months

Fair values were calculated based on the prices of hedging transactions entered into with a bank; the parameters of the transactions correspond to the employees' awards.

The fair values as of December 31, 2019 and December 31, 2018 were:

in €	2019	2018
Tranche 1	0[1]	2.05
Tranche 2	0.38	2.35
Tranche 3	1.19	2.58
Tranche 4	1.68	2.57

[1] null and void

A total expense of €539 thousand (2018: €2,092 thousand) was incurred under this plan in fiscal 2019. This figure is the balance of €2,346 thousand (2018: €2,442 thousand) in earnings from original commitments plus €2,885 thousand (2018: €4,534 thousand) in expenses from hedging the commitments as cash flow hedges.

Provisions totaled €504 thousand (2018: €2,850 thousand) as of December 31, 2019.

Management Incentive Plan 2016

A share-performance-based Management Incentive Plan 2016 for members of the Management Board, upper management and key members of staff was approved in December 2015. The rights had an original term of three years.

Allocation was based on the following parameters:

Reference price at issue	€25.94
Base price	€0
Term of rights	3
Exercise target	€30.00
Period in which exercise threshold is to be reached	Dec. 1, 2017 to Nov. 30, 2018
Cap	€51.88

The exercise threshold was reached in December 2017. All 411,199 rights outstanding as of December 31, 2017 were therefore vested.

With the exception of the 32,722 rights paid off in December in connection with the premature exit of a Management Board member, all other 378,477 rights were paid off in January 2019. The disbursement amount per right was €35.49.

A total expense of €123 thousand (2018: -€753 thousand) was incurred under this plan in fiscal 2019.

The disbursement amount of €13,555 thousand was paid to members of the Management Board, managers and employees in January 2019. Payment in the amount of €10,647 thousand due to hedging claims was received simultaneously.

Management Incentive Plan 2007–2011 (MIP III)

In 2007, a share-based incentive plan for members of the Management Board and upper management was launched. A total of 7,342,500 participation rights have been issued to Management Board members and managers under the plan.

The performance targets were achieved at the end of fiscal year 2010. The rights have therefore been exercisable since that date.

Conditions for the rights were as follows:

A standard call option with a base price of €24.12; Software AG may opt to settle in cash or equity instruments; there is a cap at €45.00, which limits the maximum benefit from exercising a right to €20.88.

The rights granted under Management Incentive Plan 2007–2011 (MIP III) changed as follows in fiscal years 2019 and 2018:

	Number of rights outstanding	Exercise price per right in €	Weighted average remaining term in years	Aggregated intrinsic value in € thousands
Balance as of Jan. 1, 2018	**12,400**	**24.12**	**1.5**	**282**[1]
Exercised	–6,650	24.12		
Balance as of Dec. 31, 2018	**5,750**	**24.12**	**0.5**	**42**[1]
Exercised	–5,750	24.12		
Balance as of Dec. 31, 2019	**0**			**0**

[1] Based on the respective annual closing prices

The 5,750 rights exercised in 2019 were exercised at a weighted average price of €29.76 per share. The 5,750 rights were settled in cash.

The 6,650 rights exercised in 2018 were exercised at a weighted average price of €41.34 per share. Of those, 3,650 were settled in treasury shares. The remaining 3,000 were settled in cash.

No expenses were incurred under this plan in fiscal 2018 or 2019.

Performance Phantom Share Plan

A portion of the variable management remuneration is paid out as a medium-term component on the basis of a performance phantom share (PPS) plan. As in the previous year, the portion accruing for fiscal year 2019 will be converted into PPS in February 2020 on the basis of the average share price of Software AG stock, less 10 percent. The resulting number of shares will become due in three identical tranches with terms of one, two, and three years. On the due dates in March 2021 to 2023, the number of PPS will be multiplied by the then-applicable share price for February. The beneficiaries will receive an amount per PPS equal to the dividends paid to Software AG shareholders prior to payment of a phantom share tranche.

Beneficiaries may elect to let Software AG dispose of any PPS that have become due after the defined vesting period for up to six years and four months after leaving the Company and thus to continue to participate in the success of the Company.

At the time of payment, the number of shares is multiplied by the average price of Software AG stock on the sixth to tenth trading days after the decision to exercise the relevant phantom shares. The decision to exercise options must be disclosed to the Company from the date of publication of the financial results until the following fifth trading day. Those entitled receive an amount per phantom share equal to the dividends paid to Software AG shareholders prior to payment of the phantom shares.

This plan resulted in expenses of €3,383 thousand (2018: €5,687 thousand) in fiscal 2019. This figure is the balance of expenses of €2,725 thousand (2018: –€2,977 thousand) in original commitments plus an expense of €658 thousand (2018: €8,630 thousand) from hedging transactions with banks for the commitments.

The provisions for the rights outstanding under the PPS plan amounted to €17,210 thousand (2018: €15,456 thousand) as of December 31, 2019.

The intrinsic value of the rights exercisable under the performance phantom share plan as of December 31, 2019 amounted to €10,513 thousand (2018: €9,216 thousand) as of December 31, 2019.

[38] Corporate Bodies

Members of the Supervisory Board:

Dr. Andreas Bereczky
Graduate *(Dr.-Ing.)* in mechanical engineering
Shareholder representative
Chairman

Other supervisory board and similar seats:

- *Member of the board of directors of GFT Technologies SE, Stuttgart, Germany*
- *Member of the advisory board of Eurovision Services S.A., Geneva, Switzerland (since February 1, 2019)*

Guido Falkenberg
Graduate *(Diplom)* in computer science
Employee representative
Deputy Chairman

Employee of Software AG, Darmstadt, Germany

Other supervisory board seats:

- *none*

Eun-Kyung Park
Graduate *(Diplom)* in business administration
Shareholder representative

CEO
ProSiebenSat.1 Digital GmbH, Unterföhring, Germany
(until October 16, 2019)
and CEO
ProSiebenSat.1 TV Deutschland GmbH,
Unterföhring, Germany (until October 16, 2019)

Other supervisory board seats:

- *Member of the supervisory board of ad pepper media International N.V., Amsterdam, Netherlands (until December 11, 2019)*

Alf Henryk Wulf
Graduate *(Diplom)* in engineering
Shareholder representative

Other supervisory board and similar seats:

- *Member of the supervisory board of 1NCE GmbH, Cologne, Germany*
- *Member of the advisory board of VHV Versicherungs AG, Hannover, Germany*
- *Member of the supervisory board of Pfisterer Holding AG, Winterbach, Germany (until August 12, 2019)*
- *Member of the supervisory board of DEA Deutsche Erdoel AG, Hamburg, Germany (until May 1, 2019)*
- *Member of the supervisory board of GE Grid GmbH, Frankfurt am Main, Germany (until February 1, 2019)*

Markus Ziener
Graduate *(Diplom)* in economics
B.A. in business administration
Shareholder representative

Member of the board of the Software AG Foundation, Darmstadt, Germany

Other supervisory board seats:

- *Member of the Supervisory Board of Amryt Pharma plc, Dublin, Ireland (until September 24, 2019)*
- *Member of the Supervisory Board of GLS Bank eG, Bochum, Germany (since June 15, 2019)*

Christian Zimmermann
Graduate *(Diplom)* in business information systems
Employee representative

Employee of SAG Deutschland GmbH, Darmstadt, Germany

Other supervisory board seats:

- *none*

Members of the Management Board:

Sanjay Brahmawar
M.B.A. in finance and marketing;
Bachelor's degree in civil engineering

Chief Executive Officer
Global Human Resources (until July 31, 2019),
Global Legal (until December 31, 2019),
Global Information Services (IT) (until December 31, 2019),
Marketing, Corporate Communications, CTO Office,
Global Processes, Audits & Quality and Corporate Office

Supervisory board seats:

- *none*

Dr. Elke Frank
Graduate in law

Chief Human Resources Officer
(since August 1, 2019)
Global Human Resources, Helix Transformation Office,
Global Legal (since January 1, 2020),
Global Information Services (IT) (since January 1, 2020)

Supervisory board seats:

- *none*

Dr. rer. nat. Wolfram Jost
Graduate *(Diplom)* in business administration

Chief Technology Officer
(until January 8, 2019)
Product Management, Product Marketing, Analyst Relations,
CTO Community, Strategic Customer Programs

Supervisory board seats:

- *none*

John Schweitzer
B.S. in economics and finance

Chief Revenue Officer
Global Sales, Professional Services and Alliances & Channels

Supervisory board seats:

- *none*

Dr. Stefan Sigg
Graduate *(Diplom)* in mathematics

Chief Product Officer
Product Development and Delivery, Product Management,
Research and University Alliances, Global Support,
Product Design and Architecture, R&D Operations and
Shared Services, Cloud Operations

Supervisory board seats:

- *Member of the supervisory board of Deutsches Forschungszentrum für künstliche Intelligenz GmbH (DFKI), Kaiserslautern, Germany (since May 24, 2019)*

Arnd Zinnhardt
Graduate *(Diplom)* in business administration

Chief Financial Officer
(until March 31, 2020)
Finance, Controlling, Treasury, Taxes, M&A, Business Operations,
Investor Relations, Global Procurement

Supervisory board and other seats:

- *Member of the administrative board of Landesbank Hessen-Thüringen Girozentrale, Frankfurt am Main, Germany*
- *Member of the supervisory board of Warth & Klein Grant Thornton AG, Düsseldorf, Germany (since October 7, 2019)*

Remuneration of the Management Board pursuant to section 314 (1), no. 6 of the German Commercial Code (HGB)

Total remuneration for members of the Management Board, including newly issued MIP 2019 (2018: MIP 2018) options, was €15,347 thousand (2018: €19,070 thousand) in fiscal 2019. This includes awards under the new MIP 2019 stock option plan in the amount of €3,227 thousand (2018: €295 thousand). This value was determined by an external auditor.

Remuneration of the Management Board still includes consideration paid for 68,864 (2018: 88,022) committed PPS totaling €2,291 thousand (2018: €2,855 thousand). The awarded phantom shares had a fair value as of the grant date of €33.27 (2018: €32.43) per PPS.

Remuneration under this plan totaled €2,347 thousand (2018: €3,204 thousand) in fiscal 2019.

Remuneration for former Management Board members totaled €1,743 thousand (2018: €582 thousand).

Pension provisions, offset against plan assets for former Management Board members, totaled €18,319 thousand (2018: €12,767 thousand). Pension obligations for former Management Board members amounted to €32,706 thousand (2018: €24,831 thousand). These amounts include provisions for periods of time in which two members of the Management Board were executive employees or members of the Group Executive Board.

Software AG did not grant any advances or loans to Management Board members in fiscal 2019 or in fiscal 2018. It also did not enter any contingent liabilities for these individuals.

Detailed disclosures on the remuneration paid to Management Board members are made in the Remuneration Report, which forms part of the Consolidated Management Report.

Remuneration of the Supervisory Board pursuant to section 314 (1), no. 6 of the German Commercial Code (HGB)

Total remuneration for the Supervisory Board amounted to €618 thousand (2018: €614 thousand) in fiscal 2019.

Software AG did not grant any advances or loans to Supervisory Board members in fiscal 2019 or in fiscal 2018. It also did not enter any contingent liabilities for these individuals.

Detailed disclosures on the remuneration paid to Supervisory Board members are made in the Remuneration Report, which forms part of the Consolidated Management Report.

[39] Related Party Transactions

A related party as defined by IAS 24 Related Party Disclosures is any legal or natural person able to exercise control over Software AG or a Software AG subsidiary, that is controlled by Software AG or a Software AG subsidiary, or in which Software AG or a Software AG subsidiary has an interest that gives it significant influence over such legal or natural person. This also includes any legal or natural person having an interest in Software AG that gives it significant influence over Software AG (Software AG Foundation), unconsolidated subsidiaries, and the members of Software AG's executive bodies, whose remuneration is
p. 218 specified in Note [38] as well as in the Remuneration
S. 128 Report in the Consolidated Management Report.

Disclosures on remuneration paid to related parties pursuant to IAS 24

Parties related to Software AG consist of the members of the Management Board and the Supervisory Board.

Remuneration paid to the Management Board can be broken down as follows:

in € thousands	2019	2018
Short-term benefits	7,241	12,210
Post-service benefits [1]	4,014	5,562
Share-based compensation [2]	2,645	2,885
	13,900	**20,657**

[1] The service cost of pension obligations pursuant to IAS 19 and legal/voluntary benefits to pension insurance companies in the USA are shown here. Furthermore, this item includes severance payments for Mr. Zinnhardt in the amount of €2,545 thousand (2018: severance, including social benefits, for Mr. Duffaut in the amount of €2,046 thousand and for Mr. Jost in the amount of €2,022 thousand).

[2] Expenses incurred under the PPS plan, Management Incentive Plan 2017 (MIP 2017), Management Incentive Plan 2018 (MIP 2018) and Management Incentive Plan 2019 (MIP 2019) are shown here.

Net pension obligations for Management Board members amounted to €2,343 thousand (2018: €47 thousand). Gross pension obligations for Management Board members amounted to €7,921 thousand (2018: €7,454 thousand).

Furthermore, obligations from share-based compensation plans, including bonuses converted to PPS at year-end, for members of the Management Board amounted to €6,725 thousand (2018: €7,275 thousand).

Obligations to members of the Management Board from short-term variable remuneration components amounted to €3,672 thousand (2018: €3,265 thousand).

Remuneration paid to the members of the Supervisory Board in fiscal year 2019 totaled €618 thousand (2018: €614 thousand). This remuneration included a fixed short-term component and compensation for committee work.

Remuneration of the Management and Supervisory Boards is outlined in detail in the Remuneration Report. The Remuneration Report presents the structure and amount of the individual components. The Remuneration Report is included in the Consolidated Management Report.

No other business transactions took place between Software AG and the members of the Management Board or the Supervisory Board in fiscal year 2019.

[40] Auditor Fees

Software AG's general and administrative expenses include expenses for auditors' fees paid to BDO AG, the Group auditor, totaling €958 thousand (2018: €932 thousand). Of this amount, €923 thousand (2018: €867 thousand) relates to the audit of the domestic entities' and the Group's financial statements, €35 thousand (2018: €34 thousand) to other testation services and €0 thousand (2018: €31 thousand) to tax advisory services. Other testation services refer primarily to audits in the context of the combined non-financial statement and EMIR compliance.

[41] Events After the Balance Sheet Date

Software AG announced the appointment of Dr. Matthias Heiden as its new Chief Financial Officer (CFO) on January 14, 2020. Arnd Zinnhardt resigned from his Management Board position effective as of March 31, 2020. Following a transition period, Dr. Matthias Heiden will assume the position of Chief Financial Officer and a seat on the Management Board.

Because the terms of Supervisory Board chairman Dr. Andreas Bereczky and of Supervisory Board members Mr. Markus Ziener, Mr. Alf Henryk Wulf and Ms. Eun-Kyung Park end on May 20, 2020, the date of the next Annual Shareholders' Meeting, the Supervisory Board resolved on March 2, 2020 to nominate the following candidates for election to the Supervisory Board at the next Annual Shareholders' Meeting on May 20, 2020:

- Mr. Karl-Heinz Streibich, long-term former CEO, Software AG,
- Ms. Ursula Soritsch-Renier, Group CIO and Digital Leader, Nokia
- Mr. Ralf Dieter, CEO, Dürr AG
- Supervisory Board member Mr. Markus Ziener, executive board, Software AG Foundation, will put himself forward for reelection

There were no further events that occurred between December 31, 2019 and the date of release of the consolidated financial statements that were of significance to the consolidated financial statements.

[42] Statement on Corporate Governance

Pursuance to section 315 d HGB and in conjunction with 289 et seq. HGB, Software AG submitted its Statement on Corporate Governance on February 28, 2020. It will be available online starting on March 2, 2020 at SoftwareAG.com/statement.

This statement includes the Declaration of Compliance with the German Corporate Governance Code pursuant to section 161 of the German Stock Corporation Act (AktG), which was issued separately and published on January 28 / January 31, 2020 at: www.softwareag.com/declaration.

[43] Exemption for Domestic Group Companies Pursuant to Section 264 (3) of the German Commercial Code (HGB)

With the approval of the relevant shareholders' meetings, SAG Deutschland GmbH, Darmstadt, Germany, SAG Consulting Services GmbH, Darmstadt, Germany, and SAG LVG mbH, Darmstadt, Germany, which are included in the consolidated financial statements of Software AG, have been exempt from the duty to prepare and publish annual financial statements and a management report, and from the duty to have them audited, in compliance with provisions applicable to corporations in accordance with section 264 (3) of the German Commercial Code.

Date and authorization for issue

Software AG's Management Board approved the Consolidated Financial Statements on March 2, 2020.

Darmstadt, March 2, 2020

Software AG

S. Brahmawar   Dr. E. Frank

J. Schweitzer   Dr. S. Sigg

A. Zinnhardt

Additional Information

In some cases, rounding could mean that values do not add up to the exact sum given or percentages do not equal the values presented.

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group. And the Combined Management Report includes a fair review of the development and performance of the business and the position of the Company and Group, together with a description of the principal opportunities and risks associated with the expected development of the Company and Group.

Darmstadt, March 2, 2020

Software AG

S. Brahmawar Dr. E. Frank

J. Schweitzer Dr. S. Sigg

A. Zinnhardt

Independent Auditor's Report

To the Software Aktiengesellschaft, Darmstadt

Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report

Audit opinions

We have audited the consolidated financial statements of Software Aktiengesellschaft, Darmstadt, and its subsidiaries (the Group), which comprise the Consolidated Statement of Financial Position as at December 31, 2019 and the Consolidated Income statement, the Statement of Comprehensive Income, the Consolidated Statement of Cash Flows and the Consolidated Statement of Changes in Equity for the financial year from January 1, 2019 to December 31, 2019, and Notes to the Consolidated Financial Statements, including a summary of significant accounting policies. In addition, we have audited the Combined Management Report of the Group for the financial year from January 1, 2019 to December 31, 2019. In accordance with the German legal requirements we have not audited the content of those parts of the Combined Management Report listed in "Other Information."

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to § [Article] 315e Abs. [paragraph] 1 HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at December 31, 2019, and of its financial performance for the financial year from January 1, 2019 to December 31, 2019, and
- the accompanying Combined Management Report as a whole provides an appropriate view of the Group's position. In all material respects, this Combined Management Report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the combined management report does not cover the content of the parts of the Combined Management Report listed in "Other Information."

Pursuant to § 322 Abs. 3 Satz [sentence] 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the Combined Management Report.

Basis for the audit opinions

We conducted our audit of the consolidated financial statements and of the Combined Management Report in accordance with § 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report" section of our auditor's report. We are independent of the Group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements.

In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the Combined Management Report.

Key audit matters in the audit of the consolidated financial statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1, 2019 to December 31, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon, we do not provide a separate audit opinion on these matters.

We have identified the following items as key audit matters:

1. Revenue recognition for software licenses

2. Impairment of goodwill

3. Recognition and measurement of income taxes

Revenue recognition for software licenses

Facts and circumstances

In the consolidated financial statements of Software AG, revenue amounting to € 890.6 million was disclosed in the consolidated income statement and was mainly generated by granting software licenses (€ 245.1 million), from maintenance (€ 435.0 million) and from services (€ 187.2 million). Frequently, the Company's customers are granted software licenses combined with maintenance and/or services in multiple element contracts. To ensure that revenue generated from these highly complex business transactions is uniformly and consistently recognized, Software AG has implemented detailed accounting policy guidelines in line with the applicable accounting standards, and has established uniform processes throughout the Group. Due to the size of individually large contracts, management decisions requiring significant judgment may materially affect the consolidated financial statements. These decisions by management may especially be necessary in identifying performance obligations of a contract,as well as determining and allocating the transaction price to those separate obligations.

The respective revenue disclosures presented by Software AG are to be found in the notes to the consolidated financial statements in sections [3] Accounting Policies and Measurement Methods, [5] Total Revenue and [31] Segment Reporting.

Audit response and findings

We examined whether the Software AG accounting policies complied with IFRS 15 Revenue from Contracts with Customers. We assessed the processes and controls for recognizing revenues generated by granting software licenses, especially in transactions involving multiple element contracts established by the Group, and examined their effectiveness. In particular, controls involving the proper identification of performance obligations, the determination and the allocation of the transaction price were thereby tested. By involving our IT specialists, we additionally assessed the related systems used in accounting for revenue. For all of the significant contracts and a selection of the remaining contracts for granting software licenses we performed substantial audit procedures and assessed management decisions with regards to the identification of performance obligations, determination of the transaction price and allocation of this price among the separate performance obligations. We examined the contracts to the extent required for assessing if they were presented in the consolidated financial statements in accordance with IFRS, and if the accounting policies of Software AG had been uniformly applied throughout the Group. By giving appropriate instructions to the component auditors and then performing an assessment of the reporting from their audit, we ensured that the audit procedures were performed uniformly throughout the Group. Furthermore we examined the disclosures required by IFRS 15 Revenue from Contracts with Customers as presented in the notes.

Based on the audit procedures we performed, we are of the opinion that the underlying assumptions and management's judgment used for revenue recognition, in particular in the area of identifying performance obligations, determining transaction prices and allocation of the transaction prices among separate obligations, were presented fairly, in all material respects.

Impairment of goodwill

Facts and circumstances

In the consolidated financial statements of Software AG, goodwill as presented under non-current assets, amounts to €980.1 million, representing 46 percent of the balance sheet total. Goodwill was allocated to cash-generating units.

Cash-generating units with goodwill are subject to impairment tests by the Company at least once a year as well as to an additional impairment test if there are any indications of an impairment. The valuation is thereby made by using the discounted cash flow method. If the carrying amount of a cash-generating unit is higher than its recoverable amount, the carrying amount is written down to the recoverable amount.

Assessing the recoverability of goodwill is complex and requires that management make numerous estimates and use significant judgment, especially with regard to revenue growth and the development of profit margins within a detailed four year budget period, a sustainable growth rate for cash flows expected for a forecast beyond the detailed budget period, and the discount rate to be used. This is a key audit matter due to the significance of the balance for goodwill in the consolidated financial statements of Software AG and because of considerable uncertainties associated with such a measurement.

Software AG's disclosures concerning goodwill are contained in section [20] Intangible Assets and Goodwill in the notes to the consolidated financial statements.

Audit response and findings

In the course of our audit we assessed the appropriateness of the material assumptions and the valuation parameters as well as the calculation methods used for impairment testing by involving our valuation specialists. We gained an understanding of the planning system and planning processes of management as well as of the significant assumptions they used. The budget for the subsequent year, as approved by the Supervisory Board, thereby constitutes the starting point for forecasting future cash flows within the detailed budget period. We examined the underlying budget assumptions and growth rates assumed for the expected cash flows beyond the detailed budget period by comparing past developments and current industry-specific market expectations. We reconciled the forecast of future cash flows in the first year of the detailed budget period with the budget approved by the Supervisory Board and determined reasonableness of the Company's historical forecasting accuracy by means of an analysis of budget-to-actual variances. Furthermore, we critically analysed the discount rates used on the basis of the average costs of capital of a peer group. Our audit also encompassed sensitivity analyses made by Software AG. Regarding the effects of possible changes in costs of capital and the growth rates assumed, we additionally performed our own sensitivity analyses.

Overall, we were able to gain reasonable assurance that the assumptions made by management when performing impairment tests and the valuation parameters used were traceable and within an appropriate range.

Recognition and measurement of income taxes

Facts and circumstances

In the consolidated financial statements of Software AG, income taxes reduced earnings before income taxes by 27.8 percent. This reduction comprised expenses for current taxes (27.5 percent) as well as for deferred taxes (0.3 percent). Software AG conducts business in numerous jurisdictions and is consequently subject to many tax laws worldwide. The recognition and measurement of income tax liabilities and tax receivables, including estimating the probability and extent income tax-related issues result in payment obligations, require significant judgment, and demand a high degree of expertise. In addition, the assessment of the extent to which tax authorities will question tax-related facts is subject to a high amount of uncertainty. Along with current taxes, tax items also encompass deferred taxes that result from temporary differences and tax loss carryforwards that will be realized in future financial years. In particular, the assessment of recoverability for deferred tax assets, which result from deductible temporary differences and tax loss carryforwards, requires significant judgment by management.

Software AG's disclosures on income taxes and deferred taxes are contained in sections [3] Accounting Policies and Measurement Methods, [12] Income Taxes, [19] Income Tax Receivables, [22] Deferred Taxes and [27] Income Tax Liabilities in the notes to the consolidated financial statements.

Audit response and findings

We involved internal specialists from our Tax Department, who worked closely with the audit team. With their support we assessed, amongst others, the methodical procedures for determining, measuring, and accounting for all tax items. We examined the calculations of income tax liabilities and of tax receivables according to IAS 12 Income Taxes and IFRIC 23 Uncertainty over Income Tax Treatments, which was initially applied 2019, on the basis of our knowledge of the relevant tax regulations as well as their present application by government authorities and courts. In order to assess income tax risks, we furthermore read the correspondence with tax authorities as well as the transfer pricing documentation critically. The plausibility of the assumptions of the legal representatives about the future taxable income situation was assessed, as it serves as the basis for the recognition and measurement of deferred tax assets resulting from deductible temporary differences and tax loss carryforwards. Tax specialists in our international network supported us in assessing tax items as well as in estimating the tax risks of significant foreign entities and reported the results of their assessments to us. We had our tax specialists analyse these reports.

On the basis of the accounting procedures performed by us, we were, on the whole, able to gain reasonable assurance over the underlying assumptions held and the judgment used by management in accounting for and measuring current and deferred taxes.

Other information

The members of the Management Board are responsible for the other information. The other information comprises:

- the Non-Financial Statement included in the Combined Non-Financial Statement of the Combined Management Report
- the separately published statement on corporate governance to which section "statement on corporate governance" of the Combined Management Report refers
- the remaining parts of the annual report, with the exception of the audited consolidated financial statements and Combined Management Report and our auditor's report.

Our audit opinions on the consolidated financial statements and on the combined management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the Combined Management Report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Management Board and the Supervisory Board for the consolidated financial statements and the Combined Management Report

The Management Board is responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition the members of the Management Board are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the members of the Management Board are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the members of the Management Board are responsible for the preparation of the Combined Management Report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the members of the Management Board are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a Combined Management Report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the Combined Management Report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the Combined Management Report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the Combined Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the Combined Management Report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the Combined Management Report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this Combined Management Report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the Combined Management Report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the Combined Management Report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by the members of the Management Board and the reasonableness of estimates made by the members of the Management Board and related disclosures.

- Conclude on the appropriateness of the members' of the Management Board use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the Combined Management Report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the Combined Management Report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.

- Evaluate the consistency of the Combined Management Report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by the members of the Management Board in the Combined Management Report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the members of the Management Board as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Further information pursuant to article 10 of the EU Audit Regulation

We were elected as Group auditor by the Annual Shareholders' Meeting on May 28, 2019. We were engaged by the Supervisory Board on August 14, 2019. We have been the Group auditor of Software AG without interruption since the financial year 1997.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Ralf Pfeiffer.

Berlin, March 4, 2020

BDO AG
Wirtschaftsprüfungsgesellschaft

Klaus Eckmann German Public Auditor	Ralf Pfeiffer German Public Auditor

Independent Practitioner's Report

Independent Practitioner's Report on a Limited Assurance Engagement on Non-Financial Reporting Statement [1]

To the Supervisory Board of Software AG, Darmstadt

We have performed a limited assurance engagement on the non-financial Group statement of Software AG, Darmstadt, according to § 315b HGB (Handelsgesetzbuch; German Commercial Code), which is combined with the non-financial statement of the parent company according to § 289b HGB, consisting of the Combined Non-Financial Statement in the Combined Management Report as well as the Business Model section incorporated by reference for the period from January 1, 2019 to December 31, 2019.

Management's responsibility

The legal representatives of the Company are responsible for the preparation of the Combined Non-Financial Statement in accordance with §§ 315c in conjunction with 289c to 289e HGB.

This responsibility includes the selection and application of appropriate methods to prepare the Combined Non-Financial Statement as well as making assumptions and estimates related to individual disclosures, which are reasonable in the circumstances. Furthermore, the legal representatives are responsible for such internal controls that they have considered necessary to enable the preparation of the Combined Non-Financial Statement that is free from material misstatements, whether due to fraud or error.

Practitioner's responsibility

Our responsibility is to express a limited assurance conclusion on the Combined Non-Financial Statement based on the assurance engagement we have performed.

We are independent from the entity in accordance with the provisions under German commercial law and professional requirements, and we have fulfilled our other professional responsibilities in accordance with these requirements.

Our audit firm applies the national statutory regulations and professional pronouncements, in particular the Professional Code for German Public Auditors and German Chartered Accountants (Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer – BS WP/vBP) as well as the Standard on Quality Control issued by the Institute of Public Auditors in Germany, Incorporated Association, (Institut der Wirtschaftsprüfer in Deutschland e.V.; IDW). Requirements for quality control in audit firms (IDW Qualitätssicherungsstandard: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis; IDW QS 1).

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board. This Standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether the Combined Non-Financial Statement of the Company has been prepared, in all material respects, in accordance with §§ 315c in conjunction with 289c to 289e HGB. In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner's professional judgement.

[1] We have performed a limited assurance engagement on the German version of the Combined Non-Financial Statement and issued an Independent Practitioner's Report in the German language, which is authoritative. The following text is a translation of the original German Independent Practitioner's Report.

Within the scope of our assurance engagement, which substantially has been conducted in February 2020, we performed amongst others the following assurance and other procedures:

- Obtaining an understanding of the structure of the sustainability organization and of the stakeholder engagement
- Inquiries of personnel involved in the preparation of the Combined Non-Financial Statement regarding the preparation process, the systems of internal controls relating to this process and regarding disclosures in the Combined Non-Financial Statement
- Identification of likely risks of material misstatements in the Combined Non-Financial Statement
- Analytical evaluations of quantitative disclosures
- Evaluation of selected internal and external documents
- Evaluation of the presentation of the disclosures

Assurance conclusion

Based on our assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the Combined Non-Financial Statement of Software AG, Darmstadt, for the period from January 1, 2019 to December 31, 2019, has not been prepared, in all material respects, in accordance with §§ 315c in conjunction with 289c to 289e HGB.

Intended use of the assurance report

We issue this report on the basis of the engagement agreed with the Supervisory Board of the Company. The assurance engagement has been performed for purposes of the Supervisory Board of Software AG, Darmstadt, and the report is solely intended to inform this as to the results of the assurance engagement and must not be used for purposes other than those intended. The report is not intended to provide third parties with support in making (financial) decisions.

Our responsibility lies solely towards the Supervisory Board of Software AG, Darmstadt, and this is limited in accordance with the Special Terms and Conditions of BDO AG Wirtschaftsprüfungsgesellschaft as of January 1, 2020 and the General Engagement Terms issued by the IDW as of January 1, 2017 (www.bdo.de) as agreed with the Supervisory Board. We refer to the provisions contained there. We do not assume any responsibility or liability towards third parties.

Hamburg, March 4, 2020

BDO AG Wirtschaftsprüfungsgesellschaft

Ellen Simon-Heckroth
Wirtschaftsprüfer
(German Public Auditor)

Nils Borcherding
Wirtschaftsprüfer
(German Public Auditor)

Glossary

Adabas (Adaptable Database System)
Adabas was invented by Software AG founder Peter Schnell and was the first high-performance transactional database. Since its market launch in 1971, Adabas—together with Natural—has formed the backbone of many large corporations' and public institutions' IT. Software AG's Adabas for zIIP offering enables users to move workloads from general purpose processors (GPP) to more economical IBM zIIP processors.

Adabas & Natural (A&N)
A Software AG business line comprising database management, application development and mainframe application technologies. With its Adabas & Natural 2050+ initiative, Software AG will develop the A&N product portfolio through the year 2050 and beyond and will support A&N customers in maximizing the long-term innovation potential of digitalization.

Alfabet
Software AG's Alfabet products for IT planning and enterprise architecture management enable organizations to analyze their IT environments and, based on this data, to make decisions about their IT investment and plan their future IT architectures accordingly.

Apama
Software AG's Apama Streaming Analytics platform helps organizations perform ongoing big data streaming analytics to derive intelligent, automated actionable insights and convert data, such as that generated by the Internet of Things, into meaningful and relevant information.

ARIS (Architecture for Integrated Information Systems)
A scientific method for documenting, analyzing and optimizing business processes. Software AG's ARIS products help define strategy as well as design, model, implement, control and measure processes.

big data
A universal term for the vast amounts of unstructured data resulting from digital technologies.

business process management (BPM)
The methods, concepts and tools used to design, deploy, control and analyze business operation processes involving people, systems, applications, data and organizations.

cloud
Cloud (computing) is an IT infrastructure made available over a computing network.

CONNX
Software AG's CONNX products enable access to (real-time read/write access) and integration of SQL data.

corporate social responsibility (CSR)
The responsibility of companies to uphold social and ecological values as well as to conduct sustainable business activities. It is based on the assumption that economic success is inherent to a business model aligned with these factors.

Cumulocity IoT
Software AG's IoT platform that integrates digital devices and sensors with the Internet of Things and makes the resulting data accessible and consumable via dashboards and rule systems.

Digital Business Platform (DBP)
An agile software platform that helps organizations achieve adaptive applications and customized software solutions quickly and flexibly. The combination of process, data, integration and (real-time) decision logic with applications lay a foundation for enterprise digital transformation. DPB has also been used to refer to Software AG's largest business line since 2015.

edge computing
In edge computing, data is processed right where it is generated: decentralized, at the edge of a network. Modern methods of analytics and machine learning can be applied directly to data generated by sensors. Edge computing accelerates data streaming and enables real-time data processing, especially in open distributed IT architectures. With Software AG's Cumulocity IoT/Apama-based solution, data analysis at the edge of a network is possible, ensuring that sensor data is utilized optimally.

enterprise architecture management (EAM)
A complete management concept to optimize IT system landscapes. EAM includes the documentation of the current landscape as well as the design and planning of an ideal IT landscape for the future.

EVP (employee value proposition)
A company can use its EVP to describe its offerings to and expectations of potential and existing employees. Software AG's EVP, "BeYourBestYou," defines its core values: Performance, Engagement, Team, Innovation and Accountability. Software AG strives to provide its employees with an environment in which they can fully maximize their personal potential.

Global Reporting Initiative (GRI)
The GRI is an independent international organization that has pioneered sustainability reporting since 1997. The GRI guidelines for sustainability reporting provide reporting fundamentals and information on standards as well as implementation instructions for creating sustainability reports for all organizations, regardless of size, industry or location.

Helix
Helix is Software AG's strategy aimed at sustainable, organic and profitable growth. It is based on Software AG's core strengths and many years of expertise. It prioritizes high-growth markets, the Company's ability to execute and development of a powerful team.

Industrial Internet of Things (IIoT)
IIoT is a variation of the Internet of Things that focuses on IoT applications in industrial and manufacturing environments.

Industry 4.0
This term refers to the digitalization of manufacturing (the fourth industrial revolution) or digital connectivity of all parts of the value chain with the aim of boosting productivity and quality as well as creating new value.

internal control system (ICS)
Software AG's ICS operationalizes business risks. It consists of internal policies on business policies and practices, as well as Group-wide specification of effective internal controls, compliance with which is continually monitored.

integration Platform as a Service (iPaaS)
iPaaS refers to cloud-based services that integrate applications and data from different cloud and on-premise environments. It eliminates the need to deploy and manage hardware and middleware for the purpose of integration. Software AG's webMethods Integration Cloud features both cloud-to-cloud integration and integration between cloud and on-premise systems.

Internet of Things (IoT)
A concept whereby smart objects such as embedded devices and sensors can provide detailed information about the status of products and systems, the environment and even health-related data. The connectivity of physical objects and the virtual world within an Internet-like structure will help humans complete their activities without being noticed.

middleware
Integration software in a complex IT infrastructure whose task is to simplify mechanisms for accessing underlying layers. Middleware such as Software AG's webMethods facilitates data exchange between legacy application silos.

Natural
Software AG's high-performance development and deployment environment designed to support creation of enterprise applications for mainframe and open systems platforms (Linux, UNIX, Windows). Since its market launch in 1979, Natural and Adabas have formed the backbone of many large companies' and public institutions' IT. Software AG's Natural for zIIP offering enables software developers to move workloads from general purpose processors (GPP) to more economical IBM zIIP processors.

on-premise
On-premise is a traditional licensing and usage model for server-based computer programs whereby software is installed and run locally on the user's own hardware.

SoftwareAG.Cloud
Software AG's SoftwareAG.Cloud is a cutting-edge open cloud platform that businesses can use to create, test, implement and manage apps ranging from very simple to highly complex cloud-capable enterprise and IoT applications.

Software as a Service
A software usage model whereby a term-limited license granting the right to use and operate software (hosting) is acquired.

subscription
Temporary software licenses, often sold in combination with maintenance services. The two performance obligations are usually inextricably linked.

TrendMiner
TrendMiner is Software AG's intuitive Web-based analytics platform that enables flexible visualization of industrial processes and measurement data.

webMethods
Systems, business partners, data, devices and SaaS applications can be integrated quickly using Software AG's webMethods products. The webMethods product family includes Agile Applications, API Management, Business Process Management, Integration and Operational Intelligence.

Zementis
Artificial intelligence, machine learning and predictive analytics are the foundation of the next generation of software. Zementis is Software AG's easy-to-use predictive analytics software tool allowing organizations to gain fast insights about their data and make smart business decisions.

Financial Calendar

Highlights

2020	
October 21	Q3/2020 financial results (IFRS, unaudited) Publication of Q3/2020 quarterly statement
July 22	Q2/2020 financial results (IFRS, unaudited)
May 20	Annual Shareholders' Meeting – **cancelled*** Darmstadt, Germany
April 23	Q1/2020 financial results (IFRS, unaudited) Publication of Q1/2020 quarterly statement

For the latest information on events and roadshows, please visit: SoftwareAG.com/financialcalendar.

* In light of the coronavirus (COVID-19) and the associated precautions and restrictions on the right to assemble, Software AG's Annual Shareholders' Meeting, originally planned for May 20, 2020, has been cancelled. It will be rescheduled as soon as the situation has eased or the meeting can be held without a heightened risk. The option of a virtual event (Online AGM) is currently being considered. Software AG will inform its shareholders and the public in due course.

Publication Credits

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Six-Year Summary

Key Group Figures

in € millions (unless otherwise stated)	2019	2018	2017	2016	2015	2014
Revenue	**890.6**	**865.7**	**879.0**	**871.8**	**873.1**	**857.8**
By type						
Products						
thereof licenses	245.1	249.4	250.1	263.0	271.9	270.1
thereof maintenance	435.0	415.4	420.2	412.2	406.9	371.3
thereof SaaS [1]	22.7	17.6	9.1	—	—	—
Services and other revenue	187.8	183.3	199.6	196.6	194.3	216.4
By business line						
Digital Business Platform (DBP, incl. Cloud & IoT)	474.5	464.7	456.5	441.4	431.5	394.5
Adabas & Natural (A&N)	228.9	218.3	223.7	234.6	248.0	245.3
Consulting	187.2	182.6	198.8	195.8	193.6	218.0
EBIT [2]	**214.8**	**231.6**	**222.8**	**213.9**	**209.4**	**176.0**
as % of revenue	24.1	26.8	25.3	24.5	24.0	20.5
Net income	**155.3**	**165.2**	**140.6**	**140.4**	**139.6**	**110.6**
as % of revenue	17.4	19.3	16.0	16.1	16.0	12.9
Employees (full-time equivalents)	**4,948**	**4,763**	**4,596**	**4,471**	**4,337**	**4,421**
in Germany	1,278	1,243	1,155	1,148	1,178	1,216
Balance sheet						
Total assets	**2,116.1**	**2,007.9**	**1,907.5**	**1,957.2**	**1,814.8**	**1,848.9**
Cash and cash equivalents	513.6	462.3	365.8	374.6	300.6	318.4
Net debt/net cash	217.0	149.0	55.2	73.1	25.7	132.9
Equity	1,357.5	1,239.1	1,118.3	1,196.8	1,089.7	1,013.4
as % of total assets	64.2	61.7	58.6	61.1	60.0	54.8

[1] In 2009–2016 SaaS revenue was included in licenses or maintenance; (2009–2016 is therefore only comparable with 2017 and 2018 to a limited extent)
[2] EBIT: net income + income taxes + other taxes + net financial income/expense

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