Combined Management Report

Fundamental Aspects of the Group

ORGANIZATION AND GROUP STRUCTURE

LEGAL CORPORATE STRUCTURE

The Software AG Group is managed globally by the parent Company, Software Aktiengesellschaft (for short: Software AG), in its role 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 prepares one Combined Management Report for the Group and for Software AG. 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 four German subsidiaries: SAG Deutschland GmbH, SAG Consulting Services GmbH, Cumulocity GmbH, and SAG LVG mbH. Otherwise, the Group is structured as a matrix organization reflected in its reporting lines, global policies, and committees. The Software AG Group currently consists of 72 affiliated companies. Software AG’s scope of consolidation is outlined in Note [3] of the Notes to the Consolidated Financial Statements.

MAJOR LOCATIONS

As a globally active Group 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 worldwide. The Company's corporate headquarters are located in Darmstadt, Germany. Its largest locations by employee numbers are in Germany, India, the United States, Israel, Bulgaria, the United Kingdom, and Malaysia. Software AG is positioning itself both in established as well as in emerging and high-potential regions as part of its global geographic strategy.

As of December 31, 2022, Software AG employed 4,996 (2021: 4,819) full-time equivalents around the world, which represents an increase of 4 percent compared to the previous year. The employees are separated into four business areas: Research & Development (R&D), Support and Services, Sales and Marketing, and Administration. Software AG's global staff was distributed according to country and function as follows:

Headcount by Country and Function

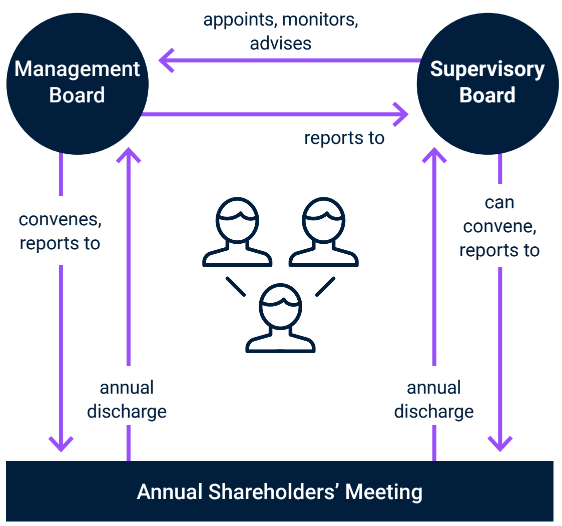
Full-time equivalents	Dec. 31, 2022	Dec. 31, 2021	+/– as %
Total	**4,995**	**4,819**	**4**
Germany	1,306	1,385	-6
India	1,103	1,097	1
USA	796	601	32
Other countries	1,790	1,736	3
Research & Development	1,584	1,477	7
Support and Services	1,477	1,526	-3
Sales and Marketing	1,159	1,074	8
Administration	775	742	5

The increase in employees in Research & Development as well as Sales and Marketing is due largely to the acquisition of US software company StreamSets. Likewise, the acquisition of StreamSets also explains the Company's growth in the United States.

MANAGEMENT AND CONTROL

Software AG's Management Board consists of: Chief Executive Officer (CEO) Sanjay Brahmawar, Chief Financial Officer (CFO) Daniela Bünger, Chief Revenue Officer (CRO) Joshua Husk, Chief Operating Officer (COO) Dr. Benno Quade, and Chief Product Officer (CPO) Dr. Stefan Sigg. The Board members as well as the personnel changes in fiscal year 2022 are presented in Note [34] of the Notes to the Consolidated Financial Statements. The Management Board is appointed, supervised, and advised by the Supervisory Board.

Corporate Governance Structure



The Supervisory Board of Software AG is composed in accordance with the stipulations of the One-Third Participation Act. It includes six members: four shareholder representatives and two representatives of the employees of Software AG.

BUSINESS ACTIVITIES

BUSINESS MODEL

Software AG uses its technological expertise to connect people, systems, and devices, enabling customers and partners—and the Company itself—to have a positive impact on people's lives. That applies to delivering better product offerings in the present as well as embracing co-innovation toward a smarter, more connected, and sustainable future.

For more than 50 years, Software AG has provided its customers with products and services that expand existing IT architectures through innovation and allow integration of new functions and technologies. Software AG uses its industry expertise to support companies with data integration, regardless of its source, and with process management. The Company's digital business solutions are intended to enable customers to develop new business models and robust solutions that meet the needs of their end users.

This is underpinned by horizontal integration capabilities both within the Company's own product portfolio as well as the partners' technology segments. Software AG offers open technology and pursues a vendor-neutral approach to integrating the best software solutions available anywhere. The Company preserves customer choice, the ability to use whatever applications they need, and the agility to react to rapidly changing markets and economic conditions. With the broad availability of its software solutions in the cloud, Software AG also enables its customers to quickly implement use cases and create incremental value while reducing operating costs at the same time.

Software AG considers its sustainable success to be the reason for its long-term customer relationships. This allows customers' IT investments to be protected and enables Software AG's long-term planning, ongoing product innovations, and smart technology acquisitions.

Customers are also at the center of Software AG's flexible licensing options. And, in line with Software AG's transformation, the Company's focus on shifting its licensing model toward subscriptions including usage-based licenses (Software as a Service, SaaS) aligns with its customers' preference for subscriptions over traditional licensing models.

Finally, as a global technology provider, Software AG has a special connection to customer and employee issues. Responsible conduct and integrity are of key importance in a highly competitive market environment.

BUSINESS LINES

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

- Digital Business
- Adabas & Natural (A&N)
- Professional Services (PS)

The first two business lines, Digital Business and A&N, represent Software AG's broad product portfolio and are the primary revenue drivers through license and maintenance fees. Licenses for Software AG's product portfolio can be term (subscription) or perpetual. Maintenance contracts consist of support services and regular product enhancement updates. In addition, Software AG customers can use products as part of SaaS offerings.

The Professional Services (PS) business line comprises consulting and implementation services that accelerate customer deployment of Software AG products.

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

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

Digital Business

The Digital Business line groups multiple technologies that meet key requirements of the digital transformation and support digital business models. The business line is divided internally into three product lines: API Management, Integration & Microservices; IoT & Analytics; and Business Transformation. StreamSets was acquired during the reporting year to strengthen the Company in the high-growth hybrid integration area. StreamSets supplements Software AG's data integration portfolio with its DataOps platform, which enables the smooth flow of data from different data sources.

Due to the openness and ease-of-use of these technologies, Cumulocity IoT, webMethods, and webMethods.io are extensively used as white-label software in original equipment manufacturer (OEM) contracts globally.

A&N

Adabas (Adaptable Database) and Natural (a fourth-generation software development language, 4GL) were Software AG's first product releases (1971 and 1979 respectively). They power financial institutions and the public sector in more than 30 countries around the world (over half the 50 states in the USA use A&N). A&N applications run airlines, railways, and freight services. 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 through the year 2050 and beyond. The program includes an active talent search for A&N employees.

The first major impact of A&N 2050+ is the roadmap to full integration with the Digital Business technologies including:

- Developing modern tools for agile application development (DevOps)
- Providing A&N applications as standard application programming interfaces (APIs)
- Database integration with analytics platforms
- Rehosting A&N applications from legacy mainframe and open systems platforms on z/OS® or Linux and in the cloud
- Mainframe cost optimization with Adabas & Natural for zIIP through offloading workload to the low-cost IBM z Systems® Integrated Information Processors (zIIP)

Professional Services

The Professional Services (PS) business line provides implementation, development, and upgrade/migration services in connection with the full product portfolio of Software AG. Professional Services supports both the Digital Business and A&N business lines in ensuring that customers get the maximum benefit from their technology investments as quickly as possible.

- In the third quarter of 2022, the Company expanded its collaboration with Persistent Systems, a middleware implementation partner in North America, to drive market penetration of the Group's Digital Business products in the strategically important North American market. Persistent will be able to offer its customers new solutions based on Software AG products. Software AG's Professional Services specialists were transferred to Persistent Systems as part of the strategic partnership. Subcontracting the North American Professional Services implementation business to Persistent will enable Software AG to focus on particularly complex consulting projects as well as its core business in the future.

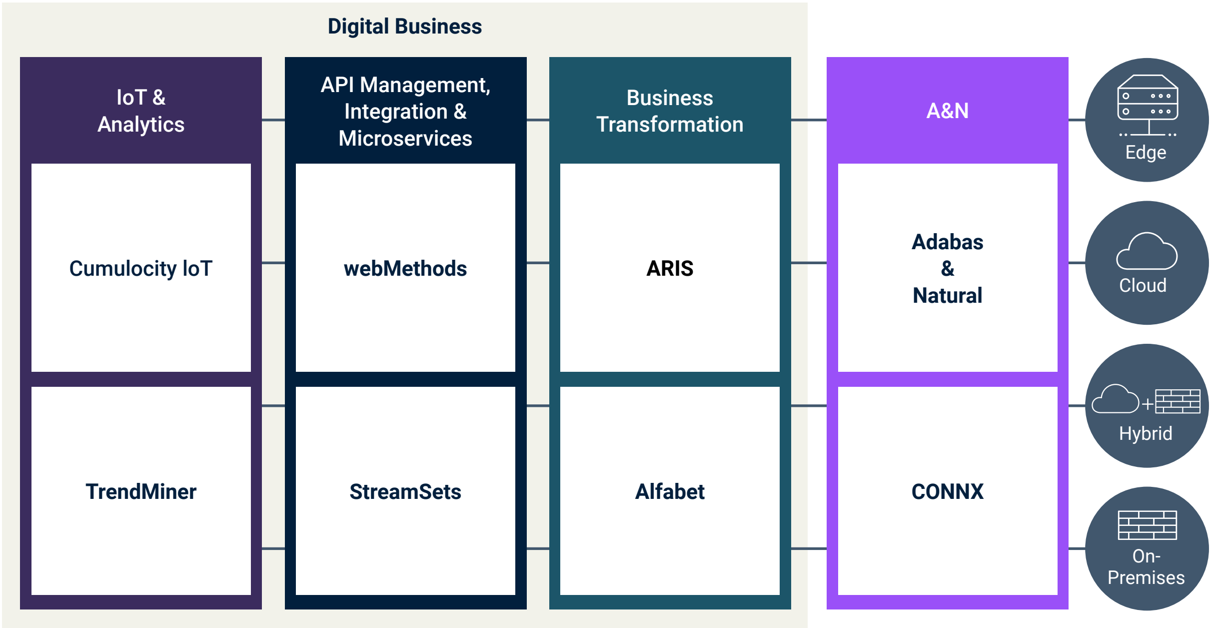
PRODUCT AND BRAND PORTFOLIO

The Digital Business line comprises Alfabet, ARIS, Cumulocity IoT, TrendMiner, and the webMethods product families as well as the StreamSets DataOps platform since its acquisition in April 2022. Adabas and Natural as well as 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:

- **IoT & Analytics:** With **Cumulocity IoT**, Software AG's customers can integrate digital equipment and sensors through an IoT device management and application enablement platform in the IoT and make data further processable and usable with dashboards and control systems. Moreover, this platform includes streaming analytics for big data analytics in real time and solutions for predictive analytics, artificial intelligence (AI), and machine learning. **TrendMiner** offers an intuitive Web-based analytics platform for flexible visualization of industrial processes and process data.
- **API Management, Integration & Microservices: webMethods** is a multifunctional integration Platform as a Service that integrates systems, applications, and processes via APIs or direct connections and orchestrates them in the form of microservices. With these microservices, users can introduce independent tasks in processes and infrastructures with flexibility, manage them, and replace them if necessary. Integration solutions for large business-to-business infrastructures and data transfers (managed file transfers) round out the webMethods portfolio. StreamSets enables the data-driven enterprise through seamless data integration (i.e., connecting different data sources and sinks, data formatting and monitoring, scaling when data volume changes, etc. transparently and in a central system), even in complex hybrid or multi-cloud environments. The platform implements multi-step dataflows (data pipelines) in a controlled, resilient, and repeatable way. This cuts costs and risks associated with data management and maximizes the benefits derived from data, e.g., better decisions can be made based on real-time data.
- **Business Transformation: ARIS** enables companies to improve their process management with business process analysis and process mining. With ARIS, they can model, document, and optimize business processes—from defining strategies to analysis, design, and control. Additionally, Alfabet enables companies to design their IT landscape to optimally support their strategic business goals and make decisions about IT investments. This includes the planning and management of IT as well as ongoing optimization of the system portfolio.
- **A&N:** Software AG's products for transaction processing are based on Adabas and Natural. For more than 50 years, Software AG has delivered a high-performance database management system for all platforms with **Adabas**. **Natural** is the accompanying development environment and the basis of numerous software applications that support companies across many industries. Further, the **CONNX** products provide data integration, virtualization, and replication so businesses can access and utilize their data wherever it is stored.

Software AG's portfolio is available for customers in the cloud, on-premises, hybrid (mix of local and cloud-based), or as an edge solution. In addition, Software AG also operates an 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.

Product Portfolio



MARKET POSITIONING

Sales markets

Software AG has global market coverage. Its geographic sales markets are divided into the following three regions: Americas, EMEA (Europe, Middle East, and Africa), and APJ (Asia-Pacific and Japan).

Measured by percentage of product revenue, the EMEA region—with Germany as Software AG's domestic market—is the largest sales market, followed by the Americas and APJ regions. As the world's biggest IT market with respect to sales revenue, the North American market is of crucial importance, with US government agencies playing a key role for Software AG's business. In addition to Germany as the Company's domestic market, the United Kingdom, France, Israel, and the Middle East are the most important sales markets in the EMEA region; in the APJ region, Australia is the largest single market. For more information on product revenue by region in 2022, please refer to the Financial Performance section of the Economic Report.

In addition to the geographic perspective, target markets can also be separated by industry. When it comes to sales revenue, the public sector, IT industry, and financial service providers are the most important customers here, followed by the manufacturing industry.

Competitive situation

The market for enterprise software is still 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 customized solutions and independent positioning are key criteria for success.

Software AG's **key differentiators** in the view of the Management Board are summarized in the following graphic.

The Management Board believes that with these **unique selling points**, Software AG can address customers' growing need for custom solutions. Moreover, the Company is positioning itself in the most important growth markets with its products for integration, process improvement, digital transformation, and with its IoT technologies.

Software AG 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.

Vendor-neutral portfolio	Reliable and proven	The right size
Software AG enables the integration of different systems and technologies from different providers.	For over 50 years, Software AG has been a partner of top companies in more than 70 countries. Independent market analysts name Software AG a technology leader every year because of its innovative power.	Software AG is large enough to support major companies and agile enough to be able to focus on individual customer requirements.

Industry Recognition

Software AG considers the recognition of independent research firms as confirmation of its success and product and service quality. For years, the Company portfolio has been positioned as a Leader in market analyst firm evaluations. Software AG was recognized in 2022 as follows:

A Leader

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

- "Magic Quadrant™ for Strategic Portfolio Management"[2]
- "Magic Quadrant™ for Full Life Cycle API Management"[3]
- "Magic Quadrant™ for Enterprise Architecture Tools"[4]
- "Magic Quadrant™ for Global Industrial IoT Platforms"[5]

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

- "The Forrester Wave™: Strategic Portfolio Management Tools, Q1 2022"[6]
- "The Forrester Wave™: API Management Solutions, Q3 2022"[7]

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

- MachNation's "2022 IoT Application Enablement ScoreCard"[8]
- MachNation's "2022 IoT Edge ScoreCard"[9]
- MachNation's "2022 IoT Device Management ScoreCard"[10]

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[2] Gartner "Magic Quadrant for Strategic Portfolio Management," Anthony Henderson, Daniel Stang April 18 2022.

[3] Gartner "Magic Quadrant for Full Life Cycle API Management," Shameen Pillai, Kimihiko Iijima, Mark O'Neill, John Santoro, Paul Dumas, Akash Jain, November 14, 2022.

[4] Gartner "Magic Quadrant for Enterprise Architecture Tools," Akshay Jhawar, Gilbert van der Heiden, Andrew Gianni, Andreas Frangou December 12, 2022.

[5] Gartner "Magic Quadrant for Global Industrial IoT Platforms," Alfonso Velosa, Eric Goodness, Ted Friedman, Katell Thielemann, Emil Berthelsen, Lloyd Jones, Kevin Quinn, Scot Kim, Peter Havart-Simkin, Matthew Flatley, December 12, 2022.

[6] The Forrester Wave™: Strategic Portfolio Management Tools, Q1 2022, Forrester Research, Inc., February 14, 2022.

[7] The Forrester Wave™: API Management Solutions, Q3 2022, Forrester Research, Inc., August 22, 2022.

[8] MachNation: 2022 IoT Application Enablement ScoreCard, July 2022.

[9] MachNation: 2022 IoT Edge ScoreCard, July 2022.

[10] MachNation: 2022 IoT Device Management ScoreCard, July 2022.

SALES AND MARKETING

From a **sales** perspective, 2022 was centered around building a modern sales organization with a culture to sustain ambitious growth objectives. This included new technologies for collaboration, optimizing account plans in Altify, the account planning software, mapping sales plays, and enabling better opportunity management. The focus remained on the shift to subscription, net new logo acquisition, key account expansion, and strategic alignment between Sales, Marketing, and Customer Success Managers.

In **marketing**, the focus was on transforming to a digital-first always-on strategy that finds buyers at the beginning of their journey and engages them throughout. Additional key aspects of the new strategy were efficiency and effectiveness with respect to marketing budgets and resources. Thanks to the globalization of digital campaigns, the Company was able to reach more buyers with the right message and right content based on target account data obtained from direct or third-party sources.

As part of the strategy, an ideal customer profile (ICP) was defined for each product line in cooperation with the Sales organization and the business units. Target accounts were then determined for each region, and marketing campaigns were designed to address the key focus accounts of Sales.

Pipeline progression was the focus of the **field marketing teams**. Smaller, more meaningful events were intended to enable Sales teams to reach more roles and people within customer buying teams. These personal events and interactions concentrated mainly on accounts already in the funnel to increase engagement within the account to drive closed/won deals.

In certain markets, some larger strategic events took place. These included:

In the Middle East, both **LEAP** (Riyadh, from February 1-3) and **Gitex** (Dubai, October 10-14) showcased cutting-edge technologies across major sectors including smart cities, cybersecurity, the data economy, mobility, healthcare, and telecoms.

As a premier exhibitor, Software AG participated in the **Gartner IT Symposium/XPO Orlando** (October 17-20) and **Gartner IT Symposium/XPO Barcelona** (November 7-11). Software AG hosted sessions with customers and partners on their vision for enterprise transformation with IoT, integration, API management, and business process and IT transformation. A sustainability headliner was the talk from the **Electric Racing Academy (ERA)** team.

Whether through digital or physical tactics, this holistic marketing strategy to acquire the right audience by being in the right place, at the right time, with the right content created—in Software AG's view—more consistent demand generation, higher conversion rates, and a higher return on marketing investment.

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 as a B2B software provider. The Company therefore leverages the concept of co-innovation: collaborating with users to continue developing solutions.

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 at the regional level. Customers discuss how products can evolve with representatives of Software AG. The international user groups comprise almost 2,500 members from more than 1,150 companies and 74 countries. The annual meeting of the international user groups was held from May 30, 2022 to June 3, 2022, in the Hague, Netherlands, and was attended by participants from all over the world. A total of more than 400 people participated in person and an additional 500 or so took part in the event online.

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 2022. Software AG was able to win 333 new logos during the reporting period (2021: 312). In order to continue this growth trend, the Company will continue to concentrate on winning new logos in 2023. At the same time, the Company's Customer Success Management team and Professional Services unit will intensively support the new logos won in 2022 with the implementation of their projects to ensure they achieve the best-possible success in using Software AG technology.

PARTNERS

After launching the PartnerConnect program in the previous year, the goals for 2022 were to activate the partner ecosystem and accelerate partner business. To this end, PartnerConnect Summits were held for the first time with aligned global content. Partners and potential partners were invited to coordinate the go-to-market strategy and define the shared value add for the customers. More than 440 people from 168 partner companies participated in the four PartnerConnect Summits under the motto “Accelerate Your Success” in EMEA, North America, Latin America, and APJ.

Positive feedback on the summits is also reflected in the numbers: More than 250 new partners were accepted into the program in 2022. As in the previous year, the Channel Company awarded it a top rating of five stars in its CRN Program Guide, confirming the program's appeal.

Growth from the previous year also continued with respect to new business and partner bookings in Digital Business. Software AG succeeded in increasing the incremental partner business by 34 percent to €54 million in Digital Business bookings and signed 143 logos with the help of partners. That corresponds to double-digit growth over fiscal 2021. The incremental contribution of partners to overall Digital Business revenue increased by two percentage points over the previous year to 13 percent.

Collaboration with independent software vendors (ISVs) and original equipment manufacturers (OEMs) with the goal of integrating Software AG products into their portfolios has contributed significantly to the incremental partner business. After being launched in the previous year, the program also generated significant growth in the reporting year. Bookings increased by 64 percent over the previous year to €12.4 million.

This growth and activation of partners is due in part to a new marketing development program. As part of the program, Software AG's top-tier partners can receive financial and content-related support. Over the last year, the Company's partners succeeded in generating an additional Digital Business pipeline totaling €80 million, which will contribute to Software AG's future growth.

Partner marketing processes were professionalized and automated to support the marketing program, so partners could request financial support online and then upload invoices and receipts for their activities to the partner portal. Software AG offers partners ready-made campaigns—Campaigns in a Box—that they can adapt and execute as self-services. In addition, they can easily integrate their own logo on documents and use email and social media templates for letters and invitations.

Partner training and certification are another key success factor for the partner business. This helps Software AG ensure that partners present, sell, and implement their products successfully. Numerous product-specific certifications/badges are available for all three Digital Business product areas. These offerings were very well received by partners during the past year. Technical implementation saw an increase of 123 percent and product presentation (presales) achieved certification growth of more than 300 percent compared to the previous year. During the reporting year, Software AG issued a total of 7,980 certifications/badges to partners.

Since the majority of Software AG's products operate in the cloud now, business with commercial infrastructure operators (hyperscalers) Microsoft and Amazon Web Services (AWS) is of crucial importance for Software AG's partner business. The positive trend of recent years continued in 2022. This is evident in the 16 percent increase in shared business generated with Microsoft and AWS, including an SaaS agreement in the USA that was Software AG's biggest ever with respect to bookings.

Collaboration with leading global systems integrators and consulting firms is and remains another key building block of Software AG's partner strategy. Here Software AG has started to enter strategic partnerships for individual product areas and regions. These include a partnership with Ernst & Young in the area of business transformation that was launched for 180 customers with an exclusive customer event in September 2022, followed by a webinar series on the topic in November 2022. Also strategically significant is the new collaboration with Persistent in the areas of process mining and IoT in North America.

On the whole, Software AG was able to increase bookings from partner business by 11 percent to €167 million in the Digital Business segment.

As in previous years, the EMEA region without DACH delivered the greatest contribution by far, generating a solid half of the partner business. Next came DACH and North America each contributing about the same amount. With regard to Software AG's product areas that are relevant for the partner business, API Management, Integration & Microservices yielded the highest percentage as in previous years, followed by Business Transformation and IoT & Analytics.

STRATEGY AND GOALS

VISION AND BUSINESS STRATEGY

Software AG's purpose is to **connect people and technology for a smarter tomorrow**. With this in mind, Software AG's vision is 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 by enabling a connected customer experience in which data, processes, platforms, and progressive technological capabilities are made available to every end user.

With the products in its Digital Business line, Software AG lays the foundation for an integrated infrastructure that integrates all of a customer's business processes regardless of the complexity of the individual IT landscape. The goal is to seamlessly and securely connect applications, processes, users, and customers as well as every kind of data and device across all deployment models—in the cloud, on-premises, hybrid, or as an edge solution.

Software AG's primary goal is to generate sustainable profitable growth in order to increase enterprise value. To that end, the multi-year Helix transformation program was launched in 2019 and is divided into three pillars: **Focus**, **Team**, and **Execution**.

Focus

Accelerating product innovation: In 2022, product development in Digital Business focused on supporting the automation of networked companies, promoting central, digital transformation projects through innovative offerings, and integrating the StreamSets DataOps platform into the existing Digital Business portfolio. StreamSets delivers modern data pipeline technology to address a key part of the challenge of hybrid integration for enterprise customers.

Promising new developments in the Digital Business portfolio including the DataHub, lean multi-tenant provisioning, and the migration to the CA3S automation platform contributed heavily to the core goals of product development in the webMethods Platform for API Management, Integration & Microservices. Software AG also improved its digital transformation solutions with the new ARIS for Sustainability package and closer integration between business process analysis and expanded process mining. In addition, the Company introduced a new self-service certification tool as part of the program for self-certification of IoT devices that enables manufacturers to test run their devices with Cumulocity IoT. The Net Promoter Score (NPS), an indicator of customer satisfaction with Software AG's products, reached a record high of +61.

Team

Developing people and culture: Software AG is harnessing its most valuable asset, its people, to deliver on its transformation. Building on its global guidelines for hybrid work, which allow flexible distribution of work hours between the office and home, Software AG expanded its employee value proposition to include the opportunity to work from abroad for ten days per calendar year.

As in the previous year, Software AG placed continued focus on developing and cultivating its employees. In 2022, it implemented modern employee incentives to promote key competencies that encourage profitable growth. These include investments in a high potential program, providing a leadership conference to develop leaders in the Company, and the global recognition program, "Elevating Excellence," that acknowledges outstanding employee performance. The annual global employee survey showed how successful those staff development activities were: The rating for the question about personal development support rose to 4.21 (+0.02) respectively, with 5 being the highest possible score.

Furthermore, Software AG promoted its **cultural transformation** through the established Leadership Learning Journey as well as by introducing a Culture Framework that translates the Company's core principles and values into concrete leadership practices. Software AG has anchored inclusion as a value in day-to-day work, for instance, with training programs and an ambassador network for diversity, equity, and inclusion (DE&I). Thanks to the overall appeal of its value proposition to employees, Software AG was able to make approximately 700 new hires (excluding StreamSets) in 2022.

Execution

Continued dynamic trend toward subscriptions as a growth driver: In 2022, Software AG continued to invest in its go-to-market organization. The Company focused on securing customer success through targeted ongoing development of its Customer Success Management and Renewal teams. Additional standard service packages supported the acceleration of product deployment and acceptance with customers. Furthermore, the Company stepped up the alignment of all functions with the go-to-market processes, the disciplined integration of Sales, Marketing, and Product Development to position itself in the areas of innovation and growth markets it has identified. On the whole, Software AG saw continued acceleration of the subscription business in 2022. The percentage of bookings from subscriptions and SaaS out of total organic bookings in the Digital Business line rose to 91 percent.

Moreover, Software AG expanded its partner network again in 2022, for instance with its **strategic partnership with Persistent Systems**, in which the companies collaborate on go-to-market activities and develop shared solutions to accelerate modernization of customer applications and processes.

Systematic increase in productivity: Software AG expanded on the process framework for optimizing productivity established in the previous year. Initial process optimizations were achieved through process mining as well as rolling out the piloted processes for booking and invoicing travel in more country organizations. To identify more areas needing to reduce complexity of business operations, Software AG conducted a review of all organizational units. The resulting catalog of measures establishes the starting point for further activities in the area of operational excellence, improving the customer experience, as well as slimming down the process and system landscapes.

Monitoring

In order to measure the Helix transformation's progress and impact, Software AG introduced new KPIs in 2019 that are presented in the section on Performance Indicators and Monitoring.

In addition to these external KPIs, the Company has introduced an internal **transformation scorecard** which complements the financial KPIs with more qualitive measurements. These include the NPS, a well-known indicator of customer loyalty in the industry. In addition, the scorecard contains information about the transformation's structural successes, such as how many new logos were signed in a period, or what share of bookings are from subscriptions or SaaS.

Financial objectives

Software AG's forecast which was announced to financial markets at the start of 2023 included only financial targets for 2023, which are described in greater detail in the Expected Financial Performance section. Because the final planning year of the Helix transformation program was incorporated with operational planning for 2023, the Company is drafting a new medium-term plan during the first half of 2023 that will be presented on Capital Markets Day mid-year. This new medium-term plan will reflect the financial impact that can be traced back to adjustments in the strategic direction, such as streamlining and focusing the product portfolio as well as strengthening specialization in sales. Ongoing existing contract development from recurring product license streams as reflected in the ARR will continue to play a key role. Since ARR development is determined not only by new customer contracts—it also depends heavily on the retention and development of contracts from the existing customer base—the net retention rate (NRR) indicator becomes increasingly important.

Furthermore, the Company aims to steadily grow the operating earnings (EBITA, non-IFRS) through economies of scale in conjunction with a constant increase in recurring revenue streams as well as through efficiency programs launched in every part of the Company.

Non-financial objectives

Software AG is focusing on long-term, sustainable growth. Software AG has identified factors for sustainable, continued development to drive profitable growth with its sustainability strategy. These factors are discussed under Non-Financial Performance Indicators in the Internal Corporate Control System section.

STRATEGIC DIRECTION OF THE BUSINESS LINES

Digital Business
Software AG sees the greatest potential for growth opportunities in the Digital Business line, which is why innovation services are bundled in this segment. The Digital Business line has become the Company's top revenue generator because it offers a product portfolio that helps businesses achieve their digital transformation, whether that involves strategy, process or IT planning, product development, or managing customer interactions. This business line's goal is to deliver a comprehensive, consistent, flexible cloud-based platform that is built on modern architecture elements (APIs, microservices, containers, events). To this end, Software AG is constantly developing and enhancing the relevant capabilities as part of its own R&D activities as well as making targeted acquisitions to strengthen its technological basis.

Software AG's IoT solution, Cumulocity IoT, gives customers the freedom to integrate any "thing" as a data element in any way and anywhere. There is no limit to what customers can connect to optimize operations to the edge, improve their customer experience, or launch new business models.

The acquisition of StreamSets strengthens the area of hybrid integration with a view toward focusing future innovations on integration, with the key products webMethods.io and StreamSets.

The Company also continued to drive forward its shift to cloud-first with specialized SaaS sales programs for high-growth products such as webMethods.io and StreamSets.

Adabas & Natural (A&N)
The A&N business line can rely on an established customer base that wants to continue using A&N and offers promising sales potential for Digital Business products. A survey conducted in 2016 showed that 98 percent of A&N customers employ A&N for strategic, mission-critical enterprise applications. For that reason, the **Adabas & Natural 2050+** program was launched to continue developing and supporting the A&N product portfolio through the year 2050 and beyond. 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 and enable them to secure, modernize, and expand the expertise built up during decades of development work on enterprise applications.

The transition to subscriptions in this segment enables cloud rehosting and, in the view of the Company, opens up opportunities to familiarize established A&N customers with Software AG's broad Digital Business portfolio.

Professional Services
The Professional Services (PS) business line helps customers achieve the full value of their investment in Software AG products. In light of the shift in customer buying behavior toward usage-based models such as cloud and SaaS, Professional Services aims to help customers who employ Software AG technology succeed quickly. The Professional Services business line manages the Services Partner network to make sure reliable, skilled partners scale the mutual business. Today's products and use cases are increasingly complex—in a market where customers want simplicity. Professional Services play an important advisory role guiding customers through their digital transformation journey, for example, by packaging proven, industry-relevant solutions. Repeatable service offerings, such as Fast Track Services, give customers ease of use, transparency, and dependability.

The Professional Services consultants and Service Partners are a key interface between software customers and product developers. This interface enables Software AG to continually optimize its solutions and functionality as well as address specific user needs.

As part of the strategic development of the segment, Software AG expanded its partnership with Persistent Systems, a North American implementation service provider, in the third quarter of 2022. Subcontracting the North American professional services implementation business to Persistent will enable Software AG to focus on particularly complex consulting projects as well as its core business in the future.

MERGERS & ACQUISITIONS STRATEGY

Corporate acquisitions and equity interests are a strategic instrument at Software AG for addressing new innovative markets while growing market shares. Throughout its more than 50 years of 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.

The strategy for mergers & acquisitions (M&A) defined in the Helix transformation, which follows a “string of pearls” approach, was continued in fiscal 2021 with systematic screening of relevant business landscapes and in-depth analyses of potential acquisition targets. This strategy led to the acquisition of StreamSets, a data integration provider, in early 2022. The purchase was announced at the end of February and concluded in mid-April 2022. The StreamSets technology and Software AG’s product portfolio for hybrid integration complement each other as does the go-to-market approach, which will yield cross-selling potential. In addition, shared products are being developed in the integration Platform as a Service segment. StreamSets’ rapid growth will also be driven more profitably.

In the future, selected key acquisitions are planned that will accelerate organic growth, especially in core markets and adjacent areas with substantial growth potential. This will focus on fast-growing, profitable companies in the cloud application integration and cloud data integration segments, for instance. The strategic partnership with US technology investor Silver Lake struck in December 2021 enables access to comprehensive transaction expertise and a broad network in the sphere of fast-growing software companies.

Software AG's M&A department is based in Darmstadt, Germany, at corporate headquarters and is in constant contact with the Management Board. It operates in an international, heavily networked ecosystem consisting of numerous investment banks, M&A boutiques, financial investors, and partner companies as well as leading IT companies and startups. Furthermore, the Company maintains regular contacts with startups in Silicon Valley along with global IT industry giants. Software AG utilizes this ecosystem and constant market and competitor analyses to recognize future trends in the software sector early on, to test, harness, and develop them. Businesses in the target markets are systematically analyzed and evaluated based on the Company's strategy. This enables Software AG to keep a close eye on technology development to expand and strengthen its product portfolio with targeted acquisitions and build its global market presence in relevant core markets.

In addition, Software AG regularly reviews opportunities for revising and focusing its portfolio on the core business. In this vein, after selling the Professional Services unit in Spain in 2020, Software AG concluded the sale of a majority interest in FACT Informationssysteme & Consulting AG at the end of September 2022.

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.

Key financial performance indicators

As a result of the Helix transformation with its strategic shift from perpetual licenses to subscriptions, the bookings metric assumed a key role in the product business. Bookings comprise the order entries across the different license and contract models, normalized for the average term of a subscription contract of three years. Due to the transition to subscriptions, the cash flows are also distributed across the average contract term. While this stretches out the cash flow, it renders it significantly more predictable. In 2022, almost 90 percent of bookings came from subscriptions and SaaS because the Helix program was so successful. For that reason, now almost all bookings contribute directly to annual recurring revenue (ARR). Furthermore, the progress with subscriptions means that the majority of Software AG's income will be earned in annual cycles.

Consequently, the management team decided to make the ARR the key indicator for the Company's growth performance and is targeting that in its full-year 2023 guidance in both product segments, Digital Business and Adabas & Natural (changes at constant currency).

While bookings were decisive for Company management at a product-level from the start of Helix through fiscal 2022, this indicator will be replaced by ARR in the future. In addition to ARR, product revenue (at constant currency) and operating profit margin (non-IFRS) will remain the key financial performance indicators in managing the Company.

Bookings

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

Perpetual licenses	Total contract value
Maintenance services on new perpetual licenses	Three years maintenance services
Subscription agreements[1]	Contract volume divided by the contract term multiplied by three years
SaaS[1]	Contract volume divided by the contract term multiplied by three years
Usage-based license models incl. maintenance	The order entry corresponds to the booked revenue based on the measured usage in the respective quarter

[1] Contracts with a term of less than 360 days are included as order entries at their contract volume.

Product revenue

Segment and Group product revenue comprises sales revenue that was directly earned with Software AG's software products. Which specific legal form these revenues were earned in is insignificant. Hence, this metric reflects the gross earnings from software products. This indicator is made up of the following:

	License revenue from term and perpetual license agreements with regard to software product offerings
+	Maintenance revenue from term and perpetual licenses
+	SaaS sales revenue[1]
=	Product sales revenue

[1] SaaS sales revenue resulting from term contracts with customers in which the customers are offered online usage of software that is hosted by Software AG or third parties on its behalf.

Annual recurring revenue (ARR)

This metric shows the annualized contract value[1] of active contracts with recurring revenue at the end of the reporting period. Thus, ARR is an indicator of expected annual recurring revenue and cash flows with continuation of the active contracts of the following contract types:

- Term licenses/subscription licenses
- Maintenance from term and perpetual licenses
- SaaS licenses
- Usage-based licenses[2]

Operating margin (non-IFRS)

Software AG also employs a multidimensional matrix structure to continuously monitor **changes in EBITA**[3] for every profit and cost center. The matrix is broken down further according to business lines and revenue types and, within the business lines, 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 pursues this through its customer-centric go-to-market model. The key performance indicator **operating margin (non-IFRS)** is calculated as follows:

Earnings before interest and taxes (EBIT[4])	
+	Acquisition-related amortization of intangible assets
+	Acquisition-related reductions in product revenue due to purchase price allocations
+/–	Other acquisition-related effects on earnings
+/–	Income/expenses resulting from share price-based remuneration
+	Restructuring/severance/litigation
= EBITA (non-IFRS)	
÷	by Group revenue adjusted for acquisition-related product revenue reductions
= Operating margin (EBITA, non-IFRS)	

[1] Value of all active contracts at period end (without one-time effects) divided by the contract length in months multiplied by 12.
[2] Realized monthly revenue of usage-based license agreements at period end multiplied by 12.
[3] Earnings before interest, taxes, and amortization.
[4] Earnings before interest and taxes.

Further financial performance indicators

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

EBITA (non-IFRS)	
+/–	Net financial income/expenses
–	Other taxes
= Operating earnings before income taxes (non-IFRS)	
–	Income tax based on Group's income tax rates
= Net income (non-IFRS)	
÷	by average number of shares outstanding
= Operating earnings per share (non-IFRS)	

Net retention rate (NRR)

NRR is an indicator for measuring and evaluating recurring product revenue in existing customer business (subscriptions, SaaS, and maintenance in connection with perpetual licenses) and shows how well the Company succeeds in not only renewing its existing customer agreements with recurring revenue streams, but also in generating additional recurring income from those customers. Consequently, NRR includes all new customer business for the respective fiscal period.

NRR is defined as the annualized contract value of all existing customer agreements at a defined calendar date (target date = January 1) compared to the same customer group at the end of the year (target date = December 31). The initial baseline value for customer agreements at the beginning of the year is set at 100. The development in this existing customer group is calculated by adding contract upgrades (through up-selling, cross-selling, and capacity and price increases) and subtracting contract terminations and reductions in scope.

100	Annualized existing contracts of all recurring product sales agreements (subscriptions/SaaS/maintenance)	As of January 1
+	Contract upgrades (up-sells, capacity and price increases)	
–	Terminations and reductions in scope	
=	Net retention rate of annualized contract value of all recurring product sales agreements (subscriptions/SaaS/maintenance)	As of December 31

Additional 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. Because the share of recurring revenue is on the rise, monitoring sales performance solely on the basis of revenue is no longer sufficient. For this reason, sales success is also considered in relation to the bookings metric, because these are normalized independent of the recognized revenue from the different types of licensing agreements. The factors influencing optimization of the cost of sales ratio are determined using additional efficiency indicators such as revenue performance or bookings per Sales employee and average deal size trends.

The **segment margin** (revenue less cost of service and sales, marketing, and distribution expenses in relation 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 employees in Professional Services, sales, marketing, and distribution expenses, and the cost per employee.

Monitoring types of revenue

Software AG reports the revenue types: licenses, maintenance, SaaS/usage-based, and services, whereby the **license revenue** represents the key growth driver for maintenance and service revenue. Due to the focus on term and usage-based license models (subscription/SaaS), the percentage of this revenue type is growing steadily within total revenue.

Cost and cash flow monitoring

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, Administration). 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 the Software AG parent company 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, Germany 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 and are meaningful for understanding the Company's business growth as well as business impact. Software AG’s non-financial performance indicators comprise the aspects of leadership and governance, employee concerns, customer concerns, and environmental matters. They are presented in detail in the Combined Non-Financial Statement.

COMPANY-SPECIFIC EARLY WARNING INDICATORS

The key early warning indicators used by Software AG include the performance indicators and further financial metrics described in the Internal Corporate Control System section.

In the **Professional Services** business line, **order entries** are a key indicator for future business development. Anticipated order entries is a preliminary early warning indicator in the sales process for order entries. The anticipated metric is qualified in the **pipeline** according to probability, volume, and expected project start date. Anticipated order entries as well as actual order entries of acquired Professional Services projects are both reported monthly. Work orders typically define clearly quantifiable order entries, whereas service agreements only stipulate an anticipated volume. Since neither the size of orders nor the date they are received are evenly distributed, total order value can fluctuate considerably. For this reason, Software AG assigns greater importance to the Professional Services business line’s **order backlog** than to its order entries. The order backlog at the end of a period is defined as: existing orders at the beginning of a period plus all order entries in that period minus all realized (completed) order entries 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.

In the **product business, order entries** are also a key indicator for future business development. The existing **qualified product pipeline** is upstream from order entries and should therefore be categorized as the essential early warning indicator in the product business. In this qualified product pipeline, existing opportunities are evaluated by size and probability and placed in relation to anticipated order entries. Since opportunities naturally become disqualified, delayed, lost, or contracted during the sales process, the relation between the pipeline and order entries 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, the anticipated order entries, and the resulting license revenue in real time.

INTEGRATED MANAGEMENT SYSTEM

The integrated management system implemented in 2016 is a supplemental control system that includes the areas of quality management, business continuity management, information security management (cloud), and data protection management. It was introduced 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 meeting high quality standards. Its successful recertification to ISO 9001:2015 in 2022 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 and services from a customer's perspective, also in crisis situations, 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 22301:2019 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 Customers and Technology in the Product and Service Quality section of the Combined Non-Financial Statement.

RESEARCH & DEVELOPMENT (R&D)

STRATEGIC FOCUS

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 able to address the practical needs of customers based on the latest trends in technology.

INNOVATIONS

As part of Software AG's **co-innovation strategy**, its R&D unit collaborates closely with customers and strategic partners. 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 grassroot-level innovations from employees as part of various internal initiatives and events designed to foster innovation.

Innovative technology acquisitions are another key component for gaining expertise as described in Mergers & Acquisitions Strategy.

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 Opportunity and Risk Report.

SECURITY

Software AG follows the Open Web Application Security Project Software Assurance Maturity Model (OWASP SAMM), which is an industry standard for secure software development formerly known as OpenSAMM. The SAMM is an open framework that enables organizations to formulate and implement software security strategies tailored to their specific risks. The policies, standards, and security processes are defined satisfying the needs of OpenSAMM and the industry best practices. The security processes and procedures provide for a wide range of detailed controls in each phase of the software life cycle that ultimately ensure robust software security and compliance requirements in products under development and in maintenance. Furthermore, the Company contracts with external independent security consultants to perform vulnerability analysis and research to improve security posture of the product/platform offerings.

In addition, Software AG launched the cross-departmental SecureBiz program in early 2021 to create an infrastructure that is aligned with the requirements of modern IT security while at the same time establishing an efficient work environment. Numerous IT security projects and external audits to improve IT security were conducted during the year under review as part of SecureBiz.

ONGOING PRODUCT PORTFOLIO DEVELOPMENT

In 2022, R&D worked primarily on customer-centric development, with a particular focus on a complementary product portfolio, integration of new partners' technologies into the Digital Business and A&N product lines as well as implementing the co-innovation strategy. Key R&D topics in the Digital Business line were the digital enterprise (cloud, analytics, data integration, and API management), the use of AI technologies in analyzing complex IT landscapes and for intuitive user guidance through such analyses, and IoT (platform services, device management, data streaming, and analytics). A&N focused primarily on cloud transformation, security, and mainframe optimization. Approaches such as scrum, design thinking, and test automation were employed in the innovation process.

Software AG has driven development in the area of cloud infrastructure through shared solutions with Microsoft and Amazon Web Services. The cloud partners and their networks open up access to new markets for Software AG and give its customers flexibility when selecting their infrastructure. Cloud platforms are a key component of Software AG's technology portfolio for its customers—this applies to all of the Company's solutions and products. Software AG will continue to develop secure cloud solutions for its customers to help them succeed.

COLLABORATION WITH SCIENCE AND RESEARCH

Software AG's **Scientific Advisory Board** once again contributed important ideas on technology trends in 2022. The technology company's customers benefit first and foremost from these efforts, as the scientific perspective complements Software AG's strategic development and product planning. The task of the Scientific Advisory Board is to identify new technology trends early on, evaluate them, and discuss the implications for the Company with Software AG's leadership. The board has an advisory function and does not act as a controlling body under corporate law. In addition to Software AG executives, the board consists of top experts from the scientific and research communities who are appointed for a term of at least three years. During the reporting year, Prof. Dr. Mira Mezini, a full professor of computer science at the Technical University of Darmstadt, was appointed to the board. Mezini leads the software technology group in the Department of Computer Science and has been recognized with many international awards. Her research focuses on programming paradigms and languages for robust decentralized software systems, code intelligence, and development methods for AI software systems.

Members of the board determine what its areas of focus will be at least once per year. For instance, the board decided in 2022 to focus on the topics of software engineering, quality assurance, process mining of IoT data, large speech models, and EU regulation (EU Data Act).

Software AG participated in **collaborative research projects** with universities, research institutes, and other companies as part of many publicly funded research projects in fiscal 2022. Sharing knowledge with partners from science and research leads to early identification of market and technology trends, as well as important knowledge for product development. The following is a selection of current research projects:

- **The Intelligent Empowerment of Construction Industry (iECO)** project sponsored by the German Federal Ministry for Economic Affairs and Climate Action aims to increase productivity in the construction industry by up to 10 percent with the help of a shared data space. Data silos are widespread in the construction sector. They prevent efficient collaboration between companies and also hinder coordination efforts that are naturally quite extensive in the industry. Changes to plans and deadlines—usually the rule rather than the exception in the construction industry—need to be coordinated manually, which often leads to costly idle time. That results in an approximately 30 percent lower productivity level in construction compared to the industrial sector, which not only reduces competitiveness, it also puts performance at risk due to a shortage of skilled professionals.

- **The Data Management for Augmented Reality (DM4AR)** research project sponsored by the German Federal Ministry of Education and Research aims to pave the way for augmented reality (AR) in technical services. These services include the maintenance and repair of industrial plants and machinery, and they require a great deal of different information, such as CAD models of the equipment, sensor data, and maintenance protocols. Currently this information has to be manually extracted from different systems and then prepared for AR use. The associated cost and effort stands in the way of broad deployment of AR in technical services. This is where DM4AR comes into play, and will (partially) automatically collect the needed information and make it available for use.
- **The VersiPack (versatile and self-organizing system for user-specific beverage packaging)** project supported by the German Federal Ministry of Food and Agriculture aims to enable smaller beverage companies to also utilize fully automated packaging lines. Currently, this is not profitable for them. Their output is either too low and/or their variety of products is too high, so they cannot recoup the initial acquisition cost. Thus, many beverage fillers are forced to manually package their drinks, which is not only very labor-intensive but above all costly. To remedy this problem, the VersiPack project is developing a modular, and therefore convertible, packaging line. Beverage filling companies can lease it as a service and it can be adapted to their individual needs. It turns fixed capital costs into variable operating costs.
- Demand-side management (DSM) enables electricity customers to flexibly influence their own consumption and grid operators to supply their system services through the increased flexibility of the customers' loads. If system services are delivered dynamically, network stability can be better regulated over the longer term and expansion of the network and provision of additional storage capacity are limited by the dynamic shifting of residual loads. However, having energy-efficient operations that are flexible at the same time is a challenging task for companies. The field of providing dynamic system services by industry is still largely unexplored, especially for the beverage industry under consideration here. Energy monitoring and forecasting for individual components on the filling line and bottle production are lacking, along with detailed information about process flexibility. Likewise, there are no suitable strategies that guarantee the dynamic provision of system services without impairing the production process. The aim of the **Demand-Side and Production Management for Beverage Filling Processes (DESPRIMA)** project, sponsored by the German Federal Ministry for Economic Affairs and Climate Action, is therefore to highlight the possibilities for provision of potential system services by the beverage industry, in particular through intelligent control of filling systems and bottle production. A new smart energy management system will enable active participation in electricity markets. The project wants to demonstrate that sufficient flexibility saves costs while making controllable and predictable loads available for the grid.

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 (Selection)

Organization	Additional information
BDI—National Association of German Industry	bdi.eu
BDVA—Big Data Value Association	bdva.eu
Bitkom—Germany's Digital Association	bitkom.org
DFKI—German Research Center for Artificial Intelligence	dfki.de
GI—Society of Computer Science	gi.de
House of Digital Transformation e. V.	hodt-hessen.de
ITEA 4	Itea4.org
Industry 4.0 Platform	plattform-i40.de
Plattform Lernende Systeme	plattform-lernende-systeme.de
NESSI—The Networked European Software and Services Initiative	nessi.eu
Software Campus	softwarecampus.de

R&D EMPLOYEES AND LOCATIONS

Software AG works constantly on developing its product portfolio and has always been a pioneer and innovation leader in the software industry thanks to its intensive R&D activities.

Considering the high strategic importance of R&D for the Group, the number of employees in this area grew accordingly during the current fiscal year. There was a significant increase in employee numbers over the previous year to 1,584 (2021: 1,477), due in particular to the acquisition of StreamSets. In total, Software AG has R&D centers in 25 countries. India is the largest R&D location with 613 (2021: 607) employees, followed by Germany with 429 (2021: 446) employees. After the StreamSets acquisition, the USA takes third place with 178 (2021: 104) employees, followed by Bulgaria with 136 (2021: 142) employees as an additional main location.

R&D EXPENSES AND INTERNAL STRATEGY

R&D expenses rose by 20 percent in 2022 to €181.4 million (2021: €151.2 million). Accordingly, R&D expenses as a percentage of product revenue (licenses, maintenance, and SaaS) increased from 22.1 percent in 2021 to 22.8 percent in the year under review. This rise is mainly due to higher R&D investments totaling €149.5 million (2021: €120.1 million) in the high-growth Digital Business line. In particular, the Company invested more heavily in IT infrastructure and additional cloud services.

Software AG embraces a 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 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.

Multi-Period Summary for R&D

in € millions	2022	+/− as %	2021	2020	2019	2018
R&D expenses for A&N	31.9	3	31.1	30.9	26.2	23.8
R&D expenses for Digital Business	149.5	24	120.1	113.1	105.1	100.6
Total	**181.4**	**20**	**151.2**	**143.9**	**131.3**	**124.4**
as % of product revenue	22.8	3	22.1	21.4	18.7	18.2
as % of total revenue	18.9	4	18.1	17.2	14.7	14.4
R&D headcount (FTE)	**1,584**	**7**	**1,477**	**1,494**	**1,419**	**1,310**

Economic Report

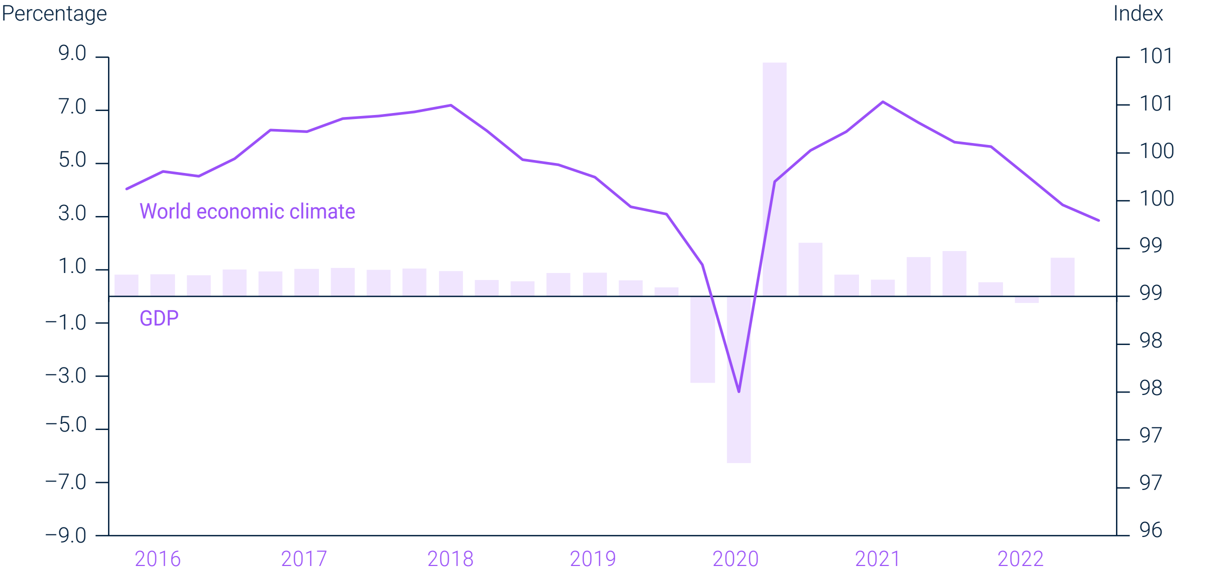
BUSINESS SUMMARY

GENERAL ECONOMIC CONDITIONS

In 2022, as the COVID-19 pandemic ebbed and supply bottlenecks eased, the global economy was dominated by high energy prices, sharply increasing inflation, and tight monetary policy in response. The upward pressure on prices reached historic levels in many countries. In the G7 countries, for example, inflation was at 8.4 percent in October 2022. Many central banks reacted by sharply increasing their key interest rates. At the end of the year, however, pressure on prices lessened somewhat, as energy and producer prices declined significantly. Conditions in commodity markets eased as well. The Institute for the World Economy (IfW) in Kiel, Germany, forecasts an increase in global economic production of 3.2 percent in the year under review, reflecting significantly weaker growth compared to 6.1 percent in 2021.

Production growth slowed significantly in the United States as well. Among the effects of the increased interest rates was a decline in construction investments. As in Europe, inflation increased strongly. The IfW anticipates a jump from 4.7 percent in 2021 to 8.0 percent in 2022. The USA is also striving to limit the impact of the energy crisis on companies and households by means of fiscal stimulus packages. To this end, the Inflation Reduction Act provides for increased expenditures over

Global Economic Activity 2016-2022



Quarterly data; seasonally adjusted; world economic climate calculated based on sentiment index in 42 countries.
GDP: adjusted for price, change compared with the previous quarter, 46 countries, weighted by purchasing power parity.
Source: OECD, Main Economic Indicators; national sources; calculations of the IfW, Kiel, Germany.

the next ten years to promote the expansion of renewable energies. The government also provided financial assistance during the pandemic to support the economy. In consequence, consumption rose above the trend. Extra savings were depleted, bringing the savings rate down to nearly historic lows. A simultaneous increase in consumer loans led to an unusually high deviation in the development of private consumption and real income. For 2022 as a whole, the IfW expects an increase in gross domestic product in the USA of 1.9 percent, after growth of 5.9 percent in 2021.

The eurozone experienced economic growth up to the third quarter, despite the impact of the war in Ukraine, but the growth momentum recently slowed. For 2022, the IfW anticipates growth in gross domestic product of 3.4 percent. In 2021, growth was significantly stronger, at 5.3 percent.

In Germany, the significantly increasing energy prices were the dominant issue for the government, companies, and private individuals. The rising prices burdened the economy and slowed consumption. At the end of 2022, in an attempt to counter the trend, the government introduced price freezes on electricity, gas, and heating which are to remain in place until April 30, 2024. Consumer prices are expected to have increased by 8.0 percent in 2022. In addition to energy prices, food prices, for example, also contributed to the increase. In 2021, by comparison, inflation increased by only 3.1 percent. Gross domestic product is expected to have grown by 1.9 percent in 2022, after growth of 2.6 percent in 2021. In spite of this, the labor market remained robust, in part because companies are still urgently seeking skilled workers. The IfW forecasts a further decline in the unemployment rate, from 5.7 percent in 2021 to 5.3 percent in 2022.

SECTOR ENVIRONMENT AND INFLUENCING FACTORS

The coronavirus pandemic and the energy crisis have accelerated the digitalization of the public sector, business, and society—a trend that also benefits Software AG. According to the digital trade association Bitkom, almost half of companies will be climate-neutral by 2030, and a further 37 percent by 2040. This goal cannot be achieved without radically increasing energy efficiency. Digitalization will therefore play a major role. At every fourth company, digital technologies will play the decisive role in the implementation of a sustainability strategy. From companies' point of view, cloud computing, i.e. the provision of computing resources (servers, storage, databases, applications, etc.) via the Internet, the Internet of Things, and artificial intelligence are technologies with significant climate protection potential. According to Bitkom, 75 percent of German companies see digitalization above all as an opportunity to achieve sustainability and climate protection. An even greater share, namely 89 percent, believe that a company that invests in digital technologies will gain a long-term advantage. And 91 percent are convinced that IT professionals need climate competence.

However, experts find that in order to unlock the full potential of digitalization, Germany also needs better framework conditions. Bitkom sees a need, among other things, for a digitally functional public sector, targeted use of data, and a solution for the structural personnel problem, with the shortage of IT experts already at 137,000 today. The opportunities and risks that arise for Software AG in this connection are described in the Opportunity and Risk Report in Key Individual Risks and Opportunities.

SECTOR-SPECIFIC CONDITIONS

Given the difficult economic environment, with the war in Ukraine, disrupted supply chains, and inflation, the global IT sector also could not maintain its recent high growth rates, but experienced only a limited decline in growth. The US-based market research firm Gartner forecasts that global IT expenditures will have declined slightly overall in 2022, by 0.2 percent to $4.4 trillion. Contrary to this trend, computing center systems (12.0 percent) and software (7.1 percent) achieved strong growth. There were declines in hardware (10.6 percent) and communication services (2.4 percent). According to Gartner, employees and consumers acquired new tablets, laptops, and mobile phones during the pandemic. Without a compelling reason for an upgrade, they are thus not replacing these devices for the time being.

In Germany as well, the sector performed robustly. At the start of 2022, Bitkom had anticipated ITC sales of €184.9 billion for the year as a whole; at the start of 2023, the association was anticipating €196.1 billion, reflecting an increase of 4.0 percent. Information technology experienced above-average growth, with revenue forecast to reach €118.9 billion (+6.6 percent). Bitkom anticipates that the number of jobs grew by 3.5 percent, to 1.307 million, in 2022.

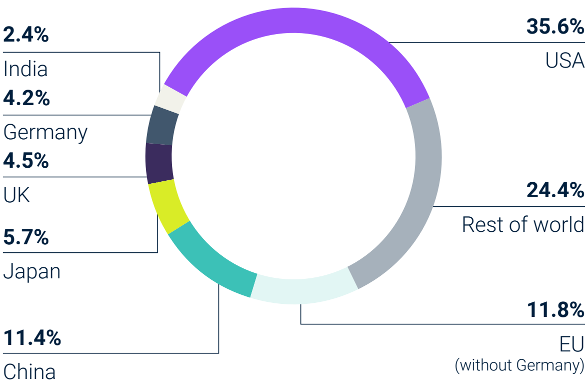
KEY EVENTS AFFECTING BUSINESS PERFORMANCE

The Helix transformation for sustainable profitable growth, begun in 2019, continued in the year under review. The key pillars of the Helix strategy are a focus on the right products and markets, a marketing strategy oriented to customers' needs, and fostering a team approach, both in regard to developing talent within the Company and to expanding partnerships in the sector. In the year under review, progress was achieved in all areas: Software AG's products are cloud-enabled, and thus meet customers' needs for fast availability at a reasonable cost. Accordingly, the Company continued the shift from perpetual licenses to subscription agreements in order to achieve consistent and sustainable growth. The first sign of success is the increase in product revenue, especially in the Digital Business line. Employees also showed greater engagement, as was clear once again from the increase in the Q12 index in the annual employee survey.

The acquisition of StreamSets, a data integration provider, which was announced in February and completed in mid-April 2022, strengthened the Hybrid Integration product area and allowed the Company to capture a greater share of the addressable market. However, Software AG's business performance was impacted by the overall economic situation. The economic upheaval caused by Russia's war of aggression against Ukraine, accompanied by increased uncertainty, rising prices, and growing inflation, led to delays in customers' decision-making. This dampened order entry in the Digital Business segment, in particular, leading to an adjusted guidance after the first half of the year. To further strengthen strategy implementation, Joshua Husk was appointed Chief Revenue Officer and Dr. Benno Quade was named Chief Operating Officer. As part of Software AG's efforts to sharpen its focus, the Company disposed of its ownership interest in FACT in the year under review. The niche provider for regulatory software was taken over by a new proprietor that is closer to FACT's actual business.

In addition, the Company pursued a partnership with Persistent, a middleware implementation partner in North America, and entered into an agreement to subcontract Persistent in connection with the Professional Services business in North America. The goal is to ensure accelerated product growth in the largest software market worldwide through the development of a strong customer and partner ecosystem.

The ICT Market: 2022 Revenue Shares by Country/Region



Note: forecast.
Source: Bitkom e.V., as of: January 2023.

MANAGEMENT'S GENERAL STATEMENT ON BUSINESS PERFORMANCE AND FINANCIAL POSITION

Software AG delivered its seventh consecutive quarter of Digital Business revenue growth in the fourth quarter and full-year performance in line with (Digital Business bookings, product revenue, and operating margin (EBITA, non-IFRS)) or ahead of (A&N bookings) the 2022 guidance ranges, underpinned by growing demand for our mission-critical, cloud-native product set. For 2023, we have outlined a clear set of strategic priorities that will shape our evolution as we build on our successes from four years of root-and-branch transformation through Helix and continue our path to sustainable profitable growth.

Organic bookings in Digital Business saw consistent growth of 20 percent (acc: 15 percent) in the fourth quarter to €197.6 million, bringing full-year bookings to €478.9 million. This represented 18 percent (acc: 12 percent) growth year-on-year. With the addition of StreamSets, bookings in the Group's Digital Business were €238.7 million in the fourth quarter and €555.6 million for the full year.

On an organic basis, total revenue was €292.0 million in the fourth quarter and €930.8 million for the full year, representing growth of 24 percent and 12 percent (acc: 19 percent and 6 percent) respectively. With the contribution of StreamSets, Software AG reported €303.8 million in Group revenue in the fourth quarter and €958.2 million for the full year.

Annual recurring revenue (ARR), now a headline guidance metric for the business, was €660.0 million on an organic basis at the end of the fourth quarter, representing 13 percent (acc: 10 percent) growth year-on-year. Organic ARR within the Digital Business grew 14 percent (acc: 11 percent) year-on-year to €476.2 million. Including StreamSets, Group ARR within the Digital Business grew 23 percent (acc: 20 percent).

Adabas & Natural (A&N) business product revenue saw a year-on-year increase of 79 percent (acc: 72 percent) to €91.6 million in the fourth quarter, driven by the increasing share of subscription in the Group's A&N revenue mix. In the full year, A&N product revenue was €245.9 million, up 15 percent (acc: 8 percent).

We saw continued robust organic profit in line with expectations in 2022, delivering an organic operating margin (EBITA, non-IFRS) of 23.1 percent in the fourth quarter and 21.2 percent for the full year.

For 2023 and beyond, we are working on a plan for the next phase of growth, and we will be sharing our mid-term view at Capital Markets Day later this year. The five guiding principles of the 2023 plan are as follows: accelerate the journey to cloud-first, double down on innovation in integration, increase sales specialization to drive efficacy and efficiency, leverage the value of A&N, and optimize our operating platform.

Due to the success of the Helix transformation, almost 90 percent of our total bookings in 2022 came from subscription and SaaS. Therefore, nearly all of our bookings now contribute directly to ARR. In addition, our progress on subscription means that the vast majority of our cash is now collected on annual cycles. As subscription, SaaS, and new business contracts start to stack up over time, we decided to base our 2023 guidance on ARR as key indicator of future revenue and cash flow. We will also continue to run the business with financial discipline and maximum efficiency with respect to costs overall, while we continue to pursue our bold growth ambitions.

For more information on our financial guidance for 2023, please refer to the Forecast.

COMPARISON OF ACTUAL PERFORMANCE WITH PREVIOUSLY ISSUED FORECASTS

Software AG communicated the following forecast for fiscal 2022 with the release of its 2021 consolidated results on January 27, 2022:

- Bookings growth in the Digital Business line of 15 to 25 percent year-on-year
- Bookings growth in the A&N business line of 0 to 5 percent year-on-year
- Growth in product revenue of 7 to 11 percent year-on-year
- Operating profit margin (EBITA, non-IFRS) between 20 and 22 percent

The growth forecasts for the bookings and product revenue indicators were at constant currency.

With the announcement of the acquisition of StreamSets on February 28, 2022, this organic forecast was confirmed. In addition to organic growth, the Company communicated the guidance that the acquisition of StreamSets in 2022 would lead to growth in Group product revenue (non-IFRS) of 12 to 16 percent. The impact of the acquisition on operating profit (EBITA, non-IFRS) was expected to be -€17 million to -€13 million.

After the first half of the year, Digital Business bookings the guidance was adjusted due to customers' delayed decision-making on contracts in light of the overall economic situation. The other guidance ranges were confirmed. The adjusted forecast for organic growth issued on July 14, 2022 was as follows:

- Bookings growth in the Digital Business line of 12 to 18 percent year-on-year
- Bookings growth in the A&N business line of 0 to 5 percent year-on-year (unchanged)
- Growth in product revenue of 7 percent to 11 percent year-on-year (unchanged)
- Operating profit margin (EBITA, non-IFRS) between 20 and 22 percent (unchanged)

Assumptions regarding the impact of the StreamSets acquisition remained unchanged, with an anticipated increase in Group product revenue (non-IFRS) of between 12 and 16 percent and an impact on operating profit (EBITA, non-IFRS) of -€17 million to -€13 million. This adjusted forecast was confirmed on October 27, 2022, with the release of the figures for the first nine months of the year.

Excluding StreamSets, Software AG posted the following results for the 2022 fiscal year:

- The Digital Business line reported €478.9 million (2021: €406.0 million) in bookings in 2022, representing 12 percent growth year-on-year at constant currency. These results were at the lower end of the latest stated guidance range of 12 to 18 percent for the year.
- The A&N business line generated bookings in the amount of €144.5 million (2021: €111.7 million) in fiscal 2022, reflecting a 23 percent increase year-on-year at constant currency. This result exceeds the stated guidance range of 0 to 5 percent. A&N thus developed significantly better than forecast. The reason for the better performance was largely a major customer contract in Israel which was signed earlier than expected.
- Product revenue increased 7 percent at constant currency totaling €773.4 million (2021: €684.0 million). This result is at the lower end of the guidance range that had been forecast since the start of the year.
- Software AG's operating profit (EBITA, non-IFRS) was €197.6 million (2021: €163.8 million) in 2022. This reflected an operating profit margin (EBITA, non-IFRS) of 21.2 percent, in the upper half of the guidance range of 20 to 22 percent.

Including StreamSets, Group product revenue (non-IFRS) increased 10 percent over the previous year at constant currency and was thus below the guidance range that had been forecast. Including StreamSets, the operating profit (EBITA, non-IFRS) was €178.5 million. The impact of StreamSets on this indicator was thus -€19.1 million, which was below the forecast.

Actual performance of secondary other key performance indicators that do not serve as a basis of Group management, compared with the previous year's forecast

To ensure consistency and transparency of reporting, the organic results are reported in this section without the impact of the acquisition of StreamSets, which was completed in April 2022. The Group results reported below in the Financial Performance section include StreamSets. Where necessary for clarity with regard to the developments described, the impact of StreamSets on the Group results is noted.

An organic increase in total revenue in the mid to high single-digit percent range at constant currency was expected for the Group in 2022 in comparison to 2021. This guidance was not changed in the adjusted forecast for the fiscal year issued on July 14, 2022. Excluding StreamSets, Group revenue in fiscal 2022 came to €930.8 million (2021: €833.8 million). At constant currency, this reflects an increase of 6 percent year-on-year. Actual revenue thus reached the original forecast.

The Management Board anticipated that **revenue in the Digital Business** line would be 9 to 13 percent higher at constant currency than in the previous year. Revenue (excluding StreamSets) rose by 12 percent, from €469.5 million to €527.5 million, or 7 percent at constant currency. The segment thus remained slightly below expectations.

For the **A&N business line**, an increase in revenue of 3 percent to 5 percent at constant currency year-on-year was forecast. A&N revenue actually increased

Outlook for Fiscal Year 2022

	FY 2021 in € mn	Outlook FY 2022 as of Jan. 27, 2022 as %	Adjusted outlook FY 2022 as of July. 14, 2022 as %	Actual change in comparison to the previous year as %
Digital Business bookings	406.0	+15 to +25[1]	+12 to +18[1]	+12[1]
A&N bookings	111.7	0 to +5[1]	0 to +5[1] (unchanged)	+23[1]
Product revenue	684.0	+7 to +11[1]	+7 to +11[1] (unchanged)	+7[1]
Operating profit margin (EBITA, non-IFRS)[2] as %	19.6	20 to 22	20 to 22 (unchanged)	21.2

[1] At constant currency.
[2] Before adjusting for non-operating factors (see non-IFRS definition of earnings) in Key Financial Performance Indicators.

from €214.5 million to €245.9 million in comparison to 2021, representing a 15 percent increase, or an 8 percent increase at constant currency. Revenue in this segment thus exceeded expectations.

Professional Services revenue (excluding StreamSets) increased in fiscal 2022 by 5 percent to €157.4 million (2021: €149.8 million), reflecting a decline of 1 percent at constant currency.

In last year's Forecast, Software AG's Management Board anticipated that, assuming stable conditions (precluding unforeseeable special effects and the acquisition of StreamSets), **IFRS net income for the Group** would increase by 10 to 25 percent. The reason for this was the forecast positive revenue effects from the anticipated increase in bookings, together with slower growth of costs in proportion to revenue. IFRS net income, excluding StreamSets, came to €73.3 million (2021: €84.3 million) in 2022, and thus declined by 13 percent in comparison to the previous year. IFRS net income was thus below expectations. This deviation was driven primarily by unexpected one-time effects such as the goodwill impairment recognized in the third quarter in the Professional Services segment in the amount of €25.3 million, and the valuation adjustment to deferred tax assets carried out in the fourth quarter in the amount of €21.8 million.

For the **Digital Business segment**, the Management Board anticipated that the segment margin would increase 20 to 50 percent year-on-year. Excluding StreamSets, the actual segment margin was 13.3 percent (2021: 11.9 percent), reflecting an increase of 12 percent, which was below expectations. This was because the lower-than-planned bookings and revenue in this segment, as described above, could not be fully offset on the cost side if the Company were to avoid constraining future growth.

In the **A&N segment**, a 2 to 5 percent margin increase was expected. The actual margin was 68.8 percent (2021: 68.0 percent), reflecting an increase of 1 percent.

In the **Professional Services segment**, a 20 to 25 percent decline in the segment margin was expected. The actual segment margin (excluding StreamSets) was 14.7 percent (2021: 18.5 percent), representing a decline of 21 percent, which was in line with expectations.

FINANCIAL PERFORMANCE

REVENUE

Group revenue totaled €958.2 million (2021: €833.8 million) in 2022, representing a 14.9 percent increase, or an 8.0 percent increase at constant currency. Of this total, €27.4 million was attributable to StreamSets. The **Digital Business** segment posted an increase in revenue which is in line with the current phase of the Helix strategy and the resulting intensified focus on subscription and SaaS business: Digital Business revenue increased by 17 percent (acc: 11 percent) to €549.7 million (2021: €469.5 million). Excluding StreamSets, revenue in the segment came to €527.5 million. The **Adabas & Natural (A&N)** business line generated revenue of €245.9 million (2021: €214.5 million). This reflected an increase of 15 percent year-on-year, or 8 percent at constant currency. At the end of fiscal 2022, ARR[1] including StreamSets came to €700.2 million (2021: €585.4 million). The share attributable to StreamSets was €40.2 million. ARR in the Digital Business line rose by 23 percent (acc: 20 percent) year-on-year. Excluding StreamSets, this reflects an increase of 14 percent (acc: 11 percent). ARR shows active contracts as of the end of the reporting period, together with their recurring revenue. ARR is thus an indicator of the recurring annualized product revenue and cash flows, standardized on a twelve-month basis, that can be expected for active contracts that are continued.

CURRENCY IMPACT ON REVENUE

Currency translation had a positive impact on revenue in fiscal 2022, after having had a negative impact on revenue in the previous year. Currency effects came to a total of €53.6 million (6 percent). The main driver was the stronger US dollar (with the US dollar accounting for the largest share among foreign currencies in the Group).

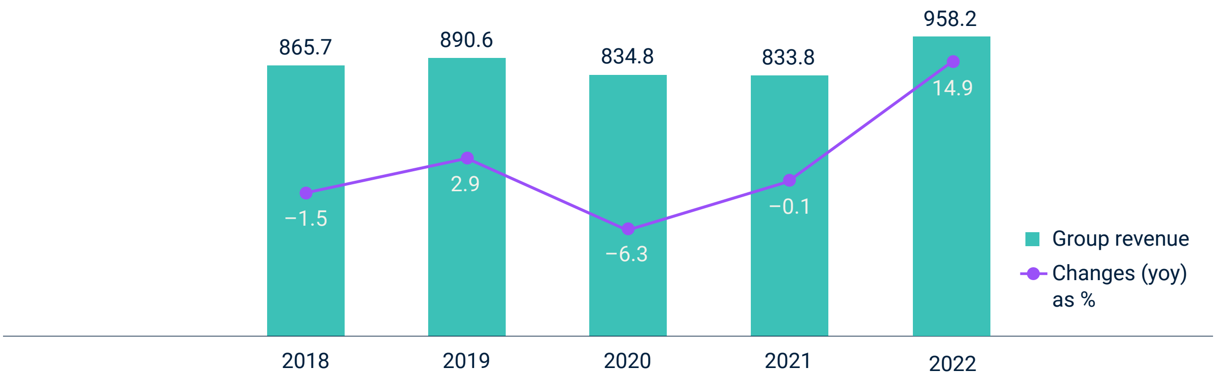
[1] Value of all active contracts at period end (without one-time effects) divided by the contract length in months multiplied by 12.

Currency Impact on Revenue

in € millions	2022	as %
Subscription	17.8	5
SaaS	4.2	6
Perpetual	22.1	7
Support and Services	9.6	6
Total	**53.6**	**6**

The largest percentage of Software AG's total revenue was generated in US dollars (USD), at 32 percent (2021: 31 percent). The euro (EUR) also accounted for a significant share in total revenue, at 28 percent (2021: 31 percent). It is followed by the Israeli shekel (ILS), at 6 percent (2021: 7 percent) and pound sterling (GBP), also at 6 percent (2021: 5 percent). Other currencies accounted for the remaining 28 percent (2021: 26 percent). The broad distribution of currency shares reflects Software AG's highly global focus. Currency effects had a positive impact on all business lines, with subscription models and perpetual licenses causing an impact of +5 percent and +7 percent, respectively. In the cloud and services businesses, currency effects came to +6 percent.

Five-Year Revenue Performance in € Millions



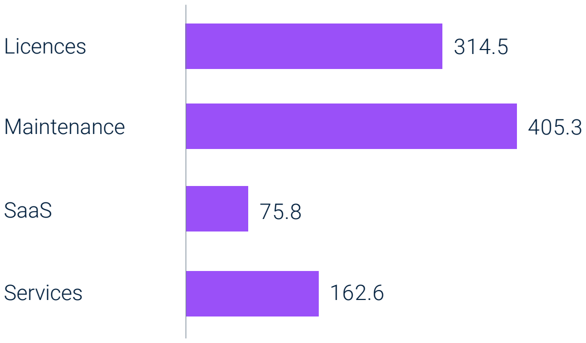
Quarterly Revenue

in € millions	Q1 2022	Q1 2021	Q2 2022	Q2 2021	Q3 2022	Q3 2021	Q4 2022	Q4 2021
Group revenue	206.0	183.1	226.9	218.2	221.4	198.0	303.8	234.6
as % of total annual revenue	21	22	24	26	23	24	32	28

TYPES OF REVENUE

Types of Revenue

(2022 in € millions)



Software AG's Group revenue is made up of product revenue—consisting of license, maintenance, and SaaS sales—and services revenue. Product revenue rose to €795.6 million (2021: €684.0 million) in 2022, representing a 16.3 percent increase, or a 10.0 percent increase at constant currency. Excluding StreamSets, product revenue came to €773.4 million. As a percentage of total revenue, product revenue, at 83 percent (2021: 82 percent) was slightly above the previous year's level. License revenue from Digital Business and A&N products, at €314.5 million (2021: €240.5 million), increased by 30.8 percent, or 24.0 percent at constant currency, compared to the previous year. The positive year-on-year performance is attributable to the steady growth in subscriptions in the Digital Business and A&N segments. Maintenance revenue in these two business lines increased during the reporting period to €405.3 million (2021: €399.4 million). This represents an increase of 1.5 percent, or a decline in maintenance revenues of 5.0 percent at constant currency. At 42.3 percent (2021: 47.9 percent), the share of maintenance in total revenue was approximately 5.6 percentage points lower than in fiscal 2021. Here too, the positive trend in comparison to the previous year can be attributed to the steady growth in the subscription business, offsetting the negative impact of the usual perpetual maintenance contract terminations, which were roughly at the previous year's level. SaaS revenue rose 71.9 percent, or 62.0 percent at constant currency, in 2022, to €75.8 million (2021: €44.1 million). The revenue increase is due to the strategic focus and the associated steady growth in the SaaS customer base. Revenue in the Professional Services segment, which will concentrate on high-value projects associated with Software AG's own products, increased in the year under review by 8.5 percent, or by 2 percent at constant currency, to €162.6 million (2021: €149.8 million).

PRODUCT REVENUE BY REGION

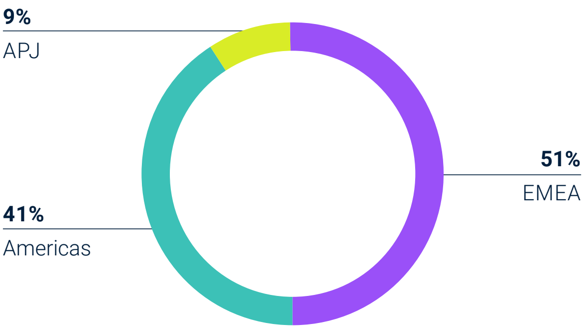
Software AG's global product revenue is allocated to three regions:

Americas (North America, NAM, and **Latin America**, LATAM) generated revenue (excluding StreamSets) of €315.3 million (2021: €278.7 million) in 2022 and thus accounted for 41 percent (2021: 41 percent) of product revenue. Broken down by country, the USA accounted for the largest share of revenue, as expected, followed by Brazil and Canada. North America (NAM) generated total revenue of €274.0 million (2021: €244.7 million). Latin America (LATAM) generated revenue of €41.3 million (2021: €34.0 million).

EMEA (Europe including Germany, Austria, and Switzerland, and Middle East and Africa) posted revenue (excluding StreamSets) of €392.2 million (2021: €349.2 million) and thus accounted for a share in global product revenue of 51 percent (2021: 51 percent). The most important single markets in this region are Germany, the United Kingdom, France, Israel, Turkey, and Spain.

APJ posted product revenue (excluding StreamSets) of €65.9 million (2021: €56.1 million), thus accounting for 9 percent (2021: 8 percent) of Group product revenue. The largest single market in this region was Australia, followed by Japan.

Product Revenue by Region



ORDER BACKLOG AND BOOKINGS

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, 2022, continued its positive development and will thus support the expected stable growth in fiscal 2023. At the end of 2022, the forward order book (order backlog/revenue * 365 days) was around six months, and was thus at about the same level as in the previous year.

With the strategic shift from perpetual licenses to subscription business, the bookings indicator is used to ensure that order entries are comparable across the different license and contract models. In fiscal 2022, bookings in the product business amounted to €700.1 million (2021: €517.7 million), representing 35 percent growth year-on-year, or 28 percent at constant currency. Excluding StreamSets, bookings in the product business amounted to €623.4 million, representing 20 percent growth year-on-year, or 15 percent at constant currency. Bookings in the Digital Business line in the amount of €555.6 million (2021: €406.0 million) account for 79 percent (2021: 78 percent) of Software AG's total bookings.

PERFORMANCE OF KEY ITEMS ON THE INCOME STATEMENT AND COST STRUCTURE

Software AG's **cost of sales** increased in proportion to revenue in fiscal 2022 year-on-year. This was mainly due to higher amortization of intangible assets as a result of the StreamSets acquisition and increased personnel costs. The cost of sales amounted to €239.9 million (2021: €188.8 million). **Gross profit** increased by 11.4 percent, or 4 percent at constant currency, to €718.3 million (2021: €645.0 million). The gross profit margin as a percentage of Group revenue, at 75.0 percent (2021: 77.4 percent), declined by 2.4 percentage points and thus remained close to last year's high level. This continued high profitability is due primarily to the high share of the product business.

To further secure Software AG's technology competence in the dynamic digital market, **expenses for research and development (R&D)** increased 20.0 percent to €181.4 million (2021: €151.2 million). R&D expenses as a percentage of product revenue (licenses, maintenance, and SaaS) increased compared to the previous year, from 22.1 percent to 22.8 percent.

Sales, marketing, and distribution expenses increased 22.1 percent year-on-year, coming to €342.0 million (2021: €280.2 million) for 2022 as a whole. These expenses as a percentage of total revenue were thus 35.7 percent (2021: 33.6 percent). This increase particularly reflects the effects of the StreamSets acquisition and the investments in sales and marketing measures as part of the Helix program, which are aimed at strengthening and increasing the Company's presence in key regions.

General and administrative expenses rose by 13.9 percent to €94.3 million (2021: €82.8 million). General and administrative expenses as a percentage of total revenue thus remained at almost the same level, at 9.8 percent (2021: 9.9 percent).

2022 Income Statement

in € millions	2022	2021	+/– as %	+/– as % acc[1]
Licenses	314.5	240.5	30.8	24.0
Maintenance	405.3	399.4	1.5	-5.0
SaaS	75.8	44.1	71.9	62.0
Product revenue	795.6	684.0	16.3	10.0
Services	162.6	149.8	8.5	2.0
Total revenue	**958.2**	**833.8**	**14.9**	**8.0**
Cost of sales	-239.9	-188.8	27.1	22.0
Gross profit	**718.3**	**645.0**	**11.4**	**4.0**
R&D expenses	-181.4	-151.2	20.0	
Sales, marketing, and distribution expenses	-342.0	-280.2	22.1	
General and administrative expenses	-94.3	-82.8	13.9	
Other income/expenses, net	-22.5	-8.7	158.6	
Other taxes	-2.5	-5.3	-52.8	
Operating income	**75.6**	**116.8**	**-35.3**	
Financial income/expenses, net	-10.5	1.0	-1150.0	
Earnings before income taxes	**65.1**	**117.8**	**-44.7**	
Income taxes	-45.9	-33.4	37.4	
Net income	**19.2**	**84.3**	**-77.2**	
thereof attributable to shareholders of Software AG	19.0	83.9	-77.4	
thereof attributable to non-controlling interests	0.3	0.5	-40.0	
Earnings per share in € (basic)	0.26	1.13	-77.0	
Earnings per share in € (diluted)	0.26	1.13	-77.0	
Weighted average number of shares outstanding (basic)	73,979,889	73,979,889		
Weighted average number of shares outstanding (diluted)	73,979,889	73,979,889		

[1] At constant currency.

EARNINGS PERFORMANCE

Software AG's **operating income** declined in the year under review to €75.6 million (2021: €116.8 million). The operating margin, at 7.9 percent (2021: 14.0 percent), was below the previous year's level. This is mainly due to increased R&D and sales, marketing, and distribution expenses (due to the StreamSets acquisition) and to the Helix program. This trend was offset by the high-margin product revenue, accounting for 83 percent (2021: 82.0 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/expenses), at €78.1 million (2021: €122.1 million), was down 36 percent year-on-year. This decline was the net result of the following effects: Revenue increased to €958.2 million (2021: €833.8 million). The cost of sales rose by 27.1 percent to €239.9 million (2021: €188.8 million). R&D expenses increased by 20 percent to €181.4 million (2021: €151.2 million). Sales, marketing, and distribution expenses came to €342.0 million (2021: €280.2 million), reflecting an increase of 22 percent. General and administrative expenses increased by 14 percent to €94.3 million (2021: €82.8 million), due among other factors to inflation-related salary adjustments.

Other net income came to -€22.5 million (2021: -€8.7 million) in fiscal 2022, mainly due to a goodwill impairment in the Professional Services segment resulting from the strategic realignment of the services business. Furthermore, income was generated by the sale of an ownership interest. In addition, provisions were set up for restructuring measures and for ongoing litigation in connection with the earlier acquisition of IDS Scheer AG.

Net financial income declined in the year under review, to -€10.5 million (2021: €1.0 million). The difference compared to the previous year was attributable primarily to higher interest rates and to expenses for the convertible bond issue with Silver Lake.

Earnings before income taxes declined by 44.7 percent to €65.1 million (2021: €117.8 million). The income tax expense rose by 37.4 percent, to €45.9 million (2021: €33.4 million). One key issue was the valuation adjustment to deferred tax assets carried out in the fourth quarter in the amount of €21.8 million. As a result, the Group's effective income tax rate rose to 70.4 percent (2021: 28.4 percent).

Net income, at €19.2 million (2021: €84.3 million), was down 77.2 percent year-on-year in the reporting period. Accordingly, **earnings per share** (basic and diluted) were €0.26 (2021: €1.13) with the average number of shares outstanding (basic and diluted) at 73,979,889 (2021: 73,979,889). Of the decline, €54.0 million is attributable to the acquisition and first-time consolidation of StreamSets as of the acquisition date. Unexpected noncash one-time effects such as the goodwill impairment charge recorded in the third quarter in the Professional Services segment in the amount of €25.3 million, and the valuation adjustment to deferred tax assets carried out in the fourth quarter in the amount of €21.8 million, also had a significant impact on net income.

APPROPRIATION OF PROFITS

Software AG adheres to a sustainable dividend policy, which is geared toward long-term, value-oriented development of the Company. Software AG's Management Board plans to propose a dividend of €0.05 per share to this year's Annual Shareholders' Meeting, which will resolve the appropriation of profits for fiscal year 2022. This amount reflects a return to Software AG's payout range of 30 to 40 percent of averaged Group net income and free cash flow.

Subject to the approval of the Annual Shareholders' Meeting and assuming 74.0 million (2021: 74.0 million) dividend-bearing shares outstanding, this would be a total payout sum of €3.7 million (2021: €56.2 million).

2022 Earnings

in € millions	2022	2021	+/– as %
Total revenue	**958.2**	**833.8**	**15**
Cost of sales	-239.9	-188.8	27
Gross profit	**718.3**	**645.0**	**11**
Margin as %	75.0	77.4	-3
R&D expenses	-181.4	-151.2	20
Sales, marketing, and distribution expenses	-342.0	-280.2	22
General and administrative expenses	-94.3	-82.8	14
Other income/expenses (net)	-22.5	-8.7	158
EBIT	**78.1**	**122.1**	**-36**
Margin as %	8.2	14.6	

ADDITIONAL PERFORMANCE INDICATORS

In order to improve the comparability of Software AG with competitors (primarily in the US) 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.) These performance indicators are as follows:

Operating Earnings per Share (non-IFRS)

in € millions	2022	2021
Net income	19.2	84.3
Income taxes	45.9	33.4
As % of earnings before income taxes	0.0	0.0
Earnings before income taxes	**65.1**	**117.7**
Other taxes	2.5	5.3
Financing income	-14.9	-7.2
Financing expenses	25.4	6.2
Financial income/expenses, net	**10.5**	**-1.0**
EBIT (before all taxes)	**78.1**	**122.1**
Acquisition-related amortization of intangible assets	59.6	15.8
Acquisition-related reductions in product revenue due to purchase price allocations	1.3	0.0
Other non-operating expenses and acquisition-related effects on earnings	14.1	8.6
Income/expenses resulting from share price-based remuneration	11.7	9.9
Restructuring/severance/litigation	13.6	7.4
Operating EBITA (non-IFRS)[1]	**178.5**	**163.8**
Operating margin (EBITA, non-IFRS) as %	**18.6**	**19.6**
Financial income/expenses, net	-10.5	1.0
Other taxes	-2.5	-5.3
Earnings before income taxes (non-IFRS)	165.5	159.5
Income taxes (non-IFRS) (FY 2022: 70.4%; FY 2021: 28.4%)[1]	-116.6	-45.3
Net income (non-IFRS)	48.9	114.2
Earnings per share (non-IFRS)[2] in €	**0.66**	**1.54**
Average number of shares outstanding (no.)	74.0	74.0

[1] Income tax rates shown are equal to the actual rates for fiscal 2022 and 2021.
[2] Earnings per share (non-IFRS) are calculated by dividing operating 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) rose by 9 percent to €178.5 million (2021: €163.8 million) in fiscal 2022 year-on-year. EBIT was down 36 percent to €78.1 million (2021: €122.0 million). Expenses for amortization on acquisition-related intangible assets increased by €43.8 million to €59.6 million (2021: €15.8 million). This increase largely resulted from the acquisition of StreamSets and from goodwill impairments in the Professional Services segment.

Another factor was the expenses for stock option plans, which increased by 18 percent to €11.7 million (2021: €9.9 million). Restructuring, severance, and litigation increased by €6.2 million to €13.6 million (2021: €7.4 million).

Other non-operating expenses and acquisition-related effects on earnings increased by €5.5 million to €14.1 million.

Software AG's operating profit margin (EBITA, non-IFRS) based on Group revenue declined to 18.6 percent (2021: 19.6 percent). Excluding StreamSets, the operating margin came to 21.2 percent. The margin was thus in line with the guidance communicated at the start of the year. At the same time, the Group continued to invest in the partner network and to make targeted investments in innovations in the product portfolio. Furthermore, there was temporary pressure on the margin due to the shift in the business model from perpetual licenses to subscription and SaaS. The profit margin continues to solidify the financial foundation for the Company's growth in 2023 and beyond.

Operating net income (non-IFRS) declined by 57 percent to €48.9 million (2021: €114.2 million).

Net financial income declined by €11.5 million, mainly due to expenses in connection with the subscribed convertible bonds with Silver Lake. The increase in income taxes (non-IFRS) by €71.3 million, as well as the increase in operating EBITA (non-IFRS), is attributable to a one-time effect arising from the impairment of deferred tax assets.

Operating earnings per share (non-IFRS), based on the average number of shares outstanding (basic) in the amount of 74.0 million (2021: 74.0 million), were €0.66 (2021: €1.54), representing a decline of 57 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 Digital Business segment in fiscal 2018. With SaaS, customers acquire rights of use to the 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 €75.8 million (2021: €44.1 million) in fiscal 2022 and was thus up 72 percent over the previous year. Excluding StreamSets, the increase was 42 percent

Multi-Period Earnings Summary

in € millions	2022	2021	2020	2019	2018
Total revenue	**958.2**	**833.8**	**834.8**	**890.6**	**865.7**
thereof product revenue	795.6	684.0	671.1	702.7	682.4
EBIT (before all taxes)	**78.1**	**122.1**	**136.4**	**214.8**	**231.6**
as % of total revenue	8.2	14.6	16.3	24.1	26.8
Net income	**19.2**	**84.3**	**96.1**	**155.3**	**165.2**
as % of total revenue	2.0	10.1	11.5	17.4	19.1

SEGMENT REPORTING

Total revenue for 2022 was distributed among Software AG's three segments, Digital Business, A&N, and Professional Services, as follows:

Revenue Split in 2022

in € millions	2022	as %
Total revenue	**958.2**	**100**
Digital Business	**549.7**	**57**
A&N	**245.9**	**26**
Professional Services	**162.6**	**17**

With its future-oriented products for customers' digital transformation, the Digital Business segment once again increased its share in total Group revenue, to 57 percent (2021: 56 percent). This confirms the business and market relevance of this business line. In particular, revenue from SaaS, which is part of the Digital Business segment, increased significantly by 72 percent (acc: 62 percent) to €75.8 million (2021: €44.1 million). Excluding StreamSets, the increase came to 42 percent (acc: 36 percent).

Revenue in the traditional A&N segment increased by 8 percent at constant currency, to €245.9 million (2021: €214.5 million). The segment thus generated 26 percent (2021: 26 percent) of total revenue. The Professional Services segment accounted for 17 percent, with its share in revenue thus down 1 percentage point year-on-year.

Digital Business

The Digital Business segment generated revenue of €549.7 million (2021: €469.5 million) in 2022, reflecting a 17 percent increase over the previous year. Annual recurring revenue (ARR) in the Digital Business segment came to €516.4 million (2021: €418.5 million) as of the end of fiscal 2022. Digital Business segment earnings came to €38.2 million (2021: €55.8 million). This year-on-year decrease was due to higher cost of sales and higher R&D and sales and marketing investments. Accordingly, the segment margin declined to 6.9 percent (2021: 11.9 percent) in the year under review. Excluding StreamSets, segment earnings came to €70.4 million and the margin to 13.3 percent.

2022 Segment Report for Digital Business

in € millions	2022	2021	+/– as %	+/– as % acc[1]
Subscription	262.3	184.9	42	34
SaaS	75.8	44.1	72	62
Maintenance from perpetual licenses	181.3	209.9	-14	-19
Total recurring revenue	**519.5**	**438.9**	**18**	**12**
Perpetual licenses	30.2	30.6	-1	-5
Total product revenue	**549.7**	**469.5**	**17**	**11**
Cost of sales	-77.8	-62.5	24	22
Gross profit	**471.9**	**407.0**	**16**	**9**
Sales, marketing, and distribution expenses	-284.3	-231.1	23	16
R&D expenses	-149.5	-120.1	24	19
Segment earnings	**38.2**	**55.8**	**-32**	**-42**
Margin as %	**6.9**	**11.9**	**–**	**–**

[1] At constant currency.

Adabas & Natural (A&N)

The mainframe database segment (A&N) generated €245.9 million (2021: €214.5 million) in revenue in fiscal 2022, representing a 15 percent increase, or an 8 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 the future, Software AG anticipates a stable to moderate decrease in this business. The fact that the decline in this traditional business slowed in recent years 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. In addition, customers' desire for subscription agreements has grown.

A&N subscription revenue rose 65 percent, or 58 percent at constant currency, to €100.6 million (2021: €61.1 million) in the year under review. Maintenance revenue from perpetual licenses in this segment came to €121.1 million (2021: €126.1 million), representing a decline of 4 percent, or 10 percent at constant currency.

A&N segment earnings increased accordingly to €169.2 million (2021: €145.9 million). A&N's segment margin was 68.8 percent (2021: 68.0 percent), 0.8 percentage points higher than in the previous year.

2022 Segment Report for Adabas & Natural (A&N)

in € millions	2022	2021	+/– as %	+/– as % acc[1]
Subscription	100.6	61.1	65	58
Maintenance from perpetual licenses	121.1	126.1	-4	-10
Total recurring revenue	**221.7**	**187.2**	**18**	**12**
Perpetual licenses	24.3	27.3	-11	-18
Total product revenue	**245.9**	**214.5**	**15**	**8**
Cost of sales	-8.5	-7.7	10	4
Gross profit	**237.5**	**206.7**	**15**	**8**
Sales, marketing, and distribution expenses	-36.4	-29.8	22	15
R&D expenses	-31.9	-31.0	3	3
Segment earnings	**169.2**	**145.9**	**16**	**8**
Margin as %	**68.8**	**68.0**		

[1] At constant currency.

Professional Services

In fiscal 2022, the Professional Services segment generated revenue of €162.6 million (2021: €149.8 million), representing a 9 percent (acc: 2 percent) increase. Excluding StreamSets, the segment posted revenue of €157.4 million, representing an increase of 5 percent (acc: -1 percent). Segment earnings declined by 21 percent, or 28 percent at constant currency, to €21.9 million (2021: €27.8 million). The cost of sales, which accounts for the largest share of expenses in this segment by far, increased by 18 percent, or 11 percent at constant currency, to €127.9 million (2021: €108.6 million). Sales, marketing, and distribution expenses declined 4 percent, or 10 percent at constant currency, to €12.9 million (2021: €13.4 million). The segment margin was 13.4 percent (2021: 18.5 percent). The reasons for the decline in the margin include the investments made in the framework of the PS transformation project and the strategic partnerships established in connection with it. In addition, travel picked up once again in 2022, after the restrictions of the previous year due to the COVID-19 pandemic.

Software AG's strategic consulting services remained highly relevant for customers in fiscal 2022. The Company has set sustainable profitability and high service quality as its objectives for this segment–not rapid growth. The Professional Services business line was again able to support the sustainable success of the other two product-driven business lines. In the third quarter of 2022, the Company expanded its strategic partnership with Persistent, a middleware implementation partner in North America. The partnership entailed subcontracting Persistent as a service partner in the North American market, offering customers tailored solutions on the basis of Software AG products.

2022 Segment Report for Professional Services

in € millions	2022	2021	+/– as %	+/– as % acc[1]
Total revenue	**162.6**	**149.8**	**9**	**2**
Cost of sales	-127.9	-108.6	18	11
Gross profit	**34.7**	**41.2**	**-16**	**-22**
Sales, marketing, and distribution expenses	-12.9	-13.4	-4	-10
Segment earnings	**21.9**	**27.8**	**-21**	**-28**
Margin as %	**13.4**	**18.5**	**–**	**–**

[1] 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 optimization of its portfolio through an appropriate financing structure—regardless of short-term fluctuations to 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 operating activities and existing credit agreements.

The Finance department implements financial policy and risk management based on guidelines determined by the Management Board. Software AG's liquidity position is 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 by broadly diversifying 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, Including cash pooling, and minimizes remaining balances using derivative financial instruments. In doing so, only existing balance sheet items or expected cash flows are hedged.

FINANCING INSTRUMENTS

Since the shift to subscription and SaaS revenue, Software AG's financing is to be based on ongoing recurring free cash flow. During the ongoing transition phase, the shift in the business model to recurring revenue and cash flows, in particular the granting of term software licenses, tends to lead to later inflows.

In addition, external financing, factoring, and finance leasing models are used for any additional financing needs. A financial risk arises from the possibility that the Company would not be able to satisfy existing financial liabilities, which include loan agreements, leases, and trade accounts payable. The Group limits this risk by means of liquidity control. Financial obligations can be balanced by available cash, bilateral lines of credit, and the syndicated loan. The loans used are at variable and fixed interest rates and have remaining terms to maturity of no more than nine years. Variable interest payments are based on the prevailing interest rate on the reporting date. Liabilities in foreign currency are translated at the exchange rate as of December 31, 2022.

STRATEGIC FINANCING MEASURES

Software AG's 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. The syndicated line of credit in the amount of €300 million was refinanced and extended in December 2022, before it had expired. The new term is five years, to December 2027. In addition, the agreement includes an option to increase the credit volume by up to €100 million. This line of credit can be used for general business purposes, including M&A.

As an additional source of financing, Software AG issued €344.3 million in convertible bonds to the Silver Lake Group at the beginning of 2022. The bonds will reach maturity in early 2027. The revenue generated by the transaction was mainly used for the acquisition of StreamSets.

Combined with a comfortable liquidity position and available liquidity lines, the Group achieves a financing structure that is independent of short-term capital market conditions, thereby ensuring the solvency of all subsidiaries and allowing scope for strategic development.

ANALYSIS OF THE FINANCIAL POSITION

Software AG's **net cash position** (cash and cash equivalents less financial liabilities) as of December 31, 2022, was -€240.0 million (2021: €277.2 million). This year-on-year decline resulted mainly from the increase in non-current financial liabilities in connection with the convertible bond issue, the cash flows from operating, investment, and financing activities described as follows, and the resulting cash and cash equivalents as of the end of the year:

Multi-Period Financial Position Summary

in € millions	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2018
Cash and cash equivalents	427.1	585.8	480.0	513.6	462.4
Current financial liabilities	31.9	84.8	16.4	96.4	111.9
Non-current financial liabilities	635.2	223.8	243.5	200.2	201.4
Net liquidity	-240.0	277.2	220.1	217.0	149.0
Equity	1,511.2	1,438.2	1,312.5	1,357.5	1,239.1
Equity ratio as %	56	65	64	64	62
Total assets	**2,678.4**	**2,221.4**	**2,039.9**	**2,116.1**	**2,007.9**

Net cash from operating activities declined by €97.8 million, from €116.2 million to €18.4 million. This was mainly a result of the decline in operating profit, as described in the Financial Performance section, and the increase in receivables and assets not due in connection with the gradual shift from customer contracts to subscriptions. During the transition phase, the transformation of the business model is leading to later inflows from customer contracts.

Cash outflows from investing activities rose by €484.5 million, from €28.7 million to €513.2 million. This increased outflow resulted mainly from the acquisition of StreamSets, which led to a net cash outflow of €537.3 million. The sale of the Company's ownership interest in FACT led to a positive one-time effect in the amount of €10.8 million in the third quarter of the year under review.

Cash inflows from financing activities increased by €333.8 million to €316.7 million, mainly in connection with the issue of convertible bonds to Silver Lake.

Cash and cash equivalents as of December 31, 2022, came to €427.1 million, compared to €585.8 million on December 31, 2021. This difference of €158.7 million resulted from the balance of the described cash flows, plus a currency translation adjustment in the amount of €19.3 million.

Statement of Cash Flows in 2022

in € millions	2022	2021
Net cash from operating activities	18.4	116.2
Net cash from investing activities	-513.2	-28.7
Net cash from financing activities	316.7	-17.1
Change in cash and cash equivalents from currency translation	19.3	35.4
Net change in cash and cash equivalents	-158.7	105.8
Cash and cash equivalents at end of period	427.1	585.8
Free cash flow	**-1.1**	**91.4**

Free cash flow—defined by Software AG as cash flow from operating activities minus cash flow from investing activities without inflows and outflows directly related to current financial assets and M&A activities and repayment of lease liabilities—was -€1.1 million in the year under review, compared to €91.4 million in 2021. This performance was largely due to the described change in cash flow from operating activities.

Calculation of 2022 Free Cash Flow

in € millions	2022	2021
Net cash from operating activities	**18.4**	**116.2**
Proceeds from the sale of property, plant, and equipment/intangible assets	3.1	2.1
Purchase of property, plant, and equipment/ intangible assets	-13.5	-11.1
Proceeds from the sale of non-current financial assets	4.9	1.1
Purchase of non-current financial assets	-2.0	-3.9
Repayment of lease liabilities	-12.0	-13.0
Free cash flow	**-1.1**	**91.4**

Shareholders' equity was €1,511.2 million (2021: €1,438.2 million) at the end of the year under review, representing an increase of €73.0 million year-on-year. With an equity-to-assets ratio of 56 percent (2021: 65 percent), Software AG remains on a solid financial foundation. The decline in the equity-to-assets ratio is mainly attributable to the balance sheet extension in connection with the StreamSets acquisition and to the issue of the convertible bonds.

ASSET STRUCTURE ANALYSIS

Assets as of December 31, 2022, increased by €457.0 million, from €2,221.4 million to €2,678.4 million.

On the **assets** side, **current assets** declined by €105.0 million, from €874.9 million to €769.9 million. This was driven primarily by the following changes:

- Cash and cash equivalents declined as described in the Financial Position section, by €158.7 million to €427.1 million.
- Current trade receivables, contract assets, and other receivables rose by €53.3 million to €251.8 million, mainly due to increased receivables and contract assets. The latter represent payments due from customers for underlying services that have been rendered by Software AG but, due to contractual provisions, will be invoiced later, particularly in connection with the granting of temporary software licenses through subscription agreements.

Non-current assets increased by €562.0 million, from €1,346.5 million to €1,908.5 million. This increase was primarily driven by higher intangible assets (less ongoing amortization) due to the StreamSets acquisition and by goodwill, which was also impacted by currency exchange fluctuations (net increase as of December 31, 2022, by €529.9 million, of which €134.2 million was attributable to intangible assets and €395.7 million to goodwill). The additions arising from the StreamSets acquisition were allocated to the Digital Business segment. Moreover, a goodwill impairment for the Professional Services segment was recognized in the amount of €25.3 million. Further changes were as follows:

- Property, plant, and equipment and investment property remained largely unchanged compared to December 31, 2021. Netted changes relate to amortization, ongoing replacement investments in the framework of regular business operations, and exchange rate fluctuations.
- Non-current other non-financial assets increased by €43.7 million to €52.8 million, of which €33.2 million was attributable to the impact of the adjusted measurement of pension provisions and the corresponding plan assets, due to the changed interest rate environment and the actuarial assumptions based on it.

On the **liabilities** side, **current debt** declined slightly by €36.2 million to €454.6 million, mainly due to the decline in current financial liabilities by €53.0 million as a result of repayments of external financing and to the increase in current other provisions by €15.6 million. The increase in current other provisions relates mainly to the recognition of a restructuring provision and to increased provisions for litigation.

Non-current debt increased by €420.3 million, from €292.3 million to €712.6 million. The increase was largely due to the following changes:

- Non-current financial liabilities increased by €411.5 million to €635.2 million, of which €311.2 million is attributable to the convertible bond issue. Furthermore, a long-term loan with a nominal amount of €120.0 million was taken out.
- As in the case of non-current other non-financial assets as described, the decline in provisions for pensions and similar obligations by €23.3 million to €11.8 million largely reflects the impact of the changed interest rate environment.
- Finally, deferred tax liabilities increased by €36.3 million, from €6.4 million to €42.7 million, which is mainly due to the acquisition of StreamSets.

The change in **shareholders' equity**[1] by a total amount of €73.0 million resulted from the increase in capital reserves by €33.2 million in connection with the convertible bond issue. In addition, retained earnings declined by €37.2 million, while other reserves increased by €77.8 million. The change in these items is due to net income in the amount of €19.2 million, to valuation adjustments in the amount of €77.8 million (of which €37.0 million is attributable to currency effects and €41.4 million to actuarial effects relating to pension commitments) which, in accordance with IFRS rules, must be recognized directly in equity, and to dividend payments in the amount of €56.2 million. Finally, in connection with the sale of the FACT ownership interest, the non-controlling interests were fully derecognized.

OFF-BALANCE SHEET ASSETS

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

[1] Disclosures pursuant section 160(1), no. 2 of AktG are included in the Notes to the Consolidated Financial Statements.

Multi-Period Assets Summary

in € millions	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2018
Assets					
Current assets	769.9	874.9	758.0	776.0	724.9
Non-current assets	1,908.5	1,346.5	1,281.9	1,340.1	1,283.0
	2,678.4	**2,221.4**	**2,039.9**	**2,116.1**	**2,007.9**
Equity and liabilities					
Current liabilities	454.6	490.9	392.1	468.2	488.4
Non-current liabilities	712.6	292.3	335.3	290.4	280.4
Equity	1,511.2	1,438.2	1,312.5	1,357.5	1,239.1
	2,678.4	**2,221.4**	**2,039.9**	**2,116.1**	**2,007.9**

SOFTWARE AG'S FINANCIAL POSITION AND PERFORMANCE

ANNUAL FINANCIAL STATEMENTS FOR THE PARENT COMPANY

The annual financial statements of Software AG (parent company) were prepared pursuant to the provisions of the German Commercial Code.

Financial position of Software AG

Software AG's **total assets** rose by €300.3 million from €1,022.8 million to €1,323.1 as of December 31, 2022.

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

in € millions	2022	2021	+/–
Intangible assets	20.1	23.8	-3.7
Property, plant, and equipment	38.2	37.7	0.5
Financial assets	1,027.6	685.6	342.0
Inventories	0.1	0.0	0.1
Receivables and other assets	114.9	98.8	16.1
Cash and cash equivalents and short-term securities	77.6	164.4	-86.8
Prepaid expenses	44.5	11.1	33.4
Difference in assets arising from offsetting	0.1	1.4	-1
Assets	**1,323.1**	**1,022.8**	**300.3**
Equity	265.5	248.4	17.1
Provisions	114.0	113.4	0.6
Convertible bonds	344.3	0.0	344.3
Liabilities to banks	328.7	288.3	40.4
Remaining liabilities	270.5	372.6	-102.1
Deferred income	0.1	0.1	0.0
Equity and liabilities	**1,323.1**	**1,022.8**	**300.3**

- **Intangible assets** decreased by €3.7 million, due primarily to amortization.
- **Financial assets** increased by €342.0 million. This was mainly due to the granting of a loan to the affiliated company Software AG USA, Inc. to finance the acquisition of StreamSets within the Group.
- **Receivables and other assets** rose by €16.1 million to €114.9. This development corresponds to the increase in total revenue.
- **Cash and cash equivalents** went down by €86.8 million. Software AG predominantly generates liquidity based on intra-Group royalties, dividends, financing, and cost allocations to the subsidiaries. For this reason, the development of Software AG's cash and cash equivalents depends to a great extent on decisions regarding the subsidiaries' dividend payouts 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.
- Software AG's **equity** increased by €17.1 million year-on-year. This rise resulted from the balance of €39.5 million in net income, €56.2 million in equity-reducing dividends paid out to Software AG shareholders in 2022, and the €33.8 million increase in capital reserves in connection with the issue of convertible bonds. The last item led to the recognition of **convertible bonds** at their face value of €344.3 million.
- **Liabilities to banks** went up by €40.4 million This is primarily in connection with the net balance of new investment loans.

- **Remaining liabilities** went down by €102.1 million primarily due to internal cash-management measures which led to a decline in liabilities to affiliated companies.

Software AG's financial performance

The key items of the income statement are as follows:

in € millions	2022	2021	+/– as %
Licenses	73.4	51.9	41.4
Maintenance	103.3	101.1	2.2
Software as a Service	8.9	4.7	89.4
Services	150.5	123.7	21.7
Total revenue	**336.1**	**281.4**	**19.4**
Operating income and expenses	-397.2	-346.5	14.6
Income from financial assets and profit transfers	122.2	77.5	57.7
Operating earnings before interest and taxes	**61.1**	**12.4**	**392.7**
Net financial income/ expenses	-17.5	-1.0	1650.0
Earnings before taxes	43.6	11.4	282.5
Taxes	-4.1	-3.5	17.1
Net income for the year	**39.5**	**7.9**	**400.0**

- **Licenses** resulted from license-related royalties from subsidiaries and from Software AG's own license sales, primarily in Germany.
- **Maintenance** includes primarily maintenance-related royalties from subsidiaries.
- **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 other operating income and expenses, expenses for purchased goods and services, personnel expenses, and write-downs on intangible fixed assets as well as on property, plant, and equipment. The rise resulted mainly from higher expenses for services purchased from subsidiaries and higher expenses associated with purchased hosting services.
- **Income from financial assets and profit transfers** includes dividends from subsidiaries, income from long-term loans to affiliated companies, income and expenses arising from profit transfer agreements, and write-downs of financial assets and marketable securities. Compared with the previous year, the balance went up mainly due to higher profit transfers and distributions from the operational German companies.
- **Net financial income/expenses** is the result of offsetting other interest and similar income against interest and similar expenses. The year-on-year change resulted primarily from the €17.2 million rise in interest expenses mainly due to the convertible bonds.

Forecast

Software AG's future financial performance depends upon the financial standing of the Software AG Group and decisions regarding the distribution of intra-Group dividends. For more information, please refer to the Group Forecast.

Combined Non-Financial Statement

FUNDAMENTAL ASPECTS

REPORTING SYSTEM

Software AG's Combined Non-Financial Statement (hereinafter referred to as the Non-Financial Statement) relates to the fiscal year from January 1 to December 31, 2022. The report has been published in this format as part of the Combined Management Report since fiscal 2017.

The 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 development, financial results, its situation, and the effects of its activities at a minimum on the aspects stated in section 289c(2) of HGB. Per section 289d of HGB, Software AG prepared the Non-Financial Statement based on the Global Reporting Initiative (GRI), an international standards framework, as well as the industry standards of the USA's Sustainability Accounting Standards Board (SASB).

The contents of the Non-Financial Statement relate to Software AG and the Software AG Group. The Group's non-financial indicators are based on data that generally correspond 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 Non-Financial Statement

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

EXPLANATION OF THE BUSINESS MODEL

As a global technology provider, Software AG delivers software solutions and services to its customers. The Company's founders laid the groundwork for Software AG's value-oriented actions, ultimately forming its corporate culture. To this day, Software AG is the innovative, independent force guiding some of the world's best brands on their digitalization journey. For more information on Software AG's business operations and business model, please refer to Fundamental Aspects of the Group in the Combined Management Report.

DISCLOSURE REQUIREMENTS PER THE EU TAXONOMY REGULATION

Software AG is required to provide information about non-financial interests per regulations set forth in sections 289b et seq./sections 315b et seq. of HGB that are based on Directive 2013/34/EU. In this context, the Company must explain in its Non-Financial Statement in accordance with Article 8 of Regulation (EU) 2020/852 from June 18, 2020 (Taxonomy Regulation), how and to what extent it carries out economic activities that could be characterized as environmentally sustainable in the sense of the Taxonomy Regulation.

An economic activity is defined as taxonomy-eligible if it is listed in the Taxonomy Regulation or in one of the delegated legislative acts and contributes on its merits after realization to at least one of the following environmental objectives:[1]

[1] The Climate Delegated Act, which was formally adopted in June 2021, establishes technical screening criteria for the first two of the six environmental objectives and serves to define and identify sustainable activities. The technical screening criteria for objectives three through six are slated to be adopted in 2023. Subsequently, only the first two environmental objectives are applicable in fiscal year 2022.

- Climate change mitigation
- Climate change adaptation
- Sustainable use and protection of water and marine resources
- Transition to a circular economy
- Pollution prevention and control
- Protection and restoration of biodiversity and ecosystems

An economic activity is considered taxonomy-aligned if it meets the technical screening criteria, meaning that it contributes substantially to one of the environmental objectives and does no significant harm (DNSH) to any of the other environmental objectives. Furthermore, compliance with a minimum safeguard must be observed to ensure taxonomy alignment regarding alignment with frameworks for respecting human rights as well as social and labor standards.

The Taxonomy Regulation defines the three performance indicators required to be reported—revenue, capital expenditure (CapEx), and operating expenditure (OpEx)—that demonstrate the scope of economic activities that are classified as environmentally sustainable in the sense of the Taxonomy Regulation.

The European Commission established the Delegated Regulation (EU) 2021/2139 (Climate Delegated Act) to define the screening criteria for taxonomy eligibility and alignment for the first two of the six environmental objectives.

Software AG must apply the requirements of the Taxonomy Regulation in fiscal 2022 for the second time. For the Company's first-time reporting per the EU taxonomy in fiscal 2021, simplified requirements were imposed. First, economic activities were only considered with regard to the first two environmental objectives—climate change mitigation and climate change adaptation—and second, key performance indicators—revenue, CapEx, OpEx—were only disclosed for taxonomy-eligible economic activities. Thus, taxonomy alignment was not taken into consideration. Software AG made use of these simplifications.

In reporting for fiscal year 2022, once again only the first two environmental objectives were taken into consideration. However, information on taxonomy alignment must be disclosed. Furthermore, the tables from Annex II (2021/2178/EU) must be used for reporting of taxonomy quotas for the first time.

Determining taxonomy-eligible economic activities

To collect the mandatory information for reporting, Software AG initiated an EU taxonomy project that involved the participation of relevant internal units and an external service provider. In the first step, the portfolio was screened with regard to the economic activities listed in Annexes I and II of the Climate Delegated Act.

The screening results showed that there were no revenue-relevant economic activities that are fundamentally taxonomy-eligible with regard to the environmental objective of climate change mitigation (Annex I of the Climate Delegated Act). This assessment is based on the following supplemental considerations:

- With regard to the first environmental objective, climate change mitigation, classification of activity 8.1. "Data processing, hosting, and related activities" by Software AG as taxonomy-eligible is precluded for the following reasons in particular: Although Software AG operates its own data center at its headquarters in Darmstadt, Germany, this center as well as backup servers at other locations are used exclusively to provide internal services. Generating external revenue with these data centers and servers is not part of Software AG's business model. Rather, the provision of cloud infrastructure services is subcontracted with the sale of Software as a Service (SaaS). It is imminent that the provision of SaaS is a case of single performance obligations in the sense of IFRS 15, meaning that a potential third-party hosting component is not separable from the software provided for use as well as supplemental services (for instance, maintenance and support).
- Regarding the first environmental objective, climate change mitigation, classification of activity 8.2 "Data-driven solutions for GHG emissions reductions" by Software AG as taxonomy-eligible is precluded for the following reasons: Software AG provides software solutions and services for its customers, who then utilize the products and services accordingly for their own business activities. Software AG's products distinguish themselves by enabling companies to integrate IT systems and data, optimize business processes, and make better decisions in order to operate more efficiently and save resources. However, whether Software AG's activities in detail are in fact taxonomy-eligible is measured by how the Company's customers use its products and services, which is not in Software AG's scope of responsibility, influence, or knowledge.

The screening results showed that there were potentially existing CapEx and OpEx in specific economic activities that are fundamentally taxonomy-eligible with regard to the environmental objective of climate change mitigation (Annex I of the Climate Delegated Act):

- 6.5. Transport by motorbikes, passenger cars, and light commercial vehicles
- 7.7. Acquisition and ownership of buildings

The taxonomy-eligible CapEx concerns additions to the Group's vehicle fleet and buildings. The taxonomy-eligible OpEx includes spending for short-term leases as well as servicing and maintenance for the vehicle fleet and buildings. Software AG does not generate any revenue from economic activities 6.5. and 7.7. Rather, they cover the purchase of products or investments in economic activities that are taxonomy-eligible or aligned.

With regard to the second environmental objective, climate change adaptation, Software AG's economic activities cannot be subsumed under any of the economic activities in Annex II of the Climate Delegated Act. The reason here is the same: Software AG's products and services do not implement physical solutions, for instance, that can be used to significantly reduce the most important climate risks. Furthermore, there are no expenditures (CapEx or OpEx) in fiscal 2022 to be reported for business activities with regard to climate risks.

Reviewing the substantial contribution as well as doing no significant harm

Next, Software AG reviewed the previously identified taxonomy-eligible economic activities within the scope of consolidation. The goal of this review was to determine the type and extent of relevant CapEx and OpEx regarding taxonomy-eligible economic activities for each company in the consolidated Group.

Per the Taxonomy Regulation, the technical screening criteria as well as compliance with minimum safeguards must be reviewed to assess taxonomy alignment for each of Software AG's economic activities that were determined to be taxonomy-eligible.

After Software AG's taxonomy-eligible economic activities were assessed with regard to their substantial contribution to climate change mitigation, the subsequent DNSH assessment was conducted for the remaining environmental objectives. For this task, Software AG performed an alignment survey of the identified suppliers regarding confirmation of DNSH criteria and minimum safeguards. The information requested from suppliers could not be provided or compliance with the criteria could not be confirmed. That demonstrates that there is insufficient comprehension of Taxonomy Regulation requirements along Software AG's entire supply chain. Due to the lack of direct supplier and service relationships with upstream manufacturers, Software AG exhausted its possibilities for confirming the presence of DNSH criteria for fiscal 2022. For this reason, Software AG's CapEx and OpEx are simply categorized as taxonomy-eligible.

Reviewing the minimum safeguards

As the final step, taxonomy alignment must be reviewed with regard to compliance with minimum safeguards. As previously mentioned, compliance with minimum safeguards could not be demonstrated for fiscal 2022 regarding Software AG's upstream supply chain due to a lack of relevant statements by the suppliers. Please refer to the alignment survey conducted on this matter. Company-wide compliance with the minimum safeguards in the sense of the Taxonomy Regulation is currently undergoing a broad review at Software AG. Since Software AG has not previously had distinct, original taxonomy-eligible economic activities, this is considered of secondary importance to its suppliers' compliance with the minimum safeguards. Completion of the internal review will be followed by a corresponding revision of Software AG's Codes of Conduct for Suppliers and Partners in 2023. There were no violations in the form of final judgments regarding the minimum safeguards during the reporting period. There were no incidents in the areas of human and labor rights, bribery, corruption, taxation, and fair competition.

Calculating the taxonomy-eligible and taxonomy-aligned percentages

Based on the process steps conducted and knowledge gleaned, no taxonomy-aligned amounts were determined for CapEx and OpEx of Software AG's identified taxonomy-eligible economic activities. For this reason, the calculation of the quotients is limited to determining the denominators. All key performance indicators are found in the reporting sheet per the Commission Delegated Regulation (EU) 2021/2178 of July 6, 2021, as an appendix to the Non-Financial Statement.

SUSTAINABILITY MISSION STATEMENT

Software AG developed a sustainability strategy in 2021 and adopted the following sustainability mission statement:

Sustainability and responsible action are guiding principles that are central to our mission at Software AG. We are certain that moral principles and economic success belong together. To protect future generations and our planet, we are committed to creating not only economic, but also ecological and social value.

MANAGING SUSTAINABILITY AND TRANSPARENCY

Sustainability is an integral part of Software AG's DNA. Its sustainability strategy is anchored with the Chief Executive Officer (CEO). Software AG's internal Sustainability Steering Committee (SSC) guides, monitors, and advises the Company on implementing the sustainability strategy. The strategy and SSC are led by the Corporate Communications department, which reports to the CEO. The ultimate objective is transparent communication both inside and outside of the Company. This enables Software AG to ensure that its stakeholders are proactively, continuously, and efficiently informed about the topic of sustainability, its goals, and progress.

SUSTAINABILITY MISSION STATEMENT

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Our Sustainability Program 2025 guides us in achieving our ambitions in five key action areas.

Leadership & Governance	Our Employees	Customers & Technology	Value for Society	Impact on Environment
We are committed to anchoring sustainability as an integral part of our business activities and delivering on our environmental, social, and governance (ESG) commitments. Through responsible corporate management and governance, we target long-term goals geared towards growth and best-in-class external ESG recognition. As a software company, we commit to the highest level of information security and data protection—entirely in the interests of our customers and partners. We firmly believe that our employees are the key to our success as a sustainable company.	We aspire to promote and role-model a corporate culture based on people, passion, and products, and the core values of inclusion, integrity, and innovation. We continue to focus on attracting and retaining the best talent for Software AG, nurtured through employee engagement and an inclusive and equitable working environment in which all employees can thrive and unleash their potential.	We are committed to being a reliable partner for our customers in providing high-quality and individually adjustable software solutions. Our services support digital transformation. Digital transformation can help to mitigate or even reverse the consequences of climate change. We want to play an active part in this with our solutions, enabling and helping our customers to operate sustainably.	We aspire to effectively assist people in building expertise in the area of modern technologies. Our focused involvement in universities and schools is aimed at supporting the IT experts of the future. We offer new learning opportunities and meaningful development prospects for students and young professionals. Since technological advancement plays a crucial role in developing a sustainable world, we participate in collaborative research projects that promote the global sustainable development goals (SDGs).	We are working to keep our environmental footprint as small as possible. To reduce the impact of our business activities on the planet, we are preparing to become climate neutral as quickly as possible. With the help of our technology and our solutions, we will join forces with our customers and partners to tackle significant environmental challenges and help shape a more sustainable future.

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 and service providers, graduates and (potential) future employees, universities and research institutions, social actors in local communities, governments and associations, non-governmental organizations (NGOs), and key multipliers such as analysts and the media.

MATERIAL NON-FINANCIAL TOPICS

Determining material non-financial topics

Software AG comprehensively updated its materiality analysis most recently in fiscal year 2021. The result was a clearer focus on topics that have the strongest effects on the economy, environment, and society as well as the highest business relevance for Software AG. Software AG's sustainability strategy that was drafted in 2021 builds on this foundation. There was no need to conduct a reevaluation in fiscal 2022. No new or divergent topics were identified as material.

A multi-phase process was conducted in fiscal years 2020 and 2021 to identify material non-financial topics and issues for the Non-Financial Statement. During the first step, selected internal stakeholders from sustainability-relevant areas at Software AG participated in qualitative interviews. Furthermore, external stakeholders were also surveyed regarding Software AG's sustainability challenges. In a second step, a preliminary analysis was performed that included an evaluation per the GRI sustainability reporting standards, the industry recommendations for software companies from the SASB, and the non-financial statements from other companies in the industry. During a joint workshop, Software AG's leaders subsequently validated and evaluated the identified issues.

Prioritizing material topics by business relevance and impact analysis

In fiscal year 2021, the 26 material topics defined in the previous year were once again comprehensively validated and prioritized. Initially, a blind spot analysis was conducted to ensure that all of the topics relevant to Software AG's stakeholders were being taken into consideration. Related topics were summarized and the remaining 18 topics categorized into Software AG's five action areas. Finally, a business relevance and impact analysis was conducted. Software AG worked on this process with an external consulting company specialized in materiality analyses and sustainability strategies.

Results of the materiality analysis

The materiality analysis conducted by Software AG in fiscal year 2021 follows the understanding of the GRI as well as the requirements of the CSR Directive Implementation Act (CSR-RUG). As in the previous year, the eight topics listed in the following table were classified as material for the Company:

Action area	Material topic
Leadership and Governance	• Sustainable economic growth • Information security and data protection
Our Employees	• Corporate culture and diversity • Employer attractiveness
Customers and Technology	• Product and service quality • Innovation and impact of our products
Value for Society	• Tech for good
Impact on Environment	• Energy and CO_2 emissions

In addition to the eight material topics, Software AG reports on two additional topics, respect of human rights and combating corruption and bribery, which result from the requirements in section 289c of HGB. Topics that are classified as not material for Software AG in the context of the materiality analysis will not be addressed in this Non-Financial Statement. In addition to the material topics, the Non-Financial Statement Index and the Non-Financial Key Indicators provide a full overview by including selected topics that are not discussed further as well as key indicators relevant for some stakeholder groups.

Minimum aspects (according to HGB) and other aspects deemed to be material

At a minimum, the Non-Financial Reporting Statement must refer to the aspects of environmental matters, employee concerns, social matters, respect of human rights, and combating corruption and bribery according to section 289c(2) of HGB. Software AG has established concepts for all of the aspects defined in HGB, and these are covered in the Company's specified action areas. Respect of human rights and combating corruption and bribery are addressed in the action area Leadership and Governance. The aspects environmental matters, employee concerns, and social matters are covered in the action areas Impact on Environment, Our Employees, Customers and Technology, and Value for Society. In addition to the aspects stated in HGB, Software AG has also defined customer concerns as material, and these are mainly assigned to the Customers and Technology action area.

Business Relevance and Impact Analysis

Relevance of the issue to Software AG's business / Impact on the environment, economy and/or society	rather low	moderate	slightly high	high	very high
very high		B4. Employer attractiveness	A4. Sustainable economic growth	A3. Information security and data protection B1. Corporate culture and diversity	C1. Product and service quality
high		A1. Business ethics and CDR C2. Customer satisfaction and loyalty D2. Stakeholder dialogue and government relations	B2. Employee promotion and development	C3. Innovation and impact of our products D3. Tech for good E1. Energy and CO2 emissions	
slightly high		A4. Sustainable supply chains and human rights	B2. Occupational health and safety B3. Work-life balance E2. Natural resources and circularity		
moderate			D1. Support of local communities		
rather low	E3. Use of water				

A: Leadership and Governance; **B**: Our Employees; **C**: Customers and Technology; **D**: Value for Society; **E**: Impact on Environment

NON-FINANCIAL STATEMENT INDEX

The following Non-Financial Statement (NFS) Index highlights Software AG's eight material topics by color. All other topics were classified as non-material and are reported voluntarily.

Material topics and other topics	Summarized significance of topic content for Software AG	Aspects per HGB (section 289c(2))	Assignment to reporting standards (GRI & SASB)
Leadership and Governance action area			
Sustainable economic growth	Business performance and growth, brand visibility and reputation, management of non-financial risks and opportunities	n/a	n/a
Information security and data protection	Information and data security, protection of employee and customer data, privacy, prevention of malware attacks	Employee concerns (section 289c(2), no. 2), customer concerns	SASB TC-SI-230a
Business ethics and digital responsibility	Responsible, moral, ethical, fair, and sustainable behavior, compliance, combating corruption and anti-competitive behavior, protection of intellectual property	Combating corruption and bribery (section 289c(2), no. 5)	GRI 205, GRI 206, SASB TC-SI-520a
Sustainable supply chains and human rights	Respect and protection of human rights (human rights due diligence), environmental laws/standards/policies, Code of Conduct, global sourcing process, supplier assessment	Respect of human rights (section 289c(2), no. 4)	GRI 412
Our Employees action area			
Corporate culture and diversity	Transparent, respectful, trusting corporate culture, diversity, equity, and inclusion, combating discrimination, support of women, flat hierarchies, codetermination, freedom of association and collective bargaining	Employee concerns (section 289c(2), no. 2)	GRI 405, SASB TC-SI-330a
Employer attractiveness	Recruiting global, diverse, and qualified teams, active sourcing concept, war for talent	Employee concerns (section 289c(2), no. 2)	GRI 401
Additional topics in the NFS key indicator table	Work-life balance, employee promotion and development, staff attrition	Employee concerns (section 289c(2), no. 2)	GRI 404
Customers and Technology action area			
Product and service quality	Certified management systems; regular software releases, updates and improvements, adding value for customers (efficient use of resources, better process results, competitive advantages)	Customer concerns	n/a
Innovation and the impact of our products	Monitoring of competitors and disruptive trends, innovation capacity, research & development, impact of products on society, environment, and businesses	Customer concerns	n/a
Value for Society action area			
Tech for good	Develop digital competencies, mentoring/seminars for students and future IT managers, engagement in research projects, foster education	Customer concerns, social matters (section 289c(2), no. 3)	n/a
Additional topics in the NFS key indicator table	Employee engagement and support of local communities	Social matters (section 289c(2), no. 3)	n/a
Impact on Environment action area			
Energy and CO_2 emissions	Energy management, energy efficiency, CO_2 emissions, expansion of renewable energies, carbon footprint, climate strategy	Environmental matters (section 289c(2), no. 1)	GRI 302, GRI 305, SASB TC-SI-130a
Additional topics in the NFS key indicator table	Natural resources and circularity	Environmental matters (section 289c(2), no. 1)	GRI 306

CODE OF CONDUCT AND INTERNATIONAL CONVENTIONS AND GUIDELINES

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 summarized below:

Code of Conduct

Software AG's 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 with customers, partners, and competitors follow these guidelines. All employees must read and understand the contents of the Code of Conduct. To this end, all new employees attend mandatory online training programs and receive certification upon completion. The Code of Conduct is currently available in eight languages and is updated on a regular basis. In addition, the Company has established other specific guidelines for conduct with partners and suppliers, and has made a voluntary commitment to respecting human rights.

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

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

Compliance with the Code of Conduct and the Compliance Board

Software AG 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 strives to ensure that employees behave in compliance with the law, that internal rules and processes are followed, and that behavior complies with Software AG's 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 as well as its voluntary commitment to respecting human rights.
- The online training is offered through Software AG's learning management system, which checks that employees complete the training.
- At the end of the online training program, employees 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 reporting system[1] at complianceboard@SoftwareAG.com for reporting incidents.

The essential duties and responsibilities of the Compliance Board include:

- Refining, 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
- Confidential, if necessary, anonymous handling of those who report on non-compliance (whistleblowers)
- In the event of non-compliance, the Compliance Board also examines whether the compliance rules (including the Code of Conduct), procedures, training, and organizational framework conditions need to be adjusted.

In fiscal year 2022, Software AG's Compliance Board received and processed a total of 82 (2021: 43) inquiries from employees. Seven of those referred to potential compliance violations, and 75 were general compliance inquiries. For more information on the Compliance Board, please refer to the Statement on Corporate Governance.

[1] This process will be replaced by a reporting platform pursuant to the legal requirements of the German Whistleblower Protection Act (HinSchG) in 2023.

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. Violations of the Code of Conduct can be sanctioned by disciplinary measures (in addition to possible legal penalties).

Partner Code of Conduct

Software AG's business relationships with its partners are regulated by its Partner Code of Conduct, which includes a compliance self-assessment. It requires business and sales partners to provide information and commit in writing to comply with Software AG's Code of Conduct. In this context, 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 must be confirmed in writing by all suppliers of the Software AG Group. An enforcement guideline regulates the process for existing and new suppliers. The Compliance Board reviews compliance with the Code on a regular basis.

International conventions and guidelines

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 allots high importance to compliance with these guidelines worldwide. The most important agreements of this kind are listed below:

- Universal Declaration of Human Rights of the United Nations, 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)
- Convention of the Organization for Economic Cooperation and Development (OECD) on Combating Bribery of Foreign Officials in International Business Transactions, 1997
- OECD Guidelines for Multinational Enterprises, 2000

LEADERSHIP AND GOVERNANCE

The Leadership and Governance action area comprises the material topics **Sustainable economic growth** and **Information security and data protection**. In addition, this area also covers the aspects Combating corruption and bribery (required aspect per section 289c(2), no. 5 HGB) and Respect of human rights (minimum aspect per 289c(2), no. 4 HGB). These aspects were not defined as material in the context of the Software AG's materiality analysis. Reporting on these topics is supplementary.

Software AG aims to anchor sustainability as an integral component in its business activities and to meet its obligations in the ESG (environmental, social, and governance) areas. With its responsible management approach, Software AG is pursuing long-term goals that target growth and external recognition for first-class ESG achievements. As a software company, it is committed to information security and data protection at the highest level—entirely in keeping with its customers and partners. Furthermore, the Company leadership is firmly convinced that Software AG's employees are essential for its success as a company that embraces acting sustainably.

SUSTAINABLE ECONOMIC GROWTH

Basic understanding

Software AG considers sustainability core to its business strategy and aspires to be a leader with regard to ESG topics. Sustainable economic growth is extremely relevant to Software AG's business because it contributes to the Company's stability by having a positive impact on employees, investors, and customers. Software AG's leadership is convinced that having a sustainable business strategy not only promotes economic growth, but is also essential in order to live up to the Company's own requirements pertaining to the environment, social matters, and corporate governance. For more information on Software AG's strategy, please refer to the Strategy and Goals section in the Combined Management Report. For more information on corporate strategy risks and opportunities, as well as ESG-related opportunities and risks, please refer to the Opportunity and Risk Report.

Targets and management

Sustainable economic growth is essential to Software AG's ability to realize its ambitions. Accordingly, the Company controls long-term economic growth with its corporate strategy. At the conclusion of its transformation phase, Software AG will realign its corporate strategy in 2023. Software AG reports on financial targets and strategic KPIs in the Strategy and Goals section of the Combined Management Report.

Software AG's ESG strategy is a cornerstone of its sustainable economic growth. Based on feedback from its shareholders, Software AG has identified the ESG ratings from MSCI and ISS as most relevant for investors and has set itself the following targets:

- Achieve an ISS ESG Rating of C by 2023 and B by 2025
- Achieve an MSCI Rating of AA or better by 2025

Software AG manages the ISS ESG Rating results through the ISS Quality Score. With the help of this management tool, the collected data is reviewed and updated continuously.

Progress and actions

The newly constituted Supervisory Board, particularly the election of a Supervisory Board chair who is classified as independent, was assessed as a significant improvement by MSCI in its ESG Rating update in October 2022. MSCI's ratings are heavily weighted towards corporate governance and social issues. Software AG's cleantech product range, employee engagement strategy, and solid data protection and data security initiatives continued to earn strong scores. As a result, Software AG's rating was raised to the top score of AAA (2021: AA). The target level for 2025 was therefore met ahead of schedule in 2022—and is intended to be retained.

Sustainability initiatives in 2021 also had a positive impact on Software AG's ISS Corporate ESG Rating with its score improving from D+ to C- (max. A+) in 2022 after the regular update in February. The approach used for the ISS Corporate ESG Rating is, however, heavily based on emissions data compiled by the Carbon Disclosure Project (CDP). Because Software AG assessed its carbon footprint for the first time in the first half of 2022 and participated in the CDP survey for the first time in July 2022, its CDP participation could not yet be factored into the 2022 ISS ESG Rating. It can, however, be assumed that this rating will improve when assessed in early 2023; the target is a solid C with which Software AG would achieve prime standard. Regarding the ISS Quality Score (min. 10, max. 1), Software AG showed a year-on-year improvement, significantly in two areas: governance improved to 1 (2021: 6), environment to 4 (2021: 5), and social to 1 (2021: 3).

As part of its strategic risk and opportunity management, Software AG started reporting on the strategic ESG risk separately in the 2022 fiscal year. The corresponding opportunities and risks are thus assessed on a half-yearly basis. The risks comprise potential negative impacts such as the loss of or inability to acquire employees and customer orders, increased costs of capital, decreased market value, and penalty fees for not meeting legal requirements.

Software AG expanded its ESG website which provides investors and interested parties with current ESG-related data and information. In addition to reports on the Company's social engagement, the ESG website presents products and sustainable IT solutions that were realized using Software AG products. It also showcases research projects that are aligned with the United Nations' SDGs. Furthermore, visitors to the site will find Software AG's Human Rights Commitment Statement which was drafted in 2022, its updated Code of Conduct, and articles on health programs and initiatives for greater diversity, equality, and inclusion at the corporate level.

INFORMATION SECURITY AND DATA PROTECTION

Basic understanding

As a software company, Software AG delivers information security and data protection at a very high level—entirely in keeping with customers and partners. With its comprehensive information security management program, including various information security management systems (ISMS), Software AG aims to manage information resources in a holistic way, so they are secure and protected.

According to the report on IT security in Germany for 2022 from the Federal Office for Information Security, the risk situation in cyberspace once again reached an all-time high.

To best protect itself from the severe effects of such attacks, Software AG assesses the existing risk for the Company, its customers, and society and conducts appropriate risk minimization. This includes continuously measuring information security, making the necessary improvements mentioned below, and keeping it up to date in order to successfully defend itself against cyberattacks and reduce the risk accordingly. For more information on legal risks associated with information security, please refer to the Opportunity and Risk Report.

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. Overall, and specifically with respect to measures implemented for the protection of customer data, the Company classifies the risk situation as low.

Targets and management

Software AG aims to continuously manage information resources and data in a holistic way, so they are secure and protected. A variety of security measures are utilized throughout the entire Company. Software AG's security awareness program addresses issues including IT security, phishing, security incident training, and data protection. These include, for instance, annual employee training on information security and biannual training on data protection. The Company defined the following objectives:

- At least 85[1] percent of employees trained on information security
- At least 85[1] percent of employees trained on data protection

For Software AG, implementing a comprehensive security strategy means proactively ensuring the security of business-critical data and important information resources. As a provider of maintenance and support, customer cloud services, professional services as well as product delivery, Software AG processes personal and confidential customer data in the role of processor. In the role of data controller, the Company processes personal data, in particular about employees, customers, prospective customers, partners, suppliers, and other business partners.

Software AG has appointed a Data Protection Officer and formed a Data Protection team to advise the business lines on data protection. The Management Board receives comprehensive information in the annual data protection report. The Data Protection Officer as well as the Data Protection team participate in regular training sessions regarding the latest regulations and court rulings as well as the reasonable and customary implementation of data protection measures.

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 those that affect data from Software AG customers or other business partners. Software AG has implemented 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 and ISO-27018 (for customer cloud services) external certifications. The results and findings are documented, and progress is measured in a central audit system. Management is regularly informed in relevant meetings.

[1] The 85 percent target accounts for expected attrition through hires and leavers as well as long-term absences.

Progress and actions

In fiscal year 2022, the employee training rate for information security reached 81 percent (2021: 86 percent). The employee training rate for data protection reached 80 percent (2021: 53[1] percent).

Software AG implemented appropriate measures to minimize the probability of security incidents and further improve its ability to react:

1. An outside assessment of IT security is an integral component of the security program.
2. Internal organizational and technical measures for security monitoring were established and are continually improved by the globally operating Security Operation Center.
3. Software AG's IT strategy enhanced the focus on IT security as the top priority, with the core "Security by Design" approach reflected in both daily operations as well as in future projects and services.
4. The Company-wide security awareness program was supplemented with regular anti-phishing campaigns.
5. The information security strategy program was revised to improve the coordination and tracking of security projects.
6. Moreover, the security incident process is continually reviewed, tested, and improved.

The ISMS for the customer cloud services is certified for compliance with ISO/IEC 27001, 27017 and 27018. The independent audit by third-party auditors confirms compliance with the standard and certifies that the Software AG Customer Cloud ISMS is comprehensive and reflects best practices in the industry. In addition, the independent audit reports on service organization audits (SOC 2) give Software AG customers detailed information about how the Company audits the security and availability of the cloud services as well as regulatory compliance.

Software AG received the Trusted Information Security Assessment Exchange (TISAX) certification label and established a central ISMS in 2022. The TISAX certification further confirms that the Company's information security management system meets the defined security levels. Common use of the TISAX assessment results is enabled via the corresponding platform.

[1] The new data protection training was introduced in September 2021 and had a completion rate of 53 percent by the end of 2021.

Relevant certifications and in-depth information about cloud security can be found on the corporate website.

Since the third quarter of 2020, Software AG has been focusing comprehensively on implementing the requirements for data protection resulting from the Schrems II decision handed down by the Court of Justice of the European Union. According to the decision, the personal data of EU citizens can only be transferred to third countries outside the European Economic Area (EEA) if this country provides protection essentially equivalent to that of the EU. Third-country transfers of personal data can be performed with respective additional measures in compliance with data protection regulations after a legal analysis and risk assessment.

On June 4, 2021, the European Commission released updated standard contractual clauses (SCCs) for data transfers from companies or contractors responsible for processing data that are located in the EU/EEA to others located in third countries that do not offer an appropriate level of data protection. These updated SCCs replace the three SCCs passed under Data Protection Directive 95/46. For that reason, Software AG has changed its processes and contract agreements to align with the new SCCs. In accordance with the deadlines defined by the European Commission, Software AG uses the new SCCs as the mechanism for transferring (or forwarding) personal data to third countries that do not provide a suitable level of data protection.

In this context, Software AG conducted a review of existing contracts for data processing both with customers as well as data processors in 2022. Contracts that did not yet include the relevant modules of the new SCCs were updated accordingly or new contracts were concluded, or new contracts were provided to customers to sign.

COMBATING CORRUPTION AND BRIBERY

Basic understanding
Software AG aims to ensure that all employees act with integrity and in a responsible, ethically correct manner as well as in accordance with legal regulations—especially with regard to competition and antitrust law.

The relevant principles are defined in Software AG's Code of Conduct. The topics covered by the Code of Conduct can be found in the Fundamental Aspects of the Non-Financial Statement. All employees need to know the Code of Conduct, understand its contents, and follow it in their day-to-day work.

The aspect Combating corruption and bribery was identified as a relevant topic in the Business ethics and digital responsibility area as part of Software AG's materiality analysis, but is not defined as material in direct comparison with other topics in the business relevance and impact analysis.

Risks from corruption and anti-competitive behavior arise in international business activities due to differences in understanding regarding ethical and moral business practices from one country to the next. This risk is curbed through the described measures and is therefore not considered material.

In addition, adherence to compliance provisions is reviewed and their effectiveness monitored through the activities of the Compliance Board as well as the Internal Audit department. For more information on legal risks associated with compliance, please refer to the Opportunity and Risk Report.

Governance
Software AG's Compliance Board helps ensure that all employees behave in compliance with the law as well as follow internal rules and procedures. Employees with any relevant questions can consult the Legal department responsible for the respective region or the Compliance Board. If potential compliance violations are suspected, the Compliance Board can commission audits. These are approved by the CEO or, depending on the subject, by the entire Management Board and carried out by Internal Audit. External resources are consulted depending on the focus of the audit. The findings of the audit and the resulting corrective measures are reported to, reviewed, and evaluated by the Compliance Board and the CEO or the full Management Board.

Software AG's Senior Vice President for Audit & Compliance regularly reports to the Supervisory Board's Audit Committee on the results of internal audits, as well as on audits requested by the Compliance Board, about the ongoing improvement of compliance instruments and the effectiveness of internal controls.

Progress and actions
The clear rules of the Code of Conduct and mandatory training anchor integrity and fair business practices at Software AG. In fiscal 2022, a total of 712 (2021: 790) new Software AG employees completed the training on the Code of Conduct and received the required certification.

No significant violations of competition law were identified in 2022.

RESPECT OF HUMAN RIGHTS

Basic understanding
Software AG is a global software company that is active in many different countries and thus cultures as well. Gaining the trust of customers, partners, and shareholders is of key importance for Software AG's work. This can only succeed with a shared obligation to handle that trust responsibly. Software AG is aware of the great responsibility it bears in relation to preserving human rights mutually with and for its employees, customers, business partners, suppliers, and the community.

The Company values of inclusion, integrity, and innovation emphasize Software AG's clear affirmation of protecting human rights in keeping with the following international human rights standards, among others:

- International Bill of Human Rights of the United Nations
- International Labor Organization (ILO) Declaration on Fundamental Principles and Rights at Work

In 2022, Software AG also signed the UN Global Compact and announced its clear commitment to respecting human rights.

To ensure that the supply chain respects and protects human rights, Software AG introduced a Code of Conduct for both suppliers and partners respectively.

The aspect Respect of human rights was identified as a relevant topic as part of Software AG's materiality analysis, but is not defined as material in direct comparison with other topics in the business relevance and impact analysis. Software AG currently believes that its worldwide operations cannot and do not pose a significant risk, nor that its activities have a serious negative impact on human rights. Since both its suppliers as well as business partners are committed through the respective Codes of Conduct, 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. An academic background or several years of 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 to be considered within its own business operations or in connection with the use of Software AG's products and services.

Governance

All of Software AG's Supplier Code of Conduct's suppliers are required to sign the Company's Supplier Code of Conduct, or in exceptional cases they may provide evidence of their own comparable code of conduct. The Compliance Board assesses and decides on the exceptions to this rule on a case-by-case basis. A corresponding guideline defines application and a checklist serves to ensure compliance with all requirements. This enables Software AG to ensure that its suppliers adhere to ethical principles of conduct that go beyond the legislation of the respective countries.

In the context of a comprehensive management approach, the Code of Conduct refers to major international agreements and recommendations of international organizations, and defines the following points:

- Interaction with employees (includes child labor, discrimination, forced labor, employee rights, compensation and working hours, health protection and occupational safety)
- Environmental laws
- Conduct in business situations (includes combating corruption, avoiding conflicts of interest, and complying with the rules of free competition)

Software AG and its subsidiaries purchase 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 central Purchasing department analyzes all procurements in the Group and verifies compliance with the defined guidelines such as having all new suppliers sign the Supplier Code of Conduct. In turn, Internal Audit reviews the effectiveness of this process. The goal is to ensure that all procurements are preceded by a corresponding approval. Ethical and economic aspects are evaluated equally for the approval.

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

Progress and actions

Software AG employs targeted methods to rule out human rights violations and 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 Partner Code of Conduct and Supplier Code of Conduct, respectively.

Software AG is not aware of any cases in the reporting year or previous years where products or product components have been linked to human rights violations. In 2022, Software AG began preparing for compliance with the requirements of the German Supply Chain Act (LkSG), which will become mandatory for the Company on January 1, 2024.

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 volumes • Relative savings • Absolute savings • Supplier evaluation • Order processing times

OUR EMPLOYEES

The action area Our Employees includes the material topics: **Corporate culture and diversity** and **Employer attractiveness**. The action area corresponds to the employee concerns aspect per section 289c (2), no. 2 of HGB.

Software AG's leadership aspires to promote and role-model a corporate culture based on people, passion, and products, and the core values of inclusion, integrity, and innovation. The Company strives to attract and retain the best talent for Software AG, nurtured through employee engagement and an inclusive and equitable working environment in which all employees can thrive and unleash their potential.

CORPORATE CULTURE AND DIVERSITY

Basic understanding

A company's values and norms—its corporate culture—is the glue that holds it together. Corporate culture drives performance and enables business targets to be met. It is supported by a framework that sets direction in terms of individual behavior, beliefs, actions, and decisions. Software AG launched its Culture Framework in March 2022 around three core Ps: people, passion, and products. These determine how Software AG operates. The Culture Framework defines inclusion, integrity, and innovation as the core values that guide leadership practices, which unite the Company and provide practical guidance on communication, interaction, and decision-making. Diversity, equity, and inclusion (DE&I) is an integral part of Software AG's Culture Framework. Because corporate culture, employee satisfaction, and engagement are mutually supportive, Software AG has implemented a variety of initiatives to better understand the correlations and to positively impact the corporate culture.

The commitment shown by Software AG's employees, paired with their professional and personal skills, all contribute decisively to the Company's success. Therefore, ignoring employee concerns poses a fundamental risk of (generally indirect) negative impacts on business performance. Examples of this include situations when low employee satisfaction leads to attrition and a loss of company-specific expertise, or when a lack of diversity in the corporate culture leads to reduced innovation. For this reason, Software AG deploys a variety of initiatives that contribute to high employee satisfaction and an innovative and diverse corporate culture while measuring employee engagement. For more information on personnel risks and opportunities, please refer to the Opportunity and Risk Report.

Targets and management

The Management Board considers DE&I to be a fundamental component of an open and innovative corporate culture and strives to maintain a work environment that encourages employees to contribute their different perspectives.

Since 2020, Software AG has been a member of The Valuable 500, a global business collective of companies innovating for disability inclusion. In Germany, Software AG is a signatory to the Charta der Vielfalt confirming its commitment to promote the recognition, appreciation and integration of diversity into Germany's business culture.

Another of Software AG's objectives in this context is hiring women and promoting their professional development. The Company is a member of the Initiative Women into Leadership (IWiL), a non-profit association that facilitates long-term mentoring and promotion of women at the top level, and regularly nominates participants for the program.

Software AG has set itself the following targets:

- Maintain or improve the Q12 Engagement Score in the annual employee survey compared to the previous year
- Maintain or improve the results from the question on DE&I in the annual employee survey
- Promote DE&I awareness throughout the Company: 85[1] percent of employees should complete a global DE&I training program by 2025

Software AG conducts an annual employee survey (MyVoice) to evaluate employee engagement and satisfaction. It uses a standardized set of questions to assess corporate culture, employee engagement, accountability, and staff development. The Q12 Engagement Score consists of a questionnaire that is evaluated annually allowing Software AG to compare its results with those of industry peers. For Software AG, the Q12 Engagement Score is a strategic KPI that is reflected in the Management Board's targets and at business

[1] The 85 percent target accounts for expected attrition through hires and leavers as well as long-term absences.

line level. Additionally, current topics can be addressed and included in the annual employee survey, e.g., DE&I, leadership, wellbeing, and sustainability.

The survey results are communicated internally and taken into consideration in company-wide activities within the People & Culture area. Managers are responsible for discussing their results with their teams and implementing measures for improvement.

All employees should be able to contribute to the Company's success with their individual personalities and strengths, and in doing so, develop their full potential. The Change Network supports leaders in this and anchors the cultural shift at all locations worldwide. It was established in 2020 and consists of a diverse team of employees across different regions and functions. It is aimed at promoting employee engagement and reinforcing change management and the Culture Framework.

In the context of a comprehensive management approach, the Code of Conduct sets out what Software AG considers to be ethically correct conduct in its day-to-day business and addresses, among others, the topics of equal treatment and anti-discrimination. The Code of Conduct is complemented by the Culture Framework that highlights Software AG's three core principles (people, passion, and products) and values (inclusion, integrity, and innovation).

With the Company's HR Engagement Model, the Human Resources department has committed to supporting and handling strategic and operational personnel matters and concerns as effectively as possible. Managers receive consultation and support on issues regarding the development of individual employees as well as the organization. HR programs, processes, and initiatives are being developed and revised to address and drive a range of local and global topics. Establishing a relationship with employees and managers based on trust is a priority targeted by these efforts.

Progress and actions

In 2022, 86 percent (2021: 82 percent) of employees took part in the annual global MyVoice survey. The Q12 Engagement Score, which measures employee engagement based on twelve standardized questions, improved over the previous year by 0.07 points to 4.21 (2021: 4.14). Employee satisfaction once again increased over the previous year.

Software AG continues to foster a DE&I Ambassador Network, orchestrated and managed by a global DE&I contact person for the continued success of the Company's global DE&I strategy. In addition, a comprehensive, needs-based DE&I training course and concept for raising awareness was developed for Software AG in collaboration with a global DE&I consulting firm. In 2022, the focus was on key stakeholder groups, including the Management Team, Executive Leadership Team, the DE&I Ambassador Network, and HR employees. For employees and managers, customized training is planned to be rolled out in 2023. A series of DE&I awareness campaigns likewise highlighted and promoted various facets of diversity in the year under review.

The results from the questions on DE&I in the annual employee survey improved by 0.03 over the previous year to a DE&I score of 4.56 (2021: 4.53).

Software AG participated in various projects to boost the interests of women and young talent in IT professions and their appeal as a career path. Software AG hosted Girls' and Boys' Day events in 2022. In addition, Software AG India continued with the SoftwareAGain program that specifically supports women who have temporarily left the workforce and want to return. Internal women's networks in India and the DACH region continued to provide a space where experiences could be shared.

Software AG's own Give Back to the World initiative engaged in 15 projects (2021: 8), which due to the COVID-19 pandemic, took place in small groups in the year under review. Under the Software AG#StandsWithUkraine motto, colleagues from Slovenia, Bulgaria, and Germany supervised nine aid projects, focusing on supporting people experiencing extreme war crisis. The Longridge Activity Centre in Marlow (UK) received donations contributing to efforts in restoring their organization. The 1,000 trees that were planted by Software AG employees in the Darmstadt Forest (Germany) in 2019, were further maintained in 2022 through environmental and forestry protection programs. In Derby (UK), colleagues collected trash and debris, clearing up the local park and adjoining rivers. In India, the Software AG Cares employee volunteering initiative raised donations from which in 2022 the school fees for 14 students were sponsored and the family of a deceased employee was supported.

Software AG's MoveYourFeet campaign is building a bridge between Company sports, team spirit, and charitable and athletic commitment. Software AG, the employee representatives of the Supervisory Board, and the Software AG Foundation donate a fixed amount of money for each kilometer completed by employees at official competitions. In 2022, staff members covered a total distance of 6,865 kilometers (2021: 10,177) and raised a donation of €28,500 (2021: €22,000).

EMPLOYER ATTRACTIVENESS

Basic understanding

The expertise and personal skills of Software AG's employees are a key factor in the Company's success. For that reason, the Company always seeks to attract and retain the best talent.

The race for talent has become one of the biggest challenges for companies everywhere—and Software AG is facing the same obstacle. Risks emerge when succession planning is neglected and the Company is unappealing to rising talent and qualified professionals, or when it neglects continuing education and training for employees in a competitive market. Employee recruiting and retention are therefore crucial aspects of securing Software AG's business activities and success. Promoting young talent and hiring innovative employees are also promising criteria that lead investors and business partners to choose Software AG. Ultimately, employer attractiveness and branding play an important role in retaining talent. Today's applicants take a holistic view of a company and its perspectives when it comes to deciding whether to join an organization. For more information on personnel risks and opportunities, please refer to the Opportunity and Risk Report.

Targets and management

Software AG seeks to attract and retain the best talent over the long term. For that reason, Software AG has set itself the following target:

- By the year 2023, the Company aims to achieve an average global minimum rating of 4.2 out of 5 points on the international Glassdoor platform, and 4.3 by the year 2025.

In addition to outside evaluations, Software AG observes and assesses further internal key indicators including employee satisfaction, attrition, and tenure to take appropriate measures where necessary. The attrition rate is a key metric for measuring employee satisfaction and Software AG's appeal for young talent and trained professionals. It is calculated as the number of leavers in the past fiscal year in relation to the average number of employees and analyzed regularly for different departments and regions. The numbers of voluntary and non-voluntary employee leavers are also analyzed.

The Talent Acquisition department has used its own active sourcing concept since mid-2020 to manage activities for identifying qualified external candidates and approaching them about open positions.

As a founding member of the Allianz der Chancen (Alliance for Opportunities), Software AG champions a transformation in the labor market as well as sustainable employment prospects to counter a shortage in trained professionals. Furthermore, Software AG provides targeted promotional and educational measures for high school and university students as well as for rising talent to support young people early in their professional development. In Germany, the Company offers a variety of educational and training programs in the areas of office management and computer science as well as cooperative study programs in computer science and business administration.

Progress and actions

Software AG works to continually adapt its programs to meet its employees' needs and improve the high ratings it receives on employer evaluation platforms like Glassdoor and Kununu. Software AG achieved a score of 4.2 (2021: 4.1[1]) on Glassdoor, a global employer rating platform, on a scale from 0.0 (very dissatisfied) to 5.0 (very satisfied) in the year under review. On Kununu, Germany's rating platform, Software AG achieved a score of 3.8 (2021: 3.8) on a scale from satisfactory (1–2) to very good (4–5).

The total attrition rate at Software AG in fiscal 2022 was 16 percent (2021: 14 percent). Of that, the involuntary attrition rate was 3 percent. While the increase in total attrition rate is still below the industry benchmark of 20 percent, it is also a result of the "great resignation," which has hit many companies globally, presenting them with an urgency to attract and retain good talent. On the one hand, Software AG addressed this challenge with various initiatives. On the other, Software AG is also managing involuntary attrition, which is beneficial to the organization in that it offers the possibility to bring in new talent.

[1] 2021 score of 4.1 corrected due to rounding differences (previously: 4.0).

Software AG continued to offer its Employee Assistance Program (EAP) which provides employees with around-the-clock and free-of-charge professional counseling. To prevent virtual fatigue and support employees in handling mental strain and stress, the Company continued Meeting-Free Mondays as well as no-cost access to a meditation and mindfulness app. Furthermore, Software AG introduced Virtual Office Mobility programs, for exercise and relaxation on the job. To further accommodate employee wellbeing and to ensure maximum flexibility, the hybrid work model is still in place, empowering all staff members to make the best use of time and location. The 2022 MyVoice work-life balance score was up by 0.08 and reached 4.70 (2021: 4.62).

CUSTOMERS AND TECHNOLOGY

The action area Customers and Technology includes the material topics: **Product and service quality** and **Innovation and the impact of our products**. Software AG has defined the customer concerns aspect as material beyond the aspects specified in section 289c of HGB.

Software AG aims to be a reliable partner delivering high-value, individually customizable software solutions for its customers. The Company supports the digital transformation with its services. Digital transformation can help to mitigate or even reverse the consequences of climate change. Software AG wants to actively help people and the planet with its solutions by enabling its customers to create the conditions for doing business sustainably. The Company aims to implement its technology with the best possible use of resources for its customers in every way.

PRODUCT AND SERVICE QUALITY

Basic understanding

A key objective of Software AG is to promote innovation and competitive differentiation among its customers and to support their successful digital transformation—and thereby make a key contribution to their success. Since Software AG products are primarily built-in solutions that design, inform, analyze, or manage business-critical processes, the high quality of products and services is essential. Thus, aside from innovative capability, quality is the crucial topic in the development of products and delivery of services.

For Software AG's customers, smooth operation of products is the key prerequisite for successful business operations. Software is becoming increasingly important in the context of digitalization and is indispensable in day-to-day work. Nearly all operational processes are managed by software solutions. For that very reason, secure, flawless operation of solutions without downtime is of the utmost importance. Every downtime event has an immediate impact on the processes of Software AG customers or their customers, depending on the scenario in which Software AG's solutions have been deployed.

Targets and management

Software AG introduced the net retention rate (NRR) metric in 2021. This key indicator is helpful in the subscription and Software as a Service (SaaS) business model because it expresses whether the annual recurring revenue (ARR) within the same customer group has increased or decreased over a specified twelve-month period. At the same time, NRR is an indicator of the successful implementation of solutions purchased by customers. The implementation and adoption process is closely monitored by a Customer Success Manager (CSM) to ensure that customers can reap the anticipated benefit and value from the delivered software. Fast execution and implementation can significantly improve a solution's success with the customer. To this end, the Professional Services team has developed 30 Fast Track Services that customers can access upon their CSM's recommendation by using success credits they have purchased.

Accordingly, Software AG has set itself the following target:

- Achieve an NRR of at least 105 percent by the year 2025

Additionally, Software AG measures customer satisfaction in support cases based on the Net Promoter Score (NPS). For Software AG, NPS represents a strategic performance indicator, which is reflected in the Management Board targets and broken down into business lines.

Furthermore, clearly documented processes and performance indicators (for example, quality goals, routine quality management reviews) coupled with a quality-oriented corporate culture and certification of management systems ensure Software AG's high quality standards. The entire development process is monitored through product standards. These include qualitative requirements for the products and services being developed, which are also used as a basis for release decisions. Whether these requirements have been met is reviewed as part of quality gates and serves as the foundation for the release process.

Software AG's most important management systems are certified according to ISO standards and centralized in an integrated management system (IMS):

- Software AG secures its first-rate support services and software solutions with its ISO 9001-certified quality management system (QMS). Customer feedback is systematically captured and processed in the QMS. Thus, the QMS is the basis for an ongoing improvement process and high customer satisfaction.
- Software AG's ISO 22301-certified business continuity management system enables the Company's excellent support services. Continuity management permits—through important infrastructure redundancies, for instance—that systems and services needed by customers remain available in crisis situations.
- The ISO 27001-certified cloud ISMS includes comprehensive, holistic security management for Software AG's cloud services and provides a suite of information security measures—for example, protection from unauthorized access and identification of security risks. Software AG is certified for compliance with ISO/IEC 27001:2013, ISO/IEC 27017:2015, and ISO/IEC 27018:2014.

Software AG provides global 24/7 support to ensure the continuity of its customers' core business systems. The Company's global support is certified according to ISO 9001, ensuring high quality. With the Enterprise Active Support model, Software AG provides fast, agile, and proactive customer support for all of its products. Customers benefit from industry-leading performance and fast response times in any time zone. Depending on business criticality, other support models with fewer services can be selected (standard support), especially regarding regional coverage and response times. Every customer who uses global support is asked to provide feedback on the service and on Software AG in general. The feedback is used to improve customer service and incorporated in product development.

In addition to Global Support, there are other teams (New Product Introduction Teams) that specialize in supporting customers with introducing new products and reporting feedback gathered during the product introduction process to the development department.

Moreover, the different aspects of product and service quality are measured and tracked with the help of performance indicators by means of an internal management reporting system. Using the performance indicators—which measure the number of support notifications per customer or processing time, for example—it is possible to identify internal problems early on and resolve them. Software AG has established Escalation Management to ensure that targeted solutions are developed as quickly as possible in critical customer situations. This team intervenes temporarily to identify all kinds of challenges and find a solution. These can include project, organization, and product problems as well.

Progress and actions

NRR was first introduced as a key indicator in fiscal 2021 to measure the extent to which Software AG's software products are deployed by customers over the long term and deliver the anticipated optimization contributions. Software AG achieved an NRR of 100 percent in 2022 (2021: n/a). With an NPS of 61 (2021: 56[1]), the Company reached an all-time high in 2022. The NPS goal for the reporting year was 52. Software AG has set an NPS goal of 60 for 2023. For years, the NPS has been determined after closing a support incident.

Meanwhile, Software AG has also been measuring the NPS at other points during the product life cycle. NPS surveys are now conducted and followed up on during product usage directly from end users as well. These are captured and reported as separate values.

[1] The NPS value for 2021 covers the period from March to December 2021.

INNOVATION AND IMPACT OF OUR PRODUCTS

Basic understanding

Software AG's goal is to support its customers with innovative products to help them solve problems for the long term and achieve their objectives. Extremely fast innovation cycles are the norm in the software industry because the realities of life in diverse national economies continue posing new challenges for companies. For that reason, it is essential to recognize customer needs—meaning the business problems and challenges facing Software AG's customers—to be able to offer technological solutions. To that end, the Company monitors current developments and disruptive trends in different industries. For more information on market trends and monitoring as well as on Software AG's differentiators, please refer to the Competitive Situation section in Fundamental Aspects of the Group in the Combined Management Report.

Software AG's products support customers in making decisions based on various data that can lead to more efficient use of financial or natural resources. Using process images, data provisioning and exchange, data analysis, device connectivity, and process data analyses, customers can make smart data-driven decisions that contribute to better process results and enable competitive advantages.

Software AG believes that technological innovations are a key means of solving the social challenges of our time. Real-time data provision and analysis are essential to optimize resource usage, detect process errors, and quickly realize improvements. If Software AG's customers are not successful in improving their resource usage, they are exposed to both competitive and environmental risks. Consistent use of existing and new data is the only way to learn efficiently and make the best possible decisions for the benefit of society. Software AG could not identify any significant risks with regard to the Customers and Technology action area. For more information on the product portfolio and innovation risks, please refer to the Opportunity and Risk Report in the Combined Management Report.

Targets and management

As a software company, Software AG believes innovations are key to attracting new customers. Furthermore, the Company wants its solutions to help its customers establish more efficient and sustainable business processes. To make certain this happens, Software AG has set itself the following targets:

- The percentage of R&D investments will remain—at a minimum—at 15 percent of total revenue through 2025.
- Software AG will set its sales focus on new customers and successively gather information about the impacts that the solutions, which customers implement with its technology, have on sustainability. By 2025, the Company aims to know what the long-term impacts of its technology are for at least 50 percent of new customers with regard to efficiency improvements and resource savings.

Progress and actions

Software AG was able to exceed its goal of a minimum of 15 percent of R&D investments of total revenue with a percentage of 18.9 (2021: 18.1 percent) in the year under review. For more information on R&D expenditures, please refer to the Research & Development section in the Combined Management Report.

Software AG's technological innovations are expanding its customer portfolio and improving efficiency for itself and its customers. For instance, the Company succeeded in 2022 in increasing the number of deals closed to 1,810 (2021: 1,792) through better sales management and a programmatic qualification of business opportunities.

Moreover, Software AG evaluates the success of its innovations based on revenue growth and the number of new customers. During the year under review, Software AG signed 293 (2021: 312) new customers for its solutions. In 2022, independent market research firms once again confirmed Software AG's innovative power, market success, and product and service quality. For more information about their assessments, please refer to the Industry Recognition section in Fundamental Aspects of the Group in the Combined Management Report.

As an initial step to better understand the long-term impacts of Software AG's technology on its customers, a sustainability data gathering roadmap was developed by the Global Customer Success Management (CSM) community in 2022. They focused on primary research methodologies and followed a five step approach:

- 1. Develop knowledge within the CSM team on what sustainability is and how to start sustainability discussions with customers.
- 2. With customers, identify from secondary research what the customer is doing for sustainability.
- 3. Identify individuals and/or teams at customers with a sustainability focus.
- 4. With digital tools, assess and record customers who are using Software AG services to measure or improve their sustainability goals.
- 5. Analyze and record feedback from customers on a quarterly basis.

In 2022, Software AG signed 293 logos and completed ESG surveys with 223 customers (76 percent).

VALUE FOR SOCIETY

The Value for Society action area corresponds to the social concerns aspect per section 289c(2), no. 3 of HGB and includes the material topic **Tech for good**.

Software AG aspires to effectively assist people in building expertise in the area of modern technologies. The Company's targeted involvement in universities and schools focuses on the IT experts of the future. It opens up new learning opportunities and meaningful development prospects for students and young professionals. Since technological progress plays a key role in developing a sustainable world, Software AG participates in collaborative research projects that promote the UN's global SDGs.

TECH FOR GOOD

Basic understanding

Digitalization is a comprehensive economic and social topic, and a central field for action in the German government administration's agenda for education. Software AG addresses Tech for good primarily at a regional level. Across the entire Group, the Company pursues the goals of networking with the different communities where it operates and contributing to their well-being as a good corporate citizen.

Software AG aims to counter the shortage of IT professionals and managers in Germany. For that reason, the Company fosters digital expertise at universities and educational institutions at both the national and international levels.

Software AG is aware of the transformative power and positive impact of technologies and therefore wants to contribute to achieving the UN SDGs through participation in collaborative research projects. In this respect, the Company is involved in projects that contribute to innovation and to social, environmental, or economic improvement—with a focus on Germany and Europe.

Software AG could not identify any significant risks with regard to the Society action area. Rather, the Company sees the opportunity here to live up to its corporate social responsibility and make an economic and social contribution—especially to the local communities of its operations.

Targets and management

Software AG has set itself the following targets in the Tech for good area:

- For many years, participating in publicly funded joint research projects has been a matter of course for Software AG. In the past, the technological direction and level of innovation regarding Software AG's business lines was the deciding factor for project selection. In the future, the focus of research projects and their contribution to fulfilling the SDGs will be another key criterion. Software AG's goal is for at least 80 percent of its research projects to support accomplishing the SDGs by 2025.
- Software AG aspires to expand its University Relations Program worldwide and increase its reach to 250,000[1] students by 2025.

The University Relations Program promotes the development of digital competencies by providing software and teaching materials free of charge in education packages, including the opportunity to earn a free certification for the knowledge gained.

[1] Students who have benefited from the University Relations Program during their studies, primarily in the form of free use of software provided by the program. The figures have been collected cumulatively on an ongoing basis since the program's induction in 2007.

The University Relations Program fulfills an important aspect for addressing one of Software AG's key target groups: the next generation of talent. It stimulates a steady stream of applications, especially for jobs for graduates in technology fields. According to an internal study from 2016, half of the Company's recent graduate hires in Germany can be traced back to a previous contact via the University Relations Program. Finding graduates in the job market with Software AG skills is also very important for Software AG's partners and customers.

By the same token, Software AG is a founding member of Software Campus. Launched in 2011, the program is supported by ten industry partners and eleven research partners and funded by the German Federal Ministry of Education and Research. It focuses on outstanding students in computer science and related fields and qualifies them through mentoring and seminars for leadership positions in the IT industry. By participating in the program, Software AG hopes to counter the shortage of IT experts and managers in Germany.

In addition, the Company is driving further social initiatives—such as the SoftwareAGain program in India—at its international locations. Regional corporate governance works to develop measures for local issues. In addition, the Company supports local associations and initiatives through donations and sponsorships.

Progress and actions

In 2022, 13 research projects out of 22 in total contributed to the SDGs, which corresponds to 59 percent (2021: 52 percent). REIF (Resource-Efficient, Economic and Intelligent Food chain) is one example of Software AG's participation in a project. This project investigates the potential of artificial intelligence (AI) for optimizing the planning and control of value creation in the food industry. The goal is to establish an AI ecosystem that integrates stakeholders from all stages of the value chain to reduce food waste sustainably and holistically with the help of AI. For more information about Software AG's engagement in research projects, please refer to the Research & Development section in Fundamental Aspects of the Group in the Combined Management Report.

Since 2007, Software AG has provided software free of charge for teaching and research purposes to more than 2,100 universities in 104 (2021: 101) countries through its University Relations Program. The offering covers the needs of more than 1,750 educators and is integrated into curricula on a recurring basis. Since the program began in 2007, more than 247,682 (2021: 225,349) students have benefited from it, the majority with free licenses. These numbers are based on an updated data collection system, which in 2022 led to an adjustment of the target value by the year 2025 as well as a correction of the collected key indicators. Software AG has been offering students free online certifications as part of the University Relations Program since 2017. More than 4,500 young experts can document their knowledge with this certificate when applying for jobs.

IMPACT ON ENVIRONMENT

The Impact on Environment action area includes the material topic of **Energy and CO_2 emissions**, and corresponds to the environmental matters aspect per section 289c(2), no. 1 of HGB.

Software AG is working to keep its environmental footprint as small as possible. To minimize the effects of its business activities on the planet, the Company is preparing to become climate neutral as quickly as possible. With the help of its technology and solutions, Software AG will join forces with its customers and partners to tackle significant environmental challenges and help shape a more sustainable future.

ENERGY AND CO_2 EMISSIONS

Basic understanding

The Environment action area focuses on reducing CO_2 emissions since these represent Software AG's most significant environmental impact. Software AG takes responsibility for the environmental impact of its own business operations. The Company is determined to become climate neutral and reduce its impact on the environment.

In Software AG's industry, CO_2 emissions are generated in particular via energy consumption of buildings, operating data centers, and employee mobility. Accordingly, the environmental impacts of Software AG's business model come largely from energy consumption and the associated emissions.

Targets and management

Software AG has set the following target for itself in the energy and CO_2 emissions area:

- Development of a reduction path to net zero CO_2 emissions by the end of 2022

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 carbon footprint by using more renewable energies. 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, the Company 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 efficiency and performance of its data centers and to reduce energy consumption through innovative technologies. As part of its IT strategy, Software AG has adopted the two strategic goals, Move to Cloud and Application Harmonization. Both objectives contribute to optimized use of resources through standardizing applications and improving usage efficiency in the cloud.

In the area of mobility, Software AG offers employees in Darmstadt a public transportation pass as well as leasing opportunities for bikes and e-bikes. Likewise, it also has charging stations for electric and hybrid vehicles.

Progress and actions

Electricity is the most important source of energy for the Company. Software AG contributes significantly to reducing its own emissions by using electricity from renewable sources. Locations in Germany are supplied with 100 percent green electricity. In addition, waste heat from the servers at corporate headquarters in Darmstadt is used to heat the building.

All in all, Software AG reduced its energy consumption at the locations under review from last year to 7,662,965 kWh (2021: 7,827,925 kWh[1]). Energy consumption per employee (EMP) decreased accordingly to 1,969 kWh/EMP (2021: 2,132 kWh/EMP). Energy consumption per square meter of floor space was 90 kWh/m^2 (2021: 90 kWh/m^2). Here it must be taken into consideration that the Munich and Nuremberg locations changed from leased office space to need-based external office solutions (serviced offices) and thus were no longer recorded.

To move closer to its goal of net zero CO_2 emissions, a project team that was launched at the end of 2021 determined the Company's global carbon footprint for 2021 in collaboration with an external partner. These results were disclosed in July 2022 as part of the CDP survey. However, the Scope 3 emissions under the heading “Use of sold products” could not be determined for Software AG's customers, so the planned reduction path to net zero emissions could not be developed during the reporting year. At the time the report was prepared, the decision on how the Company would deal with the set goal was still outstanding.

Software AG consistently pursued its IT strategy during the reporting year. This included measures for consolidating its data centers, reducing the on-premises footprint, and a smart transition of the workload to the cloud while taking efficiency perspectives into consideration.

[1] 2021 energy consumption numbers were corrected retrospectively due to a transmission error.

Non-Financial Key Indicators

LEADERSHIP AND GOVERNANCE

	2022	2021	2020	Assignment to reporting standards (GRI, SASB) and the UN SDGs
Sustainable economic growth				**SDG 8**
ESG ratings				
MSCI (target: at least AA by 2025)	AAA	AA	AA	
ISS ESG (target: at least C by 2023, at least B by 2025)	C-	D+	D+	
Information security and data protection				
Information security training rate				
Number of employees who participated in information security training	4,152	4,458	n/a	
Percentage of employees trained on information security (target: at least 85%)	81	86	n/a	
Data protection training rate				
Number of employees who participated in data protection training	4,099	2,743	n/a	SASB TC-SI-230a.2
Percentage of employees trained on data protection[1] (target: at least 85%)	80	53	n/a	
Data protection				
Number of data breaches[2]	0	0	1	SASB TC-SI-230a.1
Number of data breaches[3] involving personally identifiable information	0	0	1	
Percentage of data breaches involving personally identifiable information	0	0	100	
Number of users affected[3]	0	0	403	
Business ethics and corporate digital responsibility, sustainable supply chains and human rights				**SDG 8, 16**
Code of Conduct				
Number of (new) employees trained on the Code of Conduct[4]	712	790	622	GRI 205-2, GRI 412-2
Percentage of new employees trained[5]	102	112	96	
Number of available languages	8	8	8	
Year of last update	2022	2015	2015	
Competitive behavior and corruption				
Total number (and nature) of confirmed incidents of corruption	0	0	0	GRI 205-3
Total number of confirmed incidents in which employees were dismissed or disciplined for corruption	0	0	0	
Total number of confirmed incidents when contracts with business partners were terminated or not renewed due to violations related to corruption	0	0	0	
Number of pending or concluded litigation cases for anti-competitive behavior and violations of antitrust and anti-monopoly law in which the Company was identified as a participant during the year under review[6]	1	1	1	GRI 206-1, SASB TC-SI-520a.1

1 Training introduced in September 2021.
2 As per Article 33 GDPR.
3 As per Article 34 GDPR.
4 Training on Code of Conduct includes topics such as anti-corruption and human rights.
5 The total number of confirmed training courses includes repeats from the previous year as well as courses completed voluntarily.
6 Software AG Spain appealed the decision by the Spanish Antitrust Authority (Comisión Nacional de los Mercados y la Competencia, CNMC) from July 31, 2018. The case has been ongoing since 2018.

OUR EMPLOYEES[1]

	2022	2021	2020	Assignment to reporting standards (GRI, SASB) and the UN SDGs
Corporate culture and diversity				**SDG 5, 8, 10**
Number of employees (worldwide)	5,107	5,158	n/a	
Number of FTE (worldwide)	**4,674**	**4,806**	**4,628**	
Nationalities (worldwide)	89	88	n/a	
MyVoice Annual Employee Survey				
Participation (as %)	86	82	82	
Q12 Engagement Score (target: maintain or improve compared to the previous year)	4.21	4.14	3.92	
Q12 Engagement Score (as %)	84	54	n/a	SASB TC-SI-330a.2
DE&I score (target: maintain or improve compared to the previous year)	4.56	4.53	4.42	
Accountability index	4.25	4.10	3.71	
Employees by gender				
Male employees	3,265	3,341	3,273	GRI 405-1
Female employees	1,410	1,464	1,354	
Diverse employees	0	1	1	
Employees by region				
NAM	600	614	643	GRI 405-1
LATAM	103	110	118	
DACH	1,353	1,417	1,314	
thereof in Germany	1,304	1,366	n/a	
thereof in Darmstadt	734	787	881	
EMEA	1,274	1,303	1,271	
APJ	1,345	1,362	1,282	
Employees by employment type and gender				
Full-time employees	**4,437**	**4,553**	**4,390**	GRI 405-1
Male employees	3,195	3,268	3,202	
Female employees	1,242	1,284	1,187	
Diverse employees	0	1	1	
Part-time employees	**238**	**253**	**238**	
Male employees	70	73	71	
Female employees	168	180	167	
Diverse employees	0	0	0	

[1] FTE, adjusted for dormant employment contracts. Not including employees of FACT AG and StreamSets. There were no significant changes or seasonal fluctuations in the number of employees during the year.

	2022	2021	2020	Assignment to reporting standards (GRI, SASB) and the UN SDGs
Gender distribution of employees				
Percentage of women in leadership positions (worldwide)	**22**	**21**	**21**	SASB TC-SI-330a.3
Percentage of women in leadership positions in the second tier of management (worldwide)	14	28	27	
Percentage of women in leadership positions in the third tier of management (worldwide)	18	21	23	
Percentage of women out of total number of employees (worldwide)	**30**	**31**	**29**	
Supervisory Board by gender and age group (as %)				
Male	**40**	**50**	**83**	GRI 405-1
<30	0	0	0	
30-50	20	0	0	
>50	20	50	83	
Female	**60**	**50**	**17**	
<30	0	0	0	
30-50	20	17	0	
>50	40	33	17	
Diverse	**0**	**0**	**0**	
Management Board by gender and age group (as %)				
Male	**100**	**75**	**80**	GRI 405-1
<30	0	0	0	
30-50	60	25	40	
>50	40	50	40	
Female[1]	**0**	**25**	**20**	
<30	0	0	0	
30-50	0	25	20	
>50	0	0	0	
Diverse	**0**	**0**	**0**	
Employees by gender and age group (as %)				
Male	**70**	**70**	**71**	GRI 405-1
<30	10	10	11	
30-50	40	40	41	
>50	20	19	19	
Female	**30**	**31**	**29**	
<30	6	7	6	
30-50	17	17	17	
>50	7	7	6	
Diverse	**0**	**0**	**0**	
Age group trend (as %)				
<30	17	17	17	GRI 405-1
30-50	57	58	58	
>50	26	26	26	
Comparison of CEO's remuneration with worldwide average full-time employee remuneration[2]				
CEO remuneration in € thousands	1,770	2,237	2,214	
Average salary in the second tier of management (worldwide) in € thousands	339	327	312	
Average employee salary (worldwide) in € thousands	89	84	83	
CEO pay ratio (CEO remuneration to average employee salary)	20:1	27:1	27:1	

1 Reporting date value as of Dec. 31, 2022; the CHRO position on the Management Board was held by a female from Jan. 1, 2022, to Oct. 31, 2022.
2 For further information, please refer to the Remuneration Report.

	2022	2021	2020	Assignment to reporting standards (GRI, SASB) and the UN SDGs
Employer attractiveness				
Number of new hires	698	707	651	GRI 401-1
Attrition rate (as %)	16	14	10	
External ratings				
Glassdoor (target: 4.2 by 2023 and 4.3 by 2025)	4.2	4.1	3.9	
Kununu	3.8	3.8	3.7	
New hires by region				
NAM	107	106	n/a	GRI 401-1
LATAM	7	12	n/a	
DACH	105	122	n/a	
EMEA	184	198	n/a	
APJ	296	269	n/a	
New hires by region (as %)				
NAM	15	15	n/a	GRI 401-1
LATAM	1	2	n/a	
DACH	15	17	n/a	
EMEA	26	28	n/a	
APJ	42	38	n/a	
Next generation of talent				
Trainees and coop program students	79	79	65	
Interns and degree candidates (Bachelor's and Master's)	97	79	51	
Student employees	61	68	51	
Work-life balance				**SDG 3**
Work-life balance score	4.70	4.62	4.55	
Employee promotion and development				**SDG 5**
Growth Days				
Total number of training courses (iLearn)	2,040	1,800	1,700	
Satisfaction (average) with training courses[1] (iLearn)	90.6	90.1	86.6	GRI 404-1
Growth Days registrations	59,421	76,500	59,000	
Growth Days learning time (hours/net)	276,354	253,500	175,000	
Growth Days learning time/employee (hours, net)[2]	59.1	52.7	38.1	
Employee development discussions (EDD)[3]				
Total EDDs	4,230	4,226	n/a	GRI 404-3
Concluded EDDs	3,458	3,390	n/a	
Completion rate (as %)	82	80	n/a	

[1] Average satisfaction is rated on a scale from 0 (completely dissatisfied) to 100 (completely satisfied).
[2] Employees who left the Company are not taken into account in the calculation of this metric.
[3] EDD forms were automatically rolled out to all employees in February. Exceptions include: a) Employees on maternity or parental leave, those on extended sick leave and semi-retired employees; b) Student interns and trainees; c) Consultants working for Software AG in Israel and for Software AG Government Solutions America who invoice their services.

CUSTOMERS AND TECHNOLOGY

	2022	2021	2020	Assignment to reporting standards (GRI, SASB) and the UN SDGs
Product and service quality				
Starting 2022: net retention rate (as %) (target: 105% by 2025)	100	n/a	n/a	
Net Promoter Score in support cases[1]	61	56	54	
Satisfaction with handling of support incidents (number of 5-star ratings on a scale of 1 to 5)	77.6	76.0	78.0	
Innovation and the impact of our products				**SDG 9, 12**
Ratio of R&D investments to total revenue (as %) (target: at least 17% by 2025)	19	18	17	
Starting 2022: rate of new logos that provide sustainability information (as %) (target: 50% by 2025)	76	n/a	n/a	

[1] The NPS for 2021 includes the months of March through December. The NPS score for 2020 includes the months of January through September 2020.

VALUE FOR SOCIETY

	2022	2021	2020	Assignment to reporting standards (GRI, SASB) and the UN SDGs
Tech for good				**SDG 4, 9**
University Relations Program				
Number of universities, colleges, and vocational schools worldwide	2,126	2,026	1,700	
Number of countries	104	101	80	
Number of students reached in universities, colleges, and vocational schools worldwide (target: 250,000 students by 2025)	247,682	225,349	n/a	
Research projects				
Percentage of research projects that align with the SDGs (target: at least 80% by 2025)	59	52	n/a	
Employee engagement and support of local communities				
Distance in kilometers through "MoveYourFeet"	6,865	10,177	4,341	
Donations raised through "MoveYourFeet" (in €)	28,500	22,000	22,500	
Donation funds				
Monetary donations in India[1] (in €)	55,000	233,000	96,385	
Monetary donations and donations in kind in other countries[2] (in €)	697,603	216,016	160,363	

[1] Mandatory CSR levy, recorded after the actual donation payment date.
[2] Recorded for: Bulgaria, Denmark, Germany, United Kingdom, Israel, Netherlands, Sweden, Spain, South Africa.

IMPACT ON ENVIRONMENT

	2022	2021	2020	Assignment to reporting standards (GRI, SASB) and the UN SDGs
Energy and CO_2 emissions[1]				**SDG 12**
Key indicators of energy consumption[2]				
Total number of employees	3,892	3,672	3,584	GRI 302-1
Floor area in m²	84,920	86,838	88,145	
Energy consumption in kWh/year	7,662,965	7,827,925	8,303,691	
kWh/m²/year	90	90	94	
kWh/EMPL/year	1,969	2,132	2,317	
Environmental footprint of the hardware infrastructure: energy				
Total energy consumption (gigajoules)	27,587	28,181	n/a	SASB TC-SI-130a.1
Purchased electricity (gigajoules)	13,506	14,099	n/a	
Percentage of electricity	49	50	n/a	
Consumption of renewable energy (gigajoules)	14,080	14,081	n/a	
Percentage of renewable energy	51	50	n/a	
Scope 1 emissions				
Software AG's direct CO_2 emissions[3] through heating buildings with gas for Darmstadt HQ				
Number of employees	734	787	881	GRI 305-1
Gas consumption in m³/year	88,465	117,009	92,532	
m³/EMPL/year	120.5	149.8	105.0	
t CO_2/year	178	234	185	
t CO_2/EMPL/year	0.2	0.3	0.2	
Scope 2 emissions				
Indirect energy-related CO_2 emissions[3] from energy consumption from Company-owned buildings[2], including energy consumption for Company-owned data centers (scope 2)				
Number of employees	3,892	3,672	3,584	GRI 305-2
Floor area in m²	84,920	86,838	88,145	
t CO_2/year	2,111	1,527	1,622	
t CO_2/EMPL/year	0.5	0.4	0.5	

[1] Due to the limitations imposed by the COVID-19 pandemic in fiscal years 2020 to 2022, the data provided here is only comparable with previous years to a limited extent.
[2] Locations for which no separate account data is available are not included. The data collected represents about 90 percent of Software AG's total floor area.
[3] Conversion to tons of CO_2 using the CO_2 calculator from klimaneutral-handeln.de (2020 and 2021) and carbonfootprint.com (2022).

	2022	2021	2020	Assignment to reporting standards (GRI, SASB) and the UN SDGs
Scope 3 emissions[1]				
CO_2 emissions from business travel[2] (scope 3)				
Air travel (t CO_2)	532	52	155	GRI 305-3
Train[3] (t CO_2)	0	0	0	
Rental car (t CO_2)	4	16	22	
Average number of leased vehicles	218	239	240	
Kilometers driven	4,100,000	n/a	n/a	
Total emissions for leased vehicles in t CO_2	809	711	605	
Energy consumption and energy-related CO_2 emissions at external data centers				
Total number of external data centers	2	2	3	
Total energy consumption of external data centers in kWh	609,010	614,274	575,357	
Total emissions for external data centers[4] in t CO_2	235	14	231	
Natural resources and circularity				**SDG 12**
Hardware waste[5] in Germany				
Number of old devices	n/a	670	313	GRI 306-3
Refurbishment rate as %	n/a	69	86	
Recycling rate as %	n/a	31	14	
Savings through remarketing in t CO_2	n/a	111	65	

1 Due to the limitations imposed by the COVID-19 pandemic in fiscal years 2021 and 2020, the data provided here is only comparable with previous years to a limited extent.
2 Figures are based on means of transportation booked by all employees in Germany.
3 Since Jan. 1, 2020, all local and long-distance train travel utilizes 100 percent green energy (zero CO_2 emissions).
4 For the 2021 financial year, there is proof from the provider that the data center in question was operated with green electricity. This proof was not provided for the 2020 and 2022 fiscal years.
5 Hardware waste disposal in Germany is handled entirely by certified waste management companies. They are responsible for lawful, audit-compliant and certified deletion of data and destruction of data carriers in compliance with all data protection and security aspects. The process is monitored seamlessly up to recycling or refurbishment. Software AG had not received the waste management company's environmental report for 2022 by the date this report was prepared.

Rounding could lead to deviations in a few cases.

Annex to the Combined Non-Financial Statement

Template Pursuant to the Commission Delegated Regulation (EU) 2021/2178 of July 6, 2021

				Substantial contribution criteria						DSNH criteria (Do No Significant Harm)									
Economic activities (1)	Code(s) (2)	Absolute in thousands €	Proportion as %	Climate change mitigation (5) %	Climate change adaptation (6) %	Water and marine resources (7) %	Circular economy (8) %	Pollution (9) %	Biodiversity and ecosystems (10) %	Climate change mitigation (11) Y/N	Climate change adaptation (12) Y/N	Water and marine resources (13) Y/N	Circular economy (14) Y/N	Pollution (15) Y/N	Biodiversity and ecosystems (16) Y/N	Minimum safeguards (17) Y/N	Taxonomy-aligned proportion 2022 % (18)	Category (enabling activity) (20) [E]	Category (transitional activity) (21) [E]
Revenue																			
A. Taxonomy-eligible activities		0	–																
B. Taxonomy-non-eligible activities		958,180	100.0																
OpEx																			
A. Taxonomy-eligible activities																			
A.1. Environmentally sustainable activities (taxonomy-aligned)		0	–																
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned)																			
Transport by motorbikes, passenger cars, and light commercial vehicles	6.5	1,489	0.8																
Acquisition and ownership of buildings	7.7	5,580	2.9																
OpEx of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned) (A.2)		7,069	3.7																
Total (A.1 + A.2)		7,069	3.7																
B. Taxonomy-non-eligible activities		184,913	96.3																
Total (A + B)		191,982	100.0																
CapEx																			
A. Taxonomy-eligible activities																			
A.1. Environmentally sustainable activities (taxonomy-aligned)		0	–																
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned)																			
Transport by motorbikes, passenger cars, and light commercial vehicles	6.5	3,374	1.8																
Acquisition and ownership of buildings	7.7	7,977	4.2																
CapEx of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned) (A.2)		11,351	6.0																
Total (A.1 + A.2)		11,351	6.0[1]																
B. Taxonomy-non-eligible activities		177,598	94.0																
Total (A + B)		188,949	100.0																

[1] In the previous year, a taxonomy-eligible CapEx ratio of 43.6 percent was reported. The change to this year's ratio of 6.0 percent is mainly due to the fact that intangible assets of €163,675 thousand were acquired as part of the StreamSets acquisition, which had to be included in the total CapEx for 2022 in accordance with the requirements of Commission Delegated Regulation (EU) 2021/2178 of July 6, 2021. Excluding the StreamSets acquisition, the taxonomy-eligible CapEx ratio for 2022 would have been 44.9 percent.

Forecast

ECONOMIC CONDITIONS IN UPCOMING FISCAL YEARS

FUTURE MACROECONOMIC SITUATION

Many factors that had a stabilizing effect on the world economy in 2022 will lose relevance in 2023. Production normalized in contact-intensive sectors of the economy after many restrictions from the COVID-19 pandemic were lifted. However, according to experts at the Kiel Institute for the World Economy (IfW), that potential is gradually depleting. Additional savings that had accumulated during the peak of the COVID-19 crisis will dwindle and no longer be able to boost consumption as significantly. Robust labor markets had also had a stabilizing effect on consumption and income. But with rising unemployment rates, this effect is also likely to wane. Analysts ultimately expect new orders to decrease in industry. At the same time, interest rate hikes are having a negative impact in many areas. They are hampering investments and private consumption and have already left a substantial mark on the previously-booming construction industry. Researchers at the IfW expect global economic production to grow by 2.2 percent in 2023, and somewhat more in 2024 at 3.2 percent.

In the **United States,** economic output is expected to shrink in 2023 according to the IfW. Especially private consumption, which was recently the largest economic driver, is likely to see a strain. Unemployment is expected to increase to 4.9 in 2023 after the expected 3.7 percent in 2022. At the end of 2021, researchers were under the assumption that unemployment was in decline and would drop to pre-pandemic levels. They anticipate the recent robust rise in wages to weaken noticeably. This could bring inflation back to its target of 2.0 percent. According to the IfW's forecast, the GDP will contract by 0.4 percent in 2023, and recover moderately with 0.5 percent growth in 2024.

High inflation, rising interest rates, and the weakened global economy will negatively impact the **eurozone**'s economy in 2023. However, because pressure on energy prices should ease, the IfW expects a recovery to set in over the course of the year. Consumer prices are expected to remain historically high after a 5.6 percent rise in 2023, but the increase will slow significantly compared with 2022. According to IfW's economic outlook for 2023, the GDP will only grow by 0.6 percent. Researchers therefore anticipate unemployment to go up to 7.1 percent in 2023, compared with 6.7 percent in 2022. In 2024, they expect an economic recovery with growth of 1.5 percent. The IfW remains pessimistic about the unemployment rate for the time being with a forecast of 7.4 percent. The rise in consumer prices is expected to continue shrinking, though at a rate of 2.6 percent, growth will still be above the European Central Bank's medium-term inflation target of 2.0 percent.

Massive energy and gas subsidies along with falling energy prices should provide some relief in **Germany** in 2023, according to the IfW. Nevertheless, the sustained high rates of price growth will dampen consumption. Energy prices will also continue to weigh heavily on German companies, particularly energy-intensive ones. Researchers from the IfW estimate that the GDP will only grow by 0.3 percent in 2023. In 2024, they expect an economic recovery with growth of 1.3 percent. The consumer price situation should also ease with increases of 5.4 percent (2023) and 2.2 percent (2024). The IfW points out, however, that the lower inflation rates will come at the cost of high government deficits. Additional spending to curb energy and gas prices will amount to €87 billion in 2023 and €17 billion in 2024. The labor market is expected to develop robustly, however, with unemployment rates of 5.5 percent (2023) and 5.4 percent (2024).

Key Data on Germany's Economic Development

2021 to 2024[1]	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast
GDP, price-adjusted	2.6	1.9	0.3	1.3
GDP, deflator	3.1	4.7	3.4	3.7
Consumer prices	3.1	8.0	5.4	2.2
Labor productivity (hourly concept)	0.9	0.2	0.2	1.3
Employed domestically (1,000 people)	44,980	45,535	45,635	45,543
Unemployment rate as %	5.7	5.3	5.5	5.4

[1] Gross domestic product, consumer prices, labor productivity: changes compared with the previous year in percent; unemployment rate: determined by the German Federal Employment Agency.
Source: Institute for the World Economy (IfW), Economic Reports, German Economy in Winter 2022 No. 98 (2022 | Q4), Dec. 14, 2022.

GDP and Consumer Prices in Advanced Economies (selection)[1]

	GDP			Consumer Prices		
	2022 Forecast	2023 Forecast	2024 Forecast	2022 Forecast	2023 Forecast	2024 Forecast
European Union	3.5	0.7	1.7	8.9	6.2	2.9
Eurozone	3.4	0.6	1.5	8.3	5.6	2.6
United Kingdom	4.3	-0.6	1.5	9.1	7.6	2.8
Switzerland	2.0	0.5	1.3	3.0	2.5	1.2
USA	1.9	-0.4	0.5	8.0	4.1	3.3
Canada	3.6	1.8	1.4	5.8	4.4	2.5
Japan	1.4	0.7	1.6	2.3	2.1	1.0
South Korea	2.8	1.5	2.7	5.3	3.8	3.0
Australia	3.6	2.3	2.7	6.5	4.5	3.0

[1] GDP: price-adjusted, change year-on-year; consumer prices: year-on-year change.
Source: Institute for the World Economy (IfW), Economic Reports, Global Economy in Winter 2022 No. 97 (2022 | Q4), Dec. 21, 2022.

Forecast of Global IT Spending

in $ billions	2022 Spending	2022 Growth as %	2023 Spending	2023 Growth as %
Software	783	7.1	856	9.3
IT services	1,245	3.0	1,313	5.5
Total IT	4,385	-0,2	4,491	2.4

Source: Gartner Forecasts Worldwide IT Spending to Grow 2.4% in 2023. www.gartner.com/en/newsroom (January 18, 2023)

Sector development

Following a slight decline in 2022, Gartner analysts have returned to optimism about 2023 and predict growth in global IT spending of 2.4 percent to $4.5 trillion. The software segment is expected to see the strongest growth, at 9.3 percent, to $856 billion. Hardware sales will remain weak, with revenue expected to drop 5.1 percent to $686 billion.

Despite multiple crises, experts at the industry association Bitkom are also optimistic about the current year. Sales in IT, telecommunications, and consumer electronics in Germany could break the €200 billion mark for the first time (+3.8 percent). Aside from challenges such as climate protection, growth drivers are new digital business models, for example in healthcare, education, and mobility. The number of people working in these sectors is likely to grow by 3.4 percent to 1.352 million.

Information technology (IT) remains the sector's undisputed top performing segment and, according to Bitkom, will see a rise of 6.3 percent to €126.4 billion. Within this segment, software—Software AG's area of activity—ranks first. Growth of 9.3 to €38.8 billion is expected. Artificial intelligence platforms (+41.8 percent), collaborative applications (+15.6 percent), and security software (+11.4 percent) are performing especially well. According to forecasts, products in the hardware segment, primarily wearables, security appliances such as firewalls, and servers, will account for growth of 5.3 percent to €39.7 billion in 2023. The third IT segment, IT services, should see an increase of 4.7 percent to €47.8 billion.

In the telecommunications segment, sales will increase slightly, by 0.8 percent to €69.5 billion, due mainly to investments in telecommunications infrastructure and 5G-enabled smart phones. The third segment, consumer electronics, will remain the industry's underdog. Bitkom expects losses for the third year in a row. Revenue of €7.6 billion would reflect a 7.3 percent decline for 2023. Consumer restraint due to high inflation and economic insecurity are particularly evident in this segment.

THE GROUP'S FOCUS

The Helix transformation, which was launched in 2019, is aimed at better meeting changing market and customer demands and capitalizing on growth opportunities. In 2022, Software AG continued to concentrate on the three pillars of its Helix transformation—Focus, Team and Execution—to build the right momentum towards higher predictability and scale of its global business.

Based on the transformation's progress to date, the lessons learned, and the macroeconomic outlook, Software AG will continue its efforts and lay the foundation for the next phase of growth in 2023, with a focus on the following five operational priorities:

- **Accelerate the transition to cloud-first:** The Company will prioritize specific SaaS sales motions for growth products like webMethods.io and StreamSets to capitalize on the high demand for cloud products.
- **Double down on innovation in integration:** Software AG will direct resources to this area in which it has product leadership, current growth, and future growth opportunity, accelerating innovation in its key products, webMethods.io and StreamSets.
- **Increase sales specialization to drive efficacy and efficiency:** Applying experience gleaned from the past years of transformation, Software AG will specialize its sales force to realize greater impact from its growth products, starting in North America. This will increase go-to-market efficacy and also drive further sales efficiency.
- **Leverage the value of A&N:** The Company will continue the ongoing shift to subscription which offers an important pathway to cloud rehosting and interaction between A&N customers and Software AG's wider Digital Business portfolio.
- **Optimize operational efficiency:** Software AG plans to increase the Company's efficiency and productivity through a program that improves operational leverage and delivers sustainable benefits to increase efficiency. This is anticipated to affect around 200 employees, or 4 percent of full-time equivalents (FTE).

EXPECTED FINANCIAL PERFORMANCE

ANTICIPATED REVENUE AND EARNINGS

The current macroeconomic environment is characterized by a high degree of insecurity and volatility. Given these general conditions as well as those described above, the Management Board currently anticipates revenue and earnings to develop as described below.

As communicated on January 31, 2023, Software AG's Management Board expects year-on-year Group product revenue growth between 6 and 10 percent at constant currency (based on 2022 exchange rates) for the 2023 fiscal year. Operating margin (EBITA, non-IFRS) is expected to be between 16 and 18 percent.

As part of the Helix strategy, the product bookings metric was introduced to paint a more transparent picture of actual sales successes. Due to the extremely successful implementation, nearly all product bookings had a direct effect on the ARR metric in 2022. A further result of the successful transition to subscription and SaaS licenses is that payments are booked for these customer relationships on an annual basis; ARR is a very good indicator of future cash flows in this context. Accordingly, the Management Board decided to update product bookings as a key financial guidance metric to ARR, both for Digital Business and Adabas & Natural (A&N), in 2023. In the Digital Business segment, ARR growth of between 10 and 15 percent at constant currency is expected year-on-year, and in A&N, between -2 and +2 percent at constant currency year-on-year.

OUTLOOK FOR SOFTWARE AG (FINANCIAL STATEMENTS FOR THE PARENT COMPANY)

Software AG's future financial performance 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. Therefore, please refer to the forecast on expected financial performance of the Software AG Group.

Outlook for Fiscal Year 2023

	FY 2022 in € millions	Outlook FY 2023 as of Jan 31, 2023 as %
Digital Business ARR	516.4	+10 to +15[1]
A&N ARR	183.8	-2 to +2[1]
Product revenue	795.6	+6 to +10[1]
Operating margin (EBITA, non-IFRS)[2] as %	19	16 to 18

[1] At constant currency.
[2] Before adjusting for non-operating factors (see non-IFRS definition of earnings in Key Financial Performance Indicators).

MANAGEMENT'S GENERAL STATEMENT ON THE ANTICIPATED DEVELOPMENT AND POSITION OF THE GROUP

Helix, the extensive transformation strategy that was kicked off four years ago, laid the foundation to further evolve Software AG's strategy. Based on the five identified strategic priorities, the Company continues to drive its growth strategy in 2023 while increasing operational effectiveness through efficient scaling of the business. The plan for 2023 will more clearly structure the business and ensure that the defined targets can be met, even in a challenging macroeconomic environment. The Management Board is certain that the initiated measures have charted a course to sustainable profitable company growth.

Opportunity and Risk Report

GOALS

Software AG's primary goal is to generate sustainable profitable 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. Its sales models were and continue to be adapted successively from one-time sales revenue recognition at the beginning of a contract to annual revenue recognition (subscriptions and Software as a Service, SaaS). The shift is associated with a temporary decrease of operating margin (EBITA, non-IFRS), but in the medium and long term, higher overall earnings will result from successful customer relationships. In favor of long-term sustainable development, Software AG forgoes short-term earnings growth and the potentially resulting short-lived positive effects on share price. In addition, Software AG is seeking strategic partnerships that will help meet the goal of sustainable profitable growth and strengthen its extremely important ecosystem. With a strategy that is based on sustainable long-term success, the Company strives for a balance between opportunities and risks and takes on risks only if the business activities associated with them have a relatively 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 opportunity and risk management system enables Software AG to identify potential risks early to assess and minimize them to the greatest extent possible. Risks are to be understood as possible deviations from planned values. Strictly speaking and in accordance with customary spoken language, risks are defined as negative deviations and opportunities as positive deviations from planned values. By continuously monitoring risks, Software AG can always evaluate the overall status systematically and in a timely manner and better assess the effectiveness of appropriate countermeasures.

This includes operational risks, e.g. risks associated with cyber incidents, as well as financial, economic, legal, and market risks. Opportunities are generally congruent to the operational and functional risk structure in all risk areas. Software AG uses various controlling tools to monitor the identified risks on an ongoing basis; these relate to the development of the Company as a whole and to department-specific issues. The Management Board receives continuous updates on current and future risks and opportunities as well as the aggregated risk and opportunity situation via established reporting channels.

Risks and opportunities throughout the world are managed and controlled by teams at corporate headquarters responsible for pursuing opportunities and preventing risks for Software AG. 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 the reporting.

STRUCTURE

Controlling

The Controlling department—which is under uniform global leadership—monitors risks arising from business operations in a timely manner. 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 and Supervisory Boards. 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) and for Software AG's annual financial statements in accordance with the German Commercial Code (HGB). 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 Group.

Treasury

Software AG’s Corporate Treasury team generates a daily finance status report, weekly assessments of foreign currency transactions, as well as summaries of derivatives outstanding. The European Monetary Infrastructure Regulations Report (EMIR) is generated once per month. The CFO receives weekly reports on the Software AG Group’s finance status and a summary of credit default swaps for all banks with which the Software AG Group engages in transactions, especially cash investments. The CFO also receives a monthly summary of short and long-term financing. All high-risk foreign-currency and hedging transactions may be conducted only by the Corporate Treasury team, which is directly below the CFO. A global treasury policy prohibits the national subsidiaries from engaging in any high-risk transactions with derivatives.

General Services

Another component to opportunity and risk management is the transfer of operating risks to insurance carriers. This is coordinated globally by the General Services department at corporate headquarters.

Internal Audit

Software AG’s Internal Audit is an active component of the Company's risk management. Through a systematic and targeted approach, it ensures the effectiveness of risk management along with the evaluation and continual improvement of the internal control systems (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 to Software AG’s Chief Information Security Officer on a disciplinary basis, but has additional reporting lines to the CEO and the chair of the Audit Committee of the Supervisory Board. This department operates globally.

INTERNAL CONTROL SYSTEM

Software AG’s ICS is based on policies, guidelines, and measures introduced by the Management Board to support the organizational implementation of the Management Board’s decisions. Together with the risk and opportunity management (ROM) system, the ICS comprises management of risks and opportunities relating to the achievement of business targets, the validity and reliability of internal and external financial reporting, and compliance with standard legal policies and regulations including the continuously evolving requirements in the area of non-financial reporting. The ICS also includes a compliance management system (CMS) geared to the Company’s risk situation.

Software AG's ICS is an established component of internal controlling and monitoring processes. It consists of internal policies on business practices as well as Group guidelines on effective internal controls. These policies regulate internal procedures and areas of responsibility at global and local levels. They are designed to provide information to leadership and to monitor the operating business risks of the Software AG Group. In order to enhance transparency, these policies are approved, published, and managed centrally. Compliance with them is assessed on an ongoing basis by Internal Audit as part of a risk-oriented review plan. Individual key Group business processes are managed centrally using software applications based primarily on Software AG technology and monitored using preventative automated control mechanisms.

With respect to the accounting process, the focus of the ICS is on ensuring that Software AG's accounting is correct, appropriate, and effective as well as the financial data reported on its basis. In particular, the aim is to minimize the risk of false statements in Group accounting and other external reporting and to prepare compliant consolidated and annual financial statements. The following processes and control mechanisms were implemented to that end:

- Detailed Group accounting, valuation, and account allocation policies are in place which are continuously updated and complied with; these include an IFRS-based accounting guideline as well as a separate revenue recognition guideline. There are also guidelines on bookings, annual recurring revenue (ARR), and net retention rate. Application is mandatory.
- Compliance with these guidelines is ensured and monitored by Corporate Finance as well as locally and regionally responsible Finance, Controlling, and Administration (FC&A) managers and audited by Internal Audit.
- The national subsidiaries report their figures monthly to Corporate Accounting within the Corporate Finance department using the management information system (MIS). The figures from the national subsidiaries are consolidated using the SAP BCS software tool and fed back into the MIS. Corporate Controlling and the Corporate Finance team then analyze these monthly reporting results. Any deviations that may arise are communicated monthly to the national subsidiaries and/or Corporate Accounting and corrected via the most efficient channel.
- Worldwide separation of the functions of generating and reviewing accounting figures is guaranteed by segregation into two areas: Corporate Finance and Corporate Controlling. The two departments are led by different managers who report independently of each other to the CFO.
- 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 intercompany 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 is a preventative internal control system and is employed worldwide. All quotes associated with the intent to close a sale with a customer go through this approval process, in which the Legal department as well as Corporate Finance, Corporate Controlling, the CFO, and the CRO 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.
- Access rules for the local and central accounting programs are uniformly regulated and monitored by the corporate IT department.
- Only employees of Corporate Accounting have access to data stored in SAP BCS.
- All Group reports are reviewed by a second person in Corporate Finance in accordance with the dual-control principle.
- Software AG regularly commissions external experts to evaluate complex matters such as stock option plans, pension provisions, legal risks, and purchase price allocations.

RISK AND OPPORTUNITY MANAGEMENT

ROM 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 Group-wide assessment, monitoring, and management of the identified risks. The risk advisors are recommended by the core team and chosen by the responsible member of the Management Board. The risk advisors conduct biannual risk evaluations with the core team.

Risks are evaluated according to a uniform valuation system. The system determines the risk category based on the potential impact on Group EBIT for the next three years. 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. An impact of up to €50 million on Group EBIT in the next three years is categorized as low risk. An impact on EBIT between €50 and €200 million is categorized as medium risk. And, risks affecting EBIT by more than €200 million in the next three years are categorized as high risk.

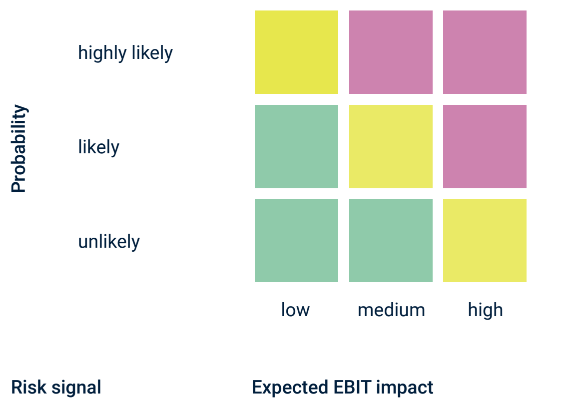
In a separate step, these impacts on EBIT in the next three years are categorized according to the risk advisors' estimated probability into three risk levels.

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

Probability between 0 and 33 percent is rated 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 expectation values. These are then assigned to one of three cumulative risk signals.

Risk signal	Risk relevance
green	insignificant
yellow	medium
red	significant

This results in the following risk matrix according to which all risks are uniformly assessed:



All Software AG managers must report newly identified risks and opportunities to the core team at corporate headquarters. The team then informs the Management Board to discuss possible areas. The core team reports to the Management Board regularly about the ongoing development of the identified risks and opportunities.

The Management Board regularly presents the ROM to the Audit Committee of the Supervisory Board and discusses with it the level of the identified risks and opportunities as well as appropriate measures for managing the risks and opportunities.

Based on the risk advisors' submitted EBIT impact for the next three years as well as their probability of occurring, the expectation values are calculated taking into account risk-mitigating measures for the individual risks, but without offsetting risks and opportunities. The overall interdependency between individual strategic risks is then evaluated and aggregated with the sum of expectation values for all strategic risks. The result is the total expectation value for all risks. This value is compared against Software AG Group's determined risk-bearing capacity; risk reserves are also calculated. This ensures the effectiveness of the ROM and the ICS.

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

POSITION TAKEN BY THE MANAGEMENT BOARD IN ACCORDANCE WITH THE 2022 GERMAN CORPORATE GOVERNANCE CODE[1]

In accordance with recommendation A.5 of the 2022 German Corporate Governance Code (GCGC), the Management Board examined the appropriateness and effectiveness of the ROM and ICS. Based on that, the Management Board has no indication that the ROM and ICS were not appropriate or effective in their respective entirety as of December 31, 2022.

[1] Not reviewed as part of the external audit of the Management Report since this information persuant to recommendations of the GCGC is above and beyond that which is legally required of the Management Report.

KEY INDIVIDUAL RISKS AND OPPORTUNITIES

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

Environment and sector risks/opportunities

Macroeconomic environment

The business of a globally operating company like Software AG depends heavily on economic developments worldwide. A global economic downturn—especially in the markets Software AG serves—can result in failure to meet revenue and earnings guidance. Furthermore, risks could arise from political and societal changes, particularly in countries where Software AG markets its products.

Geopolitical risks increased significantly in the 2022 fiscal year, primarily due to the war in Ukraine, which drastically worsened the predictability of economic developments. The war in Ukraine is causing risks and limitations that impact Software AG both directly (e.g., higher energy costs) and indirectly, through changes in customers' purchasing behavior. In addition, the sanctions against Russia represent a challenge for Software AG, just as for all companies with global operations and cross-border projects in Eastern Europe.

If the conflict situation were to extend beyond Ukraine, the risk of a global economic recession would increase additionally. Rising inflation and interest rates can also result in a considerable decline in consumption and increased operating and financing expenses.

Customs disputes and trade restrictions, for example between the USA and China, as well as the current conflict over Taiwan can affect global trade and thus world economic growth. This could have a major impact on Software AG's revenue and earnings performance.

The global government debt situation was further exacerbated for the long term by the effects of the COVID-19 pandemic and of the war in Ukraine. Regardless of the scenarios and possible responses assessed by Software AG in this complex risk area, these developments could negatively impact the business, the assets, and the financial performance and position of the Company.

Market risks

Market risks are related, among other things, to the varying economic developments in individual countries or regions. The technological evolution of different 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 dependency on a specific geographical or professional IT submarket. Software AG markets technologies that are not specific to certain industries, ruling out a dependency on individual industries or customers. Thanks to its technological innovations, ongoing R&D investments, and procurement 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 significant cost savings. And, it can ensure a long-term broad customer base for Software AG.

In Software AG's view, the Company's new products are a logical way to cope with market-related cost pressures even in weak economic periods. Many customers use Software AG software for business-critical applications for years and often decades when running satisfactorily. This results in a largely stable flow of returning revenue in this business line.

Market opportunities

Software AG sees itself as a technology leader in enterprise digitalization software. Due to its strategic focus, Software AG will continue to concentrate on technologies and regions with high-growth markets. Furthermore, Software AG will continue its Adabas & Natural 2050+ program. And, because of the significance of its ecosystems in successful software sales, it will also further expand its partner model. These measures may lead to better-than-average opportunities for Software AG to grow and claim market share in core markets.

United States

The USA is Software AG's most important sales market. Software AG operates its own sales organization in the USA, and key portions of corporate departments are based there, such as Marketing and R&D. Furthermore, significant local intellectual property rights are located in the USA, resulting in a substantial royalty payments from the Group to the USA. A large percentage of Group profits is generated and taxed in the USA.

Because Software AG's business volume with China is relatively low, no substantial risks to its global business resulting from US foreign trade policies with regard to China are expected.

The extent of the negative impact of ongoing trade conflicts between the USA and China, Russia, and the EU on the Software AG Group's global development is not clear. Software AG is technologically independent of large US-based software platform companies. Growth of the US economy depends on a variety of factors. Nevertheless, future market opportunities should outweigh risks. The dynamic success of the cloud business in the USA offers significant growth potential for Software AG's cloud products, especially StreamSets and webMethods.io.

COVID-19

The COVID-19 pandemic has been affecting the global economy for three years. Multiple lockdowns in most countries of the world initially had a negative impact on the global economy. Many companies froze, postponed, or extended investment activities. In addition, nearly all organizations placed extensive restrictions on business travel. These circumstances made contract negotiations with customers difficult because nearly all meetings could only be conducted online. The lack of customer events and meetings made it difficult to generate new project opportunities which continues to affect Software AG's business today.

The COVID-19 pandemic forced companies and government agencies to move large portions of their administrative work to the home office. This has resulted in the permanent establishment of hybrid work. The pandemic shed light on the lack of digitalization in business processes, which had and continues to have an accelerating effect on digitalization. In the meantime, new means of business collaboration have been established. The positive effect of this is that the initially feared risk of a pandemic-related decline in business did not manifest. Regardless, many companies and government agencies still have a need for optimization. This is resulting in new business opportunities for Software AG, particularly in the Digital Business segment, which could compensate, or even overcompensate, for the negative effects of a global 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 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. Software AG is rapidly converting its customer contracts to subscriptions and, increasingly, SaaS models as well. New innovation trends are very difficult to predict and are sometimes identified too late. Due to the uncertainty of future developments in the software market, Software AG considers itself exposed to risks and the associated impacts when it comes to the following points, among others:

- New innovation trends are not recognized or are recognized too late
- Company resources such as R&D, Product Marketing, Marketing, Sales, and Mergers & Acquisitions (M&A) are not allocated or not in the appropriate scope to the right products
- Insufficient focus on future growth-relevant products
- Key competitors' large financial resources can have a negative impact on business success
- Lack of balance between fast product innovation on the one hand and product quality on the other

Software AG's product portfolio consists primarily of software tools and platforms whose value for customers is maximized through customized solutions. This translation of platform technology to customized solutions is the Company's key success factor. Software AG took measures to counter the described risks:

- Organization of the product business in market-defined business units that are clearly geared to competition and customers
- Regularly scheduled innovation competitions (TechInterrupts) to promote ideas and identify possible applications for new tech trends
- Ongoing exchange with leading experts from the field of (business) information technology in the context of a Scientific Advisory Board
- Ongoing exchange with specific customers in Customer Advisory Boards
- Regularly scheduled in-depth discussions with leading industry analysts such as Gartner and Forrester
- With the goal of shortening time-to-market, Software AG's

products are also augmented by acquisitions when it comes to newer development trends
- Because the IoT and webMethods.io products are still relatively new, a considerable amount of resources have been and will be dedicated to quality assurance

Product quality investments were further increased in webMethods.io (integration Platform as a Service 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 certified quality management system. Product quality and user-friendliness as well as customer support are monitored using these mechanisms on an ongoing basis.

Growing the SaaS business (cloud business) is extremely challenging and cost-intensive. In this context, Software AG is exposed to risks and impacts when it comes to the following points, among others:
- Insufficient scaling in the cloud business and the associated inadequate margin growth
- Technical and legal risks regarding data protection and data security
- Competitive advantages of new startups without a long history in the on-premises business

Software AG took measures to counter these risks, for example:
- Monitoring through a dedicated, externally ISO 27001-certified information security management system and cross-departmental response teams for failures in data protection and information security
- Expanded work with external IT forensic specialists
- Ongoing monitoring and optimization of cloud infrastructure usage

In particular, the expansion of the IoT business and the recognition achieved in the Digital Business line by distinguished technology analysts like Gartner and Forrester are generating major market opportunities for Software AG. As digitalization continues to advance—fueled by the COVID-19 pandemic—in companies' administrative units and production (IoT) activities as well as in government organizations, Software AG can influence the development of markets and drive its own growth.

The product portfolio and innovation risks described above were rated at risk signal yellow at the end of 2022 (2021: green).

Market risks and opportunities in the Digital Business segment

The comprehensive Digital Business segment is streamlined into product offerings based on API Management, Integration & Microservices, Business Transformation, and IoT & Analytics. This structure ensures the right roadmap prioritization of customer and market requirements for product development. It improves opportunities for further expanding the competitive advantages of Software AG products and receiving outstanding ratings by the relevant technology studies. A more streamlined R&D focus is also improving customer satisfaction and business success. Software AG is exposed to risks and the associated impacts in the following contexts, among others:
- Inadequate consideration of agile customer requirements in product development
- Undesirable developments in product sales revenue in the Digital Business segment
- Insufficient visibility and awareness in the USA, Software AG's largest single market
- Suboptimal availability and robustness of cloud services
- Too dependent on individual large-scale deals

The occurrence of each of these risks could have a negative impact on business development in the Digital Business segment.

Software AG took measures to counter the described risks, for example:
- Regularly scheduled customer feedback events for the entire R&D organization
- Permanent monitoring of product revenue development by the general managers of the product lines
- Ongoing marketing activities with a focus on the USA and the goal of improved pipeline generation and market visibility
- Close control of cloud services by the Operations teams
- Expansion of subscription license model which will lead to a stabilization of revenue in the medium term
- Ongoing support for cloud customers through Customer Success Managers to improve customer satisfaction and reduce termination risks

The relatively new time-to-value model was developed and introduced in connection with the sustainable subscription and SaaS sales models. With this model, customer benefits, and in turn customer satisfaction, grow over time.

These efforts are intended to reduce sales complexities and shift the focus to the strength of the individual product offerings. 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 API Management, Integration & Microservices, Business Transformation, and IoT & Analytics markets. The complete Digital Business line holds major opportunities for Software AG's future business development. This is especially due to the fast pace of the IoT market's growth, as well as the ever clearer digitalization trend, which drives growth in the API Management, Integration & Microservices product line.

Growth in API Management, Integration & Microservices

The API Management, Integration & Microservices product line in the Digital Business 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. The intensity level of competition is very high in this business. The Company therefore considers itself to be exposed to the following risks and impacts, among others:

- Insufficient balance between development speed and quality assurance
- Insufficient competitiveness in the market for specialized R&D talent
- Too little product brand awareness, especially in the USA
- Insufficient leveraging of synergy effects between subproducts

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
- Proactive marketing campaigns to grow the pipeline and generate new business as well as improve Software AG's visibility in key markets
- Intensified cross-selling activities for products in the API Management, Integration & Microservices product line with customers in the IoT & Analytics and Business Transformation product line to generate new business
- Allocated more R&D and other resources to cloud solutions
- Dedicated measures to improve long-term recruitment and retention of R&D talent, e.g. expansion of share-based remuneration components

It is anticipated that the digitalization of enterprise processes and administration—including the public sector—will drive development of the API Management, Integration & Microservices product line. This product line holds major opportunities for Software AG's future business development.

Due to the measures described above, including in the context of the intensified digitalization trend, the risk rating remained unchanged at green at the end of 2022 (2021: green).

Development of Business Transformation

The Business Transformation product line in the Digital Business segment consists primarily of the ARIS and Alfabet products. This market is characterized by intense innovative competition. To keep up with this competition, Software AG delivered new functionality for its process mining products in the previous year and is continuously introducing product innovations.

Like all major Software AG products at present, the products in this product line are cloud-ready. To accelerate this product line's growth and transition to the cloud business, Software AG introduced the option for customers to purchase standard software packages online. In addition, specialist consulting teams and the Customer Success Management organization are being built on an ongoing basis; their task is to expand customer relationships and the respective business volume as well as to support the Sales organization in growing this field of business. Furthermore, customer support during the term of cloud agreements serves to increase customer satisfaction and minimize the risk of termination.

The Business Transformation products are particularly well suited as entry products for Software AG technology. Because average deal sizes tend to be smaller than in other Software AG product lines, efficiency is also lower in direct sales. Software AG's sales focus for these products is aimed more at other channels such as partner and direct online sales.

Expansion of the partner ecosystem is necessary to boost the success of this product line. A higher number of implementation partners is needed to support customers in the implementation of these software products. These were not and are not yet available to Software AG to the extent necessary and are currently being increased, e.g. through the strategic partnership formed with Persistent in 2022. Competition for human resources has also intensified considerably in this product line. Software AG enhanced its recruitment and staff development programs to address potential fluctuation in this area.

These risks were given a green risk signal at the end of 2022 (2021: green).

Ongoing development of IoT & Analytics

Business in the IoT & Analytics product line within the Digital Business segment (cloud & IoT business) is growing faster than the rest of Software AG. IoT is a rapidly growing market subject to intense competition. The market is being driven by hyperscalers (computing networks to achieve major scaling in cloud computing and big data), systems integrators, and industrial companies that are developing their own IoT system landscapes.

In this context, Software AG is exposed to risks and impacts when it comes to the following points, among others:

- Inconsistencies in product quality due to the proportionally low level of product maturity and to high speed of development
- Insufficient attention to technical challenges and necessary product enhancements
- Underestimation of challenges regarding customer growth and economic relevance
- Attempts by competitors to poach highly qualified employees
- Insufficient sales and consulting capacities in smaller regions
- Because the products in this line are increasingly sold as SaaS offerings, there is a growing risk that service level agreements will not consistently be met.

Any of these circumstances could have a negative impact on business operations in this segment. Software AG therefore took measures to counter these risks, for example:

- Introduction of the Continuous Integration and Continuous Delivery concept in the R&D process
- Amplified training options in modern cloud technologies
- Strengthening and automation in Cloud Operations, to enable better scalability of cloud solution operations
- Introduction of modern team-building and management methods
- Intensification of partnerships with consulting firms and hyperscalers
- Expansion of proactive support and de-escalation measures

The risks associated with the IoT business were rated at risk signal yellow (2021: yellow).

Market risks and opportunities in the Adabas & Natural business

Software AG's traditional Adabas & Natural (A&N) products is currently in an advanced stage of the product life cycle. The age structure of A&N employees poses a challenge for Software AG—in R&D, Presales, Sales, and Professional Services—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 system platforms. But resources are tight when it comes to supporting customers with this migration. There is also the risk of customers changing to new competitor products, which would have negative effects on revenue and profit margin. It would also reduce the cross-selling potential of other Software AG products. Software AG's strategy is based in part on extending customers' existing A&N license rights and/or selling add-on products. The potential offered by renewing licenses continued to drop compared to past years. Software AG's A&N customers have nevertheless been very loyal up to now. In Software AG's view, this is because A&N products are highly valued for their:

- High availability
- Low operating costs
- Strategic relevance for operation of customer applications running on A&N
- Future guarantee

This presents the opportunity to attract customers with positive Software AG experiences 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 Adabas & Natural 2050+ program in 2015 and 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 customer base. The transition to subscriptions in the A&N segment also opens up additional revenue potential.

Software AG is countering the described risks with the following additional measures:

- The Adabas & Natural 2050+ program can significantly delay the anticipated long-term revenue decline
- Ongoing development of hosting and private cloud availability for A&N products can lead to new business
- Through the sale of new products, the Freedom for Legacy initiative can lead to incremental revenue and enable existing A&N customers to integrate their legacy applications with modern software environments
- Customer support for migration of mainframes to Linux platforms with the help of A&N technology (rehosting) 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
- Generation change training programs for young A&N staff in R&D and Presales working for Software AG and customers
- Extended application support to serve customers
- 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 life cycle, e.g. enhancement and sale of Adabas encryption and auditing products as well as zIIP™ functionality for online transactions and Adabas for zIIP
- Regular customer satisfaction surveys
- Increased marketing budget

These measures can significantly slow the downward trend of A&N sales while providing opportunities for generating additional sources of revenue.

Customer evaluations show that the 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 their A&N installations. After having invested heavily over the past decades, these customers cannot and will not forgo this technology. There is thus an opportunity that this business line will continue generating high revenues in the future.

There are significant opportunities associated with product innovation and A&N modernization/digitalization packages; 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. The macroeconomic environment as described also had barely any negative effects on business performance in this segment. In times of crisis, customers rely on proven technology and do not undertake activities to try out new technologies.

These risks were assigned risk signal yellow at the end of 2022 (2021: green).

Acquisitions

Software AG complements its technology offering to further expand its market share in relevant core markets worldwide through targeted acquisitions. Acquisitions are an opportunity to participate in waves of innovation, to expand the product portfolio, and increase relevance in the market and with prospective customers. Acquisitions can help shorten time-to-market significantly for new products that address the latest trends. The uncertainty of future market and technology trends poses a risk associated with determining the right target companies that are well matched to the Company's future strategic focus. The 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 impairments, the unnecessary use of Software AG's cash, and a decrease in the Company's competitiveness and growth potential.

The prolonged period of low interest rates, high liquidity in the market, and heightened interest among strategists and investors in digital business models caused a sharp rise in the price of potential target companies in the software market, which reflected unfavorably on the profitability of potential acquisitions. A slight decline in prices was recently observed in light of interest rate developments, increased inflation forecasts, and the uncertain macroeconomic outlook. Regardless, potential target companies remain highly valued or do not yet have the right relevant size or profitability. Companies with cutting-edge technologies that are already successful in the market and offer an attractive financial profile are often highly priced due to the intensity of competition. This market situation can pose a considerable obstacle in the acquisition of new technologies and limit Software AG's non-organic growth and innovation capabilities. A risk therefore exists of acquiring unsuccessful business models or suboptimal products lacking in market maturity. There is always a residual risk inherent to due diligence processes of not having correctly assessed strategic risks or synergy potential.

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

Pre-acquisition phase

To mitigate the risk associated with the selection of potential target companies, the Mergers & Acquisitions (M&A) department is continuously observing and evaluating the relevant market segments. Software AG expanded and optimized its process for identifying investment areas, target companies, and potential divestitures. In this context, potential companies are identified using a sophisticated screening process and assessed based on acquisition criteria. To reduce risks associated with due diligence processes, Software AG conducts a critical business model and business plan analysis of all potential target companies. Its current due diligence process identifies problems, rejection criteria, and uncontrollable risks early, as well as validates the opportunities associated with the acquisition. In-depth due diligence is carried out with respect to technological, sales, staff, strategic, and operational integration. Prior to a takeover, an intensive review is conducted to ascertain whether the technologies of the target company in question efficiently strengthen and/or supplement Software AG's product portfolio, how market access and market penetration will improve, and what potential synergies can be realized. Every acquisition is preceded by a detailed analysis of the target company's economic fitness as well as a validation of the combined business plan and synergy potential with the help of experienced due diligence teams. These teams consist of a core team and experienced specialists from the relevant business units as well as external consultants. They assess whether the target company's corporate culture can be harmonized with that of Software AG. In order to ensure consistent integration coordination regarding business plan implementation, staff members who will be responsible for integration later are included in due-diligence processes at an early point in time.

As in the previous year, the risks associated with the pre-acquisition phase were given a green risk signal at the end of 2022.

Post-acquisition phase

There is also a risk that an acquired company will not be successfully integrated and the strategic goals of the acquisition will not be achieved.

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 relate to the integration of the product portfolio, the sales/go-to-market model, the processes, the people, and the different corporate cultures. The risk of insufficient integration also has a negative effect on the integration of future acquisitions.

Due to these risks. Software AG established a Post-Merger Integration (PMI) team with a dedicated PMI manager to lead the unit; they are responsible for integration of past and future acquisitions and report to the COO.

Through established control mechanisms, any possible integration risks or opportunities are identified during the due-diligence stage. The established integration processes clearly define roles for centrally managed sales, development, and administrative tasks. This ensures integration across all departments and enables quick generation of revenue and cost synergies. Possible areas of employment for future employees are assessed at the beginning as well as ways for ensuring knowledge transfer.

The acquired company's budget for the post-acquisition period is detailed and approved by stakeholders as part of the purchase process 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. In due course, the new sales models and product offerings are integrated with the Software AG sales organization to leverage revenue synergies. This enables the sale of acquired products to Software AG's existing customers (upselling) and sale of existing products to new customers (cross selling). The acquired sales organization can act as an overlay function for the existing sales organization.

Due to the learning and experience curve in connection with the recent StreamSets acquisition, these risks were rated at risk signal green at the end of 2022 (2021: yellow).

Environment, social, governance

As part of its strategic risk and opportunity management, Software AG started reporting separately on the strategic risk associated with environment, social, and governance (ESG) aspects in the 2022 fiscal year. In light of growing global challenges, particularly regarding climate protection, Software AG rolled out a new Group-wide sustainability strategy in the 2021 fiscal year, defining sustainability as a strategic priority. Software AG joined the United Nations Global Compact (UNGC), the world's largest corporate sustainability initiative, in the first half of 2022, representing a decisive commitment to corporate responsibility.

Sustainability plays a central role in Software AG's strategic focus. It strives to lead the global search for technology solutions to the most pressing social and environmental challenges and aims to help its customers and partners in their sustainability efforts. Software AG's Management Board is of the conviction that sustainability is a prerequisite to long-term business success.

The basis for Software AG's sustainability strategy is its Sustainability Roadmap 2025. It provides the direction on how the Company will meet its targets in five key action areas. In addition to anchoring ESG criteria in its corporate governance, Software AG is committed to fostering a respectful, transparent, and inclusive corporate culture for its employees and always attracting the best talent for the Company. With its technology solutions, Software AG aspires to play an active role in enabling customers to operate their organizations sustainably. Furthermore, technology solutions are being developed through research projects that are making a positive impact on society and environment and promote the UN sustainable development goals. When it comes to environmental impact, the Group's global carbon footprint is assessed to develop a reduction path to achieving net zero CO_2 emissions.

Achieving its sustainability targets is essential for Software AG's success as an attractive employer and with customers and investors, as these target groups increasingly link ESG criteria explicitly (e.g. for financing) or implicitly to a company's rating. If Software AG were not able to fully or partially meet its sustainability targets, possible negative impacts would be the loss of or inability to obtain employees and customer orders, increased costs of capital, decreased market value, and penalty fees for not meeting legal requirements.

The ESG risks were assessed for the first time and given a yellow risk signal at the end of 2022.

Corporate strategy risks and opportunities

The strategic realignment (Helix), which began in 2019, contributed to Software AG surpassing its target of 90 percent of product sales revenue in recurring revenue one year earlier than planned (end of 2022) at 93 percent. This means that a core goal of this strategic realignment was achieved. The strategic projects carried out under Helix were coordinated by a dedicated Transformation Office that reports to the CHRO. The high number of measures meant that a clear transformation focus was lost and the transformation was being driven forward in too many separate activities at the same time, which in turn increased the number of resources involved. With the transfer of the Transformation Office to the COO's Management Board area of responsibility, all projects were reviewed for transformation relevance and many were terminated. Three key projects were identified and completed in the third quarter of 2022. Further transformation projects are planned.

Additionally, work is currently underway to refine the strategy so as to leverage the major shift in market trends and conditions that emerged since the pandemic and ensure Software AG's maximal success in upcoming years. There are many opportunities associated with a refined strategy in the form of an update of the current strategic direction. Helix has already improved

Software AG's adaptation speed. And in light of the highly dynamic development of the IT sector—especially integration software—this must continue to be accelerated if the Company is to maintain its lead which is confirmed by outstanding analyst ratings.

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 well-trained and highly specialized sales force and lead to relatively long sales cycles. Because sales expenses are the largest single item in Software AG's consolidated income statements, profitability targets can only be met if the sales organization is as efficient and effective as possible.

An ineffective sales organization can be an indication of an inadequate sales approach, inadequate capabilities, uncompetitive prices or products, or unscalable product solutions. A sales model has to increase efficiency and remove inefficiency. One approach is to drive sales of standard, repeatable product solutions. This can also shorten sales cycles. In this context, Software AG's land-and-expand sales strategy must be further refined and developed.

In addition, the sales organization must be more streamlined into one unit that generates new deals with annual recurring revenue and another unit that carries out efficient renewal of existing recurring customer contracts. If Software AG does not decisively optimize its sales efficiency and sales approach in key markets, its growth and profitability targets will be difficult to meet. Software AG's shift to the subscription model from the previous sales model based predominantly on perpetual licenses could mean that customers terminate agreements more quickly when products do not fully address their wishes. Higher average deal size and better scalability can improve sales efficiency. A sales focus on the expansion of relationships with strategic customers as well as signing new logos is essential. However, business with large customers increases the dependency of license revenue on a smaller number of large customer contracts though.

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 have a negative impact on sales efficiency and profitability. Some of the smaller country subsidiaries have too few technology consultants (Presales staff) and skills to provide customers with technical consulting on the entire Digital Business product portfolio. Not enough standard contracts are used—even for small-scale deals—due to the "customer-first" approach in place. The impact of COVID-19 and the macroeconomic environment caused customers to delay their purchasing behavior.

Software AG intends to continually increase sales efficiency and thereby further accelerate deal size growth in the Digital Business segment through the following measures:

- Accelerate the transition to recurring license models such as subscriptions, usage-based licenses, and SaaS in all product lines with better scalability and forecast accuracy
- Further develop the Customer Success organization to provide ongoing care and consulting to customers in areas such as the renewal and expansion of existing contracts
- Handling of customer contract renewals based on subscriptions and SaaS by specialized teams, while the Direct Sales organization concentrates on generating new recurring customer contracts
- Further reduce complexity of product offerings and pricing with simpler product bundles
- Further simplify administrative processes to increase sales efficiency

As in the previous year, these risks were rated with a green risk signal at the end of 2022.

Partnership risks and opportunities

Software AG's growth strategy is also anchored in the expansion of its partner ecosystem to broaden vertical and regional market reach. The partner ecosystem must be further expanded to generate additional growth in markets that have not yet been addressed.

Global systems integrators and consulting firms play a key role in the strategic transformation projects in Software AG's customer target groups. Their expertise and assessment of Software AG products have a significant impact on Software AG's sales success. For this reason, close collaboration with globally operating systems integrators and consulting firms is of strategic importance. Close collaboration with leading cloud providers like Amazon Web Services (AWS) and Microsoft

Azure is also essential as customers are increasingly moving their applications to the cloud and relying on the strategic support of cloud providers.

Sales channel conflicts between direct and indirect sales or inadequate remuneration and incentive structures for partners can be an obstacle to a successful partner business. Successful partner sales require the establishment of a partner-friendly culture in the organization. This will work if, for example, the right targets are set for Software AG Sales, the technology consultants (Presales), the Professional Services organization, as well as Sales leadership.

It should be noted that Software AG products are not yet sufficiently ready for business with original equipment manufacturers (OEMs). Therefore, too many adjustments still need to be made to products and specific product support provided when it comes to OEM partner contracts which has a negative impact on profitability in this area.

The implementation of a global partner strategy, standardized partner business processes, collaboration between direct and indirect sales as well as the necessary compensation structures with a focus on incremental rather than existing business remain a focal point. The following measures were introduced to grow the success of the partner business:

- Optimize the global partner management team with a focus on evolving strategy and expanding relationships with strategically key partners and with the ecosystem network in general
- Establish suitable incentives for collaboration between direct and indirect sales
- Simplify partner-related processes and systems on all levels
- Allocate a dedicated marketing budget to accelerate generation of new partner business
- OEM-enable products and introduce standard processes for certification of OEM solutions by R&D
- Sharpen focus on signing new customers

The risks associated with partnerships were rated at risk signal yellow at the end of 2022 (2021: green).

Personnel risks and opportunities

Employer appeal

Software AG’s most valuable asset are its people along with their knowledge, personal skills, and enthusiasm for their work. In an increasingly competitive environment and employee market in which every organization is trying to attract the best talent for itself, one of Software AG’s main challenges is to attract, foster, and retain talent. The Company must ensure that a sufficient number of appropriately qualified, highly motivated employees is available at all relevant locations at all times. Uncertainty about Software AG’s future success could have a negative impact on its image as an employer both among prospective and existing talent. This can increase attrition risks. Attracting and fostering talent are therefore decisive factors and key to ensuring Software AG’s business success.

Software AG stayed on course during the COVID-19 pandemic. However, other macroeconomic topics and an ever-changing work reality (hybrid work) require additional energy, patience, and a new mindset to overcome these emerging challenges. The Company’s internal transformation is taking place at the same time as a global social and economic transformation that is also affecting every individual. Despite the changes of recent years, Software AG was able to steadily improve employee satisfaction.

Furthermore, the demographic trend in some countries and markets could result in a decline in growth potential due to a shortage of qualified young talent. Succession management and well organized knowledge transfer are key success factors in minimizing the impact of this risk.

The age structure in the A&N business line could lead to a loss in expertise. Software AG is taking the following measures to counter this risk:

- Measure, monitor, track, and assess internal and external key indicators such as external rating platforms, attrition rates, employee satisfaction, etc.
- Ongoing evaluation of market-oriented remuneration and target salaries based on global benchmarks
- Foster an education culture through comprehensive learning and growth programs, mentoring, courses, and workshops for employees and leaders
- Support leaders to deepen and strengthen their capabilities and competencies
- Globally optimize employee development reviews and establish options for personal and professional advancement

- Promote physical and mental health
- Improve employee engagement and satisfaction with annual employee surveys and apply improvement where weaknesses are identified
- Specific offerings to foster and educate high school and college students early in their development
- Strengthen Software AG's presence externally in the labor market and social media as well as promote the Software AG image as an attractive employer
- Improve talent acquisition by adapting the hiring process to reflect the changing talent market
- Continue activities for direct recruitment of new employees and training of existing staff

Software AG assumes that these measures provide a sound basis for ensuring its long-term success.

Due to the growing intensity of competition among employers for talent, personnel-related topics were rated with the yellow risk signal at the end of 2022 (2021: green).

Legal risks

Intellectual property

This strategic risk mainly consists of the two subcategories described below.

Infringement proceedings

Especially in the USA, a generous number of software patents are granted. This, along with the peculiarities of US procedural law, facilitates patent disputes. Aside from potential lawsuits from other tech companies, this situation is also exploited by non-practicing entities (sometimes referred to as "patent trolls"), which are often financed by hedge funds to file patent infringement proceedings against software companies in particular. This is also relevant to Software AG. Patent disputes in the USA entail the risk of high legal costs incurred in defending against claims, which are not reimbursed according to American procedural law. The risk associated with non-practicing entities has been mitigated in recent years due to a new legal ruling by US courts and legislation providing protection against non-practicing entities in some states.

Furthermore, a large number of well-known tech companies have joined forces to form the License-on-Transfer (LOT) Network. The LOT Network is a non-profit community established to combat the non-practicing entity business model. To strengthen its own position, Software AG joined the network in 2020. Members of the LOT Network grant each other licenses in the event that patents are transferred to non-practicing entities.

The last patent infringement proceedings brought against Software AG by a non-practicing entity ended in a settlement in the 2019 fiscal year. Since this case, which lasted many years, there have been no further attacks by non-practicing entities in recent years. Nevertheless, there is a risk of being sued by competitor tech companies for patent infringement. Software AG has an Intellectual Property (IP) Rights team to counter patent lawsuits. In addition to tasks associated with IP law protection, the team handles Software AG's own patent portfolio and coordinates its defense against patent infringement lawsuits. Having a patent portfolio is the best protection against claims from other market participants because it offers opportunities for cross-licensing agreements. There was room for improvement regarding Software AG's patenting activities in recent years. IP leadership therefore launched an initiative whereby workshops were held at all relevant R&D locations to examine the option of new patent registrations. In addition, Software AG's recently updated and highly attractive inventor remuneration system provides a heightened incentive for employees to develop patentable innovations and engage in the patenting process.

Software AG owns a significant number of patents, which can be used to protect its business and defend against patent infringement suits. There are however various inherent risks to dealing with inventions. For example, inventions may not be incorporated into products and thus published before having been registered with the patent office because they are otherwise no longer protected. Furthermore, patents can be weakened if the underlying technology is built into open-source software that is subject to a permissive free license.

To defend itself against patent infringement lawsuits, all relevant source code files and other technical as well as marketing documentation were and are stored centrally so that all required documents are available quickly in the event of a lawsuit. This documentation process is employed for newly acquired companies as well. All new products are evaluated for potential patent infringements before publication. R&D and Product Marketing employees receive training on the subject of inventions and patents.

In principle, there is also a risk of trademark infringement. Trademark research is conducted to carefully review new product and brand names against previously existing identical or similar trademarks that could be infringed upon.

Implemented measures and processes reduce this risk considerably for Software AG. It is currently unforeseeable to what extent future patent infringement suits will be fueled by the increasingly protectionist tendencies worldwide.

Protection of Software AG partners' IP rights

Because Software AG licenses third-party products, it is required to defend rights granted to customers such as rights of use for specific resources. Unauthorized undetected use by customers can result in liability risks relating to lost 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 are reviewed for unfavorable terms and modified as needed by a central department. In addition, Software AG continued developing and optimizing its procurement process.

Like last year, the risk associated with the protection of IP rights was rated at a green risk signal as of December 31, 2022.

Risks from cloud contracts

The overall buying behavior of enterprise customers in the software market has changed radically. Customers increasingly request term-based, self-installable software products and hosted cloud products. Unlimited self-installable software products are less and less in demand. The demand for subscription and SaaS offerings is therefore rising continuously. Software AG's Management Board therefore defined a "subscription-first" approach as part of the new strategy, whereby all Software AG products have been offered primarily as subscriptions since 2020. Software AG is also continuously expanding its cloud offering. Nearly all Software AG products are now available as cloud solutions. This satisfies the increasing customer demand for pay per use and subscription options and, regardless of the deployment model, provides access to the advantages of this form of consumption.

The risk associated with information security and data protection is significantly higher in the cloud business than in on-premises business because Software AG acts as a processor. This transfers the risk to Software AG as the cloud provider. This results in an increased legal risk associated with cloud agreements. To minimize this risk, an information security management system (ISMS) in accordance with ISO 27001 was implemented and externally certified.

The assessment of risks associated with cloud contracts is included in the two following risks regarding data protection and information security. A separate assessment therefore did not take place.

Data protection

As a provider of maintenance, cloud, and consulting services, Software AG works with personal customer data and thus acts as a processor. Software AG also processes personal data about its employees, customers, prospective customers, partners, and suppliers in the role of controller. The Company is legally required to treat this data in accordance with the applicable data protection laws and protect it against unauthorized access, alteration, or deletion. Software AG must ensure personal data is treated confidentially, but available at all times for the required application without loss of integrity. Due to the increasing number of cyberattacks, guaranteeing compliance with data protection is becoming more challenging. Software AG's order processing agreements with customers require compliance with data protection laws, particularly with the European Union's general data protection regulation (GDPR). At the same time, growing IT complexity increases the attack surface for cyberattacks. According to the GDPR, penalties of up to 4 percent of Software AG's consolidated annual revenue can be issued in the event of infringement of data protection laws. Furthermore, additional costs for external consultants may be incurred, process productivity may decline, and significant reputational losses detrimental to sales may result. Sizable investments are necessary on an ongoing basis to take these security measures and comply with regulations.

Software AG counteracts these risks by improving its data protection management system (DPMS) on an ongoing basis. This DPMS defines processes that help ensure data protection such as internal data protection policies and standardized processes that are constantly being adapted accordingly.

In addition, the following measures were taken to reduce the risk associated with data protection:

- Software AG's data processing agreements (DPA) with customers minimize the risks it assumes to the legally admissible extent
- Implementation of a data protection policy that is binding for the whole Group as well as binding corporate rules (BCRs) for international data transfer to ensure a uniform level of data protection throughout the Software AG Group (current project)
- The DPMS is monitored and optimized on an ongoing basis
- Mandatory data protection training for all employees to raise awareness for the requirements of data protection
- As a result of the malware attack in October 2020, Software AG acquired a great deal of experience in processing personal (including sensitive) data and drew the necessary security-related conclusions. With the help of investments and measures now concluded, Software AG significantly improved its level of data protection. However, 100 percent security cannot be guaranteed as attacks are getting ever more intelligent.

The Schrems II ruling (Judgment of the European Court of Justice on Transfers of Personal Data to Third-Party Countries) strengthens data protection for EU citizens. The ruling also creates compliance issues that can, however, be mitigated through the use of EU standard contractual clauses (SCCs). The ruling stipulates, among other things, that necessary data transfer to an "unsafe third country" can be legally safeguarded through the use of EU SCCs. Under certain circumstances, using an SCC can help provide the legal security necessary to transfer personal data to a data processor based in an unsafe third country. The main prerequisite for using an SCC is that a data processor can guarantee an equivalent level of data protection as that in the EU. To minimize the risk of unauthorized data processing in an unsafe third country, Software AG concludes SCCs with the relevant data processors. In addition, supplementary and technical security measures were taken, e.g. encryption, to ensure compliance with the rules associated with the Schrems II ruling.

The risks associated with data protection were rated at risk signal green at the end of 2022 (2021: yellow).

Information security

All data and IT service functions for internal purposes and customer services globally are subject to an upward threat potential curve because of the fact that malware attacks are getting increasingly smarter. Furthermore, government regulations on data protection and IT security are getting ever stricter. The growing complexity of IT increases the vulnerable attack surface of Software AG's sensitive data and IT systems to hackers and poses a constant threat to its tangible and intangible assets. This risk, however, is not specific to Software AG. It affects nearly every company worldwide.

To mitigate these risks, Software AG introduced and implemented the following measures:

- The SecureBiz program was introduced at the beginning of 2021. This program primarily comprises improvement of the following points:
  - Continuous tracking of the IT landscape for weak points as well as security monitoring
  - Information protection and management
  - Network redesign including network segmentation, real-time data flow, and irregularity monitoring
  - Hardened active directory and Azure active directory
  - Admin rights only issued upon request
  - End-device management
- An ISO 27001-certified information security management system (ISMS) is in place for cloud business customers
- Employee training on information security was introduced and will be expanded continuously
- To increase transparency of IT security, internal control mechanisms are monitored and optimized to reach a state-of-the-art level
- Management and monitoring of overall information security was separated from IT security operations
- Software AG's IT security strategy and the corresponding management program are aligned with the global corporate and IT strategies
- The IT Security department ensures the ongoing development of processes, workflows, and tools and monitors the extent to which they are correctly installed and employed so as to prevent potential malware attacks
- Risk evaluations are optimized and rolled out uniformly on all security-relevant IT systems

All these measures, however, cannot and will not provide a 100 percent guarantee of IT security. The systems have become too complex, and potential attackers too well trained and equipped, sometimes by foreign governments with extensive resources. Software AG therefore can and must do everything in its power to achieve the maximum level of security.

The risk associated with information security was given a yellow risk signal at the end of 2022 (2021: red).

Other legal risks

Regulatory, compliance, and litigation risks

Regulatory and political changes, such as embargoes, can influence Software AG's business operations in different 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 lawsuits are won, given the high cost of defense attorneys and other defense services needed to thwart accusations, for example in the United States. 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 further information on specific legal disputes, please refer to Note [32] in the Notes to the Consolidated Financial Statements and Other Provisions in the Separate Annual Financial Statements of Software AG (Parent Company).

Financial operating risks

Exchange rate risks

Software AG 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. Further information on currency impact on revenue is provided in the Financial Performance of the Group section of the Economic Report.

Exchange Rate Fluctuation Impact on Group Revenue in 2022:

Currency fluctuation in 2022	Change in exchange rates volume-weighted 2022 vs. 2021	Impact on revenue in 2022 in € millions
US dollar 31.5% of revenue	12.0%	32.4
Pound sterling 6.4% of revenue	0.3%	0.2
Israeli shekel 6.3% of revenue	5.6%	3.2
Australian dollar 3.4% of revenue	3.9%	1.2
Brazilian real 3.1% of revenue	18.0%	4.5
Canadian dollar 2.8% of revenue	7.8%	1.9
South African rand 2.2% of revenue	1.8%	0.4
Other currencies 16.5% of revenue	6.6%	9.8
Currency effects on total revenue	**5.9%**	**53.6**

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 R&D and global Marketing are based there. 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. 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 2022 by €1.0 million (2021: €2.9 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 US dollar as of December 31, 2022, would have caused Group net income in 2022 to increase by €1.1 million (2021: €1.7 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. Default risks in the long-term average are quite marginal as a result of the generally high level of creditworthiness on the part of its customers. To reduce the impact of these risks, 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

While the assessment of individual risks has changed compared to the previous year, the Software AG Group's overall consolidated risk situation shows an essentially constant risk situation year-on-year.

The Management Board assumes that the 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.

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 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, 2021, 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 were unified in their classification of its creditworthiness as investment-grade at the end of 2022.

Risk Summary

	Impact on EBIT in the next 3 years	Probability	Risk signal
Corporate strategy risks and opportunities			
Product innovation and portfolio	medium	likely	yellow
Growth in API Management, Integration, and Web Services	medium	unlikely	green
Development of Business Transformation	low	likely	green
Ongoing development of IoT & Analytics	medium	likely	yellow
Market risks and opportunities in the Adabas & Natural business	medium	likely	yellow
Acquisitions: pre-acquisition phase (selection)	medium	unlikely	green
Acquisitions: post-acquisition phase (integration)	low	likely	green
ESG	medium	likely	yellow
Product distribution risks and opportunities			
Sales efficiency and sales risks and opportunities	low	likely	green
Partnership risks and opportunities	medium	likely	yellow
Personnel risks and opportunities			
Employer appeal	low	highly likely	yellow
Legal risks			
Intellectual property (IP) right protection	low	unlikely	green
Data protection	low	likely	green
Information security	medium	likely	yellow

Takeover-Related Disclosures

Pursuant to sections 289a and 315a of the German Commercial Code (HGB) and explanatory report

COMPOSITION OF SUBSCRIBED CAPITAL AND LIMITATIONS AFFECTING VOTING RIGHTS OR THE TRANSFER OF SHARES

As of December 31, 2022, Software AG's share capital totaled €74,000 thousand and was divided into 74,000,000 registered shares. Each no-par value share arithmetically represents €1.00 of the Company's share capital. In accordance with the provisions of the German Stock Corporation Act (section 67, AktG), only those entered as such in the share register are deemed to be shareholders in relation to the Company. 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 Association. Each share entitles its holder to one vote. The exception to this are the treasury shares held by the Company, which do not confer any rights to the Company. The voting rights associated with the shares concerned are nullified by law in those cases to which section 136 of AktG applies.

CAPITAL INTEREST EXCEEDING 10 PERCENT OF VOTING RIGHTS

The Software AG Foundation, Darmstadt, Germany, holds approximately 31 percent of Software AG's outstanding shares. The foundation is a separate non-profit legal entity and is devoted worldwide to the fields of therapeutic pedagogy, social therapy, education, services to youth and senior citizens, the environment, and research. There are no other shareholders with an interest in Software AG's share capital exceeding 10 percent of voting rights.

PROVISIONS ON THE APPOINTMENT/ DISMISSAL OF MANAGEMENT BOARD MEMBERS AND AMENDMENTS TO THE ARTICLES OF ASSOCIATION

Management Board members are appointed and dismissed in accordance with section 84 et seqq. of AktG. The Management Board consists of multiple members in accordance with section 7(1) of the Articles of Association; the number of Management Board members is determined by the Supervisory Board. All amendments to the Articles of Association are to be adopted at the Annual Shareholders' Meeting by at least a three-fourths majority of the share capital represented at the time of the resolution in accordance with section 179 of AktG unless the Articles of Association stipulate otherwise. Section 19(1) of the Articles of Association stipulates that resolutions of the Annual Shareholders' Meeting can generally be adopted through a simple majority of votes cast; if aside from the majority of votes, a capital majority is required by law, resolutions can be adopted through a simple majority of votes cast and a simple majority of the share capital represented at the time of the resolution. Section 12(2) of the Articles of Association confers the power to make amendments relating to the wording only of the Articles of Association to the Supervisory Board. Furthermore, the Supervisory Board is authorized by way of Annual Shareholders' Meeting resolutions, to amend section 5 of the Articles of Association based on the respective utilization of authorized and conditional capital and after expiration of the respective authorization or utilization period.

THE MANAGEMENT BOARD'S POWERS TO ISSUE OR REPURCHASE SHARES

Pursuant to the resolution of the Annual Shareholders' Meeting on May 12, 2021, the Management Board is authorized, subject to the consent of the Supervisory Board, to issue bearer and/or registered warrant and/or convertible bonds or combinations of these instruments (bonds) up to a total value of €750,000,000 with or without a specified maturity date and to grant bond owners or holders the right to convert the bonds to new no-par value registered shares in the Company representing up to a proportional amount of the share capital of €14,800,000, which are secured by the corresponding conditional capital in section 5(3) of the Articles of Association. This authorization may be exercised until May 11, 2026.

Pursuant to a resolution from December 13, 2021, and with the consent of the Supervisory Board on the same date, the Management Board utilized its authorization to issue convertible bonds, excluding subscription rights, to the Silver Lake Group with a nominal value of €344.3 million. These bonds entitle the holders to convert them to a maximum of 7.4 million Software AG shares. The corresponding subscription agreement was signed on February 3, 2022, and the closing of the transaction was on February 15, 2022.

Pursuant to section 5(2) of the Articles of Association, the Management Board is 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 11, 2026, up to a total of €14,800,000, by issuing new no-par value registered shares against cash contributions or contributions in kind (authorized capital). In doing so, the number of shares must increase in proportion to the share capital.

For more information on the authorized capital and conditional capital described above, please refer to section 5 of Software AG's Articles of Association.

Furthermore, in accordance with the resolution passed at the Annual Shareholders' Meeting on May 12, 2021, the Management Board is authorized to purchase treasury shares on or before May 11, 2026, representing a proportional amount of the share capital of up to 10 percent of the existing share capital at the time of the resolution. The treasury shares are to be purchased on the stock market or through a public purchase offer addressed to all shareholders of the Company or a public invitation to submit an offer to sell. 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 AktG, may not account for more than 10 percent of the respective share capital at any time.

The complete version of the described authorizations and of the Management Board's explanation can be found in the agenda for the Annual Shareholders' Meeting on May 12, 2021, at Annual Shareholders' Meeting on the corporate website, and Software AG's Articles of Association at Statutes.

For more information on conditional capital, authorized capital, and the purchase of treasury shares, please also refer to Note [27] in the Notes to the Consolidated Financial Statements and to the Notes to the Balance Sheet under Shareholders' Equity in the Notes to the Annual Financial Statements.

SIGNIFICANT AGREEMENTS CONTINGENT UPON A CHANGE OF CONTROL RESULTING FROM A TAKEOVER BID AND COMPENSATION AGREEMENTS WITH MEMBERS OF THE MANAGEMENT BOARD OR EMPLOYEES IN THE EVENT OF A TAKEOVER BID

The lenders of the syndicated credit line in the maximum amount of €300 million are entitled—provided they are not replaced—to decline any new withdrawals if one or more persons acting in concert (except Software AG Foundation, its members or companies controlled by them) obtain more than 50 percent of voting or dividend rights or the right to appoint more than half the members of the Supervisory Board. The relevant lenders are entitled to call any amounts already borrowed (plus interest accrued and any other amounts due) and terminate the credit facility.

With respect to loan agreements with the European Investment Bank in the original amount of €430 million, of which €326.7 million had been drawn as of December 31, 2022, the bank is entitled to terminate the unused portion of the loan if one or more persons acting in concert obtain more than 50 percent of voting or dividend rights, the right to appoint more than half the members of the Supervisory Board, or any other comparable controlling influence. Any amounts already borrowed (plus interest accrued and any other amounts due) can also be called prematurely and the credit facility terminated.

One Management Board contract stipulates that, if terminated without good cause within 12 months of a change of control, the Management Board member will receive a severance payment equal to 1.5 annual salaries based on the most recently agreed annual target remuneration, capped at the amount of target remuneration for the remaining term of the contract. In case of resignation by a member of the Management Board, the above mentioned policy 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 Plan 2019, must be paid out at fair value to the relevant plan participants within the term of the rights.

In the event of a change of control, the holders of the convertible bonds issued in February 2022 on the basis of the Management Board's resolution on December 13, 2021, and the approval of the Supervisory Board on the same date, are entitled to convert their bonds to Software AG shares or, alternatively, demand reimbursement plus interest (that which has accrued and is due by maturity).

Other takeover-related disclosures not mentioned in this section do not apply to Software AG in accordance with sections 289a, 315a of HGB.

Corporate Governance Statement

Software AG submitted its Corporate Governance Statement/Consolidated Corporate Governance Statement on February 23, 2023 and published it on its website.

This statement includes the Declaration of Compliance with the German Corporate Governance Code pursuant to section 161 of AktG, which was submitted separately and published on the corporate website on January 30, 2023.