KUKA AKTIENGESELLSCHAFT

SUPERVISORY BOARD REPORT

CONSOLIDATED FINANCIAL REPORT und

ANNUAL FINANCIAL STATEMENTS 2020

SUPERVISORY BOARD REPORT

CONSOLIDATED FINANCIAL REPORT OF KUKA AKTIENGESELLSCHAFT

ANNUAL FINANCIAL STATEMENTS OF KUKA AKTIENGESELLSCHAFT

Supervisory Board report

Dear Shareholders,

The 2020 fiscal year was a difficult one for KUKA Group. KUKA already felt the effects of the global COVID-19 pandemic in the first quarter of 2020. The pandemic-related lockdowns in virtually all countries relevant to KUKA's business rendered access to our customers more difficult. Additionally, the automotive sector, which is particularly important for KUKA, was severely impacted by the COVID-19 pandemic in 2020. In response to declining sales figures as a result of the pandemic and the general market situation, automotive manufacturers scaled back their investments and adjusted capacities. Even the signs of recovery that began to emerge in the second half of 2020 were unable to prevent KUKA Group from closing the financial year 2020 with a considerable loss overall. Based on all the information available to date, a further recovery of the global economy is to be expected for fiscal 2021. KUKA will also profit from this, as the demand for innovative automation solutions remains unbroken and should continue in the coming years.

The outstanding performance of KUKA Group employees deserves particular mention. As a result of the COVID-19 pandemic, they had to adapt very quickly to new working conditions. With great dedication, they ensured that customer orders were processed even under difficult circumstances, that supply chains were maintained and that important development projects were continued.

In the year under review, the Supervisory Board performed the duties incumbent upon it by law, the Articles of Association and the Rules of Procedure in full. The Supervisory Board and its committees monitored and advised the Management Board in its management of the company on the basis of regular and detailed reporting by the Management Board. Furthermore, there was an intensive exchange between the Chairman of the Supervisory Board and the Chairman of the Management Board as well as a regular exchange between the Chairmen of the Audit Committee and the Strategy and Technology Committee and the members of the Management Board. In this way, the Supervisory Board was always informed about the business policy, corporate planning, corporate risks and situation of the company and the Group as a whole.

Cooperation between the Supervisory Board and the Management Board was constructive.

The Supervisory Board performed its duties in plenary sessions, committee meetings, telephone and video conferences, and by means of circular resolutions. Due to the COVID-19 pandemic and the associated travel restrictions, the meetings of the Supervisory Board and its committees in the reporting period were held exclusively in virtual form by means of video conferencing.

Changes to the Management Board and Supervisory Board

The Management Board of KUKA Aktiengesellschaft currently consists of its Chairman Peter Mohnen (CEO) and Andreas Pabst (CFO). In addition, Prof. Dr. Peter Hofmann was a member of the company's Management Board until February 20, 2020.

During the reporting period, there was no cause to alter the quota for female Management Board members, which is currently set at 0%.

The Supervisory Board members representing the shareholders were elected by the Annual General Meeting on June 6, 2018. The employee representatives on the Supervisory Board were elected on April 10, 2018, in accordance with the provisions of the German Co-Determination Act (MitbestG), and with effect from the conclusion of the Annual General Meeting on June 6, 2018. The following changes have been made to the Supervisory Board since the last Supervisory Board report:

- Dr. Chengmao Xu was elected as a member of the Supervisory Board by the Annual General Meeting on June 19, 2020; he had previously been appointed by court order. He resigned as a member of the Supervisory Board with effect from January 17, 2021 and took up the position of Chief Development Officer at KUKA Aktiengesellschaft with effect from January 18, 2021.
- Helmut Zodl was appointed by court order to the Supervisory Board as Alexander Tan's successor with effect from January 24, 2020. The Annual General Meeting on June 19, 2020, then elected Helmut Zodl as a member of the Supervisory Board. Helmut Zodl is Chairman of the Audit Committee.
- Lin (Avant) Bai was appointed by court order to the Supervisory Board as Dr. Chengmao Xu's successor with effect from February 23, 2021.

At the time the report of the Supervisory Board was submitted, the Board was thus composed of the following members:

Shareholder side:	Dr. Yanmin (Andy) Gu (Chairman) Lin (Avant) Bai Prof. Dr. Henning Kagermann Min (Francoise) Liu Dr. Myriam Meyer Helmut Zodl
Employee side:	Michael Leppek (Deputy Chairman) Wilfried Eberhardt Manfred Hüttenhofer Armin Kolb Carola Leitmeir Tanja Smolenski

With four females out of a total of twelve acting members, the proportion of women on the Supervisory Board amounted to 30% at the end of the year under review.

Supervisory Board meetings

In 2020, the year under review, five ordinary and three extraordinary Supervisory Board meetings were held. Furthermore, two resolutions were passed by written circulatory procedure.

The first extraordinary meeting of the Supervisory Board was held on January 29, 2020; it dealt with the introduction of Helmut Zodl and the composition of the Audit Committee.

Another extraordinary meeting was held on February 19, 2020, at which the termination of the employment contract of Prof. Peter Hofmann as CTO of the company was discussed and resolved.

The first ordinary meeting of the Supervisory Board took place on March 25, 2020. The Management Board first reported on the situation of the company and the Group. The Supervisory Board meeting was centered on the 2019 annual financial statements prepared for KUKA Aktiengesellschaft and the Group. In its role as auditor, KPMG presented a report and the Chairman of the Audit Committee made a statement. Both sets of annual accounts were approved by the Supervisory Board, which meant that the annual financial statements of KUKA Aktiengesellschaft were thereby adopted. The Supervisory Board also had to reach a decision on the proposal regarding appropriation of the 2019 balance sheet profit. The Supervisory Board approved both the Corporate Governance report and the Supervisory Board report for 2019. The Supervisory Board also dealt with the sustainability report pursuant to sections 315b, 315c, 289c of the German Commercial Code (HGB). The Supervisory Board reviewed this report – as the Audit Committee had done in advance – and raised no objections to it. The Board then decided on the proposed resolutions for the Annual General Meeting planned for June 19, 2020. The Supervisory Board dealt with other operational issues as well as the determination of the variable remuneration of the Management Board members for the past financial year.

On the day of the Annual General Meeting held on June 19, 2020, the Supervisory Board convened for ordinary meetings before and after the Annual General Meeting. At the meeting prior to the Annual General Meeting, the Management Board again reported on the situation of the company and the Group. The Supervisory Board then prepared itself for the Annual General Meeting. In the meeting following the Annual General Meeting, the composition of the Strategy and Technology Committee and the Audit Committee was discussed and approved. The reporting on the internal control systems (ICS report 2019) was also carried out. The Supervisory Board also addressed the restructuring of KUKA Systems EMEA and an operational issue at Swisslog Healthcare. As part of regular professional development, the attorney Dr. Christian Vogel gave a lecture on the subject of "rights and obligations of Supervisory Board members".

Another regular Supervisory Board meeting was held on September 22, 2020. The Management Board also reported on the situation of the company and the Group at the meeting. Other topics included the status of the restructuring measures that had been initiated and the report from the Strategy and Technology Committee. Additionally, the Supervisory Board was informed of a resolution deficiency action filed by several shareholders regarding the resolution of the Annual General Meeting on June 19, 2020, on the discharge of the Supervisory Board for fiscal 2019 see page 9.

The last ordinary meeting of the Supervisory Board in fiscal 2020 was held on November 12, 2020. The Management Board once again reported to the Supervisory Board on the situation of the company and the Group. Another key focus of this meeting was the budget for 2021 and the medium-term planning up to 2023. The chairs of the Supervisory Board committees then presented a summarized report on the work of the Personnel Committee, the Audit Committee and the Strategy and Technology Committee. The Supervisory Board also discussed and approved internal Group restructuring measures. Finally – in the absence of the Management Board – the Supervisory Board discussed matters pertaining to the Management Board and discussed initial proposals for a new Management Board remuneration model.

Another extraordinary Supervisory Board meeting was held on December 17, 2020. At this meeting, which was held in the absence of the Management Board, the Supervisory Board set the personal targets and financial targets of the Management Board members for fiscal 2021; the Long Term Incentive Plan 2021 – 2023 for the Management Board members was also adopted. At this meeting, the Supervisory Board also adopted its new rules of procedure.

In the period leading up to the submission of this report, an extraordinary meeting of the Supervisory Board was held on March 3, 2021. At this meeting, the Supervisory Board dealt with the new compensation system for the Management Board and oher matters of the Management Board.

The first ordinary Supervisory Board meeting in 2021 took place on March 24, 2021.

Meetings of the Supervisory Board committees

The Supervisory Board has a total of five committees. The duties and members of the committees are listed in detail in the section "Declaration on corporate governance" and are also available on the company's website at www.kuka.com.

The Personnel Committee convened a total of four times in the 2020 reporting year. It dealt with all topics pertaining to Management Board matters, including the departure of Prof. Dr. Peter Hofmann, Management Board compensation and the new compensation model for the Management Board from 2021 onwards.

The Personnel Committee has held further meetings during the current fiscal year 2021 (before submission of the report). The main topics of discussion were the new compensation system for the Management Board and further matters of the Management Board.

The Audit Committee held six meetings in fiscal 2020. At the meetings, the quarterly reports of KUKA Aktiengesellschaft and KUKA Group were discussed. Other recurring topics were the current forecast, risk reporting, toxic projects, the reports of the Chief Compliance Officer and the reports of the Head of Internal Audit. Furthermore, special topics were dealt with in depth at various meetings of the Audit Committee. At the meeting on March 11, 2020, the Audit Committee focused on the 2019 financial statements of KUKA Aktiengesellschaft and KUKA Group and their audit by the auditors. The Audit Committee also discussed the invitation to tender for the audit of the annual financial statements and consolidated financial statements for 2020.

In preparation for the Supervisory Board's financial statements meeting on March 24, 2021, a regular meeting of the Audit Committee was held on March 11, 2021.

The Strategy and Technology Committee convened six times in fiscal 2020. The strategy for the Group as a whole and for the individual segments was discussed. Other key topics included specific product developments and market launches, as well as regional market positioning.

In the period prior to submission of this report, a further meeting of the Strategy and Technology Committee was held on March 23, 2021.

The Nomination Committee convened on March 24, 2020. The Nomination Committee prepared the Supervisory Board's proposal to the Annual General Meeting on June 19, 2020 for the election to the Supervisory Board of Dr. Chengmao Xu and Helmut Zodl as shareholder representatives.

In the current fiscal year 2021, the Nomination Committee convened on March 18, 2021. At this meeting, the Nomination Committee prepared the Supervisory Board's proposal to the Annual General Meeting on May 21, 2021 for the election to the Supervisory Board of Lin (Avant) Bai as a shareholder representative.

There was no occasion to convene the Mediation Committee.

The members of the Supervisory Board attended the following meetings of the Supervisory Board and the committees in the 2020 reporting year:

	Supervisory Board (as a whole)		Nomination Committee		Personnel Committee		Audit Committee		Strategy and Technology Committee	
Number of meetings Attendance in %	Number	in %	Number	in %	Number	in %	Number	in %	Number	in %
Dr. Andy Gu Chairman	8 / 8	100	1 / 1	100	4 / 4	100	6 / 6	100	6 / 6	100
Michael Leppek Deputy Chairman	8 / 8	100			4 / 4	100	6 / 6	100	6 / 6	100
Wilfried Eberhardt	8 / 8	100								
Manfred Hüttenhofer	8 / 8	100							6 / 6	100
Prof. Dr. Henning Kagermann	8 / 8	100							6 / 6	100
Armin Kolb	8 / 8	100			4 / 4	100			6 / 6	100
Carola Leitmeir	8 / 8	100					6 / 6	100	6 / 6	100
Francoise Liu	8 / 8	100	1 / 1	100	4 / 4	100			6 / 6	100
Dr. Myriam Meyer	8 / 8	100					6 / 6	100	6 / 6	100
Tanja Smolenski	8 / 8	100					6 / 6	100		
Dr. Chengmao Xu	8 / 8	100							3 / 3*	100
Helmut Zodl	8 / 8	100					6 / 6	100		
		100		**100**		**100**		**100**		**100**

*Dr. Chengmao Xu was appointed to the Strategy and Technology Committee after the Annual General Meeting on June 19, 2020. He attended all meetings of the Strategy and Technology Committee held after the Annual General Meeting on June 19, 2020.

Independence and conflicts of interest, Declaration of Compliance

Supervisory Board members Dr. Yanmin (Andy) Gu and Ms. Min (Francoise) Liu have employment contracts with Midea Group, which holds a 94.5% stake in KUKA Aktiengesellschaft. Dr. Yanmin (Andy) Gu also holds an executive position within this group. Dr. Chengmao Xu resigned from his office as a member of the Supervisory Board with effect from January 17, 2021. Mr. Helmut Zodl was employed by Midea Group until January 31, 2021, but took up a new post with GE Healthcare in Chicago with effect from February 1, 2021.

The Supervisory Board and the Management Board submitted identically worded declarations in accordance with section 161 of the German Stock Corporation Act (AktG). The resolutions were adopted by the Management Board and the Supervisory Board on February 11, 2021. The Declarations of Compliance were made permanently available to shareholders on the company's website.

Work with the auditors

The annual financial statements of KUKA Aktiengesellschaft as at December 31, 2020 and the Group financial statements as at December 31, 2020, as well as the consolidated management report for KUKA Aktiengesellschaft and KUKA Group, including the bookkeeping, were audited by auditors PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Frankfurt am Main ("PricewaterhouseCoopers"), which issued an unqualified audit opinion in each case on March 11, 2021.

The auditors also reviewed the monitoring system as per section 91 para. 2 of the German Stock Corporation Act (AktG), the purpose of which is the early detection of developments that could threaten the company's existence. KUKA Aktiengesellschaft's consolidated financial statements were prepared in accordance with section 315e para. 1 of the German Commercial Code (HGB) based on the International Accounting Standards (IFRS) as adopted by the European Union.

The Supervisory Board's Audit Committee appointed the external auditors, PricewaterhouseCoopers, as per the resolution at the Annual General Meeting of June 19, 2020. During the course of appointing the auditors of the financial statements of the company and the Group, the chair of the Audit Committee and the Chairman of the Supervisory Board conducted a review with the auditors regarding key audit issues, scope and fees. The auditors agreed to immediately inform the chair of the Audit Committee about any disqualification or bias issues encountered during the audit, provided such disqualification or bias issues could not immediately be resolved. The auditors also agreed to report on an ongoing basis during the audit all material findings and developments arising during the audit that were within the scope of the Supervisory Board's responsibilities. Furthermore, the auditors were instructed to inform the Supervisory Board, or note in the audit report, if information was encountered during the audit that was contrary to the declarations released by the Management Board and Supervisory Board as per section 161 para. 1 sentence 1 of the German Stock Corporation Act (AktG).

Finally, the Audit Committee obtained the arm's length declaration of the auditors and monitored the auditors' independence.

As in the previous years – always in respect of different topics – key issues were defined for the audit in fiscal 2020. These were: determination of risk provisioning pursuant to IFRS 9, revenue recognition pursuant to IFRS 15, lease accounting pursuant to IFRS 16, scope of consolidation pursuant to IFRS 13, internal (risk) reporting and valuation of (loss-making) projects, as well as subsidies and project risks in China. Further topics were the recognition of deferred taxes, the impairment of goodwill and the dependency report.

In a joint meeting with the auditors on March 11, 2021, the Audit Committee reviewed the annual financial statements of KUKA Aktiengesellschaft and the consolidated financial statements for fiscal 2020, taking into consideration the auditors' reports. The Management Board and the auditors presented the highlights of the financial reports to the committee. The Audit Committee members reviewed, discussed and checked in detail the documentation relating to the financial statements and discussed the audit report in depth with the auditors. The auditors answered the questions posed by the Audit Committee members. The Audit Committee reported to the Supervisory Board on the results of its discussions during the Board's meeting on March 24, 2021 and recommended that the Board approve KUKA Aktiengesellschaft's annual financial statements and KUKA Group's consolidated annual financial statements for 2020.

The full Supervisory Board reviewed the draft annual financial statements and the Management Board's recommendation on appropriation of net income on March 24, 2021.

The auditors, PricewaterhouseCoopers, attended the Supervisory Board meeting in order to report on material findings in the audit and to provide additional information. All members of the Supervisory Board were in possession of the audit reports provided by the auditors.

PricewaterhouseCoopers explained in detail the assets, liabilities, financial position and profit or loss of the company and the Group and also reported that there were no material weaknesses in the internal control system relating to the accounting process and the risk early detection system. The Board and the auditors jointly reviewed and discussed the financial statements and PricewaterhouseCoopers answered all questions posed by the Audit Committee. The audits of the KUKA Aktiengesellschaft and KUKA Group annual financial statements for 2020 were thus fully comprehensible.

Furthermore, in the meeting on March 24, 2021, a sustainability report for 2020 prepared for KUKA Group pursuant to sections 315b, 315c, 289c of the German Commercial Code (HGB) was reviewed by the plenum following discussion by the Audit Committee. There were no objections.

Dependency report 2019 and 2020

In view of Midea's shareholder status, the Supervisory Board had to address, on March 25, 2020, the report on relations with affiliated companies (dependency report) prepared by the Management Board for fiscal 2019 pursuant to section 312 of the German Stock Corporation Act (AktG). This report was reviewed by KPMG in its role as auditor for fiscal 2019. Following preparatory discussion by the Audit Committee, the Supervisory Board conducted a further review. All reviews confirmed the Management Board's final declaration that, with regard to the business relationships of KUKA Group with Midea companies in the 2019 fiscal year, appropriate compensation was received and KUKA companies did not suffer any disadvantages therefrom.

Several shareholders have filed a resolution deficiency action before Regional Court Munich I against the resolution of the Annual General Meeting of June 19, 2020, on the discharge of the Supervisory Board members for fiscal 2019 on the grounds that the report of the Supervisory Board in the Annual Report 2019 does not contain the verbatim reproduction of the audit opinion on the dependency report. On January 20, 2021, KUKA Aktiengesellschaft and the plaintiff shareholders reached an agreement to the effect that KUKA Aktiengesellschaft will make up for the missing verbatim reproduction of the audit opinion by including it in the 2020 Supervisory Board report. The audit opinion on the dependency report for fiscal 2019 reads verbatim as follows:

Audit results and audit opinion

Based on the final results of our audit, there are no objections within the meaning of section 313 para. 4 of the German Stock Corporation Act (AktG) to the report of the Management Board on relations with affiliated companies. We therefore issue the following unqualified audit opinion pursuant to section 313 para. 3 of the German Stock Corporation Act (AktG) on the report of the Management Board on relations with affiliated companies of KUKA Aktiengesellschaft, Augsburg, for fiscal 2019 as set out in Annex 1:

To KUKA Aktiengesellschaft, Augsburg

Based on our audit and assessment in accordance with professional standards, we confirm that

1. the factual statements made in the report are correct,
2. the payment made by the company for the legal transactions listed in the report was not unreasonably high,
3. there are no circumstances that would indicate a materially different assessment of the measures listed in the report than that of the Management Board.

Augsburg, March 11, 2020

KPMG AG

Wirtschaftsprüfungsgesellschaft

On March 24, 2021, the Supervisory Board dealt with the report on relationships with affiliated companies (dependency report) prepared by the Management Board pursuant to section 312 of the German Stock Corporation Act (AktG) for fiscal 2020. This report was reviewed by PricewaterhouseCoopers in its role as auditor for fiscal 2020. Following preparatory discussion by the Audit Committee, the Supervisory Board conducted a further review. All reviews confirmed the Management Board's final declaration that, with regard to the business relationships of KUKA Group with Midea companies in the 2020 fiscal year, appropriate compensation was received and KUKA companies did not suffer any disadvantages therefrom.

The audit opinion on the dependency report for fiscal 2020 reads verbatim as follows:

Audit results and audit opinion

In accordance with our mandate and section 313 of the German Stock Corporation Act (AktG), we have audited the report of the Management Board on relations with affiliated companies pursuant to section 312 AktG for the 2020 fiscal year. Since the final results of our audit do not give rise to any objections, we issue the following audit opinion in accordance with section 313 para. 3 sentence 1 AktG:

Based on our audit and assessment in accordance with professional standards, we confirm that

1. the factual statements made in the report are correct,
2. the payment made by the company for the legal transactions listed in the report was not unreasonably high,
3. there are no circumstances that would indicate a materially different assessment of the measures listed in the report than that of the Management Board.

Munich, March 10, 2021

PricewaterhouseCoopers GmbH

Wirtschaftsprüfungsgesellschaft

Adoption of 2020 financial statements

After completing its own review of the financial statements for 2020 for KUKA Aktiengesellschaft and KUKA Group, and with full knowledge and consideration of the Audit Committee report, the auditors' reports and the explanations provided, the Supervisory Board raised no objections to the results and concurred with the auditors' findings at its meeting on March 24, 2021. In the opinion of the Supervisory Board, the auditors' reports comply with the legal requirements stipulated in sections 317 and 321 of the German Commercial Code (HGB).

The Supervisory Board is satisfied that the consolidated management report compiled for KUKA Aktiengesellschaft and KUKA Group is complete. The assessments made by the Management Board in the management report are in agreement with its reports to the Supervisory Board, and the statements made in the consolidated management report are also in agreement with the Supervisory Board's own evaluations. At the conclusion of its review, the Supervisory Board found no cause to raise objections to the consolidated management report. The Supervisory Board also reviewed the Group's sustainability report at its plenary meeting and raised no objections.

In its financial statements meeting on March 24, 2021, the Supervisory Board therefore approved KUKA Aktiengesellschaft's financial statements for fiscal 2020 as prepared by the Management Board. The annual financial statements are thereby adopted. The Supervisory Board also approved KUKA Aktiengesellschaft's consolidated financial statements for the 2020 fiscal year as prepared by the Management Board.

The Management Board recommended payment of a dividend of €0.11 per no-par-value share with dividend entitlement from the balance sheet profit. The Supervisory Board reviewed this recommendation at its meeting on March 24, 2021 and endorsed it.

Thanks to the staff

The Supervisory Board would like to thank all employees of the KUKA companies for their great dedication and hard work, especially during the COVID-19 pandemic. The Supervisory Board once again extends its thanks to the members of the Management Board, the CEOs of the Group companies and the employee representatives.

Augsburg, March 24, 2021

The Supervisory Board

Dr. Yanmin (Andy) Gu

Chairman

Consolidated management report

Fundamental information about the Group

Group structure and business activities

KUKA is one of the world's leading automation specialists and supports its customers in the holistic optimization of their value creation by providing comprehensive automation and digitalization know-how.

The global technology corporation offers its customers a full range of products and services from a single source: from the core component – such as robots, automated guided vehicles (AGVs) and other automation components – to production cells, turnkey systems and networked production with the aid of cloud-based IT tools. Through its advanced automation solutions KUKA contributes to increased efficiency and improved product quality for its customers.

Industrie 4.0 – the next stage of the Industrial Revolution – is bringing digital, networked production, flexible manufacturing concepts and logistics solutions, as well as new business models to the fore. With its decades of experience in automation, in-depth process know-how and cloud-based solutions, KUKA ensures its customers are well ahead of the competition.

KUKA focuses on its customers and therefore divides its operating activities into the following five segments: Systems, Robotics, Swisslog, Swisslog Healthcare and China. The holding functions are pooled in the Corporate Functions segment, which mainly comprises KUKA AG.

Systems division

In an age of e-mobility, intelligent vehicles and entirely new services, the automotive industry is undergoing changes in all areas – from development and production to logistics. The Systems division is a partner for the automotive sector in the fields of robotics, automation and intralogistics. With adaptable, modular and automated manufacturing and logistics processes, Systems supports the automotive industry in making its production processes more efficient. Systems has been a strategic partner for major manufacturers worldwide for decades and is already working with its customers today on flexible, scalable concepts and solutions for the factory of tomorrow. As an automation specialist for hardware and software solutions, Systems is providing the crucial impulses for transforming the vision of Industrie 4.0 into corporate reality. From engineering and testing to servicing, its expertise serves a single purpose: to give its customers a decisive edge at all times. Driven by this commitment, Systems sets new global standards time and again. The Systems portfolio covers the entire value chain of a system: from individual system components, tools and fixtures to complete turnkey systems.

Markets in Germany and elsewhere in Europe are served from the headquarters in Augsburg, while the Greater Detroit area in the USA is responsible for the North/South America region, and Shanghai in China manages the Asian market. In Toledo, USA, KUKA Toledo Production Operations (KTPO) manufactures the Jeep® Gladiator for Chrysler under the terms of a pay-on-production contract.

Robotics division

The core component for automating production processes is supplied by the Robotics division: industrial, collaborative and mobile robots – together with robot controllers, software and digital services for the Industrial Internet of Things. The broad product portfolio – ranging from traditional 6-axis robots to SCARA robots – covers payload ranges from three to 1,300 kilograms. In addition, the Robotics portfolio includes robot-based, modular manufacturing cells for a wide range of applications. This enables KUKA to meet the various requirements of its customers optimally. Robotics also offers comprehensive support services. Customers can attend technical training and professional development courses in KUKA Colleges at more than 30 sites worldwide. Most robot models are developed, assembled, tested and shipped in Augsburg. The control cabinets are produced in two Hungarian plants, in Taksony and Füzesgyarmat.

KUKA Robotics is continuously expanding the range of products so as to offer customers from all kinds of sectors the solutions that are appropriate for them and to allow even small and medium enterprises to use robots economically. Research & development activities have an important role to play here. The trend is also towards robots that are simple to program, flexible to deploy and easily integrated and networked. Enhanced with mobility and autonomous navigation, robots are being transformed into flexible production assistants that are becoming more and more intelligent.

KUKA's new products and technologies open up additional markets and create new applications for robot-based automation. Robots will play a key role in the factory of the future. By taking these measures, industrial nations will be able to expand their competitiveness and, at the same time, counteract demographic change.

Swisslog division

With its Swisslog division, KUKA is tapping the growth markets of e-commerce/retail and consumer goods in the field of intralogistics. Based in Buchs, Aarau, Switzerland, Swisslog serves customers in over 50 countries worldwide.

The division implements integrated automation solutions for forward-looking warehouses and distribution centers. As a general contractor, this division offers complete turnkey solutions, from planning through to implementation and service, employing data-driven and robot-based automation in particular. Swisslog offers smart technologies, innovative software and adapted support services to ensure that the competitiveness of its customers in the logistics sector is sustainably improved. By combining Swisslog logistics solutions with the robotic automation solutions of the other divisions of the Group, KUKA offers new possibilities of flexible automation along the entire value chain.

Swisslog Healthcare division

The Swisslog Healthcare division (HCS) develops and implements automation solutions for modern hospitals. The aim is to boost efficiency and increase patient safety. With the aid of process optimizations in the field of medication management during and after in-patient treatment, hospital staff and pharmacists can gain more time for personal care and consultation. At the same time, the use of automation solutions can reduce the incidence of medication errors.

China division

The China segment comprises all business activities of the Chinese companies in the Systems, Robotics, Swisslog and Swisslog Healthcare divisions. In addition to KUKA industrial robots, automation solutions such as warehouse management systems and healthcare systems are developed, offered and marketed in China. Industrial robots are manufactured at the locations in Shanghai and Shunde and sold on the Chinese market. Furthermore, new robot models, such as the SCARA robot, are developed in China.

Markets and competitive positions

Automation in the worlds of production and logistics is continuously advancing. Many factories are no longer imaginable without it. The role of the robot in production shops has undergone great change. Whereas in the past, isolated robots were used to automate individual tasks and process steps behind safety fences, the current trend is towards intelligent assistants that can be fully integrated into production operations and work hand in hand with human operators. General industry is also profiting from this development and thus small and medium-sized companies whose production until now has hardly been automated. This is one major reason why global robot density is increasing year by year. At the same time, there is a focus on the gradual transformation to smart, digital production. Data collection, analysis and evaluation provide new opportunities for making processes more efficient and production facilities competitive for demanding markets.

In 2020, around 50% of KUKA's total sales revenues were generated from the automotive target market. The automotive industry thus remains an important pillar in KUKA Group's success. The company is one of the market-leading automation firms for the automotive industry. Beyond this, there are also major opportunities for growth in markets outside the automotive sector, i.e. in general industry. KUKA was able to further expand its business here, particularly in its strategic market segments of electronics, consumer goods, healthcare and e-commerce/retail.

The Asia region shows growth potential, particularly in the Chinese market. KUKA has strengthened its presence in China in recent years.

In 2020, the global economy was at a historic low. The difficult political and economic situation was compounded by the coronavirus pandemic, and customers were reluctant to invest. The International Federation of Robotics (IFR) has forecast a recovery for the automation market in 2021 but does not expect the pre-crisis level to be reached again until 2022/2023. In the medium term, KUKA anticipates increased demand – particularly for robotic and automation solutions – as a result of the experiences made during the coronavirus crisis. Furthermore, catch-up effects from deferred investments are expected.

Corporate strategy

Megatrends such as digitalization, the customization of products, demographic changes, and also greater regionalization due to global uncertainties necessitate increasingly flexible and at the same time more efficient solutions in production and logistics environments. In the medium term, these trends are set to further intensify, primarily as a result of the experience gained from the coronavirus crisis. This experience shows how important new business models are becoming which enable customers to flexibly adapt their processes to rapidly changing market needs. New business models will thus fundamentally and permanently transform not only production in the future, but also the value creation process as a whole. Ever more companies, especially in markets that have not yet been automated to a great extent, are thinking about automating their core processes. KUKA focuses on accompanying customers through these changes and supporting them in the holistic optimization of their value creation.

KUKA is therefore committed to continuously advancing its automation and digitalization expertise and driving its technology developments and innovations further forward. As an automation specialist, KUKA offers its customers tailor-made solutions to ensure that they remain competitive in the face of sharp changes in the business environment and global challenges.

With the vision of becoming the first choice for intelligent automation and thus ensuring the long-term success of the company, KUKA is focusing on three strategic directions:

1. Focus on leadership in technology and innovation

KUKA sets technological standards and stands for innovations in data- and robot-based automation
KUKA moves in a highly dynamic, innovation-driven market environment, which is being continuously redefined. Robot-based automation is a megatrend in this context. In order to benefit from global trends and to optimally leverage in-house expertise, the Group is concentrating on leadership in innovation and technology. New business models are in greater demand than ever because customers are being confronted with new challenges posed by increasing type variety, more

frequent changes of model and fluctuating production quantities. They require flexible automation solutions with quickly adaptable production cells. And the conversion times of the systems must be as short as possible. Together with customers and partners, KUKA is developing smart products and solutions for the intelligent factory of the future. The robot is a key component in these endeavors. With a new generation of robots that are sensitive and can work hand in hand with humans, KUKA is setting new trends in robotics. While humans control and monitor production, collaborative robots complement their skills and perform arduous and non-ergonomic tasks. Enhanced by mobility and autonomous navigation, robots are becoming ever more intelligent and transforming into flexible production assistants. The trend is also towards robots that are simple to program, flexible to deploy and easily integrated and networked. With KUKA Marketplace and KUKA Connect, KUKA is digitalizing the customer experience and driving ahead with the transformation towards the factory of the future. KUKA Connect enables customers from a wide range of different industries to network machinery and systems digitally in the cloud and thus to access and analyze their data at any time and from anywhere.

In the field of intralogistics, KUKA concentrates on data-driven and robot-controlled automated logistics solutions. Here, Swisslog sets new standards in warehouse automation based on future-proof products. In 2020 Swisslog won the German Innovation Award in the “Machines & Engineering” category for its fully automated palletizing solution ACPaQ. Standardized automation solutions for core industries enhance material flow capabilities, maximize throughput and optimize life-cycle costs while being just as important as Swisslog’s SynQ warehouse management software for streamlining material flow processes. With growing research & development investments in its own products, Swisslog is increasingly becoming a one-stop provider of automated logistics solutions.

Drawing on decades of experience, Swisslog Healthcare supports hospitals and healthcare systems in optimizing their processes. Its combination of the areas of material handling and pharmacy automation is a unique selling point for Swisslog Healthcare and strengthens its position as one of the world’s leading providers of medication management. By networking these two specialist fields with software and analytics solutions, transparency is increased and cross-disciplinary efficiency is enhanced. Swisslog Healthcare focuses on developing holistic, industry-specific products and services for customers worldwide to shape the future of care by implementing flexible, effective and scalable solutions.

2. Business expansion: new markets, software & services

KUKA is continuously diversifying its business activities into high-growth, profitable business segments

KUKA concentrates on markets that are primarily characterized by high growth and profit potential and on regional growth opportunities, especially in fast-growing Asian countries. The degree of automation in many sectors is still relatively low, particularly when compared with the automotive industry. KUKA’s aim is to support its customers in the holistic optimization of their value creation processes by providing automation and digitization expertise. This enables processes to be designed for greater efficiency and flexibility. Additionally, it optimizes resource and energy consumption while raising quality. Through various acquisitions and their integration, KUKA has selectively expanded know-how here, making use of it to strengthen its own market position.

In 2020, KUKA further intensified its focus on the following strategic market segments:

Automotive / Tier 1

The automotive industry has always been of great significance for KUKA. It is a very important driver of technology and innovation. The automotive segment accounts for the largest share of sales revenues. KUKA will continue to grow around the world with its automotive customers and support them as a partner in automation, digitalization and electrification.

General industry

Probably the greatest advantage of robot-based automation is its high flexibility. Robots are not only used for handling and welding tasks, but also find a diverse spectrum of applications in different markets due to their wide-ranging functionalities. This opens up new growth opportunities while simultaneously reducing dependence on a specific industry. General industry markets, in other words non-automotive markets, include, for example, the metal and plastics industries, the construction sector and also the aerospace industry.

Electronics

The electronics industry is one of the most diverse sectors in the present-day industrial landscape. It encompasses the production of electrical household appliances, cutting-edge technologies such as semiconductors, solar cells, precision medical equipment and electronic automotive and aerospace components as well as industrial electronics. The most important submarket with the highest revenues is the 3C market (computers, communications and consumer electronics). In the electronics industry, we are expecting great demand for automation and a significant rise in the number of new robots deployed in the coming years.

E-commerce/retail

Electronic commerce results in large quantities of varied goods being sent to consumers via goods distribution centers. Fast and correct order fulfillment is crucial for profitable operations and can only be achieved in the long term through automation. The e-commerce segment is therefore an important sales market for smart logistics concepts based on intelligent software combined with innovative, robot-based automation.

Consumer goods

Robots have been efficiently supporting the production of fast-moving consumer goods (FMCG) for many years, especially in the food and beverage industry, but also in the manufacture of footwear or textiles, cosmetics and pharmaceuticals. New generations of robots that are sensitive and mobile are able to work hand in hand with humans. Supported by the software at the heart of each system, new areas of application are opened up along the process chain.

Healthcare

The healthcare sector is one of the most important growth markets of the future. Demographic change, medical innovations and the development of healthcare systems in emerging countries, as well as the resulting shortage of skilled workers and the increasing cost awareness of healthcare facilities, are creating a need for new solutions. The automated supply of medication can be part of the solution to the challenges in the healthcare sector: the aim is to boost efficiency and increase patient safety. With the aid of process optimizations in the field of medication management during and after in-patient treatment, hospital staff can free up more time for patient care. At the same time, the use of automation solutions can reduce the incidence of medication errors.

KUKA Medical Robotics offers a comprehensive portfolio of robotic components for integration into medical technology products: KUKA robots are used in applications ranging from X-ray imaging and radiation therapy to patient positioning and robot-based assistance systems for surgical procedures in operating rooms, or as a supporting partner in the field of rehabilitation.

3. Efficiency in practice – anchoring sustainable, efficient cost structures in day-to-day business

The past financial year was characterized by a general economic downturn, triggered by the coronavirus pandemic. However, even before the pandemic, political tensions between the USA and China, but also between the USA and Europe, were dampening economic developments. As a result of the difficult underlying conditions, the cost structure in all divisions was intensively scrutinized and numerous measures were implemented at short notice to adjust to the current business situation. Our focus for the following financial year continues to remain on increased efficiency in all divisions.

Financial management system

Corporate management is based on the Group's strategy. The Group is managed on the basis of the key financial performance indicators derived from this. KUKA Group's financial targets are also key performance indicators (KPIs) that track the enterprise value of the company.

The most important KPIs for KUKA Group are orders received (included for the first time in 2020), revenues, EBIT margin and free cash flow. For the segments subject to reporting requirements, orders received, revenues and EBIT margin are among the most important KPIs. A forecast for orders received will therefore be given for the first time in fiscal 2021. The development of the financial targets is presented in the "Business performance" section and under "Financial position and performance". Operating earnings before interest and taxes (EBIT) are compared to sales revenues to determine the return on sales. This results in the EBIT margin. EBIT is determined for KUKA Group and the divisions. Free cash flow represents the funds available to pay the claims of equity and debt capital providers.

These key indicators are published and are included as criteria in KUKA Group's target and remuneration system. This ensures that all employees share the same goals.

An important early indicator of business performance for mechanical and systems engineering companies is the volume of orders received. Order backlog for a certain period is determined by subtracting sales revenues from orders received during that time. Order backlog is an indicator of the expected utilization of operational capacities in the coming months. Orders received and order backlog are determined for KUKA Group and for the divisions.

All key indicators are continuously tracked and reviewed by KUKA Group's management companies and its corporate accounting and controlling departments. Management analyzes any deviations from plan and decides on the necessary corrective actions required to achieve the targets.

Key performance indicators for KUKA Group over 5-year period

in € millions	2016	2017	2018	2019	2020
Orders received	3,422.3	3,614.3	3,305.3	3,190.7	2,792.2
Sales revenues	2,948.9	3,479.1	3,242.1	3,192.6	2,573.5
EBIT margin	4.3%	3.0%	1.1%	1.5%	-4.4%
Free cash flow	-106.8	-135.7	-213.7	20.7	37.0

Achievement of targets

In March 2020, KUKA published its targets for the full year 2020. KUKA predicted sales revenues at the previous year's level and a slight year-on-year increase in the EBIT margin to a low single-digit percentage, but pointed out that this forecast did not take possible effects of the coronavirus crisis into account. KUKA's business development was significantly impacted by the coronavirus pandemic. On publication of the interim report on August 5, 2020, the effects of the coronavirus crisis that were already visible by that time were included in the forecast. Taking these assumptions into account, it was expected that both revenues and the EBIT margin would be clearly below the previous year's level. A negative EBIT margin was predicted for the full year.

For 2020 as a whole, KUKA Group expected the market environment to remain difficult. That was because the weak global economy and the continuing uncertainties meant that customers were still holding back on investments. This applied to both automotive customers and customers in general industry. At that time, it was not possible to assess the risks of the coronavirus pandemic. However, KUKA worked on the assumption that these developments would have a negative impact on the market environment and expected a fall in demand in fiscal 2020.

From a sector perspective, KUKA predicted a stable development of the sales markets in general industry compared with the previous year. A decline was expected for the automotive industry as a whole, but this was coupled with the warning that the situation could worsen due to the coronavirus crisis.

2020 target values

in € millions	ACTUAL 2019	Target 2020 (March 2020 forecast)	Target 2020 (1st quarter forecast)	Target 2020 (2nd quarter forecast)	Target 2020 (3rd quarter forecast)	Ad hoc announcement Dec. 22, 2020[3]
Sales revenues	3,192.6	At prior-year level[1]	At prior-year level[1]	Significantly below prior-year level[2]	Significantly below prior-year level[2]	Around €2.6 billion
EBIT margin	1.5%	Rising slightly[1]	Rising slightly[1]	Significantly below prior-year level[2]	Significantly below prior-year level[2]	-4.1% to -4.6%

1 It was not yet possible to estimate the effects of the coronavirus crisis on the forecast results at the time of preparing the statement and they were therefore not taken into account in the forecast.

2 Including the coronavirus crisis effects visible at this time

3 Substantiation of the 2020 forecast

The target figures for sales revenues and EBIT margin published in March 2020 were not achieved due to the effects of the coronavirus pandemic, which were not foreseeable at that time. The Group generated sales revenues totaling €2,573.5 million (2019: €3,192.6 million). The EBIT margin was -4.4% compared with 1.5% in the previous year. Orders received were below expectations at €2,792.2 million (2019: €3,190.7 million). For detailed information on the development of the segments, please refer to "Business performance".

Earnings after taxes amounted to -€94.6 million and thus fell significantly below the previous year's level (2019: €17.8 million).

Free cash flow in fiscal 2020 was positive, amounting to €37.0 million. The forecast free cash flow, which was expected to be slightly higher than the previous year (2019: €20.7 million), was significantly exceeded. For detailed information, please refer to the chapter "Financial position and performance".

Research and development

The area of research and development (R&D) is of crucial importance for the sustainable and long-term success of KUKA. Research and development expenditure amounted to €178.0 million in 2020, higher than the value for the previous year (2019: €160.5 million).

KUKA's research and development activities are based on market needs, customer requirements and expected trends. KUKA's Corporate Research is active on a Group-wide scale and develops technologies for the Group companies. It collaborates closely with universities and institutes worldwide. Through its research and development activities, KUKA is able to open up new areas of application and further advance technological progress. In 2020, global R&D activities were reorganized. The R&D department in China was further expanded. Moreover, R&D activities were relocated from Austin (USA) to Germany and the Austin site was closed.

In the year under review, KUKA Group filed a total of 110 patent and utility model applications and 278 patents and utility models were granted. The focus was on innovations in the area of simplified use and on applications for current and future key technologies in industrial production, logistics, mobility and human-robot collaboration, as well as new products for focused growth markets such as Asia.

The research and development activities have led to the following results:

For top performance in production: KR SCARA*

As a robot of the latest generation, the compact KR SCARA is tailored in all parameters to flexible use in production. The two new KR SCARA robots make automation easier and more economical thanks to their flexibility. Both models are light and streamlined, yet offer outstanding speed and performance with a maximum payload of six kilograms. The KR SCARA robots feature an internally-routed media supply for air, power and data – a complete package for the smart integration of peripheral devices and fast adaptation of the KR SCARA robot to virtually any desired application. Whether for assembly of small parts, material handling or inspection – the KR SCARA robots are flexible in installation, highly precise in motion and modest in their maintenance requirements.

The new KR C5 controller generation*

The new KR C5 controller generation and the corresponding Micro variant will be replacing the KR C4 as the universal control system in the future. As the new standard platform, it forms the functional basis for the entire robot product range and all relevant software packages, offering companies more opportunities and delivering better results. The new generation can not only be seamlessly integrated into existing automation landscapes, but can also easily take on current KR C4 applications as a "functional twin". In addition, the KR C5 is significantly more compact and requires less energy than the previous generation.

Fast and precise treatment of tumors and metastases with robots*

The virtual knife, better known as the CyberKnife®, is an alternative to conventional radiotherapy. Equipped with a KUKA robot, the system is used in radiosurgery, i.e. treatment applying radiation with the utmost precision. Thanks to the integration of an image guidance system with robotic technology, accuracy within a millimeter is achieved. This means that high-precision robot- and image-guided radiotherapy can now be performed on tumors throughout the body.

In addition to the robotic component, several digital X-ray cameras and an infrared camera are integrated, which are required for tracking brain and spine treatments as well as organ movements. A breathing model can thus be computed, enabling radiation to be administered with pinpoint accuracy without damaging surrounding tissue. In addition, the integrated RoboCouch system – a robot-guided treatment table, also based on KUKA robotics – allows intelligent positioning of the patient in the planned treatment position from the control room without manual patient alignment. This shortens treatment times and ensures greater precision of radiosurgery. The treatment runs fully automatically with an accuracy of 0.5 millimeters – a degree of precision that no surgeon could match.

Maximum performance and flexibility in a streamlined design: the new KR CYBERTECH nano*

Whether as a handling robot, as a welding robot, for palletizing or for adhesive application: the wide range of models and equipment of the new KR CYBERTECH nano from KUKA ensures almost unlimited application possibilities. In the low payload category between six and ten kilograms, the cost-effective robot stands out for its speed and outstanding precision while keeping investment and maintenance costs low.

The new robot also excels in the handling of sensitive electronic components, being protected against uncontrolled electrostatic charge or discharge (ESD). Even humid or harsh environments are no problem for the KR CYBERTECH nano: the main axes are protected to IP 65 against dust and water, the wrist axes even to IP 67.

The KR CYBERTECH nano is optimized for use with the new-generation KR C5 robot controller from KUKA in combination with the latest KUKA.SystemSoftware KSS 8.7. The integrated 600 V technology ensures high performance, while the finely tuned Motion Modes allow the robot to work precisely, quickly and adaptably. Its high repeatability at any speed makes the KR CYBERTECH nano well suited for compact cells, complex tasks and challenging production chains. The further refined motion characteristics compared to the previous series guarantee precise continuous-path performance.

COVID-19 test robot in continuous action combating the virus*

The LBR iiwa test robot that has been in operation in the laboratory of Bulovka Hospital in Prague since mid-March 2020 adds a solution to nasopharyngeal swabs from patients in order to detect the genetic material of the coronavirus. A positive test result indicates that the patient is infected with coronavirus. The laboratory handles some 300 to 400 samples per day, with the laboratory staff examining up to 670 samples a day at peak times when the pandemic broke out. Use of the test robot has greatly simplified the test procedure: by means of a pipette, the KUKA laboratory robot adds a chemical to the samples one after the other, checking with its integrated industrial balance whether the correct amount of liquid has been added. The KUKA robot can pipette up to 700 samples per day in the coronavirus application. For the hospital, the test robot brings relief in two respects: the Czech Institute of Informatics, Robotics and Cybernetics (CIIRC) at the Czech Technical University in Prague (CTU) is providing the robot free of charge. In just 14 days, from the initial planning meeting to the first use in the laboratory, researchers and students at the university had designed the mechanical assistant, configured it with a pipette and computer-controlled balance, and programmed it to pipette the samples. The KUKA laboratory robot has now been working untiringly in the coronavirus application since the beginning of April.

Intelligent intralogistics in production*

The key factor for versatile production is the connectivity of industrial production processes and components. IIoT and autonomous material handling systems are important drivers enabling fully automated and versatile intralogistics concepts. Using artificial intelligence, the KUKA AIVI master control system controls the automated guided vehicles (AGVs), optimizing the flow of materials to the production line and ensuring perfect utilization of the AGVs at the same time. KUKA AIVI controls all intralogistics production processes for faster throughput times, a more efficient supply chain and thus greater cost-effectiveness of production. In addition, the software interacts with other (automated) vehicles, machines and employees, reacting flexibly and safely to the constantly changing production requirements.

Award for new ACPaQ solution concept from Swisslog*

The fully automated Swisslog palletizing solution ACPaQ won the German Innovation Award 2020 in the “Machines & Engineering” category. The award is presented for outstanding innovations and recognizes applications that differ from existing solutions, particularly in terms of their user-oriented development and added value for customers. The prize is awarded by the German Design Council and funded by the German parliament.

ACPaQ combines high-end robotics from KUKA with Swisslog’s many years of expertise in logistics. This solution creates mixed pallets fully automatically. The human operator is meanwhile relieved of a physical burden, as the robot takes over all lifting operations. Moreover, the modular system can be individually expanded and adapted and can handle up to 1,000 units per hour, no matter whether at room temperature or in the cooling zone.

The German Logistics Association (BVL) presented the German Logistics Award 2020 to the retail company dm-drogerie markt in recognition of the project “Integrative. Intelligent. Automated.”. Swisslog’s ACPaQ solution concept is used here as well.

Global Company of the Year Award 2020 for KUKA Medical Robots Division*

Unique, advanced, valuable: the consulting company Frost & Sullivan has analyzed the market for medical robots and praises the LBR Med from KUKA as one of the most advanced robots in the sector. Its flexibility and versatility, which are of great importance in the medical sector, were particularly highlighted. The robot system is suitable for a wide range of different applications in the field of medical technology. For these reasons, the KUKA Medical Robotics Division received the “Global Company of the Year Award 2020”.

KUKA Innovation Award 2020*

Each year, research teams and young talents from around the world compete for the KUKA Innovation Award with their innovative ideas. In the financial year under review, an international jury selected the five best robotics ideas on the topics of diagnostics, surgery, therapy and rehabilitation. This year’s winning team, HIFUS from the Italian Scuola Superiore Sant’Anna, developed a non-invasive surgical procedure based on a sensitive LBR Med and high-intensity focused ultrasound. It allows precise surgical treatment without incisions, anesthesia or ionization energy. This year, the Innovation Award, endowed with prize money of 20,000 euro, was presented during a live web session.

* *Not verified by auditors*

Procurement

Efficient purchasing and procurement management is essential for successful execution of customer orders. This includes ensuring the required quality at optimal costs and implementation on schedule. The processes and responsibilities pertaining to supply chain management are clearly defined at KUKA. By structuring the overall business into individual business segments, each with its own responsible management, segment-specific requirements can be implemented within the associated functions, while maintaining close coordination of the specialist departments.

A close strategic partnership is maintained with key suppliers. Stable and reliably functioning customer-supplier relationships are of great importance to us. Particularly during the coronavirus pandemic outbreak, we were able to draw on our robust global network. In addition to dual and multiple sourcing strategies, supplies for production were secured with the aid of flexible delivery and warehousing concepts, as well as in-house production capacities in Hungary and Augsburg. During the lockdown in China, increased use was thus made of European suppliers, while Chinese vendors stepped in to help out when local or regional supply capabilities in Europe were limited due to rising infection rates. Under these difficult conditions, the robot production facilities in Augsburg and China were able to continue operating without interruption, not least thanks to the great commitment of the employees. However, individual production sites had to be temporarily closed due to official directives, for example in Italy and the USA.

The processes in the procurement departments within the segments are being increasingly standardized and regularly improved. This allows KUKA to further optimize its delivery capability. In the project business, for example, it was possible to optimize the availability of supplies and services through even closer interdepartmental cooperation. In this way, deadlines and quality can be measured better and actively controlled via the process chain. In turn, the improved coordination facilitates planning of the entire supply chain.

To improve quality, increase flexibility and achieve cost advantages, KUKA regularly reviews and optimizes its supplier base. The focus at Robotics was on expanding local suppliers.

Economic report

Macroeconomic and industry conditions

The pandemic is impacting the global economy

In the first half-year 2020, the global economy suffered a slump as a result of the coronavirus pandemic. Even though there were moderate signs of recovery in the summer months, new lockdowns in many parts of the world weighed on the economy towards the end of the year. The Organization for Economic Cooperation and Development (OECD) revised its original growth forecast of 2.9% for the year as a whole (OECD Economic Outlook November 2019) and in June 2020 predicted that the global economy would contract by as much as 7.6%. The outlook improved slightly at the end of the year and a decline of only 4.2% was expected (OECD Economic Outlook December 2020). In the OECD’s view, governments must continue to provide aid in order to prevent insolvencies and a rise in unemployment. For the eurozone economy, a decline of 7.3% is expected for 2020. A downturn of 5.5% is forecast for the German economy and 3.7% for the USA. Only China is projected to develop positively, with growth of 1.8%. The International Monetary Fund (IMF) also expects the negative consequences for the economy to be serious and that the economy will recover more slowly than previously assumed in a somewhat optimistic scenario. According to the IMF, the world is facing the worst recession since the Great Depression. Poverty and unemployment will become more severe worldwide.

The pandemic has led to a worldwide increase in unemployment. Compared to February 2020, unemployment rose by 1.25 percentage points in September 2020 (median of OECD countries). Here, too, there were great regional differences. While unemployment rose sharply in the USA and Canada in particular, measures such as furlough schemes in the EU resulted in a comparatively moderate increase. The younger generation was hit especially hard. The corresponding unemployment rate even rose by three percentage points (median of OECD countries). Furthermore, the number of hours worked declined, especially in the low-wage sector. According to the OECD, this will further increase the already high level of inequality. The OECD appealed to governments not to discontinue their aid measures too early in order to maintain support for the economy and above all to help those who have been most severely affected by the crisis.

The economic and social consequences of the coronavirus pandemic posed a dilemma for many countries: strict curfew rules were imposed to combat the crisis, which led to costly fiscal relief measures. An easing of restrictions boosted the economy, but this in turn caused an increase in new infections and a renewed risk of economic setbacks. According to the OECD, it is now important to expedite the availability of vaccines and to cooperate effectively in their distribution in order to promote confidence and thus the economic recovery. A delay in vaccine supplies or difficulties in containing new outbreaks of infections, on the other hand, would again dampen hopes of improvement.

The recovery tendencies in the second half of the year are reflected in the Business Climate Index of the ifo Institute for Economic Research. This is regarded as an early indicator of economic development in Germany. The ifo index rose to 92.1 points in December 2020 after 90.7 points in November. Companies are more satisfied with the current business situation and have a less skeptical outlook on the coming six months. The lockdown is hitting some sectors hard, but the German economy as a whole is proving resilient.

The coronavirus shock and the fundamental structural transformation will occupy the automotive industry for some years to come

The coronavirus pandemic has led to a worldwide collapse of automotive markets. In Europe, new registrations fell by 24% to only around 12 million cars in 2020. All European markets experienced a double-digit percentage decline. New registrations were down 19% in Germany, 25% in France, 29% in the UK and even 32% in Spain. The light vehicle market in the USA, which includes passenger cars and light trucks, contracted by 15% to just under 14.5 million vehicles. This was the first time since 2012 that the figure fell below the 15 million mark. Sales declined by 28% in the passenger car market and by 10% in the light truck segment, which accounts for 76% of the light vehicle market. With a downturn of 6%, the passenger car market in China was only mildly affected compared to the above-mentioned countries. The Chinese automotive market recovered quickly from the severe consequences of the pandemic. The VDA expects the global car market to grow overall in 2021. However, most markets will not yet reach the levels seen before the coronavirus pandemic. Technological change and the effects of the coronavirus pandemic will continue to put pressure on the margins of automotive suppliers for some years to come. Suppliers will have to realign their business and cut costs significantly at the same time. They will have to make targeted investments in order to develop future growth segments profitably. According to the "Global Automotive Supplier Study 2020" conducted by Roland Berger in cooperation with the US investment bank Lazard, the peak of 94.3 million passenger cars sold worldwide in 2017 is unlikely to be reached again until 2026 at the earliest, following the severe slump caused by the coronavirus pandemic. It is expected to take even longer in Europe and North America, while China and South America are set to recover more quickly.

Mechanical and plant engineering industry anticipates slight recovery in 2021

The decline in German mechanical engineering production was markedly worsened by the coronavirus pandemic in 2020. The market had already contracted by 2.6% in 2019. For 2020, the German Mechanical Engineering Industry Association (VDMA) expects production to fall by 14%, thereby correcting its previous forecast, which had assumed a decline of 17%. The third quarter of 2020 in particular developed better than expected. For 2021, an increase of 4% to a total of 202 billion euro is expected again. The brighter economic expectations for 2021 and the acceleration of technological change give cause for optimism. But the pre-crisis level of 226 billion euro in 2019 will thus still not be reached. In its forecast, the VDMA points to the high degree of uncertainty in the global economy. The volatile state of the world economy is having a negative impact on the capital goods sector and thus affecting mechanical and plant engineering to a particular extent.

Despite the declines in 2020, companies were able to keep workforce reductions within limits. This was possible due to government measures such as short-time working. In the spring, the number of employees on short-time work in the mechanical engineering sector reached 300,000 at times. At the end of the year, the figure was only around 200,000 according to the Federal Employment Agency.

With an estimated 1.025 million employees at the end of 2020, the mechanical and plant engineering sector remains Germany's largest industrial employer. Europe is and remains the most important market, accounting for around 43% of all exports in the first half-year 2020. The VDMA regards the EU's ambitions to be a pioneer in climate protection as the right approach. This will create great opportunities for mechanical and plant engineering. In the USA, too, the envisaged restructuring of US industry towards a much more social and climate-oriented economy is opening up new opportunities for the European engineering sector. Nevertheless, politicians must also consider the time horizons that industry requires for planning.

Flexible production and logistics solutions are gaining in importance

In September 2020, the International Federation of Robotics (IFR) published the full-year figures for global robot sales in 2019. These figures indicated that around 373,000 robots were installed worldwide in 2019. This corresponds to a 12% decline on the previous year. Uncertainties such as the trade disputes between the USA and China, between the USA and Europe and also Brexit caused companies worldwide to hold back on investments. The 2019 figures did not yet include any coronavirus-related downturn. Of the robots sold in 2019, more than a third were installed in China. From a sector perspective, the automotive industry with 28% of all robots installed worldwide and the electronics industry with 24% were the largest customer segments. As a result of the global uncertainties, particularly in connection with the effects of the coronavirus pandemic, the IFR has for the first time refrained from making a specific forecast, presenting three possible scenarios for the coming years instead, as even basic assumptions are subject to a high degree of uncertainty. It sees different starting times for the anticipated recovery, depending on the market. A gradual recovery from 2021 onwards is regarded as most likely. According to this assessment, however, the pre-crisis level will not be reached again until 2022 or 2023.

Innovations, technologies and new solutions are opening up new fields of application. Automation enables companies of different sizes in a variety of sectors to organize their production so as to be more efficient. Today, ever more process steps can be automated where the use of robots has previously been inconceivable. Automation is opening up potential in the logistics sector, among others. Here, the use of data-driven and robot-controlled logistics solutions is becoming increasingly attractive. Furthermore, automated production steps and so-called cobots – robots that collaborate directly with humans –

can help to ensure that minimum distances are maintained in production. In this way, companies can produce safely and flexibly. In the medium term, global megatrends such as the increasing customization of products, digitalization, demographic changes and also progressive regionalization will grow continually stronger. This will necessitate increasingly flexible and at the same time more efficient solutions in production and logistics environments.

Business performance

KUKA Group

After a slight economic recovery in the third quarter, the increase in coronavirus cases at the end of the year led to renewed stricter government coronavirus measures, and curfew restrictions were tightened again in many countries. Although KUKA was able to further improve its cost structure by intensifying the ongoing efficiency program, the market environment deteriorated significantly as a consequence of the coronavirus crisis, and customers' willingness to invest diminished sharply. All segments were affected, with substantial declines in some cases.

In KUKA Group, the volume of orders received fell 12.5% from €3,190.7 million to €2,792.2 million in the year under review. The low order volume, but also project delays due partly to the restrictions imposed in connection with the coronavirus measures, led to a decline in revenues. Plant closures and travel restrictions placed severe constraints on project execution. Consequently, some orders could not be completed in the timeframe originally planned and revenues decreased by 19.4% to €2,573.5 million (2019: €3,192.6 million). The book-to-bill ratio was 1.08 in the 2020 financial year, a small increase on the previous year (2019: 1.00). The order backlog increased by 1.3% from €1,967.4 million as at December 31, 2019 to €1,992.6 million as at December 31, 2020. The market environment had already been difficult in previous years due to global uncertainties. The worldwide COVID-19 pandemic further worsened the underlying conditions considerably and weighed on KUKA's overall performance. Earnings were also impacted by the need for extensive reorganization measures, for which a low to mid double-digit million provision was recognized in December 2020. These effects cumulatively led to an EBIT of -€113.2 million (2019: €47.8 million). The EBIT margin declined from 1.5% to -4.4% in 2020.

Systems

The Systems business segment saw its volume of orders received fall from €858.0 million in 2019 to €715.3 million in the year under review. This corresponds to a substantial decline of 16.6% and reflects the massive global impact of the COVID-19 pandemic and the associated reluctance of customers in the automotive industry to invest. The sales revenues of €671.6 million were down on the previous year's level of €925.4 million. The sharp 27.4% drop in revenues was mainly due to the weak order situation and the coronavirus measures such as plant closures, which led to delays in order execution. The book-to-bill ratio increased, year on year, from 0.93 to 1.07 in 2020. The order backlog totaled €591.0 million as at December 31, 2020 (December 31, 2019: €614.3 million). EBIT amounted to -€37.4 million, significantly below the previous year's level of €27.7 million. Earnings were impacted by the difficult order situation and increased pressure on margins. In addition, deteriorations in individual projects in Europe also depressed earnings, especially in the first half-year. The EBIT margin fell from 3.0% to -5.6% in the financial year under review.

Robotics

In the 2020 financial year, the Robotics segment generated new orders worth €901.3 million. The general conditions deteriorated significantly once again as a result of the COVID-19 pandemic, leading to a year-on-year decline of 13.1% (2019: €1,037.1 million). With the lower order volume due to the substantial decline in customers' willingness to invest, sales revenues also fell by 22.4% from €1,159.2 million in 2019 to €899.2 million in the year under review. Customers from both the automotive industry and general industry held back on orders and postponed their planned investments and training courses for KUKA robots and support services. The book-to-bill ratio stood at 1.00 (2019: 0.89). The order backlog totaled €266.3 million as at December 31, 2020 (December 31, 2019: €275.8 million). Earnings were impacted by provisions for extensive necessary reorganization measures, especially for the Augsburg site. Moreover, the low revenue level also had a negative effect and resulted in EBIT of -€3.9 million, compared with €63.2 million in the previous year. The EBIT margin of -0.4% was down on the previous year's figure of 5.5%.

Swisslog

On account of a major order booked in the previous year, Swisslog recorded a 14.2% decrease in orders received to €643.9 million, after €750.2 million in the 2019 financial year. If this large order were to be factored out, the volume of orders received would even exceed the previous year's figure. Temporary closures of customer plants and travel restrictions due to the pandemic led to delays in order execution, which had an impact on revenues. Sales revenues dropped 12.1% to €527.7 million from €600.0 million in the previous year. The book-to-bill ratio fell to 1.22 (2019: 1.25). The order backlog stood at €726.6 million as at December 31, 2020, after €653.9 million as at December 31, 2019. EBIT fell sharply to €2.9 million after €18.2 million in the previous year. The decline resulted from the lower revenue volume but also from project deteriorations. The EBIT margin decreased to 0.5% from 3.0% in 2019.

Swisslog Healthcare

At €210.1 million, orders received at Swisslog Healthcare in 2020 were 16.4% below the previous year's figure of €251.3 million. Due to the coronavirus pandemic, investment decisions were postponed, which also affected sales revenues as a consequence. The situation has been compounded by restricted access to hospitals since the beginning of the pandemic. The revenues of €217.0 million achieved in the reporting period were 2.4% below the previous year's level of €222.3 million. The book-to-bill ratio deteriorated from 1.13 in 2019 to 0.97 in 2020. The order backlog of €199.7 million as at December 31, 2020, showed a decrease, year on year (December 31, 2019: €231.4 million). EBIT rose to €3.1 million, after -€9.2 million in the previous year. This corresponds to an EBIT margin of 1.4% (2019: -4.1%). This improvement is attributable to the successful implementation of measures from the efficiency program with optimizations in process and project management.

China

In 2020, the China segment posted orders received amounting to €490.4 million. This represents an increase of 7.4% on the previous year (2019: €456.4 million). The massive impact of the coronavirus crisis in the first six months was offset by the appreciable recovery in the second half of the year. Customers increasingly invested in robot-based automation solutions again. However, the sharp declines in orders at the beginning of the year and delays in project execution due to curfew-related restrictions led to a 13.3% drop in revenues from €458.2 million to €397.1 million. The book-to-bill ratio rose to 1.23 in 2020 (2019: 1.00). The order backlog grew from €229.2 million as at December 31, 2019 to €270.6 million as at December 31, 2020. EBIT amounted to -€4.7 million in the past year (2019: €5.7 million). This corresponds to an EBIT margin of -1.2% (2019: 1.2%). The fiscal year was heavily influenced by the coronavirus pandemic. Positive effects came from the measures introduced to optimize working capital and from grants for R&D activities.

Financial position and performance

Summary

The market environment, which was already difficult, worsened significantly with the outbreak of the coronavirus pandemic, and customers' willingness to invest declined further. Already at the start of the financial year, the high coronavirus infection rates in many regions of China led to major constraints on public and business life as a result of official restrictions. The subsequent worldwide spread of the virus along with the associated curfews and production shutdowns had a negative impact on KUKA Group. The third quarter saw the economy recover slightly. Due to the renewed increase in cases worldwide, wide-reaching government measures were once again put into effect in many countries to contain the pandemic. KUKA Group immediately implemented measures and intensified its ongoing efficiency program at the beginning of the year in order to mitigate the impact on business development. One important measure was the introduction of short-time working at the German locations. Similar models were also adopted in other countries. The difficult market environment rendered further measures necessary, however.

In the fourth quarter of 2020, KUKA Group introduced far-reaching and necessary restructuring measures, particularly at the Augsburg location, which also include a total of 270 full-time job cuts. This affects the Robotics, Systems and Corporate Functions business segments. The costs in the low to mid double-digit million euro range and the considerable impact of the coronavirus pandemic led to an adjustment of the forecast. Instead of sales revenues of around €3.2 billion and an EBIT margin higher than 1.5%, KUKA Group now forecast revenues of around €2.6 billion and an EBIT margin of -4.1% to -4.6%.

For the second year in a row, KUKA Group was able to generate a positive free cash flow. Capital expenditure was down on the previous year, but numerous investments were nevertheless upheld. Thanks to the consistent implementation of optimization measures in the operating business, it was possible to improve trade working capital significantly.

The order backlog rose slightly and was unchanged on the previous year at around €2.0 billion. This indicates good capacity utilization in fiscal 2021.

The effects of the worldwide pandemic and the associated difficult market environment caused KUKA Group's earnings before interest and taxes (EBIT) to fall to -€113.2 million (2019: €47.8 million). This corresponds to an EBIT margin of -4.4% after 1.5% in the previous year. EBIT of the Systems business segment decreased from €27.7 million in 2019 to -€37.4 million in 2020. The EBIT margin thus stood at -5.6% after 3.0% in the previous year. In addition to the general economic conditions, the burdens from the reorganization had a negative impact on earnings in the Robotics segment. EBIT fell from €63.2 million in 2019 to -€3.9 million in 2020, corresponding to an EBIT margin of 5.5% and -0.4% respectively. The Swisslog business segment reported a decrease in EBIT from €18.2 million (EBIT margin 3.0%) in 2019 to €2.9 million (EBIT margin: 0.5%) in 2020. By contrast, the Swisslog Healthcare segment recorded a significant increase in EBIT. This rose from -€9.2 million in 2019 to €3.1 million in 2020. The EBIT margin improved from -4.1% to 1.4%. The EBIT of -€4.7 million in 2020 in the China segment was significantly down on the previous year (2019: €5.7 million). This corresponds to an EBIT margin of -1.2% compared with 1.2% in the previous year. Fiscal 2020 as a whole was not satisfactory due to the difficult market environment.

Earnings

At €2,792.2 million, orders received in fiscal 2020 were down €398.5 million on the previous year (2019: €3,190.7 million), reflecting the currently tense overall economic situation and the resulting reluctance of customers to invest. This also impacted sales revenues in the past fiscal year, which fell by €619.1 million year on year to €2,573.5 million (2019: €3,192.6 million). The order backlog rose slightly by €25.2 million from €1,967.4 million as at December 31, 2019 to €1,992.6 million as at December 31, 2020. With a volume of around €2 billion, our order backlog remains at a high level.

in € millions	2016	2017	2018	2019	2020
Orders received	3,422.3	3,614.3	3,305.3	3,190.7	2,792.2
Order backlog	2,048.9	2,157.9	2,055.7	1,967.4	1,992.6

Sales revenues	2,948.9	3,479.1	3,242.1	3,192.6	2,573.5
EBIT	127.2	102.7	34.3	47.8	-113.2
in % of revenues	4.3	3.0	1.1	1.5	-4.4
in % of capital employed (ROCE)	16.2	10.9	2.9	3.5	-8.6
EBITDA	205.3	180.2	121.2	176.5	33.2
in % of revenues	7.0	5.2	3.7	5.5	1.3
(Average) capital employed	783.0	950.4	1,185.0	1,374.3	1,321.1
Employees (Dec. 31) [1]	13,188	14,256	14,235	14,014	13,700

[1] Figures for employees are based on the full-time equivalent throughout the annual report.

At the start of fiscal 2020, KUKA Group intensified measures to optimize working capital, to focus on sales potential and to integrate business units acquired in the past. This results in changes to some key performance indicators in the individual segments, but has no effect on the Group figures, as there is an offsetting effect in the reconciliation column. In order to ensure comparability with the previous year, the comparative figures for fiscal 2019 have been adjusted. The improved segment structure introduced in the previous year – KUKA Business Organization (KBO) – remained unchanged, including double reporting for certain Chinese companies both in the China business segment and at Swisslog or Swisslog Healthcare. A description of the segment structure can be found in the section "Fundamental information about the Group".

The sales revenues of €671.6 million generated in the Systems business segment were €253.8 million or 27.4% lower than in the previous year (2019: €925.4 million). Orders received fell by 16.6% from €858.0 million in 2019 to €715.3 million in 2020. The order backlog as at December 31, 2020 was down slightly by 3.8% to €591.0 million (December 31, 2019: €614.3 million). EBIT fell from €27.7 million in 2019 to -€37.4 million in 2020, resulting in an EBIT margin of 3.0% in 2019 and -5.6% in 2020. Earnings were impacted by the difficult order situation and increased pressure on margins. In addition, deteriorations in individual projects in Europe also depressed earnings.

The Robotics business unit achieved sales revenues of €899.2 million in 2020. This represents a decline of €260.0 million or 22.4%. Orders received fell by €135.8 million or 13.1% in fiscal 2020. This corresponds to orders received totaling €901.3 million after €1,037.1 million in 2019. The order backlog remains virtually unchanged at €266.3 million as at December 31, 2020 after €275.8 million as at December 31, 2019. EBIT fell from €63.2 million (EBIT margin: 5.5%) in 2019 to -€3.9 million (EBIT margin: -0.4%) in 2020. Earnings were impacted by necessary reorganization measures and the lower revenue level.

In the Swisslog segment, sales revenues decreased in 2020 by 12.1% to €527.7 million (2019: €600.0 million). Swisslog also recorded a drop of 14.2% or €106,3 million in orders received (2020: €643.9 million; 2019: €750.2 million). Swisslog received a major order in the previous year. If this were eliminated, orders received would be higher than in the previous year. By contrast, the order backlog rose by €72.7 million or 11.1% to €726.6 million as at December 31, 2020 (December 31, 2019: €653.9 million). EBIT fell from €18.2 million in 2019 to €2.9 million in 2020, corresponding to an EBIT margin of 3.0% and 0.5% respectively. The decline was due to the lower revenue volume and project deteriorations.

Sales revenues in the Swisslog Healthcare business segment were around the previous year's level at €217.0 million (2019: €222.3 million). Orders received fell from €251.3 million in 2019 to €210.1 million in 2020, corresponding to a decline of 16.4% or €41.2 million. The order backlog was also down, totaling €199.7 million at the end of fiscal 2020 (December 31, 2019: €231.4 million). EBIT, on the other hand, rose significantly from -€9.2 million in 2019 to €3.1 million in 2020. This resulted in an EBIT margin of 1.4% after -4.1% in the previous year. The improvement was attributable to optimizations in process and project management and the successful implementation of the measures from the efficiency program.

In the China business segment, sales revenues fell by €61.1 million or 13.3% in fiscal 2020 from €458.2 million to €397.1 million. It was not possible to compensate fully for the effects of the coronavirus pandemic at the beginning of the fiscal year and delays in project execution. By contrast, orders received rose by 7.4% to €490.4 million (2019: €456.4 million). A slight recovery was observed here. Due to the increased order volume, the order backlog also grew. As at December 31, 2020, this totaled €270.6 million – a plus of €41.4 million or 18.1% on the previous year (December 31, 2019: €229.2 million). EBIT fell to -€4.7 million (2019: €5.7 million). The EBIT margin was -1.2% after 1.2% in the previous year. The measures introduced to optimize working capital, and grants for R&D activities had a positive effect on EBIT.

The gross profit of €504.1 million generated by KUKA Group in fiscal 2020 was down 25.5% or €172.9 million on the previous year (2019: €677.0 million). This corresponds to a gross margin of 19.6% after 21.2% in fiscal 2019. The lower revenue volume, project deteriorations and the coronavirus-related measures such as plant closures, which led to delays in order processing, had a significant impact on gross profit. Within the business segments, the gross margin developed very differently. It fell in the business segments Systems (2020: 2.9%; 2019: 10.6%) and Swisslog (2020: 17.8%; 2019: 18.6%), whereas an increase was recorded in the segments Robotics (2020: 31.7%; 2019: 31.2%), Swisslog Healthcare (2020: 34.1%; 2019: 32.9%) and China (2020: 11.7%; 2019: 8.3%).

The key figures for the individual business segments are shown below:

Key figures – Systems

in € millions	2019	2020
Orders received	858.0	715.3
Order backlog	614.3	591.0
Sales revenues	925.4	671.6
EBIT	27.7	-37.4
in % of revenues	3.0%	-5.6%
in % of capital employed (ROCE)	9.3%	-13.2%
EBITDA	44.2	-18.1
in % of revenues	4.8%	-2.7%
Capital employed	299.1	284.3
Employees (Dec. 31)	3,208	3,033

Key figures – Robotics

in € millions	2019	2020
Orders received	1,037.1	901.3
Order backlog	275.8	266.3
Sales revenues	1,159.2	899.2
EBIT	63.2	-3.9
in % of revenues	5.5%	-0.4%
in % of capital employed (ROCE)	14.8%	-1.0%
EBITDA	105.6	46.4
in % of revenues	9.1%	5.2%
Capital employed	428.3	407.7
Employees (Dec. 31)	5,502	5,197

Key figures – Swisslog

in € millions	2019	2020
Orders received	750.2	643.9
Order backlog	653.9	726.6
Sales revenues	600.0	527.7
EBIT	18.2	2.9
in % of revenues	3.0%	0.5%
in % of capital employed (ROCE)	14.9%	2.1%
EBITDA	35.9	21.1
in % of revenues	6.0%	4.0%
Capital employed	122.2	137.2
Employees (Dec. 31)	2,168	2,209

Key figures – Swisslog Healthcare

in € millions	2019	2020
Orders received	251.3	210.1
Order backlog	231.4	199.7
Sales revenues	222.3	217.0
EBIT	-9.2	3.1
in % of revenues	-4.1%	1.4%
in % of capital employed (ROCE)	-6.2%	1.8%
EBITDA	1.9	17.1
in % of revenues	0.9%	7.9%
Capital employed	149.1	168.1
Employees (Dec. 31)	1,159	1,155

Key figures – China

in € millions	2019	2020
Orders received	456.4	490.4
Order backlog	229.2	270.6
Sales revenues	458.2	397.1
EBIT	5.7	-4.7
in % of revenues	1.2%	-1.2%
in % of capital employed (ROCE)	3.7%	-3.1%
EBITDA	16.5	7.8
in % of revenues	3.6%	2.0%
Capital employed	153.9	151.4
Employees (Dec. 31)	1,382	1,516

KUKA Group's functional costs, which are calculated from the costs for administration, sales and research & development, fell by €31.1 million in fiscal 2020 to €611.4 million (2019: €642.5 million). Due to the lower revenue volume, the ratio of functional costs to revenues increased to 23.8% in 2020 after 20.1% in 2019. Cost savings were achieved in the areas of sales and administration; they were also related to the efficiency program and savings in conjunction with the pandemic. On the other hand, research & development expenditure increased, aimed at securing the long-term success of KUKA Group through innovative strength and new developments.

In fiscal 2020, selling expenses decreased by a further €34.7 million or 11.9% on the previous year and now totaled €256.9 million (2019: €291.6 million). The cost reduction is due in part to the lower number of sales personnel. As at the 2020 balance sheet date, 1,509 people were employed in sales – a decrease of 105 employees on the previous year (2019: 1,614 employees). Nevertheless, customer orientation is and will remain a central element of the KUKA Business Organization and is subject to ongoing review and optimization. The selling expenses ratio rose from 9.1% in 2019 to 10.0% in 2020.

At €176.5 million, administrative costs were €13.9 million lower than the previous year's figure of €190.4 million. The process optimizations of the previous years had a sustainable impact on the cost structure. Moreover, the measures taken in conjunction with the coronavirus pandemic helped to reduce costs. The ratio of administrative costs to revenues increased from 6.0% in 2019 to 6.9% in 2020.

Research & development costs rose to €178.0 million in fiscal 2020 after €160.5 million in the previous year. This is primarily due to the higher amortization of R&D expenditure capitalized in the previous year. Compared with the previous year, personnel expenditure remained virtually constant. KUKA places high priority on research & development activities. As at December 31, 2020, 1,251 employees were working in research & development (December 31, 2019: 1,264 employees), corresponding to 9.1% of the total workforce (2019: 9.0%).

The capitalized costs for new developments in the year under review totaled €30.1 million (2019: €30.2 million). Scheduled amortization arising in subsequent periods, and primarily attributable to the functional area of research & development, amounted to €27.9 million after €17.2 million in 2019. The capitalization ratio fell from 17.4% in 2019 to 16.7% in 2020. Please refer to the research and development section of this management report for further information and details.

Other operating expenses exceeded other operating income by €4.3 million in fiscal 2020. In the previous year, income exceeded expenditure by €16.9 million. Other operating income was down from €30.7 million in the previous year to €10.0 million. The decline was mainly related to the income from the change in consolidation method in the Swisslog segment included in the previous year. One subsidiary was deconsolidated and then accounted for at equity. Within other income, grants increased from €0.7 million in 2019 to €1.6 million in 2020. Other operating expenses were up slightly by €0.5 million from €13.8 million to €14.3 million and include expenditure for other taxes (2020: €4.7 million; 2019: €8.2 million).

EBIT in KUKA Group

in € millions	2016	2017	2018	2019	2020
Group	127.2	102.7	34.3	47.8	-113.2
in % of sales revenues	4.3%	3.0%	1.1%	1.5%	-4.4%

Depreciation and amortization increased by €17.7 million in fiscal 2020 to €146.4 million (2019: €128.7 million). Amortization of capitalized leases in accordance with IFRS 16 remained virtually unchanged at €36.4 million after €36.8 million in the previous year. In the reporting year, impairment losses of €16.1 million (2019: €0.0 million) were recognized for an IT project, among other things, and on company-produced and capitalized assets. The depreciation and amortization of €146.4 million breaks down into €19.3 million (2019: €16.5 million) for the Systems business segment, €50.3 million (2019: €42.4 million) for Robotics, €18.2 million (2019: €17.8 million) for Swisslog, €14.0 million (2019: €11.1 million) for Swisslog Healthcare, and €12.5 million (2019: €10.8 million) for the China segment.

This led to earnings before interest, taxes, depreciation and amortization (EBITDA) of €33.2 million, corresponding to a decline of €143.3 million or 81.2% (2019: €176.5 million). This significant decline is attributable to the lower EBIT in particular.

EBITDA in KUKA Group

in € millions	2016	2017	2018	2019	2020
Group	205.3	180.2	121.2	176.5	33.2
in % of sales revenues	7.0%	5.2%	3.7%	5.5%	1.3%

Financial result remains positive

The net expenses and income in the financial result equated to an income of €3.0 million for fiscal 2020. Compared with the previous year, this represents a decrease of €3.6 million (2019: €6.6 million income).

The interest income of €26.8 million no longer included foreign currency effects in this fiscal year. To ensure comparability of the figures, the previous year's figure was adjusted and the foreign currency effects eliminated (2019: €27.6 million), which are now reported separately within the financial result. Overall, interest income fell slightly by €0.8 million. Interest income from leases of KUKA Toledo Production Operations LLC, Toledo, USA (KTPO) as the lessor was up on the previous year. By contrast, interest income on bank balances at a joint venture controlled by KUKA in the China business segment was down year on year.

After a foreign currency gain of €1.0 million in the previous year, the year under review saw a foreign currency loss of €1.0 million. The financial result was further impacted by impairment losses on financial assets totaling €2.9 million (2019: €2.1 million).

Interest expense was unchanged on the previous year at €19.9 million. At €5.5 million (2019: €5.6 million), interest expenses in connection with leases according to IFRS 16 accounted for a significant proportion of this figure. Interest expenses of €7.6 million were incurred for the promissory note and assignable loans placed by KUKA AG and KTPO (2019: €8.7 million). Net interest expense for pensions decreased from €2.0 million in 2019 to €1.0 million in 2020. Expenditure for sureties and guarantees amounted to €1.4 million (2019: €1.7 million).

EBT (earnings before taxes) fell to -€110.2 million, down considerably on the previous year (2019: €54.4 million). The tax income of €15.6 million corresponds to a tax rate of 14.2% (2019: 67.3%). The tax rate was mainly attributable to the revaluation of deferred tax assets, increased non-deductible operating expenses, and the offsetting effects of tax subsidies in North America and China.

Proposed dividend of €0.11 per share

KUKA Group's earnings after taxes amounted to -€94.6 million and were thus significantly lower than the figure for fiscal 2019 (2019: €17.8 million). The positive trend from fiscal 2019 did not continue due to the global coronavirus pandemic, which had a negative impact on KUKA Group. The resulting earnings per share stood at -€2.59 in 2020 (2019: €0.24).

The Executive Board will propose to the Annual General Meeting that a dividend of €0.11 per share be paid for fiscal 2020.

Group income statement (condensed)

in € millions	2016	2017	2018	2019	2020
Sales revenues	2,948.9	3,479.1	3,242.1	3,192.6	2,573.5
EBIT	127.2	102.7	34.3	47.8	-113.2
EBITDA	205.3	180.2	121.2	176.5	33.2
Financial result	-4.9	-9.2	0.6	6.6	3.0
Taxes on income	-36.1	-5.3	-18.3	-36.6	15.6
Earnings after taxes	86.2	88.2	16.6	17.8	-94.6

Financial position

For information on the financial management principles and objectives, or on the financing structure and liquidity position of the Group, please refer to note 29.

Assessment by rating agencies

Due to the adverse effects of the coronavirus crisis – especially in its core automotive business segment – KUKA was unable to meet the earnings expectations formulated by Standard & Poor's for maintaining an investment grade rating for fiscal 2020. As a result, the rating agency lowered KUKA AG's rating by one notch from BBB- to BB+ on February 1, 2021. In view of the expected stabilization of the market environment and the resulting earnings opportunities for KUKA, Standard & Poor's considers the outlook for KUKA AG's rating as "stable". KUKA's liquidity position continues to be rated as "strong".

Condensed Group cash flow statement

in € millions	2016	2017	2018	2019	2020
Cash earnings	203.9	184.6	129.0	167.1	40.9
Cash flow from operating activities	-9.6	92.0	-48.2	214.5	77.4
Cash flow from investment activities	-97.2	-227.7	-165.5	-193.8	-40.4
Free cash flow	-106.8	-135.7	-213.7	20.7	37.0

The cash earnings are an indicator derived from the earnings after taxes, adjusted for income taxes (excluding deferred taxes), net interest, cash-neutral depreciation on tangible assets, intangible assets, investments in financial assets, and right-of-use assets pursuant to IFRS 16, together with other non-cash income and expenses (including deferred taxes). Cash earnings in fiscal 2020 totaled €40.9 million, corresponding to a decrease of €126.2 million on the previous year (2019: €167.1 million). The decline was due primarily to the negative earnings. Cash flow from operating activities of KUKA Group fell by €137.1 million from €214.5 million in 2019 to €77.4 million in 2020. The decline is attributable in particular to the lower cash earnings as compared to the previous year. Furthermore, changes in provisions and income taxes paid had a negative impact on cash flow from current business operations.

The successful implementation of the measures for monitoring and optimizing trade working capital, which KUKA Group put into place in fiscal 2019, led to a further reduction in trade working capital. At the end of fiscal 2020, it totaled €394.6 million and was thus down €115.5 million or 22.6% on the previous year's figure (2019: €510.1 million). Inventories were down slightly by €36.6 million to €307.9 million (2019: €344.5 million), reflecting further improvements in procurement measures. The greatest reduction was achieved in trade receivables and receivables from contract assets. These fell by €148.7 million from €905.0 million to €756.3 million in the year under review. The measures introduced in the receivables management process showed further success. Trade payables and contract liabilities were also down. They fell by €69.8 million from €739.4 million to €669.6 million.

Overall, trade working capital has developed as follows:

Trade working capital

in € millions	2016	2017	2018	2019	2020
Inventories [1]	318.8	387.4	466.8	344.5	307.9
Trade receivables and contract assets	888.9	923.8	909.0	905.0	756.3
Trade payables and contract liabilities [1]	778.6	857.3	809.5	739.4	669.6
Trade working capital	**429.1**	**453.9**	**566.3**	**510.1**	**394.6**

[1] For reasons of better comparability, the trade working capital KPI has been adjusted for the prior-year figures (2016/2017) and the advance payments received are shown under contract liabilities.

Capital expenditure in KUKA Group

The volume of investments in intangible and tangible assets totaled €80.7 million in fiscal 2020 (2019: €151.1 million). In previous years, numerous investments were made, for example, in production facilities in Augsburg and in Shunde, China or in the KTPO production plant. This was completed last year. The education center at the Augsburg location was completed and opened in fiscal 2020. Additionally, further expansion and renovation work was carried out both at the Augsburg location and in China.

The carrying amount of the company's own development work and internally generated intangible assets totaled €104.6 million (2019: €103.1 million). For more detailed information on the development priorities, please refer to the section "Research and development".

Investments in intangible assets and property, plant and equipment

in € millions	2016	2017	2018	2019	2020
Group	99.6	138.8	295.4	151.1	80.7

Investments in intangible assets in fiscal 2020 totaled €34.6 million (2019: €39.6 million), including €3.0 million (2019: €8.0 million) for licenses and other rights, €30.1 million (2019: €30.2 million) for internally generated software and development costs, and €1.5 million (2019: €1.3 million) for advance payments.

At €46.1 million, investments in tangible assets were well below the previous year (2019: €111.5 million). Investments in land, leasehold rights and construction, including buildings on third-party land, amounted to €11.4 million (2019: €24.9 million). At €13.5 million (2019: €20.3 million) in technical plant and machinery, €12.9 million (2019: €20.6 million) in other plant and office equipment, and €8.3 million (2019: €45.7 million) in advance payments made and assets under construction, investments were down on the previous year in all areas. The decline in investments in property, plant and equipment was directly related to the completion of projects started in previous years. In the past fiscal year, the education center at the Augsburg location was completed and opened.

Of the total investments of €80.7 million (2019: €151.1 million), €7.3 million (2019: €24.3 million) was accounted for by the Systems business segment. In the year under review, smaller projects such as the relocation to a new building at a subsidiary in Romania were carried out. €28.3 million (2019: €40.1 million) was invested in the Robotics business segment, distributed over numerous R&D projects, among other things. Investments of €10.8 million (2019: €12.0 million) in the Swisslog division and of €12.8 million (2019: €12.6 million) in the Swisslog Healthcare division are predominantly attributable to internally generated intangible assets. In the China segment, investments of €9.1 million (2019: €13.8 million) were made, among other things, in the expansion of a building in Shunde, China. In the Corporate Functions segment, investments in fiscal 2020 totaled €13.4 million after €48.4 million in 2019. These relate primarily to the completion of the education center and investments in a production building.

The investment volume by segment is presented below:

Investments in intangible assets and property, plant and equipment

in € millions	2019	2020
of which Systems	24.3	7.3
of which Robotics	40.1	28.3
of which Swisslog	12.0	10.8
of which Swisslog Healthcare	12.6	12.8
of which China	13.8	9.1
of which Corporate Functions	48.4	13.4

In fiscal 2020, subsequent payments were made for acquisitions of consolidated companies and other shareholdings carried out in previous years. They came to a total of €6.5 million (2019: €39.1 million) and were subdivided as follows:

Company acquisitions

in € millions	2019	2020
Company acquisitions		
Visual Components	1.9	-
Device Insight GmbH	18.2	-
UTICA Enterprises, Shelby Township, Michigan,USA	6.2	1.9
Other	0.3	0.1
Total	**26.6**	**2.0**
Other participations		
Pharmony	1.2	-
Servotronix	11.3	4.5
Total	**12.5**	**4.5**
Total payments	**39.1**	**6.5**

Cash inflows from financial investments mainly comprise the proceeds from the sale of shares in Pipeline Health Holdings LLC, San Francisco, USA.

Positive free cash flow for the second year running

After €20.7 million in 2019, a positive free cash flow of €37.0 million was also generated in fiscal 2020, comprising cash flow from operating activities (2020: €77.4 million; 2019: €214.5 million) and cash flow from investment activities (2020: -€40.4 million; 2019: -€193.8 million).

Negative cash flow from financing activities

The cash flow from financing activities amounted to -€42.7 million in 2020 after €87.8 million in 2019. Dividend payments decreased from €11.9 million in 2019 to €6.0 million in 2020, representing a dividend of €0.15 per share (2019: €0.30 per share) paid for fiscal 2019. The reduction in cash flow from financing activities was related, among other things, to the disbursement of the first tranche of the USD assignable loan. Interest paid (2020: -€19.3 million; 2019: -€18.6 million) and repayments of leases (2020: -€34.1 million; 2019: -€33.4 million) also had a negative impact. Payments from grants received totaling €14.4 million after €4.1 million in the previous year had a positive effect.

Group net liquidity

in € millions	2019	2020
Cash and cash equivalents	584.8	554.6
Current financial liabilities	152.6	154.6
Non-current financial liabilities	382.0	370.0
Group net liquidity	**50.2**	**30.0**
Cash and guarantee facilities from syndicated senior facilities agreement	520.0	520.0
Guarantee facility from banks and surety companies	153.0	170.3

As at the end of fiscal 2020, net liquidity had fallen to €30.0 million (2019: €50.2 million). Cash and cash equivalents decreased from €584.8 million in 2019 to €554.6 million in 2020. Additionally, current financial liabilities increased due to drawdowns on the syndicated loan. By contrast, non-current financial liabilities decreased slightly due to foreign currency changes within the assignable loan at KTPO.

Net worth

Non-current assets fell by €87.7 million from €1,384.4 million as at December 31, 2019 to €1,296.7 million as at December 31, 2020, spread across almost all balance sheet items. Only income tax receivables (2020: €1.0 million; 2019: €0.0 million) and deferred taxes (2020: €127.8 million; 2019: €86.7 million) rose by €1.0 million and €41.1 million, respectively. Losses carried forward accounted for €35.7 million (2019: €41.9 million) of deferred taxes. Intangible assets of €533.3 million (December 31, 2019: €565.5 million) included goodwill of €313.2 million (December 31, 2019: €315.3 million). Scheduled and unscheduled amortization totaling €63.1 million (2019: €47.0 million) reduced intangible assets. Tangible assets fell from €366.6 million as at December 31, 2019 to €353.1 million as at December 31, 2020.

Financial investments also decreased, amounting to €17.1 million as at the balance sheet date (December 31, 2019: €24.1 million). Investments accounted for using the equity method totaled €26.4 million after the sale of Pipeline Health Holdings LLC, San Francisco, USA (December 31, 2019: €34.0 million).

As a result of the scheduled amortization of right-of-use assets from leases, the value fell to €115.5 million as at December 31, 2020 (December 31, 2019: €135.0 million).

The non-current finance lease receivable at KTPO decreased by €32.9 million to €119.6 million as at December 31, 2020 (December 31, 2019: €152.5 million).

Other non-current receivables fell from €20.0 million at the end of fiscal 2019 to €2.9 million as at December 31, 2020. The decline was partly related to payouts from a deferred compensation plan at a subsidiary in the USA.

As at the balance sheet date of the year under review, current assets amounted to €1,819.8 million and were thus down €222.4 on the previous year's figure (December 31, 2019: €2,042.2 million). A negative development can be observed in all balance sheet items with the exception of income tax receivables (December 31, 2020: €30.2 million; December 31, 2019: €26.1 million). For example, inventories decreased by €36.6 million (December 31, 2020: €307.9 million; December 31, 2019: €344.5 million), trade receivables by €48.1 million (December 31, 2020: €395.4 million; December 31, 2019: €443.5 million) and contract assets by €100.6 million (December 31, 2020: €360.9 million; December 31, 2019: €461.5 million). This is primarily attributable to the optimizations in conjunction with working capital management.

The current portion of the finance lease receivable remained almost unchanged at €28.4 million as at December 31, 2020, compared with €29.4 million as at December 31, 2019.

Other current receivables and other assets fell by €10.0 million to €142.4 million as at December 31, 2020 (December 31, 2019: €152.4 million). As in the previous year, other assets included short-term securities with a term of considerably less than one year.

Cash and cash equivalents were down from €584.8 million as at December 31, 2019 to €554.6 million as at December 31, 2020.

Group net assets

in € millions	2016	2017	2018	2019	2020
Balance sheet total	2,543.9	2,640.1	3,218.5	3,426.6	3,116.5
Equity	840.2	866.6	1,339.6	1,348.6	1,203.7
in % of balance sheet total	33.0%	32.8%	41.6%	39.4%	38.6%
Net liquidity / debt	113	-45.2	92.9	50.2	30.0

Overall, the balance sheet total of KUKA Group decreased by €310.1 million from €3,426.6 million as at December 31, 2019 to €3,116.5 million as at December 31, 2020.

Equity ratio of 38.6%

At €1,203.7 million as at the 2020 balance sheet date, equity was €144.9 million below the previous year's figure (December 31, 2019: €1,348.6 million), influenced in part by the negative Group result. Both the subscribed capital of €103.4 million and the capital reserve of €306.6 million remained unchanged in the year under review. The adjustment item for minority interests rose slightly from €278.8 million as at December 31, 2019 to €280.5 million as at December 31, 2020. Retained earnings and other reserves fell from €659.8 million as at December 31, 2019 to €513.2 million as at December 31, 2020. Dividend payments totaling €6.0 million for the 2019 financial year had the effect of reducing equity (2019: €11.9 million). The change in actuarial gains from pension accounting (including related deferred taxes) amounted to €1.1 million (2019: loss of €18.2 million). Currency effects also had a negative impact on equity to the amount of €40.4 million, following a positive effect of €10.9 million in the previous year. The currencies with the greatest impact were the Chinese renminbi, the US dollar and the Swiss franc. All these effects together reduced the equity ratio from 39.4% as at December 31, 2019 to 38.6% as at December 31, 2020.

Total financial liabilities decreased from €534.6 million (December 31, 2019) to €524.6 million (December 31, 2020). Current financial liabilities amounted to €154.6 million (December 31, 2019: €152.6 million) and included drawdowns on the syndicated loan. The short-term tranches of the euro promissory note loan and USD assignable loan, which were settled in the 2020 financial year, were reported in the previous year. The long-term portion of €221.6 million as at December 31, 2020 was €10.4 million lower than the previous year's figure (December 31, 2019: €232.0 million) as a result of foreign currency effects. The loan in the amount of €148.4 million from Midea Group Ltd. is reported under accounts payable to affiliated companies.

Lease liabilities decreased in line with the right-of-use assets on the assets side and amounted to €121.6 million as at the reporting date on December 31, 2020 (December 31, 2019: €138.3 million). Of this amount, €28.7 million (December 31, 2019: €32.5 million) was accounted for by current lease liabilities and €92.9 million (December 31, 2019: €105.8 million) by non-current lease liabilities. Overall, non-current liabilities totaled €634.6 million as at the 2020 balance sheet date (December 31, 2019: €690.2 million).

Total current liabilities also decreased and stood at €1,278.2 million as at December 31, 2020 (December 31, 2019: €1,387.8 million). This corresponds to a decline of €109.6 million. Trade payables fell most sharply, with a drop of €49.0 million to €353.3 million (December 31, 2019: €402.3 million). Contract liabilities decreased by €20.8 million from €337.1 million as at December 31, 2019 to €316.3 million as at December 31, 2020. At €213.1 million as at December 31, 2020, other liabilities and prepaid expenses were down €16.8 million on the previous year (December 31, 2019: €229.9 million). The decline was mainly attributable to the lower level of liabilities for personnel matters (December 31, 2020: €109.2 million; December 31, 2019: €125.4 million). Other provisions were also down on the previous year (December 31, 2020: €168.6 million; December 31, 2019: €187.2 million). On the one hand, provisions for guarantees and provisions for outstanding invoices decreased, while on the other hand provisions for impending losses and reorganization increased.

Liabilities to affiliated companies remained unchanged compared with the previous year (December 31, 2020: €0.1 million; December 31, 2019: €0.1 million). Current income tax liabilities were down slightly (December 31, 2020: €43.5 million; December 31, 2019: €46.1 million).

Group assets and financial structure

in € millions	2019	2020
Current assets	2,042.2	1,819.8
Non-current assets	1,384.4	1,296.7
Assets	**3,426.6**	**3,116.5**
Current liabilities	1,387.8	1,278.2
Non-current liabilities	690.2	634.6
Equity	1,348.6	1,203.7
Liabilities	**3,426.6**	**3,116.5**

Reduction in working capital and capital employed

At €123.7 million in 2020, working capital was down by €53.6 million year on year (2019: €177.3 million). Continuous, systematic monitoring of the individual items within trade working capital and working capital led to improvements, some of which were considerable. In the Systems segment, working capital deteriorated year on year. Working capital in the Swisslog segment was negative once again.

in € millions	2019	2020
Systems	9.4	47.9
Robotics	169.5	134.8
Swisslog	-93.1	-97.4

in € millions	2019	2020
Swisslog Healthcare	36.0	27.3
China	33.7	14.3
Total	**177.3**	**123.7**

Return on capital employed (ROCE)

ROCE (return on capital employed) is the ratio of earnings before interest and taxes to net capital employed. To calculate ROCE the capital employed is based on an average value. ROCE illustrates the effectiveness and profitability of the capital employed. Capital employed includes working capital as well as intangible assets and tangible assets. Capital employed thus represents the difference between operating assets and non-interest-bearing debt capital.

The capital employed is calculated as the average of capital employed at the beginning and end of a given fiscal year. Due to the effects of the coronavirus pandemic and the related consequences, as well as through active trade working capital management, average capital employed decreased by €53.2 million from €1,374.3 million in 2019 to €1,321.1 million in 2020. The negative EBIT of -€113.2 million (2019: €47.8 million) divided by average capital employed resulted in a ROCE of -8.6% (2019: 3.5%).

Return on capital employed (ROCE)

in % of capital employed	2016	2017	2018	2019	2020
Group	16.2%	10.9%	2.9%	3.5%	-8.6%

In almost all business segments, average capital employed was down year on year. In the Systems business segment, the average capital employed of €284.3 million resulted in a ROCE of -13.2% (2019: 9.3%). In the Robotics business segment, capital employed fell from €428.3 million in 2019 to €407.7 million in 2020. This led to a ROCE of -1.0% in 2020 after 14.8% in the previous year and is attributable to the negative EBIT and costs resulting from the reorganization measures. The Swisslog segment reported an increase in average capital employed to €137.2 million (2019: €122.2 million). Due to the considerably lower EBIT, the ROCE fell from 14.9% to 2.2%. In the Swisslog Healthcare segment, both capital employed (2020: €168.1 million; 2019: €149.1 million) and the resulting ROCE (2020: 1.8%; 2019: -6.8%) increased. This was due to the substantial year-on-year improvement in EBIT. In the China segment, the ROCE was down from 3.7% in 2019 to -3.1% in 2020. The average capital employed was €151.4 million, following on from €153.9 million in the previous year.

Return on capital employed (ROCE)

in % of capital employed	2019	2020
of which Systems	9.3%	-13.2%
of which Robotics	14.8%	-1.0%
of which Swisslog	14.9%	2.2%
of which Swisslog Healthcare	-6.2%	1.8%
of which China	3.7%	-3.1%

Events after the balance sheet date

Effective January 17, 2021, Dr. Chengmao Xu resigned as a member of the Supervisory Board and took on an operational management position within KUKA Group. With effect from February 26, 2021, Lin (Avant) Bai was appointed as a new member of the Supervisory Board by court order.

Notes to the annual financial statements of KUKA Aktiengesellschaft

KUKA Aktiengesellschaft acts as the management holding company within the Group with central management responsibilities such as accounting and controlling, finance, human resources, legal, IT and financial communications. The financial position is determined primarily by the activities of its subsidiaries. This is reflected in the direct allocation of the main companies of the Robotics, Systems, Swisslog, Swisslog Healthcare and China divisions. In the consolidated financial statements, KUKA Aktiengesellschaft is allocated to the Corporate Functions segment.

The annual financial statements of KUKA Aktiengesellschaft are prepared in accordance with the provisions of the German Commercial Code (HGB) and the German Stock Corporation Act (AktG). The financial statements of KUKA Aktiengesellschaft are published in the electronic Federal Gazette (Bundesanzeiger) and on the KUKA Group website (www.kuka.com).

Income statement of KUKA Aktiengesellschaft (HGB)

in € millions	2019	2020
Sales revenues	142.3	115.6
Other company-produced and capitalized assets	1.3	1.3
Other operating income	18.3	152.5
Cost of materials	-72.5	-54.1
Personnel expenses	-61.2	-51.2
Depreciation and amortization of tangible and intangible assets	-15.9	-22.6
Other operating expenses	-31.6	-89.5
Income/expenses from equity investments	37.2	-9.7
Other interest and similar income	12.5	12.6
Depreciation of financial assets	-	-10.0
Interest and similar expenses	-8.3	-8.5
Taxes on income	0.3	-10.7
Net profit for the year	**22.4**	**25.6**
Profit carryforward from the previous year	30.4	35.6
Transfer to retained earnings	-11.2	-12.8
Balance sheet profit	**41.6**	**48.4**

Balance sheet of KUKA Aktiengesellschaft (HGB)

Assets in € millions	2019	2020
Fixed assets		
Intangible assets	28.9	15.9
Tangible assets	147.3	8.8
Financial assets	484.8	495.7
	661.0	**520.5**
Current assets		
Receivables from affiliated companies	716.3	946.9
Other receivables and assets	1.5	1.0
Securities	41.0	25.0
	758.8	**972.9**
Cash and cash equivalents	**67.5**	**19.9**
	826.3	**992.8**
Prepaid expenses	**2.6**	**2.5**
	1,489.9	**1,515.7**

Liabilities in € millions	2019	2020
Equity		
Subscribed capital	103.4	103.4
Capital reserve	305.8	305.8
Other retained earnings	298.6	311.4
Balance sheet profit	41.6	48.4
	749.4	**769.0**
Provisions		
Pension provisions	11.6	11.7
Provisions for taxes	7.7	15.4
Other provisions	29.8	25.4
	49.1	**52.6**

Liabilities in € millions	2019	2020
Liabilities		
Liabilities due to banks	250.8	258.6
Trade payables	7.3	5.7
Accounts payable to affiliated companies	419.9	422.3
Liabilities to provident funds	2.4	2.5
Other liabilities	11.0	5.1
	691.4	**694.1**
	1,489.9	**1,515.7**

Results of operations of KUKA Aktiengesellschaft

The income situation of KUKA Aktiengesellschaft significantly depends on the results of the (direct) subsidiaries, the financing activities and the expenditure and income relating to the holding function.

Sales revenues decreased from €142.3 million in 2019 to €115.6 million in 2020. KUKA Aktiengesellschaft mainly generates its sales revenues from cost allocations and cost transfers to subsidiaries. They fell by 22.3% to €99.5 million in the past fiscal year (2019: €128.0 million). KUKA Aktiengesellschaft generated €16.1 million (2019: €14.2 million) by renting buildings to companies which belong to the Group. The expenses associated with sales revenues are reported as cost of materials and services purchased. These amounted to €54.1 million during the financial year (2019: €72.5 million).

Other operating income of €152.5 million (2019: €18.3 million) includes income of €115.4 million from the transfer of land and buildings to KUKA Real Estate GmbH & Co. KG. The company was newly founded in fiscal 2020 and is wholly owned by KUKA Aktiengesellschaft. In the course of the founding of the company, the majority of the land and buildings at the Augsburg location were contributed to the new company. Income from the disposal of tangible fixed assets is reported under other operating income. Other operating income also includes higher foreign exchange gains compared with the previous year, primarily from the US dollar, Swiss franc and Swedish krona.

Other operating expenses rose from €31.6 million to €89.5 million. The increase is the result of higher currency losses as well as value adjustments made on receivables from affiliated companies.

Personnel expenditure decreased significantly by 16.3% compared to the previous year to €51.2 million (2019: €61.2 million). The average number of employees decreased from 617 in the previous year to 571 in fiscal 2020. As an important measure for safeguarding jobs, KUKA introduced short-time working in April 2020. With the help of this furlough scheme, temporary relief was achieved for operations in Augsburg.

Income from investments totaled -€9.7 million (2019: €37.2 million) and was thus down on the figure for the previous year. The decrease is due to the lower earnings contribution of the German companies that have a profit transfer agreement with KUKA Aktiengesellschaft. This is offset by a slight increase in other income from investments in related companies totaling €78.6 million (2019: €71.3 million).

The depreciation of long-term investments in the amount of -€10 million (2019: €0 million) relates to shares in a non-operating domestic subsidiary that are expected to be permanently impaired.

Net interest decreased slightly by €0.2 million to €4.0 million (2019: €4.2 million). Compared with 2019, there were lower expenses for bank loans and interest expenses to banks in particular. This is offset by higher interest expenses from a loan from Midea Group in 2019. The interest result with consolidated affiliated companies increased by €0.2 million year on year to €11.1 million.

The reported taxes on income and earnings amounting to €10.7 million (2019: €0.3 million) mainly include tax expenses of the tax group of KUKA Aktiengesellschaft and foreign withholding taxes.

KUKA Aktiengesellschaft's net income amounted to €25.6 million in fiscal 2020 (2019: €22.4 million), exceeding the previous year's forecast of a slight increase on account of the significant growth in other operating income. Taking into account the profit of €35.6 million carried forward from the previous year and the transfer of €12.8 million to retained earnings, this results in a balance sheet profit of €48.4 million.

Financial position of KUKA Aktiengesellschaft

One of KUKA Aktiengesellschaft's most important tasks is to provide funds and guarantees for its subsidiaries' current operations. The resources used for external finance such as the promissory note loan and the syndicated loan agreement are described in detail in the section on the financial position of KUKA Group.

KUKA Aktiengesellschaft's financing role is reflected in its receivables from and liabilities to affiliated companies, which are predominantly the result of cash pooling accounts with subsidiaries and loans provided. Since 2019, they also include a loan from Midea International Corporation Company Limited, Hong Kong, in the amount of €150.0 million to KUKA Aktiengesellschaft. The balance of these receivables and liabilities was a net receivables figure of €524.6 million (2019: €296.4 million). The change in receivables results primarily from the transfer of land and buildings to KUKA Real Estate GmbH & Co. KG. The cash flow was impacted by the income from investments, which declined compared with the previous year.

The liquid assets of KUKA Aktiengesellschaft fell from €67.5 million to €19.9 million. Financial liabilities increased year on year by €7.9 million to €258.6 million (2019: €250.8 million). This includes liabilities from the promissory note loan and the short-term drawdown of the working capital facility under the syndicated loan agreement.

Net assets of KUKA Aktiengesellschaft

The net assets of KUKA Aktiengesellschaft are impacted by the management of its equity investments as well as the way in which it executes its management function for the companies in KUKA Group. The receivables from affiliated companies rose from €716.3 million in the previous year to €946.9 million. As mentioned previously, the increase results in particular from the transfer of land and buildings to KUKA Real Estate GmbH & Co. KG. For further details of the receivables from and liabilities to affiliated companies and financial items, please refer to the information on KUKA Aktiengesellschaft's financial position.

The significant decrease in property, plant and equipment from €147.3 million in the previous year to €8.8 million is also attributable to the transfer of land and buildings. Depreciation and amortization of intangible and tangible fixed assets increased from €15.9 million in 2019 to €22.6 million in 2020. This is partly due to the valuation adjustment of an IT project.

Investments totaling €35.1 million (2019: €48.5 million) were made in fiscal 2020. The investments include construction work at the Augsburg site and investments in the IT infrastructure.

KUKA Aktiengesellschaft's direct equity investments in its subsidiaries are reported under financial assets. The increase of €10.9 million to €495.7 million (2019: €484.8 million) results from investments in Swisslog Group as well as from the establishment of KUKA Real Estate GmbH & Co. KG and KUKA Real Estate GmbH. The disposals in the financial year are also associated with the establishment of the KUKA Real Estate companies and relate to a holding at the Augsburg location.

Other assets decreased slightly to €1.0 million in 2020 (2019: €1.5 million).

The short-term securities totaling €25.0 million (2019: €41.0 million) have a term of four months and relate to long-term freely available financial resources invested in conjunction with liquidity management.

Equity was up €19.6 million on the previous year and thus reflects the positive result for the fiscal year. Additionally, a dividend of €6.0 million for fiscal 2019 was paid out in the 2020 fiscal year. The equity ratio of KUKA Aktiengesellschaft amounts to 50.7% as at the balance sheet date December 31, 2020 (2019: 50.3%).

As at December 31, 2020, other provisions totaled €25.4 million (2019: €29.8 million) and were thus down on the corresponding figure for the previous year. One factor for this decline is lower provisions relating to personnel. Other liabilities also decreased from €11.0 million to €5.1 million due to lower tax liabilities.

The net impact on the balance sheet total of KUKA Aktiengesellschaft resulting from the effects described was an increase of €25.8 million to €1,515.7 million (December 31, 2019: €1,489.9 million).

Dependency report

Since there is no control agreement between KUKA Aktiengesellschaft and the majority shareholder, the Executive Board prepares a report on the company's relationships with affiliated companies during the reporting period pursuant to section 312 of the German Stock Corporation Act (AktG). The report was concluded with the following declaration:

"We declare that for each legal transaction in relation to the legal transactions and measures listed in the report on relationships with affiliated companies, the company received appropriate compensation according to the circumstances known to us at the time the legal transaction was performed or the measure was taken and was not put at a disadvantage as a result of the measures being taken. There were no omitted measures."

Sustainability at KUKA

Ecological responsibility

At KUKA, sustainability is embedded in the corporate culture and stands for responsible business practices aimed at protecting the environment, our employees, customers, investors and our social environment. The responsible use of natural resources for the sake of an intact environment and the continuous improvement of measures to achieve this are important prerequisites for economic success. As an industrial company, KUKA makes a measurable contribution to the reduction of environmental pollution. The aim here is to reduce the consumption of energy and other resources and to cut emissions and waste.

Resource-saving production and environmental protection

KUKA products and systems stand for innovation and quality. KUKA is committed to efficient production processes that protect the environment and reduce pollutants. Environmental issues are therefore continuously taken into account and evaluated by the environmental management team together with the employees responsible. Most of KUKA's production locations work according to internationally recognized management system standards in the areas of environment (ISO 14001), energy (ISO 50001), quality (ISO 9001) and other industry-specific regulations. With our Guidelines for Quality, Health, Safety and Environmental Management, we have established a specific framework for this.. For many years, KUKA has had a cross-location environmental management system lying within the responsibility of the Group's Executive Board.

Focus on emissions and water consumption*

By using certified environmental management systems, KUKA can ensure that the impact of energy consumption and production processes on the environment is as low as possible. KUKA also considers the development of emissions and the volume of waste and effluents to be integral parts of the environmental management system, even if they are less significant than energy consumption. Production waste is separated and disposed of or recycled expertly by trained personnel.

At KUKA, water is only used to a limited extent in the paint shop and in cooling processes. At our largest production locations, the total water consumption in 2020 amounted to 93,354 m^3 (2019: 104,217 m^3).

CO_2 emissions at our largest production locations totaled 27,569 tonnes in 2020 (2019: 31,923 tonnes).KUKA reduced its total energy consumption in 2020. This was achieved through the increasingly energy-efficient use of buildings and the introduction of energy-saving measures, but was also due to the coronavirus pandemic, which led to production volumes declining and office employees working from home. KUKA is investing in an environmentally-friendly and future-proof energy supply. By means of a project launched globally in 2019 for collecting all energy data, KUKA is pursuing strategic environmental and energy goals. In the 2020 financial year, a new software solution was implemented that enables evaluation, analysis and reporting for accounting purposes. This provides KUKA with a powerful tool for improving the efficiency of buildings and processes.

Reducing energy consumption*

In the 2020 reporting year, a general overhaul and partial renewal of the continuous painting line in Augsburg was carried out, among other measures. Swisslog in the UK also invested in energy efficiency by changing the lighting throughout the facility. In Switzerland, the basis for the use of district heating was established. Other environmentally-friendly and energy-saving influences that have an impact on the purchase of new components are also evaluated at all sites. At an increasing number of locations, KUKA is using environmentally-friendly green sources to cover a significant share of electricity requirements. As of 2021, the Augsburg, Bremen and Obernburg sites will be supplied entirely with green electricity. The Swisslog site in Dortmund has already been supplied entirely with green electricity for several years.

For further details please refer to KUKA's sustainability report at www.kuka.com

** Not verified by auditors*

Employees

Employees in KUKA Group

KUKA shapes many different sectors with its technologies. The employees are the pillars of KUKA's success in doing so. In order to further improve its attractiveness as an employer, KUKA offers, for example, an ambitious training and further education program, measures to help employees reconcile work and family life, and promotes diversity and equal opportunities.

Challenges in the coronavirus crisis year

The global health crisis triggered by the coronavirus pandemic posed challenges for companies worldwide. KUKA immediately took precautionary action both to protect the health of employees and their families and to cushion the impact on business development. To this end, a coronavirus task force was set up as early as January to prepare a hygiene and safety concept, implement precautionary measures and keep employees regularly informed about current developments. Where possible, employees also switched to working from home and additional contingency workplaces were created in production to maintain safety distances. Thanks to the existing technological equipment and many years of experience with teleworking, it was possible to increase the proportion of employees working from home significantly within a very short time. As an important measure for safeguarding jobs, KUKA introduced short-time working in April 2020. With the help of this furlough scheme, temporary relief was achieved for operations in Augsburg to counter the difficult order situation. Similar models were also adopted in other countries. As at December 31, 2020 KUKA Group employed 13,700 people. The headcount was thus 2.2% lower than in the previous year (2019: 14,014). The Systems division employed 3,033 staff as at December 31, 2020. The number of employees showed a decline of 5.5% on the previous year (2019: 3,208). In the Robotics division, the workforce likewise decreased by 5.5% to 5,197 employees (2019: 5,502). The headcount at Swisslog rose by 1.9% to 2,209 (2019: 2,168).

At Swisslog Healthcare, the number of employees fell slightly by 0.3% to 1,155 from 1,159 in the previous year. The workforce in China comprised 1,516 employees at the end of the financial year, 9.7% above the headcount of 1,382 in the previous year.

High standard of training and further education

When it comes to the vocational training of young people, KUKA has for decades been offering apprentices not only specialist know-how, but also an opportunity to learn in an intercultural setting and to think and act globally on a Group-wide scale. The company trains in line with requirements and maintains a high standard in the quality of apprentice training and the level of performance. This is why KUKA apprentice graduates finish best in class in their respective training occupation time and again and are then qualified specialists immediately ready for their jobs. Professional training is offered at the German sites in Augsburg, Obernburg and Bremen. The Group offers apprenticeships ranging from technical professions such as industrial mechanic, lathe/milling machine operator, mechatronics technician, electronics technician for automation technology, warehouse logistics specialist and specialist for forwarding and logistics services to occupations such as industrial clerk, IT specialist and technical product designer.

In addition to the traditional apprenticeships, KUKA offers a dual, training-integrated degree course at the Augsburg University of Applied Sciences with the aim of attaining a Bachelor's degree. In addition to the dual integrated study course for mechanical engineering, mechatronics and electrical engineering, the disciplines of business administration, information technology, technical information systems and business information systems are also available to choose from.

As part of our continuing education programs at KUKA Academy, we accompany and support our employees in their personal and professional development. At KUKA Academy, we offer all our employees an extensive and varied range of technical/methodical and personal further education courses. These include standard courses, such as computer and language courses, specific professional courses from the fields of sales, purchasing, business administration, strategic implementation and project management, along with seminars for leadership, communication and change management.

With the construction of the new education center at the Augsburg site, KUKA has centralized its training portfolio. Not only KUKA College, for the in-house training of employees, and KUKA Academy, offering language courses, PC courses and other professional development topics, but also the training workshop for classic apprenticeships or dual study courses will be located here on two stories.

Diversity and tolerance are the order of the day*

At KUKA, diversity involves promoting and leveraging the diversity of our employees as a source of creativity, innovation and business success. KUKA benefits from various experiences and talents, because living and promoting diversity is part of the corporate culture. At many locations, the company offers employees flexible working times in order to better combine work and private life. Accepting and encouraging diversity to benefit from different experiences and talents is part of the corporate culture at KUKA. As a signatory to the Diversity Charter, KUKA has also anchored the topic within the structure of the company.

Promoting networks*

KUKA supports the internal women's network orangeWIN, which helps to identify and promote female talent. Due to the coronavirus pandemic, it was only possible to hold four events (two of them virtual) in the year under review. An in-house mentoring program initiated by orangeWIN for the exchange of experience and targeted further development was only able to accommodate two tandems from different hierarchical levels in 2020.

KUKA has also been involved in the Augsburg cross-mentoring program since 2011, which is committed to gender equality at work, and is engaged in MigraNet, which aims to achieve the professional integration of people with a migrant background.

Social engagement*

Orange Care e.V., a non-profit association in Augsburg founded by KUKA employees, is primarily committed to promoting youth and family welfare and supporting people in need. Orange Care has also sponsored a children's daycare center since 2013 with the goal of improving the work-life balance. Due to the coronavirus pandemic, maintaining regular services at the daycare center in 2020 was particularly challenging. With the implementation of a strict hygiene plan and the great commitment of the staff, it proved possible to keep the restrictions for the children and their parents to a minimum. In 2020, as in previous years, the association Kinderweihnachtswunsch (Christmas wish association for children) was again supported with a donation in kind. Kinderweihnachtswunsch e.V. supports children and young people who live in social institutions in the Augsburg area and are cared for by them. The donation was used to fulfill two group wishes. One group had the wish to visit Legoland in Günzburg. Another group wanted to spend a day together at a spa.

As a long-standing sponsor, KUKA also supports the youth research center "Herrenberg-Gäu Aerospace Lab e. V." as a premium sponsor. The aim of the association is to familiarize children, and especially girls, with applied robotics and programming at an early age. They are introduced to technical topics and research not through isolated activities, but via long-term and individual support in group work addressing STEM subjects.

Bringing robotics and automation closer to the public*

In November 2020, KUKA took part in European Robotics Week – initiated by the European robotics association euRobotics – for the tenth time. During this week of events, KUKA employees have the opportunity to get involved in raising awareness of robotics and automation in the general public. On account of the coronavirus pandemic, it was not possible to organize as many in-person events as usual in 2020. An art competition for children was launched on the theme of "How can robots help us when we are ill?". The pandemic has intensified discussion of issues such as digitalization and automation in the healthcare sector, and related digital presentations on robotics in medicine were made available to schools.

For further details please refer to KUKA's sustainability report at www.kuka.com

** Not verified by auditors*

Forecast, opportunity and risk report

Opportunity and risk report

Basic principles

KUKA Group is a global enterprise with international operations. Any entrepreneurial activity provides new business opportunities, but also involves many potential risks. The Executive Board of KUKA Aktiengesellschaft aims to systematically and sustainably improve the value of the company for all stakeholders and shareholders by seizing potential opportunities and minimizing said risks.

To achieve this objective, the Executive Board has implemented a comprehensive corporate risk management system to systematically and consistently identify, evaluate, manage, monitor and report the internal and external risks to which its business segments and subsidiaries are exposed.

Group management regularly assesses the likelihood that identified risks will occur and their potential impact on expected earnings (EBIT). Worst, medium and best case scenarios are considered and serve as the basis for determining a weighted expected risk value. Accruals and write-downs associated with these risks are recognized in the annual financial statements in accordance with applicable accounting principles. The unsecured residual risks, i.e. risks according to risk mitigation measures (net assessment), are therefore depicted as risks.

The risk management system is subject to a monthly reporting process (risk inventory) which involves identifying new risks and carrying out a follow-up assessment of existing risks. These risks are reported if they exceed the threshold defined in the Group's risk management policy. Risks that remain below the threshold are left at segment level and evaluated at "0" in the Group, as the sum of these risks is immaterial for the Group even on a cumulative basis. The information collected in this way is summarized in a risk report that is also prepared each month and addressed to the Executive Board of KUKA Group. This report contains a top 10 risk assessment and a risk exposure assessment (overall risk situation) for the business segments, KUKA Aktiengesellschaft as the holding company and KUKA Group. The top 10 risks are also a fixed part of internal monthly management reporting and are discussed at monthly results discussions between the Executive Board of KUKA Group and the management of the business segments and KUKA AG. The identified risks are additionally presented and explained in more detail to the Executive Board each quarter by the Risk Management Committee. The committee also determines whether any measures already implemented to minimize risk are adequate or whether further steps need to be initiated. It assesses the plausibility of the reported risks and determines how to avoid similar risks in the future. The risk report is also reviewed during Executive Board and Supervisory Board meetings, especially by the Audit Committee.

Direct responsibility for the early identification, control and communication of risks lies with the management of the business segments and the individual subsidiaries, as well as with those responsible for the respective holding functions. Risk managers in the central and decentralized business units ensure that the reporting process is uniform with clearly defined reporting channels and reporting thresholds that are adapted to the business segments and KUKA AG. Internal ad hoc announcements are mandatory whenever risks exceed the Group's defined reporting thresholds. Standard procedures applied throughout the Group ensure that risk management is efficient and effective. Corporate Risk Management coordinates the risk management system. Here, the individual risks identified are compiled into the aforementioned top 10 risk overviews or risk exposure overviews, communicated and monitored. This role is based within KUKA Aktiengesellschaft's Corporate Controlling department, which reports directly to the CFO of KUKA Aktiengesellschaft. This ensures that risk management is an integral component of KUKA Group's overall planning, control and reporting process.

In principle, the Group's risk management system enables the Executive Board to identify material risks at an early stage, initiate appropriate steps to counter these risks and monitor implementation of the steps. The internal audit department regularly monitors compliance with the risk management policy of KUKA Group and therefore whether existing procedures and tools are effective. It also audits those responsible for the risks if this is relevant. The internal audit department also regularly audits the risk management process to ensure efficiency and continuous improvement. Furthermore, external auditors check that the early risk identification system is suitable for early identification of risks that could threaten the existence of the company as a going concern.

In addition to the risk management system, KUKA Group has an internal controlling system (see management report, "Internal control and risk management system" section) above and beyond the risk management system, which it uses to continuously monitor the appropriateness of the corporation's business and accounting processes and identify potential improvements.

Risks and opportunities in KUKA Group

KUKA Group's opportunity and risk-related controlling process ensures that the company's managers take both opportunities and risks into consideration. The Group's risk exposure, based upon evaluating operating risks according to the procedure outlined in the "Basic principles" section, is described below. The report includes the aggregated expected risk value, which is calculated on the basis of the various weighted scenarios and their respective likelihood of occurrence. The aggregated expected risk values of all risks managed and quantified in the Group are reported. The following section quantifies the risks managed at Group level as well as the operating risks of the divisions.

No aggregation is carried out for the opportunities at Group level. For this reason, the opportunities are dealt with in greater detail in the following sections on the divisions.

Group risk exposure

in € millions	2019	2020
Legal risks	7.7	11.2
Economic risks	2.7	43.1
Financial risks	21.8	24.4
Other risks	Not quantified	7.0
Total for the Group	**32.2**	**85.6**

Detailed explanations of the risk categories listed can be found in the following sections.

Operating risks and opportunities of the business segments and KUKA AG

KUKA is exposed to the cyclic investment behavior of its customers in the various market subsectors. A major portion of the divisions' business volume is in the automotive sector where oligopolistic structures and constant price pressure are ongoing concerns. Fluctuations in the industry's capital spending plans are also considered in the respective strategic and operational plans by analyzing public announcements and disclosures. The company continuously strives to be as flexible as possible with its own capacities and cost structure to address the cyclic nature of the business.

In fiscal 2020, KUKA Group was heavily burdened by the global effects of the coronavirus pandemic and the related further decline in customers' willingness to invest, both in the automotive industry and in general industry. The global economic slump had a negative impact on the company's business development. This essentially affected all regions. One consequence of the pandemic was that the coronavirus-related restrictions caused project postponements and meant that orders could not be finalized within the planned timeframe. Furthermore, deteriorations in some customer projects weighed on business performance. Restructuring costs and risks were incurred, particularly in the Robotics and Systems business segments.

KUKA Group has implemented damage limitation measures in connection with the coronavirus pandemic. If regulatory interventions to contain the pandemic are introduced without advance notice or are extended indefinitely, the measures taken by KUKA Group may not be sufficient. The operating business would be adversely affected, for example, by temporary site closures, supply chain disruptions or even production stoppages. One of the main uncertainties of the coronavirus pandemic is the unpredictable duration (e.g. mutations or new waves of infection), as well as the economic impacts of the interventions.

KUKA succeeded in preventing and mitigating disruptions to the supply chain through proactive risk management. This ensured that customer orders could be processed in their entirety. Nevertheless, there are inherent risks due to insolvencies of suppliers and/or customers, as well as production disruptions caused by COVID-19 cases. The pandemic has also shown, however, that the trend towards automation remains intact, offering opportunities especially in logistics/e-commerce, healthcare, alternative drive systems, but also in non-industrial sectors. KUKA works with suppliers that focus on quality, innovative strength, continuous improvement and reliability so that it can supply its own customers with products of the highest possible quality and ensure timely delivery. Generally, KUKA sources product components from several suppliers in order to minimize the risk of sharp price increases for key raw materials, but in a few cases, due to a lack of alternative sources, is dependent on single suppliers that dominate their markets. Continuous monitoring of supplier risks is conducted as part of the risk management process.

Projects within the framework of the digitalization strategy were further advanced, with the coronavirus pandemic even accelerating their implementation.

KUKA Systems

This division's revenues and profits are subject to general business risks due to the length in time it takes to process project orders, the revisions to the specifications that are often necessary during processing, the infrequency of the orders received, and the price and competitive pressures. Other risks associated with these projects include inaccurate prediction of the actual costs as well as penalties for late deliveries. The division therefore uses appropriate risk checklists for individual orders in order to assess the associated legal, economic and technological risks prior to preparing a quotation or accepting a contract. One of the components of project execution, for example, is to monitor and track solvency risks and mitigate them using a strict project and receivables management process. Other risks are continuously monitored and if necessary accounted for by way of accruals or write-downs. Opportunities exist, for example, if unplanned customer change requests have to be implemented during the term of the project or if KUKA can benefit from lower purchase prices for outsourced parts compared to the cost estimate. In 2020, several projects in Europe and the USA were subject to significant additional costs as a result of coronavirus-related delays, but also due to the high complexity of these projects. These effects were taken into account in the amended project calculation and are already included in earnings for 2020 through provisions for impending losses.

Automation requirements in the expansion of global production capacities of the major automobile manufacturers, particularly in the field of electromobility, are currently highly dynamic. KUKA is increasingly working together with internal partners, with several of the division's regional subsidiaries collaborating on a customer project. In these situations, there are risks involved in information exchange, the value-added process and project management across various IT systems. There are also organizational risks associated with extraordinarily rapid and strong growth in business volume, particularly in emerging markets. KUKA mitigates these risks by deploying experienced internal and contract employees when establishing and expanding the local organizations.

The increasing variety of models offered by the automotive industry tends to have a positive impact on the potential market volume, since this generates increasing demand for flexible manufacturing systems, which in turn spurs demand for new or revamped assembly lines. This creates new business opportunities for system providers and subsuppliers. Scarce resources are driving demand for smaller and more fuel-efficient vehicles that will use alternative energy sources. This means automakers, especially American manufacturers, will have to invest in new production lines or upgrade their existing assembly lines in the future.

Pay-on-production contracts such as KTPO's (KUKA Toledo Production Operations) offer additional opportunities, but also risks. The Jeep brand still promises good growth prospects compared to other American car models. KUKA will continue to participate in this growth.

Thorough market analyses have shown that KUKA Systems also has long-term business opportunities outside the automotive industry; namely, in general industry. The main risks here when tapping into new market potential relate to technical requirements, since customers in these sectors often have no experience with automated systems. The aforementioned checklists to review the technical risks associated with applying new automation techniques are therefore an especially important tool for identifying and mitigating risks. The achievement of targets for 2021 depends largely on the further course of the coronavirus pandemic and the associated economic recovery. These factors were therefore included in the risk assessment, and scenarios were presented that evaluate the threat of shutdowns in the USA, for example. These risks caused by the pandemic are the major part of the economic risks and the main reason for the increased risk exposure compared to the previous year.

Systems risk exposure

in € millions	2019	2020
Legal risks	0.0	0.2
Economic risks	0.4	9.9
Financial risks	0.0	0.0
Other risks	Not quantified	0.0
Total for Systems	**0.4**	**10.1**

KUKA Robotics

Demands for continuous product innovation from international customers and unrelenting cost awareness are the key challenges for this division's product portfolio; especially when it comes to the automotive industry and its suppliers. The result is permanent price pressure and potentially longer life cycles for the robotic applications combined with demands for ever-improving quality and longer warranties.

KUKA Robotics responds to such trends by continually developing new products and applications that offer customers in existing markets quantifiable financial benefits driven by quick paybacks. Launching new products goes hand in hand with product performance risks and quality guarantees, which could generate additional costs if rework is required. KUKA employs a comprehensive quality management system that includes extensive validation and test processes to detect, avoid and manage such risks.

Due to the coronavirus crisis, the Robotics business will remain subject to uncertainties in 2021, particularly in KUKA's traditional focus industries. Possible effects and impacts such as production stoppages, supply chain disruptions and delayed customer call-offs are included in the risk assessment. These represent the main part of the economic risks and are largely responsible for the increase compared to the previous year. The return to pre-crisis levels may potentially take longer than anticipated in earlier forecasts, as also in many other sectors. However, in some of the market segments described, there are opportunities for a faster increase in the demand for automation – such as in the pharmaceutical industry.

Project postponements and the trimming of model ranges, particularly in the automotive industry, but also structural changes at customers, are creating additional uncertainties. The further diversification of business activities and the focus on high-growth, profitable market segments present an opportunity. One of the company's key strategic thrusts is to penetrate new, non-automotive markets. Increasing diversification across various industries and regions reduces dependencies on individual sectors and can offset existing cyclicalities.

The cell business has come under pressure in recent years due to high project risks and falling market prices. The structure has been adapted to the changed framework conditions. This involved realigning the business model both organizationally and thematically. In addition to projects based on customer-specific solution requests, this includes continued focusing of the project business on modular and standardized cells.

Robotics risk exposure

in € millions	2019	2020
Legal risks	0.0	1.7
Economic risks	0.5	23.7
Financial risks	0.1	1.2
Other risks	Not quantified	0.0
Total for Robotics	**0.6**	**26.6**

Swisslog

The Swisslog segment broadens KUKA's range of products and services and contributes to independence from the automotive industry. In some cases, projects for the automation of warehouse and distribution centers are subject to long lead times which can give rise to financial risks resulting from miscalculations, failure to meet acceptance specifications or late deliveries. To counter this, regular project risk assessments are carried out at different stages of the projects by those responsible for project implementation in the relevant countries. Potential risks are regularly reviewed, new ones are added or existing ones eliminated, and measures for risk reduction are introduced and their progress documented. Projects requiring particular management attention are classified as "top attention projects" and their status is communicated monthly to the higher management levels.

It is expected that both the coronavirus-related restrictions at the end of the fiscal year and possible further negative influences in connection with the pandemic will have a significant impact on current and planned projects in the first and second quarters. Different scenarios were considered in this respect and included in the risk exposure. The exposure is a significant part of the economic risks. In the second half of the year, implementation of the planned projects is expected to return to normal. The risk position is therefore at the previous year's level.

Swisslog risk exposure

in € millions	2019	2020
Legal risks	0.0	0.0
Economic risks	1.8	7.0
Financial risks	13.6	6.3
Other risks	Not quantified	0.0
Total for Swisslog	**15.3**	**13.3**

Swisslog Healthcare

The Swisslog Healthcare segment also expands KUKA's range of products and services, thereby contributing to independence from the automotive industry. Market data indicate that the increasing pressure on costs and the strict safety requirements for hospital logistics offer high growth potential for automation. Furthermore, consolidated service centers, in which hospitals standardize their logistics processes and achieve cost advantages, generate greater demand for automation solutions. Risks arise from complex technical and regulatory requirements.

Risks arise from delayed and postponed investments by customers due to shifts in priorities as a result of the crisis. The overall risk position is at the level of the previous year.

Swisslog Healthcare risk exposure

in € millions	2019	2020
Legal risks	0.2	0.6
Economic risks	0.1	0.1
Financial risks	3.0	1.7
Other risks	Not quantified	0,0
Total for Swisslog Healthcare	**3.3**	**2.4**

China

The China segment comprises all business activities of the Chinese companies in the Systems, Robotics, Swisslog and Swisslog Healthcare divisions. For this reason, the risks arise from the above-mentioned segment and product-specific risks.

Fundamentally, risks continue to exist due to the current geopolitical situation and the effects of the coronavirus pandemic, such as travel restrictions or supply chain disruptions. KUKA can only take limited risk-reducing measures to mitigate these risks of global magnitude. For this reason, KUKA is focusing on trust-based cooperation with local customers and a suitable product portfolio. The reluctance to invest is leading to increased competition, which entails the risk of significantly lower order volumes and margins. Here, also, KUKA is taking measures to improve efficiency in production and project management in order to further reduce costs.

As part of restructuring, local expertise and capacity to act have been strengthened and geared towards the requirements of the Chinese market. This makes it possible to take greater advantage of business opportunities.

The existing uncertainties in the economic environment have increased the overall risk position.

China risk exposure

in € millions	2019	2020
Legal risks	0.0	0.0
Economic risks	-0.2	1.4
Financial risks	0.9	2.3
Other risks	Not quantified	0.0
Total for China	**0.7**	**3.7**

Risks and opportunities managed at holding level (KUKA AG)

Cross-division opportunities and risks are analyzed and managed at Group level for central functions such as legal matters, taxes, corporate finance and treasury, personnel and IT, rather than by the individual divisions, which is why said risks are only addressed from the Group perspective in the opportunity and risk report. Information about this can be found in the specified sections.

KUKA AG acts as the Group’s management holding company, performing central service functions. KUKA AG’s result in the separate financial statements depends primarily on the profit transfers of the German subsidiaries and on dividends from the subsidiaries. This gives rise to corresponding opportunities and risks with associated possible implications for the carrying amounts of investments and the receivables from affiliated companies recognized in the balance sheet.

KUKA AG risk exposure

in € millions	2019	2020
Legal risks	7.6	8.7
Economic risks	0.0	1.1
Financial risks	4.3	12.9
Other risks	Not quantified	7.0
Total for KUKA AG	**11.9**	**29.6**

Strategic risks and opportunities

KUKA's business segments aim to be among the technology and market leaders in their target markets. The key to achieving this is to consistently enhance their core technologies on the basis of coordinated innovation programs. One important task is to identify opportunities and risks associated with technical innovations early and to evaluate the innovations' manufacturability. The company mitigates the impact of faulty market assessments by conducting regular market and competitor analyses, some of which are decentralized. Application-related developments, system partnerships and cooperative ventures reduce the risk of development work not conforming to market requirements. Strategic risks and opportunities are not quantified.

Legal risks and insurance

Since KUKA conducts business around the world, it is obliged to comply with many international and country-specific laws and regulations issued, for example, by tax authorities. The company employs specialists familiar with the respective countries' laws on a case-by-case basis. Opportunities and risks arise as a result of changes to legal frameworks. For example, tax audits discovering non-compliance issues could negatively impact the Group in the form of payment of interest charges, penalties and back taxes. These changes and the resultant risks are continuously monitored; at the present time, however, there are no foreseeable tax or legal issues that could have a significant negative impact on KUKA Group. Appropriate provisions have been recognized for tax risks based on experience.

Standard general contracts are used whenever possible to cap risks from contractual relationships. The Group's legal department supports the operating companies to help limit risks associated with in-house contracts, warranty obligations and guarantees as well as country-specific risks such as the lack of patent and brand protection in Asia. KUKA has developed an independent strategy to safeguard its intellectual property, which is primarily secured by patents and trademark rights.

In the context of insurance/risk management, sufficient property insurance, loss-of-profits insurance, public, product and environmental liability insurance and transportation insurance are maintained centrally for the Group. D&O insurance (directors and officers liability insurance) is also in place. Existing insurance policies are reviewed annually in order to ensure sufficient cover and to weigh the relationship between the insurance protection and deductibles against the risk premium.

Financial risks

KUKA Group is under the financial control of KUKA AG. The primary objectives of financial management are to secure the liquidity and creditworthiness of the Group, thus ensuring financial independence. Effective management of foreign exchange, interest rate and default risk also serves to reduce earnings volatility.

KUKA AG identifies, coordinates and manages the financial requirements of the Group companies and optimizes the financing of the Group. For this it employs a Group-wide standard treasury management and reporting system. KUKA AG normally procures finance centrally and distributes the funds among the Group companies. In addition, liquidity risk is reduced for KUKA Group by closely monitoring the Group's companies and their management of payment flows.

KUKA pursues a conservative financing policy with a balanced funding portfolio. This is essentially based on the promissory note loans issued in 2015 and 2018 with staggered maturities up to 2023, on an inter-company loan concluded with Midea in December 2019 with a term until 2025, and on a syndicated loan refinanced in 2018 with a term until 2025 and providing cash credit facilities and guarantee lines. Two standard financial covenants (leverage and interest coverage ratio) have been agreed for the syndicated loan. KUKA monitors adherence to these covenants based both on the current figures and on planning. The covenants were complied with throughout fiscal 2020. As at December 31, 2020, both covenants were well within the contractually defined limits. Beyond these financing agreements, additional financing options are available to KUKA within the terms of factoring framework agreements. Comprehensive details of the financing instruments and the extent to which the agreed credit lines have been utilized can be found in the notes to the annual financial statements, in the section "Financial liabilities / Financing".

KUKA hedges the interest rate and exchange rate risks from operations and financial transactions with financial derivatives. Transactions in financial derivatives are exclusively entered into for hedging purposes, i.e. always with reference to and for hedging underlying transactions. Whenever possible, KUKA AG is the central hedging partner of the Group companies, and it in turn hedges the Group's risks by concluding appropriate hedging transactions with banks. Internal guidelines govern the use of derivatives, which are subject to continuous internal risk monitoring. For a more precise description of our risk management objectives and the methods employed please refer to the notes on financial risk management and financial derivatives.

Currency translation risks, i.e. measurement risks associated with balance sheet and income statement items in foreign currencies, are not hedged, but are continuously monitored. The risk associated with the volatility of leading currencies and the resulting economic exchange risk (competitive risk) is mitigated by having production facilities in several countries (natural hedging).

Political risks

The general political conditions, such as the trade war between the USA and China, the US election and Brexit, also have an impact on KUKA's business success. The associated risks were identified, analyzed and evaluated. For the business activities in the Robotics segment, these were specifically quantified with a weighted expected risk value of €0.2 million. In the other segments, the risks are also relevant, but were only assessed qualitatively and are subject to ongoing observation as abstract risks. Risks due to Brexit were partially mitigated through contractual measures.

Personnel risks and opportunities

The success of KUKA Group, a high-tech enterprise, depends to a great degree on having qualified technical and management staff. Personnel risks arise mainly from employee turnover in key positions within the Group. Due to the current general conditions, there is a risk of higher fluctuation, which could lead to shifts in competencies. KUKA is countering this risk, not least by means of in-house continuing education programs such as those offered by KUKA Academy or employee suggestion programs in order to boost the satisfaction, motivation and qualification of the workforce. This also opens up opportunities for the recruiting of new employees.

IT risks and opportunities

IT risks have risen over the past number of years owing to the importance of IT to business processes. These risks relate to both the frequency of virus attacks or hacking and the damage they could potentially cause. The existing IT security and business continuity management systems as well as guidelines and organizational structures are continuously optimized and reviewed in an effort to predict and minimize possible IT-related risks such as failure of computer centers or other IT systems. One way this is addressed is by continuously upgrading hardware and software. Furthermore, KUKA has launched several transformation projects which are currently running with the objective of harmonizing processes and the supporting IT application system architecture throughout the Group. This will generate long-term cost reduction potential and lead to continuous quality improvements. By systematically monitoring the processes concerned, the company reduces the risks associated with an increasing number of external threats as well as dependence on the ever-expanding digitalization of business processes.

Risks in the area of information security and data protection are continuously monitored and analyzed, as they can result in considerable risks for the Group due to changes in the legal framework.

Compliance risks

Compliance violations can have far-reaching consequences, resulting in long-term damage to the company and restricting its economic success. In addition to high fines and compensation payments, exclusion from tenders, disgorgement of profits and criminal law repercussions are possible. KUKA's image as a business partner of integrity could also be tarnished. This can have a negative effect not only on customer relationships, but also on business relationships of all kinds. Consequently, strategic projects, transactions and capital market measures could suffer as a result.

In order to counter these risks in a transparent and appropriate manner, the Group-wide Corporate Compliance Program was set up in 2008. Details can be found in the Corporate Compliance Report.

The Compliance Committee established through this program holds regular ordinary meetings as well as extraordinary meetings as required. The members have a wide-ranging and in-depth wealth of experience in both the company and the industry. This enables them to assess risks carefully and adequately.

The committee is chaired by the Chief Compliance Officer, who reports to KUKA Aktiengesellschaft's CEO, who in turn reports to the Supervisory Board's Audit Committee.

The CEO is ultimately responsible for the Corporate Compliance Program, which is updated as required and subject to strict internal controls. The Corporate Compliance Program is integrated into daily work by means of the comprehensive processes and measures of the Compliance Management System.

No substantial compliance risks were identified in 2020 due to the active countermeasures taken by KUKA to mitigate risk at an early stage and to eliminate risk sources, for example, by realigning processes and adapting training to specific target groups.

Other risks

KUKA Group continuously monitors other risks and mitigates these to the greatest extent possible. Possible risks to the environment due to operational activities are predominantly attributable to the use of hazardous substances. Waters and soils can also be adversely affected by the legal disposal of waste, or even by unforeseeable accidents. Such events cannot be completely ruled out despite all precautionary measures taken. KUKA therefore takes wide-ranging preventive measures to ensure continual minimization of the potential environmental impact. Most of our production locations work according to internationally recognized management system standards in the areas of environment (ISO 14001), energy (ISO 50001), quality (ISO 9001) and other industry-specific regulations, for example, VDA 6 Part 4. For many years, KUKA has had a cross-location environmental management system. The Group owns some of the buildings and properties that it uses for its business operations. As a result, the company is exposed to risks associated with any residual pollution, soil contamination or other damaging substances that may be discovered on its properties. There is currently no evidence of any situations that would have a negative impact on the measurement of balance sheet items. However, it cannot be ruled out that any such situations, which could, for example, require costly clean-up operations to be undertaken, will occur in the future. At the locations, risks relating to fire protection, water and media supply, static and construction defects are regularly investigated. These are assessed by experts and measures are taken to minimize the risk.

Summary

In the overall assessment of risks, KUKA Group is primarily exposed to (performance-)related risks from the divisions and to legal and financial risks controlled at Group level. Despite a significant increase in potential risks, such as those arising from the effects of the coronavirus pandemic, which have been identified and evaluated in the risk management system, the Executive Board is not aware of any individual or aggregated risks that could threaten the company's existence. Strategically and financially, the company is positioned to be able to take advantage of business opportunities.

Forecast

General economic environment

In its December 2020 economic outlook, the Organization for Economic Cooperation and Development (OECD) anticipates a gradual recovery of the global economy following the economic slump in the first half of 2020. It thus expects the global economy to grow by 4.2% this year, after a decline of 4.2% in 2020. According to the latest OECD forecast, however, the recovery will vary greatly from country to country. For the European economy, which suffered a 7.5% decline in 2020, only a weak upturn of 3.6% is expected this year. The growth forecast for the German economy is 2.8% after a decline of 5.5% in 2020. In September 2020, growth of 4.6% had still been expected for 2021. Although incoming orders picked up in the second half of the year, the coronavirus cases increased again towards the end of the year and there were prolonged lockdown periods. For the US market, a milder decline is expected in 2020, with a drop of 3.7%. Growth of 3.2% is forecast for 2021. While the Chinese economy is also losing momentum, it should nevertheless still develop positively with a plus of 1.8% in 2020. China's economic output is expected to increase by 8.0% in 2021.

According to the OECD, the world is experiencing a health and social crisis with a dramatic economic downturn, which has so far been at least partially mitigated by state support schemes. However, it warns that discontinuing economic aid too soon could derail the anticipated recovery in 2021.

Automation & digitalization

Global megatrends such as the increasing customization of products, digitalization, demographic changes, and also greater regionalization due to global uncertainties necessitate increasingly flexible and at the same time more efficient solutions in production and logistics environments. These trends will intensify in the medium term, mainly as a result of the experience gained from the coronavirus crisis and the trade disputes. This experience shows how important new business models are becoming which enable customers to flexibly adapt their processes to rapidly changing market needs. At the outbreak of the pandemic, for example, global supply chains were partially disrupted at very short notice. As a result, production lines at many companies were shut down due to a lack of parts. This experience is prompting companies to rethink their worldwide supply chains and they are increasingly inclined to manufacture parts – particularly critical items – locally. Logistical and political risks could thus be minimized. With increasing regionalization, local capacities are being built up and the demand for intelligent automation solutions is growing. Especially in high-wage countries, companies are compelled to produce at high efficiency levels in order to remain internationally competitive. In addition, the growing demand for customized products will further increase the degree of automation. This calls for new business models that will fundamentally and lastingly transform not only production in the future, but also the value creation process as a whole.

In the long term, robot installations will increase worldwide. This development is being driven by robots which can perform tasks around the clock that are dangerous or harmful to humans, by the increasing digitalization of production, and by a greater focus on energy efficiency. With technological advancements such as human-robot collaboration and easy programming, additional new applications and markets will emerge. So-called cobots can work safely alongside humans by stopping automatically as soon as an obstacle enters their workspace. The further development of sensor and vision technologies allows robots to react to changes in their environment in real time. Whereas traditional industrial robots operate quickly and are primarily important for increasing productivity, cobots will assist humans in their work. In addition, the use of easily programmable robots will expand the spectrum of applications, especially in the case of frequent changes in the production process. Combined with mobile platforms, this will open up a whole new range of possibilities in automation.

As a result of the global uncertainties, the number of robots installed worldwide decreased by 12% in 2019 according to the IFR, marking the first decline after six consecutive years of growth (IFR report published in September 2020). The 2019 figures did not yet include any coronavirus-related downturn. The coronavirus crisis has further depressed the global robotics market since 2020. Economic performance from 2021 onward will depend heavily on how states deal with the waves of infections in the coming months, but also on state support schemes to revive the economy and save jobs. For this reason, the IFR has for the first time refrained from making a specific forecast, presenting three possible scenarios for the coming years instead. In this context, the IFR referred to the high degree of uncertainty underlying even basic assumptions. It sees different starting times for the anticipated recovery, depending on the market. A gradual recovery commencing in 2021 is regarded as most likely. According to this assessment, however, the pre-crisis level will not be reached again until 2022 or 2023.

Automotive

Even before the coronavirus crisis, car manufacturers found themselves caught between the high investment levels required for fundamental structural change and a downturn in the global automotive market. The coronavirus pandemic further aggravated the situation and also had an impact on the manufacturers' business development in 2020. Due to plummeting demand, numerous manufacturers and suppliers cut back on production and introduced short-time working or comparable cost-cutting measures. Investments that were not absolutely essential were postponed.

The automotive industry is facing a fundamental structural transformation that offers opportunities but poses enormous challenges at the same time. Many people wish that individual mobility will continue to be an indispensable feature of our society in the future. In this context, electric propulsion, digital networking and autonomous vehicle control will create entirely new possibilities. Manufacturers will have to adjust to a growing number of variants and models, more frequent model changes, but also fluctuations in production volumes. With the greater degree of individualization in the automotive industry, vehicles and thus also production processes are becoming more and more complex. In increasingly volatile markets, there is a growing need to manufacture small batches in an economically viable manner. This can only be achieved with the help of automated, versatile and flexible production solutions. Suppliers too will have to adjust to this situation. Flexible automation solutions with quickly adaptable production cells will replace rigid systems. This involves the use of new technologies, such as automated guided vehicles (AGVs) and software solutions based on artificial intelligence.

In order to remain internationally competitive and also to meet the demand for climate-neutral mobility, new technologies and intelligent solutions will be increasingly used, forming the basis for a successful transformation.

The automotive industry is still the world's largest market for industrial robots. However, the degree of automation varies according to the stage of production. For example, hardly any manual work is carried out any more in body-in-white construction, while final assembly has so far been automated to a limited extent only, offering potential for growth, especially for sensitive robots, the cobots.

Non-automotive

Automated solutions can help make processes more flexible, faster and more efficient. Growth opportunities in this respect are offered above all by the markets outside the automotive industry, the so-called general industry markets. Here, the robot density (number of robots per 10,000 workers) is still low. The worldwide robot installations in general industry have increased continuously in recent years. Average growth rates between 2014 and 2019 even reached double digits in countries such as China (+21%), Korea (+18%) and Italy (+11%). In China, robot density rose in line with the increasing automation of the electronics industry. Manufacturers of electronic equipment are now the largest group of customers there. In Germany, the robot density in general industry was equivalent to 199 robots per 10,000 workers according to the October 2020 IFR report. By comparison, the automotive industry had a robot density of 1,311 robots. In the USA, the robot density rose to 139 in general industry and 1,287 in the automotive industry. In China, the world's largest robot market, the robot density in general industry was only 95 and in the automotive industry 939 per 10,000 workers.

New technologies enabling the simpler operation of robots, for example, are also providing a boost to automation. This increases the attractiveness of automation solutions in production and logistics environments that have previously not been automated to any great extent. But also the strong growth of sectors such as e-commerce offers opportunities for automation. Ever more goods are being ordered online and customers want delivery times to be as short as possible. As a result, the demands on warehousing are becoming increasingly complex in the efforts to fulfill the growing number of incoming orders even faster. The cost and competitive pressures in e-commerce are intense and companies that do not adapt quickly enough to the dynamic environment will be forced out of the market. Consequently, efficient automation solutions are in greater demand as a means of remaining competitive.

China

According to the IFR, a total of around 373,000 industrial robots were installed worldwide by the end of 2019, some 38% of them in China. This means that since 2016, no other country has installed more robots than China. This rapid development is unprecedented in the history of robotics. Since 2014, the robot density has increased by an average of 39% every year. The enormous growth in China was achieved primarily due to the high level of investment by automotive manufacturers. Most of the world's cars are now manufactured in China. But the electronics industry has also invested massively. This sector is meanwhile the largest customer for industrial robots in China.

However, the difficult global environment has dampened the robotics market in China. Installations of articulated robots decreased by 7% in 2019 and those of SCARA robots by as much as 16%. The IFR is not able to provide a reliable outlook for 2020 and beyond. The market development depends on many factors, such as the global handling of the pandemic, the further course of the trade disputes between the USA and China as well as between the USA and Europe, and also Brexit. But the long-term outlook remains positive. The Chinese government plans to develop the country into a leading global high-tech manufacturing landscape. However, the increase in automation over the last few years is not attributable to government support alone, but also to increased wages, higher quality standards and more environmentally-friendly production processes. Existing factories are being modernized and new factories are being built to take advantage of the rapidly growing market. China has a population of 1.4 billion with a growing middle class. As a result, the demand for consumer goods, better medical care and a more opulent lifestyle is on the rise.

Due to its high growth potential, the Chinese robot and automation market is a core element of KUKA’s growth strategy. KUKA is planning to expand its market shares in China and expects a boost to growth as soon as the underlying economic and political conditions stabilize and the investment environment improves. Nevertheless, the present reluctance of customers to invest is currently making the Chinese market difficult and demanding.

Summary

It is difficult to predict at this stage how countries will combat the pandemic in the coming months, how long state support schemes will last and how this will affect the labor market and society. The current market environment thus remains difficult, as a result of which customers are holding back on investments. Current economic forecasts, by the OECD and others, assume a gradual recovery of the global economy. This presupposes that the forecast growth is not undermined again by further waves of the coronavirus, leading to site closures. Based on these expectations and also weighing up the current potential risks and opportunities, KUKA anticipates a slight increase in demand in 2021. From a sector perspective, KUKA expects the sales markets outside the automotive industry to recover moderately and show increasing demand. In the automotive industry too, demand should improve slightly compared with 2020.

KUKA is active in various currency areas around the world. Its key financial indicators are therefore exposed to the influence of changes in exchange rates (transaction and translation risks). The currencies of importance to KUKA are presented in detail in the notes. The handling of interest rate and currency risks in KUKA Group is described in the opportunity and risk report and in the notes.

Anticipated business development in KUKA Group

in € millions	2020	2021 expectations
Orders received	2,792.2	above prior-year level[1]
Sales revenues	2,573.5	slightly above prior-year level[1]
EBIT margin	-4.4%	positive / rising
Earnings after taxes	-94.6	positive / above prior-year level[1]
Free cash flow	37.0	positive / below prior-year level[1]

[1] Definitions:
slightly above/below prior-year level: absolute change compared to prior year < ±10%
above/below prior-year level: absolute change compared to prior year ≥ ±10%
at prior-year level: absolute change compared to prior year: ≤ ±3%

Orders received, sales revenues and EBIT margin

Based on current economic forecasts, which currently assume a gradual recovery of the global economy, and weighing up the opportunities and risks, KUKA's expectations for the full year 2021 are for orders received to be above the prior-year level. Sales revenues are expected to be slightly above the prior-year level. EBIT margin is predicted to increase and to be in the positive zone. The EBIT margin should be in the positive low single-digit percentage range.

Earnings after taxes

In the 2020 financial year, KUKA Group reported earnings after taxes of -€94.3 million. For 2021, KUKA expects positive earnings after taxes at Group level.

Free cash flow

KUKA Group's free cash flow is primarily generated from operating profits and the development of working capital. Free cash flow is expected to be positive in 2021, but below the prior-year level due to the resurgence of investment activities as the economy recovers. Fluctuations may occur due to the uncertain framework conditions, especially in connection with the fight against the pandemic, as well as continuing geopolitical tensions.

KUKA AG

KUKA AG's result in the separate financial statements depends mainly on the profit transfers of the German subsidiaries and on dividends from subsidiaries. KUKA Aktiengesellschaft also forecasts a slight year-on-year improvement in earnings. Net income for the year is the most important performance indicator.

Internal control and risk management system

Basic principles

Pursuant to section 289 para. 4 and section 315 para. 4 of the German Commercial Code (HGB), KUKA Aktiengesellschaft, as a publicly traded parent company, must describe within the management report the key characteristics of its internal control and risk management system with regard to the accounting process. The description must include the accounting processes of the companies included in the consolidated financial statements.

The risk management system comprises all organizational rules and measures related to identifying risk and dealing with entrepreneurial risk (see the opportunity and risk report). The internal control system is an integral part of the risk management system.

The internal control system (ICS) comprises all principles, processes and measures introduced to the company by management that result in systematic and transparent risk management. The focus here is on the organizational implementation of management decisions made to ensure the effectiveness and efficiency of business operations (for example, the protection of assets, including the prevention and detection of asset misappropriation), the correctness and reliability of internal and external accounting, and compliance with the legal provisions applicable to the company.

The objective of the ICS is to obtain sufficient certainty using the implemented controls to monitor and manage risks so that the company's goals can be achieved. Various monitoring measures – both integrated into and independent of the processes – contribute to the preparation of annual and consolidated financial statements that are in conformity with the legal provisions.

Regardless of its specific form, an ICS is unable to provide absolute certainty as to whether it will achieve its objectives. Taking this into account, the accounting-related ICS can only provide relative certainty rather than absolute certainty that material misstatements in accounting will be avoided or detected.

Structures and processes

With regard to the accounting process, the structures and processes described below have been implemented in KUKA Group. The Executive Board of KUKA Aktiengesellschaft bears full responsibility for the scope and design of the ICS.

The system extends via clearly defined management and reporting structures to all subsidiaries that are included in the consolidated financial statements.

All accounting and human resources activities for the German companies are mainly performed centrally at the Shared Service Center of KUKA Aktiengesellschaft.

Intra-group tasks such as treasury, legal services and taxes are also largely performed centrally by KUKA Aktiengesellschaft on the basis of uniform Group processes.

The principles, organizational structures and processes of the (Group) accounting-related internal control and risk management system are defined in guidelines and organizational procedures. Adjustments based on external and internal developments are integrated on a continuous basis and made available to all employees concerned.

Characteristics of the internal control and risk management system

With respect to the accounting process, we regard those characteristics of the internal control and risk management system as material that can significantly impact the accounting and the overall presentation of the consolidated and annual financial statements, including the consolidated management report. At KUKA Group, these include, in particular:

- Identifying the main areas of risk (see the opportunity and risk report) and control that affect the (Group) accounting process;
- Quality controls to monitor the (Group) accounting process and the accounting results at the level of the Group Executive Board, the management companies and individual reporting entities included in the consolidated financial statements;

- Preventive control measures in the finance and accounting systems of the Group and the companies included in the consolidated financial statements as well as in operating business performance processes that generate key information for the preparation of the consolidated and annual financial statements and the consolidated management report, including a separation of functions of predefined approval processes in relevant areas;
- Process-integrated monitoring measures such as the principle of dual control for which each material business transaction must be signed or otherwise approved by at least two authorized persons;
- Measures to ensure proper, IT-supported processing of (Group) accounting-related facts and data. These include, for example, central management of access rights to the bookkeeping systems and automated plausibility checks when data are recorded in the reporting and consolidation system;
- Implementation of the control requirements to be met by the accounting-related ICS is defined and monitored by the central Group ICS department, which remains independent of the processes. By means of a defined procedure, the internal controls are documented by the responsible departments and then examined by independent parties – normally the Group ICS department – for functional capability and effectiveness. Any weak points in the control system are targeted through action plans, whose implementation is monitored. Significant control weaknesses and the implementation of action plans are reported to the Executive and Supervisory Boards.

Internal Audit constitutes an additional control entity that is independent of processes and regularly reviews the organizational structures, processes and orderliness in addition to the defined ICS requirements, thus contributing to compliance with the ICS and risk management system.

In addition, the CFOs of all subsidiaries must provide an internal responsibility statement in the context of external reporting every quarter, confirming that the data reported are correct. Only then do the members of the Executive Board of KUKA Aktiengesellschaft issue and sign a responsibility statement at year-end,

In its meetings, the Audit Committee of the Supervisory Board regularly reviews the effectiveness of the accounting-related internal control system and obtains an appropriate view of the Group's risk situation. In so doing, the Executive Board of KUKA Aktiengesellschaft presents the risks associated with financial reporting at least once per year, outlines the control measures implemented, and monitors their correct execution.

Summary

The structures, processes and characteristics of the internal control and risk management system that have been depicted ensure that the accounting processes of KUKA Aktiengesellschaft and KUKA Group are uniform and are implemented in accordance with the legal requirements, generally accepted accounting principles, international accounting standards and internal Group guidelines.

They also ensure that transactions are recognized and measured uniformly and accurately throughout the Group and that accurate and reliable information is therefore provided to the internal and external recipients of the information reported.

Disclosures in accordance with section 289a para. 1 and section 315a para. 1 of the German Commercial Code (HGB) including accompanying explanations

The disclosures in accordance with takeover law required by sections 289a para. 1 and 315a para. 1 of the German Commercial Code (HGB) are presented as at December 31, 2020 and explained in the following.

Composition of subscribed capital

As at December 31, 2020, the total share capital of KUKA Aktiengesellschaft amounted to €103,416,222.00 and consisted of 39,775,470 no-par-value bearer shares with pro rata share capital of €2.60 per share. The share capital is fully paid up. All shares have equal rights and each share guarantees its holder one vote at the Annual General Meeting. Shareholders are not entitled to have share certificates issued for their shares (section 4 para. 1 of the Articles of Association). When new shares are issued, the start of profit sharing may be established at variance with section 60 para. 2 of the German Stock Corporation Act (AktG) (section 4 para. 3 of the Articles of Association).

Restrictions affecting voting rights or transfer of shares

There are no restrictions affecting voting rights or transfer of shares.

Shareholdings that exceed 10% of the voting rights

According to the German Securities Trading Act (WpHG), any investor who reaches, exceeds or falls below the voting rights threshold pursuant to section 33 of the WpHG through purchase, sale or by other means is obliged to report this to the company and the German Federal Financial Supervisory Authority (BaFin).

As at December 31, 2020, KUKA Aktiengesellschaft has received notifications from the following investors whose direct or indirect shareholdings in the capital of KUKA Aktiengesellschaft exceed 10% of voting rights:

Midea Group – according to the voting rights notification dated December 21, 2018

1.	Midea Electric Netherlands (I) BV	81.04%	directly
2.	Midea Electric Netherlands (II) BV	13.51%	directly
3.	Guangdong Midea Electric Co., Ltd.	94.55%	allocated
4.	Midea Group Co., Ltd.	94.55%	allocated

Shares with special rights that confer powers of control

There are no shares with special rights conferring powers of control.

Method of voting rights control when employees hold an interest in the share capital and do not directly exercise their rights of control

No employees hold an interest in the share capital within the meaning of section 289a para. 1 no. 5 and section 315a para. 1 no. 5 of the German Commercial Code (HGB).

Legal provisions and provisions of the Articles of Association regarding the appointment and dismissal of Executive Board members and amendments to the Articles of Association

Pursuant to section 6 para. 1 of the Articles of Association, the company's Executive Board must consist of at least two persons. The Supervisory Board determines the number of Executive Board members (section 6 para. 2 of the Articles of Association). The appointment and dismissal of members of the Executive Board are governed by sections 84 and 85 of the Stock Corporation Act (AktG), section 31 of the Co-Determination Act (MitbestG) and section 6 of the Articles of Association.

Pursuant to sections 119 para. 1 no. 5 and 179 para. 1 of the Stock Corporation Act (AktG), any changes to the Articles of Association require a resolution by the Annual General Meeting. Section 22 para. 1 of the Articles of Association states that a simple majority of the share capital represented at the Annual General Meeting is sufficient to pass a resolution, provided that a greater majority is not required by law. A greater majority is required in particular for resolutions concerning changes to the company's business purpose, reductions in the share capital and changes to the form of incorporation.

Pursuant to section 11 para. 3 of the Articles of Association, the Supervisory Board is authorized to make amendments to the company's Articles of Association that only affect the wording.

The resolution passed at the Annual General Meeting held on May 29, 2019 also authorized the Supervisory Board to amend the wording of section 4, para. 1 and 5 of the Articles of Association following complete or partial execution of the capital increase in accordance with utilization of Authorized Capital 2019 and, if Authorized Capital 2019 has not been fully used by May 28, 2024, following expiration of the authorization.

The Supervisory Board was also authorized by the resolution passed at the Annual General Meeting of May 29, 2019 to amend the wording of section 4, para. 1 and 6 of the Articles of Association as per the respective issue of shares offered under the stock option plan and all other associated amendments to the Articles of Association that only affect the wording. The same applies in the event that the authorization to issue bonds is not exercised after expiry of the period of authorization, or to the extent that Conditional Capital 2019 has not been utilized at the time of expiry of the option or conversion rights, or deadline for fulfillment of the conversion or option obligations.

Executive Board authorization to issue and buy back shares

Authorized capital

As per the resolution of the Annual General Meeting on May 29, 2019 and section 4 para. 5 of the company's Articles of Association, which was added on the basis of this resolution, the Executive Board, subject to approval by the Supervisory Board, is authorized to increase the company's share capital on or before May 28, 2024 by up to €31,024,866.60 through the issue of new shares in exchange for contributions in cash or in kind in multiple tranches (Authorized Capital 2019). The shareholders shall be granted subscription rights. The new shares may also be underwritten by one or more financial institutions or by enterprises operating according to section 53 para. 1 sentence 1 or section 53b para. 1 sentence 1 or para. 7 of the German Banking Act (KWG), as specified by the Executive Board, subject to the obligation that they are offered to the shareholders for subscription (indirect subscription right). However, the Executive Board shall be authorized, subject to approval by the Supervisory Board, to exclude fractional amounts from shareholder subscription rights and to exclude shareholder subscription rights if a capital increase in exchange for contributions in kind takes place for the purpose of acquiring companies or parts of companies or interests in companies or other assets (including third-party claims against the company). Subject to approval by the Supervisory Board, the Executive Board shall be further authorized to exclude shareholder subscription rights in the event of Authorized Capital 2019 being used once or several times in exchange for cash contributions in an amount not exceeding 10% of the existing share capital at the time this authorization comes into effect and – if this value is lower – at the time this authorization is exercised, in order to issue the new shares at a price that is not significantly lower than the price of the company's shares already quoted on the stock exchange at the time the new share issue price is finalized. Shares sold as a result of, and during the term of, the authorization granted at the Annual General Meeting of May 29, 2019 in accordance with section 71 para. 1 no. 8 sentence 5 AktG in conjunction with section 186 para. 3 sentence 4 AktG shall count towards the aforementioned 10% threshold. Furthermore, this 10% threshold shall also include shares issued for the purpose of servicing warrant or convertible bonds, participation rights or participating bonds or a combination of these instruments, provided that these instruments were issued as a result of, and during the term of, an authorization granted at the Annual General Meeting of May 29, 2019 in accordance with the appropriate application of section 186 para. 3 sentence 4 AktG.

The Executive Board is authorized, subject to approval by the Supervisory Board, to stipulate other details regarding the capital increase and its execution, in particular with regard to share rights and the terms and conditions relating to the issuance of shares.

Conditional capital

Section 4 para. 6 of the Articles of Association stipulates a conditional increase in share capital by up to €15,512,432.00, divided into up to 5,966,320 no-par-value bearer shares (Conditional Capital 2019).

The conditional capital increase will be applied to grant no-par-value shares when conversion or option rights are exercised (or upon fulfillment of corresponding option/conversion obligations) or when KUKA Aktiengesellschaft exercises its option to grant no-par-value shares of KUKA Aktiengesellschaft instead of paying wholly or partially the monies due to the holders of conversion or warrant bonds, participation rights or participating bonds (or a combination of these instruments), issued by KUKA Aktiengesellschaft or a dependent Group company up to May 28, 2024 in exchange for cash contributions as a result of the authorization granted by the shareholders at the Annual General Meeting of May 29, 2019. Furthermore, new shares will be issued according to the condition in the aforementioned authorization resolution at the option or conversion price to be determined respectively. The conditional capital increase shall only be conducted in the event of an issue of bonds to which option or conversion rights or obligations are attached in accordance with the authorization by shareholders at the Annual General Meeting of May 29, 2019 and only to the extent that option or conversion rights are exercised or to the extent that holders of bonds obligated to convert or exercise their options fulfill their conversion or option obligations, or to the extent that KUKA Aktiengesellschaft exercises its option to grant no-par-value shares of KUKA Aktiengesellschaft wholly or partially instead of paying the monies due and provided in each case no cash settlement is granted or treasury shares or shares of another listed company are used to service the bonds. The new shares issued shall participate in the profits as of the beginning of the financial year in which they are issued. The Executive Board is authorized, subject to approval from the Supervisory Board, to define the further details of the execution of the conditional capital increase.

Acquisition of treasury shares

As per the resolution passed by the Annual General Meeting on May 29, 2019, the company is authorized, until May 28, 2024, to buy back its own shares in an amount not to exceed 10% of the share capital existing at the time the resolution was passed via the stock market or in the form of a public purchase offer addressed to all shareholders by the company. In doing so, the purchase price (excluding transaction costs) may not be more than 10% higher or lower than the average stock market price defined in detail in the authorization.

The company may exercise this authorization in whole or partial amounts, once or several times; however, it may also be executed by dependent companies or companies in a majority holding of the company, or through a third party on behalf of the company or its dependants.

Pursuant to the above resolution, the Executive Board is also authorized, subject to approval by the Supervisory Board, to treat the treasury shares acquired subject to the exclusion of shareholder subscription rights on the basis of that and earlier authorizations as follows:

(1) To sell the treasury shares acquired to third parties in connection with company mergers or the acquisition of companies, or parts of companies, or interests in companies, or for the purpose of acquiring other assets (including claims of third parties against the company);

(2) To sell the treasury shares acquired by means other than via the stock exchange or an offer to all shareholders, provided the shares are sold for cash at a price that is not substantially lower than the quoted stock market price of treasury shares at the time of sale.

However, this authorization only applies subject to the proviso that the shares sold subject to the exclusion of subscription rights pursuant to section 186 para. 3 sentence 4 of the German Stock Corporation Act (AktG) may not, in total, exceed 10% of the share capital, whether on the effective date of the authorization or on the date on which it is exercised. The limit of 10% of the share capital is to include shares

(a) that are issued to service bonds with warrants or convertible bonds, participation rights or participating bonds, or a combination of these instruments, provided the instruments were issued on the basis of an authorization resolved by the Annual General Meeting of May 29, 2019 pursuant to the corresponding application of section 186 para. 3 sentence 4 of the German Stock Corporation Act (AktG);

(b) that are issued by exercising an authorization – in effect on the date on which the above authorization took effect or that was resolved by the Annual General Meeting of May 29, 2019, from authorized capital pursuant to section 186 para. 3 sentence 4 of the German Stock Corporation Act (AktG), under exclusion of subscription rights;

(3) To use the treasury shares acquired to introduce the treasury stock on foreign stock exchanges on which they have not previously been admitted for trading.

Treasury shares acquired on the basis of this authorization or authorizations granted at an earlier time may be canceled without requiring a further resolution at the Annual General Meeting for the cancelation. Cancelation leads to reduction of the share capital. However, the cancelation can also be effected by means of a simplified process without the reduction of share capital by adjusting the proportionate amount of share capital of the remaining shares according to section 8 para. 3 of the German Stock Corporation Act (AktG). The Executive Board is in this case authorized to change the disclosure of the number of shares in the Articles of Association accordingly. This authorization for the acquisition of treasury shares, as well as the resale or cancelation of such shares, may be used once or several times, in whole or in part.

Significant company agreements that are conditional upon a change of control, and the resulting impact

Employment contracts of Executive Board members

The employment contract of CEO Peter Mohnen contains a change-of-control clause. In the event of a change of control within the company (sections 29 para. 2 and 30 of the German Securities Acquisition and Takeover Act [WpÜG]), he is entitled to terminate the employment contract within three months of the change of control occurring, subject to a notice period of three months. In the event of a termination, he will be entitled to a severance payment, which is measured against the compensation due for the remainder of his contract, but is restricted to twice the annual compensation at most. The employment contract of Executive Board member Andreas Pabst does not contain a change-of-control clause.

Syndicated loan agreement

KUKA Aktiengesellschaft and its associated companies signed a new syndicated loan agreement on February 1, 2018 with a consortium of banks (comprising Commerzbank AG, Deutsche Bank AG Deutschlandgeschäft branch, Deutsche Bank Luxembourg S.A., UniCredit Bank AG, Landesbank Baden-Württemberg, Bayerische Landesbank, BNP Paribas S.A. German branch, DZ Bank AG Zentral-Genossenschaftsbank (Frankfurt am Main) and Credit Suisse AG) and amended this agreement through an amendment and accession agreement on June 21, 2019. According to the terms of the loan agreement, the creditors provide working capital and guarantee lines of up to €520,000,000. The loan agreement had an original term of 5 years up to February 1, 2023 and was subject to two extension options. Following the approval of all syndicate banks for the second extension option in December 2019, the loan agreement now runs until February 1, 2025 with an unchanged structure.

The loan agreement covers the main working capital requirements of KUKA Group (including the furnishing of bank guarantees). The contract contains a change-of-control clause that is typical in the industry, under the terms of which the syndicated banks may demand repayment of the loan in the event that a shareholder (or group of shareholders acting in concert) acquires control of at least 30% of the voting rights of KUKA Aktiengesellschaft, or otherwise has the ability to direct the business policy of the company. A change of the direct owner within Midea Group is not affected by this provision as long as Midea Group Co., Ltd. directly or indirectly holds 100% of the shares and voting rights of the new owner. The creditors may also declare the loan agreement due for repayment in the cases of a delisting, a squeeze-out or the conclusion of a control and/or profit transfer agreement with a company of Midea Group.

Promissory note loan 2015

On October 9, 2015, led by Landesbank Baden-Württemberg and UniCredit Bank AG, KUKA Aktiengesellschaft had issued a promissory note loan with an overall volume of €250,000,000 and staggered terms to 2020 and 2022. On October 9, 2020, KUKA Aktiengesellschaft repaid the tranche of €142,500,000 due in 2020.

The terms and conditions of the promissory note loan contain a standard change-of-control clause. Accordingly, immediately it learns of a change of control, KUKA Aktiengesellschaft must disclose this in accordance with the terms and conditions of the loans. The lenders then have the right, within 30 days of receiving notification of a change of control, to demand repayment of their (pro rata) loan at the next interest due date after receipt of the request for repayment and the interest due up to the date of repayment. A change of control within the meaning of the terms and conditions of the loan is given if a person or persons acting in concert directly or indirectly (i) either hold more than 30% of the voting shares, (ii) hold more than 30% of the voting rights in the company and/or (iii) otherwise have the possibility of directing the company's business policy.

US assignable loans of KUKA Toledo Production Operations LLC

On August 7, 2018 and September 6, 2018, led by Deutsche Bank AG, Landesbank Baden-Württemberg and UniCredit Bank AG, KUKA Toledo Production Operations LLC ("KTPO") as borrower and KUKA Aktiengesellschaft as guarantor issued a total of four assignable loans with an overall volume of USD 150,000,000 and staggered terms to 2020, 2022 and 2023. The tranche of USD 10,000,000 due in 2020 was repaid on August 10, 2020.

The terms and conditions of the assignable loans contain a standard change-of-control clause. Accordingly, immediately it learns of a change of control, KUKA Aktiengesellschaft must disclose this in accordance with the terms and conditions of the loans. In this case, the lenders have the right, within 15 days of receiving notification of a change of control, to terminate the assignable loan agreements prematurely and demand repayment of their (pro rata) loan and the interest due up to the date of repayment. A change of control within the meaning of the terms and conditions of the assignable loans is given if a person or persons acting in concert directly or indirectly (i) either hold more than 30% of the voting shares, (ii) hold more than 30% of the voting rights in KTPO or KUKA Aktiengesellschaft and/or (iii) otherwise have the possibility of directing the business policy of KTPO or KUKA Aktiengesellschaft. A change of the direct owner within Midea Group is not affected by this provision as long as Midea Group Co., Ltd. directly or indirectly holds 100% of the shares and voting rights of the new owner. Also excluded is restructuring within KUKA Group, i.e. a change of control at KTPO insofar as control is exercised by a KUKA Group company.

Agreements concluded between the company and members of the Executive Board or employees governing compensation in the event of a takeover bid

No agreements have been concluded between the company and members of the Executive Board or employees governing compensation in the event of a takeover bid. The change-of-control clause in the employment contract of CEO Peter Mohnen does not constitute a compensation clause as defined in sections 289a para. 4 sentence 1 no. 9 and 315a para. 4 sentence 1 no. 9 of the German Commercial Code (HGB).

Corporate Governance Statement

For the corporate governance statement pursuant to section 289f and section 315d of the German Commercial Code (HGB), reference is made to information published on the KUKA AG website: www.kuka.com/de-de/investor-relations.

Non-financial declaration

Please refer to the website at www.kuka.com for the non-financial declaration pursuant to sections 315b, 315c, 289b and 289c of the German Commercial Code (HGB). The declaration will be published on April 30, 2021.

Compensation report

The compensation report is an integral part of the management report and summarizes the basic principles used to determine the compensation of the Executive Board and the Supervisory Board of KUKA Aktiengesellschaft and describes the structure and compensation of the members of the Executive Board and the Supervisory Board.
The Executive Board and the Supervisory Board of KUKA Aktiengesellschaft will propose to the Annual General Meeting 2021 a remuneration system for the members of the Executive Board of KUKA Aktiengesellschaft that will take into account the principles of the new recommendations of the GCGC 2020, deviating from individual recommendations if necessary. In their declaration of compliance dated February 11, 2021, the Executive Board and the Supervisory Board declared a corresponding deviation from the recommendations pursuant to section G.1 of the GCGC 2020.

Executive Board compensation

1. Compensation structure

KUKA Aktiengesellschaft's Executive Board compensation contains fixed and variable components. The latter consist of several variable compensation elements. The Executive Board compensation system is thus geared towards sustainable corporate performance. The variable components take into consideration both positive and negative business developments. The ratio between the individual compensation components for the Executive Board members in office as at December 31, 2020 is as follows (based on 100% values of the compensation components):

Executive Board member:	Fixed salary	Variable compensation (management bonus, company targets bonus)	Variable compensation (long-term)
Peter Mohnen (CEO)	43%	43%	14%
Andreas Pabst (Executive Board member, CFO)	44%	44%	12%

Fixed compensation

The fixed compensation consists of a base salary and payments in kind. The base salary is paid in twelve equal monthly installments. The payments in kind made to Executive Board members consist mainly of the non-cash benefits for the provision and use of a company vehicle.

Variable compensation (management bonus and company targets bonus)

The variable compensation paid to Executive Board members is dependent on the achievement of personal targets in the strategic and operative area ("management bonus" – one-year compensation component) and financial targets of KUKA Group ("company target bonus" – two-year compensation component). The key performance indicators for the company targets are the EBIT and free cash flow of KUKA Group. The breakdown between personal and financial targets for the Executive Board members in office as at December 31, 2020 is as follows:

Executive Board member:	Share of personal targets (management bonus)	Share of financial targets (company targets bonus)

Peter Mohnen (CEO)	30%	70%
Andreas Pabst (Executive Board member, CFO)	33.33%	66.67%

The personal targets and the financial targets (targets for EBIT and free cash flow) are agreed separately each year. The basis of assessment, i.e. the amount of the annual variable compensation, is governed by the employment contracts of the Executive Board members. The variable compensation target achievement can range from 0% to 200%; achievement of the financial targets is linked to business performance over several years (two-year period). The calculation is made by averaging the target achievement of the relevant two fiscal years.

Variable compensation (long-term)

a) Long-term incentive plan

In the 2017 and 2018 financial years, CEO Peter Mohnen and Dr. Till Reuter (CEO in office until December 5, 2018) were entitled to participate in long-term incentive plans (hereinafter “LTIPs”) with annual allocation volumes. The LTIPs are variable compensation components with long-term incentives.

The LTIPs cover a period of three financial years. The allocation volume is either already contractually agreed or set by the Supervisory Board before the respective three-year period commences.

At the start of the three-year performance period, the Supervisory Board also determines the key indicators and specifications for the target values of the success factors for the LTIP concerned. The relevant factors are (i) the performance factor and (ii) the strategy factor.

The key indicator for the performance factor is the EVA over the performance period. The EVA in this context is the Group EBIT (on a consolidated basis) less minimum interest (9%) on the Group’s capital employed. The Supervisory Board stipulates the target values at its discretion, divided into (i) minimum target, (ii) target and (iii) maximum target. The minimum target corresponds to a performance factor of 0.50, the target to a performance factor of 1.00 and the maximum target to a performance factor of 1.50.

The relevant key indicators (strategic targets) for the strategy factor are determined by the Supervisory Board at its discretion. The Supervisory Board also defines the target values for each key indicator. The minimum target corresponds to a strategy factor of 0.00, the target to a strategy factor of 1.00 and the maximum target to a strategy factor of 2.00.

The gross disbursement amount is calculated by multiplying the individual allocation value, performance factor and strategy factor for the performance period. The performance factor and strategy factor are determined by means of interpolation after the end of the performance period.

Under specific conditions defined in the LTIP (“good and bad leaver” rule), entitlement to payment of the gross disbursement amount may be waived in full or limited pro rata temporis.

b) KUKA Added Value Incentive Plan (KAVI)

In fiscal years 2019 and 2020, Executive Board members were entitled to participate in the KUKA Added Value Incentive Plan (hereinafter “KAVI”) as a long-term compensation component. In contrast to the LTIP, the KAVI is based on long-term development of the earnings per share and the share price performance of KUKA Aktiengesellschaft and Midea Group Co. Ltd. The 2019-2021 and 2020-2022 KAVI plans each have a term of three fiscal years.

Under the terms of the KAVI, each member of the Executive Board is granted an individual allocation value in euros. This allocation value is then multiplied by the sum of the earnings factor (50% weighting) and the share price factor (50% weighting). The earnings factor and share price factor are defined as follows:

<table>
<tr><td>Earnings factor:</td><td>The earnings factor refers to KUKA Aktiengesellschaft's earnings per share (EPS). The EPS targets were derived from EPS 2019-2021 and EPS 2020-2022, taking the average value in accordance with the medium-term planning in each case. The following applies for the individual KAVIs:

EPS 2019-2021: €3.44 = factor 1
EPS 2020-2022: €2.74 = factor 1

The minimum target for EPS 2019-2021 was set at €2.06 and the minimum target for EPS 2020-2022 was set at €1.64. If this minimum target is not reached, the earnings factor is 0.</td></tr>
<tr><td>Share price factor:</td><td>The share price factor is made up of the following components: (i) share price performance of KUKA Aktiengesellschaft relative to the benchmark group (80% weighting) and (ii) share price performance of Midea Group Co. Ltd. over the performance period (20% weighting). With regard to the price development of KUKA shares, a benchmark group of eleven companies was defined, representing the Robotics, Systems, Logistics Automation and Healthcare business segments.

The share price factor is subject to minimum targets. If these are not achieved, the share price factor is 0.</td></tr>
</table>

The total amounts to be paid out from the LTIPs not yet settled and the ongoing KAVI are limited to three times the individual allocation value granted to each Executive Board member.

The total compensation for the Executive Board members (fixed annual salary, variable bonuses and payments under an LTIP or KAVI) is thus limited by the accumulation of caps on the individual items.

The employment contracts of Executive Board members contain “severance payment caps”. This means that a restriction is agreed upon in the event of the employment contracts being terminated prematurely without good cause in relation to potential severance payments. The regulations specifically stipulate that the settlement shall not exceed the compensation value for the remaining term of the employment contract, restricted to twice the annual compensation (comprising all compensation components).

The employment contract of Peter Mohnen also contains a change-of-control clause. In the event of a change of control within the company (sections 29 para. 2 and 30 of the German Securities Acquisition and Takeover Act (WpÜG)), he is entitled to terminate the employment contract within three months of the change of control occurring, subject to a notice period of three months. In the event of a termination, he will be entitled to a severance payment, which is measured against the compensation due for the remainder of his contract, but is restricted to twice the annual compensation at most (comprising all compensation components). The employment contract of Andreas Pabst does not include such an arrangement. The employment contract between KUKA Aktiengesellschaft and Prof. Dr. Peter Hofmann was prematurely terminated effective end of day October 31, 2020, based on the termination agreement dated February 19, 2020. Prof. Dr. Peter Hofmann’s position on the Executive Board terminated at the end of February 20, 2020 under the provisions of the aforementioned termination agreement. Prof. Dr. Peter Hofmann was paid the agreed fixed salary until October 31, 2020 on the basis of the termination agreement. In addition, the entitlement to the variable compensation (management bonus and company targets bonus) was settled with an amount of k€500 (of which k€84 relates to his time as an active member of the Executive Board and k€416 to his time as a former member of the Executive Board). No separate severance payment was granted.

No loans were granted to Executive Board members during the year under review.

2. Compensation for 2020

Executive Board compensation for the 2020 financial year is still disclosed for each individual member in accordance with the standardized reference tables recommended in the GCGC 2017. This applies until the revision of the compensation system for the Executive Board and facilitates comparability with previous years. Following this, the compensation is disclosed separately according to “granted benefits” (table 1) and “actual inflow” (table 2). The target values (payment for 100% target achievement) and the minimum and maximum values achieved are also disclosed for the benefits.

Table 1: Executive Board compensation for 2020 – Overview of benefits

	Peter Mohnen CEO				Andreas Pabst CFO				Prof. Dr. Peter Hofmann CTO[1] from Nov. 1, 2019 until Feb. 20, 2020			
in € thousands	2019	2020	2020 (min)	2020 (max)	2019	2020	2020 (min)	2020 (max)	2019	2020	2020 (min)	2020 (max)
Fixed compensation (basic compensation)	1,000	1,000	1,000	1,000	600	600	600	600	75	63[1]	63[1]	63
Fringe benefits[2]	35	35	35	35	11	11	11	11	10	2	2	2
Other compensation[3]	73	-	-	-	-	-	-	-	-	-	-	-
Total	**1,108**	**1,035**	**1,035**	**1,035**	**611**	**611**	**611**	**611**	**85**	**65**	**65**	**65**
One-year variable compensation												
Management bonus for 2019[4]	300	-	-	-	200	-	-	-	25	-	-	-
Management bonus for 2020[4]		300	0	600		200	0	400	-	25	0	50
Multi-year variable compensation (two-year)												
Company targets bonus for 2019[5]	700	-	-	-	400	-	-	-	58	-	-	-
Company targets bonus for 2020[5]		700	0	1,400		400	0	800	-	59	0	118
Long-term variable compensation (three-year)												
KAVI 2019-2021[6]	300	-	-	-	150	-	-	-	17			
KAVI 2020-2022[6]		330	0	990		165	0	495	-	17	-	51
Total	**1,300**	**1,330**	**0**	**2,909**	**750**	**765**	**0**	**1,695**	**100**	**166**	**65**	**284**
Total	**2,408**	**2,365**	**1,035**	**4,025**	**1,361**	**1,376**	**611**	**2,306**	**185**	**166**	**65**	**284**
Pension cost	-	-	-	-	-	-	-	-	-			2020
Total compensation	2,408	2,365	1,035	4,025	1,361	1,376	611	2,306	185	**166**	**65**	**284**

[1] Prof. Dr. Hofmann was a member of the Executive Board (Chief Technology Officer) from November 1, 2019 to February 20, 2020. His employment contract ended on October 31, 2020 on the basis of the termination agreement dated February 19, 2020 (the "Termination Agreement"). In fiscal 2019, Prof. Dr. Peter Hofmann received the fixed compensation, the management bonus and the company targets bonus, as well as the allocation value for the KAVI 2019-2021, on a pro rata temporis basis. On the basis of the termination agreement, Prof. Dr. Peter Hofmann received the agreed fixed compensation, the agreed variable compensation (management bonus and company targets bonus) and the KAVI 2020-2022 on a pro rata basis until February 20, 2020 in his capacity as a member of the Executive Board.

[2] The fringe benefits include expenses and non-cash benefits for the provision of company cars and insurance allowances.

[3] Compensation for activities as administrative board member of Swisslog Holding AG.

[4] Portion of variable compensation for achieving personal targets (with 100% target achievement) in the specified fiscal years (possible target achievement from 0 to 200%).

[5] Portion of variable compensation for achieving the company targets bonus (with 100% target achievement) for the specified fiscal years (possible target achievement from 0 to 200%).

[6] Fair value at the time of granting for the KAVI 2019-2021 and the KAVI 2020-2022 (possible target achievement from 0 to 300%).

Table 2: Executive Board compensation for 2020 – Overview of inflow

	Peter Mohnen		Andreas Pabst		Prof. Dr. Peter Hofmann	
	CEO		CFO		CTO[1] from Nov. 1, 2019 until Feb. 20, 2020	
in € thousands	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**
Fixed compensation (basic compensation)	1,000	1,000	600	600	75	63
Fringe benefits[2]	35	30	11	11	3	2
Other compensation[3]	73	0	-	-	-	-
Back payment of fixed compensation for 2018[4]	62	0	40	-	-	-
Total	**1,170**	**1,030**	**655**	**611**	**78**	**65**
One-year variable compensation						
Management bonus for 2018[5]	329		14			
Management bonus for 2019[5]		447		295		25
Multi-year variable compensation (two-year)						
Company targets bonus for 2017[6]	161	-	-	-	-	-
Company targets bonus for 2018[6]	-	164	-	28	-	-
Company targets bonus for 2019						59
Long-term variable compensation (three-year)						
PSP 2016-2018[7]	75	-	-	-	-	-
Long-term incentive plan 2017-2019[8]	-	30	-	-	-	-
Total	**565**	**641**	**14**	**323**	**-**	**84**
Total	**1,735**	**1,671**	**669**	**934**	**78**	**149**
Pension cost	-	-	-	-	-	-
Total compensation	**1,735**	**1,671**	**718**	**934**	**78**	**149**

[1] Prof. Dr. Hofmann was a member of the Executive Board (Chief Technology Officer) from November 1, 2019 to February 20, 2020. His employment contract ended on October 31, 2020 on the basis of the termination agreement dated February 19, 2020 (the "Termination Agreement"). In fiscal 2019, Prof. Dr. Peter Hofmann was paid the fixed compensation and fringe benefits on a pro rata basis. In fiscal 2020, Prof. Dr. Hofmann was paid the agreed fixed compensation and the agreed variable compensation (management bonus and company targets bonus) on a pro rata basis up to February 20, 2020 on the basis of the termination agreement in his capacity as a member of the Executive Board. Compensation components received by Prof. Dr. Peter Hofmann after February 20, 2020 and up to the termination of his employment contract on October 31, 2020 did not accrue to him in his function as a member of the Executive Board. All claims arising from the KAVI 2019-2021 and the KAVI 2020-2022 lapsed with the termination agreement.

[2] The fringe benefits include expenses and non-cash benefits for the provision of company cars and insurance allowances. Prof. Dr. Peter Hofmann was contractually guaranteed reimbursement of relocation costs of up to k€5 on presentation of receipts and a monthly housing allowance of up to k€1.5 per full month for a period of up to 12 months from the start of his employment on presentation of receipts.

[3] Compensation for activities as administrative board member of Swisslog Holding AG.

[4] For the period December 6 to December 31, 2018, Peter Mohnen was entitled to additional, pro rata fixed compensation amounting to k€62. For the period December 6, 2018 to December 31, 2018, Andreas Pabst was entitled to pro rata fixed compensation and fringe benefits amounting to k€40. These sums accrued to Peter Mohnen and Andreas Pabst in the form of a supplementary payment in fiscal 2019.

[5] Variable compensation paid out in fiscal 2019 for the achievement of personal targets for 2018 and variable compensation paid out in fiscal 2020 for the achievement of personal targets for 2019.

[6] Portions of variable compensation for company targets bonus for fiscal 2017, which were paid out in fiscal 2019, and portions of variable compensation from fiscal 2018, which were paid out in fiscal 2020.

[7] Phantom share program 2016-2018 payout at a final price of €58.00 (average KUKA share price (opening price in XETRA trading on the Frankfurt Stock Exchange) between January 2, 2019 and March 26, 2019). The amounts paid out each represent the gross proceeds. The net payout results from the gross proceeds less taxes and social contributions, other statutory levies and the purchase price for actual KUKA shares.

[8] Long-term incentive plan 2017-2019, paid out in fiscal 2020.

In accordance with the presentation of Executive Board compensation required by section 314 para. 1 no. 6a sentence 5 of the German Commercial Code (HGB), which deviates from the presentation of the allocation and accrual consideration in accordance with the GCGC 2017, the compensation of the Executive Board members and the Executive Board as a whole is presented as follows in the table below. Total compensation of all members of the Executive Board in office in fiscal 2020 in accordance with section 314 para. 1 no. 6a sentence 5 of the German Commercial Code (HGB) amounted to k€3,744 in fiscal 2020 (2019: k€4,131).

in € thousands	Peter Mohnen CEO	Andreas Pabst CFO	Prof. Dr. Peter Hofmann[1] CTO	Total
Fixed compensation + fringe benefits	1,035	611	65	**1,711**
Variable compensation [2] Management bonus for 2020	450	300	-	**750**
Company targets bonus for 2019 [2]	700	400	-	**1,100**
Long-term incentive plan 2018-2020 [2]	75	-	-	**75**
KAVI 2020-2022 [3]	330	165	-	**495**
Total	**2,590**	**1,476**	**65**	**4,131**

[1] Prof. Dr. Hofmann was a member of the Executive Board (Chief Technology Officer) from November 1, 2019 to February 20, 2020. His employment contract ended on October 31, 2020 on the basis of the termination agreement dated February 19, 2020 (the "Termination Agreement"). In fiscal 2019, Prof. Dr. Peter Hofmann was paid the fixed compensation and fringe benefits. In fiscal 2020, Prof. Dr. Peter Hofmann was paid the agreed fixed compensation and the agreed variable compensation (management bonus and company targets bonus) on a pro rata

basis up to February 20, 2020 on the basis of the termination agreement in his capacity as a member of the Executive Board. Compensation components received by Prof. Dr. Peter Hofmann after February 20, 2020 and up to the termination of his employment contract on October 31, 2020 did not accrue to him in his function as a member of the Executive Board. All claims arising from the KAVI 2019-2021 and the KAVI 2020-2022 lapsed with the termination agreement.

[2] Value of the provision as at December 31, 2020.

[3] Fair value at the time of granting

Apart from a few exceptions, former Executive Board members whose terms of office ended no later than 2008 were granted company pension benefits that included old age, professional and employment disability, widows' and orphans' pensions. The sum of the provisions recognized in 2020 for current pensions and expected pension benefits for this group of persons totaled k€9,964 (German Commercial Code) (previous year: k€9,966). Furthermore, former members of the Executive Board received a lump-sum payment of k€416 for variable compensation components in fiscal 2020.

Supervisory Board compensation

1. Compensation structure

Based on a resolution at the company's Annual General Meeting on January 1, 2006, the Articles of Association were amended to include fixed compensation for members of the Supervisory Board.

In addition to reimbursement of expenses, each member of the Supervisory Board is paid a fixed amount of k€30, payable at the end of the fiscal year.

The Chairman of the Supervisory Board is paid four times that amount, and the deputy chair receives double the compensation. Supervisory Board members receive additional compensation of k€30 for chairing the Annual General Meeting and for membership in any committee that is not of an interim nature, but at most for three committee memberships. A committee chairman additionally receives half the annual compensation even if he chairs more than one committee. This does not apply to the committee pursuant to section 27 para. 3 of the German Act on Company Co-Determination.

In addition, for each Supervisory Board meeting (including meetings of Supervisory Board committees), each Supervisory Board member is reimbursed for appropriate expenses incurred or is given a lump-sum payment of €450 per meeting (plus the applicable value added tax). The employee representatives on the Supervisory Board who are employed by KUKA Aktiengesellschaft or a KUKA Group company are still entitled to their regular salaries based on their employment contracts.

2. Compensation for 2019 and 2020

The following table compares the compensation paid to members of the Supervisory Board in the 2019 and 2020 financial years:

Table 3: Supervisory Board compensation in 2020

in € thousands	Payment in 2020 for 2019	Payment in 2021 for 2020
Dr. Andy Gu Chairman of the Supervisory Board Chairman of the Personnel, Mediation and Nomination Committees	225	225
Michael Leppek [1] Deputy Chairman of the Supervisory Board	150	150
Wilfried Eberhardt	30	30
Hongbo (Paul) Fang (until May 31, 2019)	12	-
Manfred Hüttenhofer [1]	60	60
Prof. Dr. Henning Kagermann Chairman of the Strategy and Technology Committee	75	75
Armin Kolb [1]	90	90
Carola Leitmeir [1]	90	90
Min (Francoise) Liu	90	90
Dr. Myriam Meyer	90	90
Tanja Smolenski [1]	60	60
Alexander Liong Hauw Tan Chairman of the Audit Committee (until December 31, 2019)	105	-

Dr. Chengmao Xu (from June 12, 2019 to January 17, 2021)	17	60
Helmut Zodl Chairman of the Audit Committee (since January 24, 2020)	-	69

[1] The employee representatives on the Supervisory Board who are also members of IG Metall have declared that they shall pay their Supervisory Board compensation to the Hans Böckler Foundation in line with the guidelines of the Federation of German Trade Unions.

Balance sheet

of KUKA Aktiengesellschaft as of December 31, 2020

ASSETS

in € thousands	Notes	Dec. 31, 2019	Dec. 31, 2020
Fixed assets	(1)		
Intangible assets		28,879	15,947
Tangible assets		147,335	8,807
Financial investments		484,841	495,716
		661,055	**520,470**
Current assets			
Inventories	(2)	19	16
Receivables from affiliated companies	(3)	716,314	946,867
Other receivables and assets	(4)	1,467	998
Securities	(5)	41,000	25,000
		758,800	**972,881**
Cash and cash equivalents	(6)	67,531	19,872
		826,331	**992,753**
Prepaid expenses	(7)	2,600	2,517
		1,489,986	**1,515,740**

EQUITY AND LIABILITIES

in € thousands	Notes	Dec. 31, 2019	Dec. 31, 2020
Equity			
Subscribed capital [1]	(8)	103,416	103,416
Capital reserve		305,796	305,796
Other retained earnings		298,626	311,402
Balance sheet profit	(9)/(10)	41,598	48,408
		749,436	**769,022**
Provisions	(11)		
Pension provisions		11,609	11,721
Provision for taxes		7,684	15,440
Other provisions		29,769	25,428
		49,062	**52,589**
Liabilities	(12)		
Liabilities due to banks	(13)	250,771	258,622
Trade payables		7,348	5,661
Accounts payable to affiliated companies	(14)	419,942	422,275
Liabilities to provident funds	(15)	2,414	2,468
Other liabilities	(16)	11,013	5,103
		691,488	**694,129**
		1,489,986	**1,515,740**

1) Conditional Capital as of December 31, 2020 in the amount of k€15,512 (previous year: k€15,512)

Income statement

of KUKA Aktiengesellschaft for the period January 1 to December 31, 2020

in € thousands	Notes	2019	2020
Sales revenues	(17)	142,263	115,578
Other company-produced and capitalized assets	(18)	1,311	1,328
Other operating income	(19)	18,317	152,504
Cost of materials	(20)	-72,547	-54,065
Personnel expense	(21)	-61,190	-51,222
Depreciation and amortization of tangible and intangible assets	(22)	-15,899	-22,639
Other operating expenses	(23)	-31,561	-89,507
Income/expenses from equity investments	(24)	37,240	-9,721
Other interest and similar income	(25)	12,533	12,553
Depreciation of financial investments	(26)	0	-10,000
Interest and similar expenses	(27)	-8,347	-8,509
Taxes on income	(28)	242	-10,747
Earnings after taxes		**22,362**	**25,553**
Net income for the year		**22,362**	**25,553**
Profit carry-forward from the previous year		30,417	35,631
Transfer to retained earnings		-11,181	-12,776
Balance sheet profit	**(10)**	**41,598**	**48,408**

KUKA Aktiengesellschaft, Augsburg

Notes to the financial statements for the financial year 2020

GENERAL INFORMATION

ACCOUNTING PRINCIPLES

The 2020 annual financial statements of KUKA Aktiengesellschaft were prepared in accordance with the provisions of the German Commercial Code (HGB) and the German Stock Corporation Act (AktG).

KUKA Aktiengesellschaft is registered in the commercial register of the Augsburg district court under HRB 22709 and its registered office is in Augsburg.

To give a clearer presentation, the legal classification scheme of the balance sheet has been extended to include the item “Liabilities to provident funds”.

The items which are combined in the balance sheet and the income statement plus the additional information are shown individually below.

The income statement is drawn up in euros and, unless otherwise indicated, the amounts are shown in thousands of euros (k€).

The accounting and valuation methods were unchanged compared with the financial statements of the previous year.

ACCOUNTING AND VALUATION

ASSETS

Purchased **intangible assets** are capitalized at cost. Scheduled depreciation is based on the straight-line method over an estimated useful life of between three and five years.

Internally generated intangible assets are not capitalized.

Tangible fixed assets are recognized at acquisition or production cost, less scheduled depreciation.

Scheduled depreciation is applied over a useful life of 25 to 50 years for buildings and over 3 to 15 years for other tangible fixed assets. Depreciation is applied solely on a straight-line basis. Technical progress and the economic efficiency of the usage are also taken into consideration accordingly. As of the balance sheet date December 31, 2020, no buildings are carried under property, plant and equipment, as these have been transferred in full to KUKA Real Estate GmbH & Co. KG.

In the case of low-value assets with cost values of up to €800.00, the option has been taken to depreciate them in full at the time of acquisition and to show them as disposals.

Financial assets include holdings in affiliated companies and equity investments. They are recognized at cost. The subsequent valuation is at the lower of cost or fair value if the impairment is likely to be permanent.

Inventories are valued at the lower of average cost or at market value. Where necessary, inventory risks are taken into consideration in the form of marketability discounts.

Receivables and other assets are recognized at nominal values after applying individual discounts for all recognizable risks. Long-term interest-free or low-interest receivables and other assets are shown at their cash values.

Securities held as current assets consist exclusively of fixed-interest other debt instruments and are carried at the lower of cost or fair value on the balance sheet date.

Liquid assets are shown at their nominal value.

Prepaid expenses and accrued income include costs before the cut-off date which represent expenditure for a specific later period.

LIABILITIES

Pension provisions and similar obligations are created on the basis of actuarial calculations taking into consideration the Heubeck 2018 G guideline tables using the projected unit credit method. When calculating the provision, the average market interest rate for the past ten years, projected to December 31, 2020, was used, based on an assumed remaining term of 15 years. This is consistent with the interest rate published by the German central bank as of December 31, 2020. Other calculation parameters, as stated under point (11) of the Notes, are also adopted.

Assets which serve solely to meet pension obligations and are not accessible to all creditors are recognized at their fair value and offset against the corresponding obligations. As the assets are reinsurance policies, the fair value is measured according to the tax asset value, i.e. at amortized cost.

The interest components of the allocations to pension provisions and comparable obligations are shown in order to give an economically correct presentation of the operating result not in personnel costs but in the net interest item.

Tax provisions and **other provisions** are created for all recognizable risks, uncertain obligations, impending losses and for all other future charges. Provisions are recognized at the settlement amounts deemed necessary on the basis of a reasonable commercial assessment. Provisions with a residual term of more than one year are applied with the average market interest published by the German central bank corresponding to their residual term.

Liabilities are recognized at the settlement amount.

Deferred taxes originate from the differences between corporate and taxation values which are reversed in subsequent years as well as from loss carryforwards and the offsettable loss as limited partner in accordance with section 15a of the Income Tax Act (EStG). Tax loss carryforwards are only taken into consideration if it is expected that the loss can be offset within five years. The tax regulations applicable or adopted on the balance sheet date are applied. Deferred taxes are ascertained based on a combined income tax rate of 32.0% for valuation differences and loss carryforwards of KUKA Aktiengesellschaft or at 15.8% of the offsettable loss in accordance with section 15a of the Income Tax Act (EstG). The resulting tax charges and tax relief amounts are netted against each other. After netting off, the option stated in section 274 para. 1 sentence 2 of the German Commercial Code (HGB) is exercised not to capitalize the remaining deferred tax assets.

An analysis of the differences existing between the commercial balance sheet and the tax balance sheet showed that the deferred tax assets are principally attributable to temporary differences in pension provisions, impending loss provisions as well as deferred taxes from loss carryforwards and the loss that can be offset in accordance with section 15a of the Income Tax Act (EStG). Deferred tax liabilities are of minor importance.

The values for **contingent liabilities** from guarantees and warranty agreements are the amounts assessed at the balance sheet date.

INCOME STATEMENT

The income statement is prepared in accordance with section 275 para. 2 of the German Commercial Code (HGB) using the total cost (nature of expense) method.

Pursuant to section 277 of the German Commercial Code (HGB), **cost allocations** are recorded as sales revenue according to the contractual agreements and to the services provided. Following this principle, expenses to provide these services are shown under cost of materials.

Taxes on income and profit encompass the taxes paid or owed on income and profit. Taxes on income and profit consist of trade tax, corporation tax, solidarity surcharge and foreign income taxes for the current fiscal year and income taxes for previous years.

Other taxes are shown under other operating expenses.

Transactions with **related parties and companies** are conducted by KUKA Aktiengesellschaft under the same terms as for external third parties.

CURRENCY TRANSLATION

Receivables and payables denominated in foreign currency are valued at the rate on the date of acquisition. The subsequent valuation is based on the average spot rate at the balance sheet date. Gains from foreign currency translations are only taken into consideration if they relate to receivables and liabilities with a residual term of up to one year.

The following conversion rates were applied:

		Balance sheet date	
Country	**Curreny**	**Dec. 31, 2019**	**Dec. 31, 2020**
United Arab Emirates	AED	4.0715	4.4683
Australia	AUD	1.5995	1.5896
Brazil	BRL	4.5157	6.3735
China	CNY	7.8205	8.0225
China, Hong Kong	HKD	8.7473	9.5142
India	INR	80.1870	89.6605
Japan	JPY	121.9400	126.4900
Canada	CAD	1.4598	1.5633
Korea	KRW	1,296.2800	1,336.0000
Malaysia	MYR	4.5953	4.9340
Mexico	MXN	21.2202	24.4160
Norway	NOK	9.8638	10.4703
Poland	PLN	4.2568	4.5597
Romania	RON	4.7793	4.8694
Russia	RUB	69.9563	91.4671
Sweden	SEK	10.4468	10.0343
Switzerland	CHF	1.0854	1.0802
Singapore	SGD	1.5111	1.6218
Taiwan	TWD	32.4187	33.2194
Thailand	THB	33.4150	36.7270
Czech Republic	CZK	25.4080	26.2420
Hungary	HUF	330.5300	3,638,900
USA	USD	1.1234	1.2271
United Kingdom	GBP	0.8508	0.8990

NOTES TO THE BALANCE SHEET AND INCOME STATEMENT

(1) FIXED ASSETS

Movements in the fixed assets of KUKA Aktiengesellschaft are shown in the following table of assets.

	Acquistion / manufacturing costs				
in € thousands	Status as of Jan. 1, 2020	Additions	Disposals	Reclassi-fications	Status as of Dec. 31, 2020
I. Intangible assets					
1. Purchased rights and similar assets	70,998	1,994	3,723	-	69,269
	70,998	**1,994**	**3,723**	-	**69,269**
II. Tangible assets					
1. Land, similar rights and buildings	157,362	6,961	185,592	22,254	985
2. Technical plant and equipment	10,191	1,857	9,414	378	3,012
3. Other equipment, factory and office equipment	29,440	1,592	1,667	309	29,674
4. Advances paid and construction in progress	27,364	409	4,588	-22,941	244
	224,357	**10,819**	**201,261**	**-**	**33,915**
III. Financial assets					
1. Shares in affiliated companies	540,036	22,735	1,860	-	560,911
	540,036	**22,735**	**1,860**	**-**	**560,911**
Total	**835,391**	**35,548**	**206,844**	**-**	**664,095**

Depreciation				Book value	
Status as of Jan. 1, 2020	Additions	Disposals	Status as of Dec. 31, 2020	Status as of Dec. 31, 2019	Status as of Dec. 31, 2020
42,119	14,867	3,664	53,322	28,879	15,947
42,119	**14,867**	**3,664**	**53,322**	**28,879**	**15,947**
50,086	4,608	54,693	1	107,276	984
4,631	514	4,003	1,142	5,560	1,870
22,305	2,650	990	23,965	7,135	5,709
-	-	-	-	27,364	244
77,022	**7,772**	**59,686**	**25,108**	**147,335**	**8,807**
55,195	10,000	-	65,195	484,841	495,716
55,195	**10,000**	**-**	**65,195**	**484,841**	**495,716**
174,336	**32,639**	**63,350**	**143,625**	**661,055**	**520,470**

The focus of the investments made during the financial year can be found in the consolidated management report for KUKA Aktiengesellschaft and KUKA Group.

The disposals of tangible assets relate to the contribution of land and buildings to KUKA Real Estate GmbH & Co. KG.

Shares in affiliated companies are those directly owned by KUKA Aktiengesellschaft. Additions in the financial year relate to:

- Swisslog Holding AG
- KUKA Real Estate GmbH & Co. KG
- KUKA Real Estate GmbH

The disposals from financial assets relate to the reduction of shares in KUKA Systems GmbH and are connected with the new formation of KUKA Real Estate GmbH & Co. KG.

A full list of KUKA Aktiengesellschaft's shareholdings can be found at the end of the Notes.

(2) INVENTORIES

Inventories include raw materials and supplies.

(3) RECEIVABLES FROM AFFILIATED COMPANIES

Receivables from affiliated companies include receivables from financial resources in the amount of k€936,718 (previous year: k€695,239) and receivables from cost allocations to group companies in the amount of k€10,149 (previous year: k€21,075). There were no long-term receivables with a term of more than one year from affiliated companies either at the balance sheet date or in the previous year.

(4) OTHER ASSETS

Other assets mainly include other receivables from third parties. As at the balance sheet date, there were no income tax receivables (previous year: k€1,048).

Other assets include k€150 (previous year: k€0) with a residual term of more than one year.

(5) SECURITIES

Securities held as current assets consist exclusively of fixed-interest other debt instruments and are carried at the lower of cost or fair value on the balance sheet date.

(6) CASH AND CASH EQUIVALENTS

Cash and cash equivalents include bank balances.

KUKA Aktiengesellschaft holds bank balances exclusively at financial institutions with an excellent credit rating. Furthermore, funds to be invested are distributed across several institutions in order to diversify risk.

(7) PREPAID EXPENSES AND ACCRUED INCOME

Prepaid expenses and accrued income include costs before the cut-off date which represent expenditure for a specific later period.

(8) SUBSCRIBED CAPITAL

As in the previous year, the total number of KUKA shares is 39,775,470. The no-par-value bearer shares have a theoretical portion of the share capital amounting to €2.60. The company's total share capital amounted to €103,416,222.00, as in the previous year. Each share carries one vote.

Authorized capital

As per the resolution of the Annual General Meeting on May 29, 2019 and section 4 para. 5 of the company's Articles of Association, which was added on the basis of this resolution, the Executive Board, subject to approval by the Supervisory Board, is authorized to increase the company's share capital on or before May 28, 2024 by up to €31,024,866.60 through the issue of new shares in exchange for contributions in cash or in kind on one or more occasions (Authorized Capital 2019). The shareholders shall be granted subscription rights. The new shares may also be underwritten by one or more financial institutions or by enterprises operating according to section 53 para. 1 sentence 1 or section 53b para. 1 sentence 1 or para. 7 of the German Banking Act (KWG), as specified by the Executive Board, subject to the obligation that they are offered to the shareholders for subscription (indirect subscription right). However, the Executive Board shall be authorized, subject to approval by the Supervisory Board, to exclude fractional amounts from shareholder subscription rights and to exclude shareholder subscription rights if a capital increase in exchange for contributions in kind takes place for the purpose of acquiring companies or parts of companies or interests in companies or other assets (including third-party claims against the company). Subject to approval by the Supervisory Board, the Executive Board shall be further authorized to exclude shareholder subscription rights in the event of Authorized Capital 2019 being used once or several times in exchange for cash contributions in an amount not exceeding 10% of the existing share capital at the time this authorization comes into effect and – if this value is lower – at the time this authorization is exercised, in order to issue the new shares at a price that is not significantly lower than the price of the company's shares already quoted on the stock exchange at the time the new share issue price is finalized. Shares sold as a result of, and during the term of, the authorization granted at the Annual General Meeting of May 29, 2019 in accordance with section 71 para. 1 no. 8 sentence 5 AktG in conjunction with section 186 para. 3 sentence 4 AktG shall count towards the aforementioned 10% threshold. Furthermore, this 10% threshold shall also include shares issued for the purpose of servicing warrant or convertible bonds, participation rights or participating bonds or a combination of these instruments, provided that these instruments were issued as a result of, and during the term of, an authorization granted at the Annual General Meeting of May 29, 2019 in accordance with the appropriate application of section 186 para. 3 sentence 4 AktG.

The Executive Board is authorized, subject to approval by the Supervisory Board, to stipulate other details regarding the capital increase and its execution, in particular with regard to share rights and the terms and conditions relating to the issuance of shares.

Conditional capital

Section 4 para. 6 of the Articles of Association stipulates a conditional increase in share capital by up to €15,512,432.00, divided into up to 5,966,320 no-par-value bearer shares (Conditional Capital 2019).

The conditional capital increase will be applied to grant no-par-value shares when conversion or option rights are exercised (or upon fulfillment of corresponding option/conversion obligations) or when KUKA Aktiengesellschaft exercises its option to grant no-par-value shares of KUKA Aktiengesellschaft instead of paying wholly or partially the monies due to the holders of conversion or warrant bonds, participation rights or participating bonds (or a combination of these instruments), issued by KUKA Aktiengesellschaft or a dependent Group company up to May 28, 2024 in exchange for cash contributions as a result of the authorization granted by the shareholders at the Annual General Meeting of May 29, 2019. Furthermore, new shares will be issued according to the condition in the aforementioned authorization resolution at the option or conversion price to be determined respectively. The conditional capital increase shall only be conducted in the event of an issue of bonds to which option or conversion rights or obligations are attached in accordance with the authorization by shareholders at the Annual General Meeting of May 29, 2019 and only to the extent that option or conversion rights are exercised or to the extent that holders of bonds obligated to convert or exercise their options fulfill their conversion or option obligations, or to the extent that KUKA Aktiengesellschaft exercises its option to grant no-par-value shares of KUKA Aktiengesellschaft wholly or partially instead of paying the monies due and provided in each case no cash settlement is granted or treasury shares or shares of another listed company are used to service the bonds. The new shares issued shall participate in the profits as of the beginning of the financial year in which they are issued. The Executive Board is authorized, subject to approval from the Supervisory Board, to define the further details of the execution of the conditional capital increase.

(9) LIMITATION ON DISTRIBUTIONS

Pursuant to the valuation regulations of section 253 of the German Commercial Code (HGB) when accounting for pension provisions and the related extension of the smoothing period when discounting the provision from an average 7-year interest rate to a 10-year interest rate, a limitation has been introduced on the distribution of positive balances. As a result KUKA Aktiengesellschaft has a difference of k€761 (previous year: k€806) which is blocked for distribution.

(10) BALANCE SHEET PROFIT

in € thousands	**2019**	**2020**
Balance sheet profit at Jan. 1	**42,350**	**41,598**
Dividend paid for fiscal 2018/2019	-11,933	-5,967
Retained earnings	**30,417**	35,631
2019/2020 net income	22,362	25,553
Transfer to revenue reserves as per section 58, para. 2 AktG	-11,181	-12,776
Balance sheet profit at Dec. 31	**41,598**	**48,408**

(11) PROVISIONS

in € thousands	**Dec. 31, 2019**	**Dec. 31, 2020**
Pension provisions	11,609	11,721
Provisions for taxes	7,684	15,440
Other provisions		
Provisions for impending loss	3,612	968
Personnel area	10,981	8,978
Miscellaneous provisions	15,176	15,482
Total	**49,062**	**52,589**

The amount of pension obligations (defined benefit obligation) was calculated using actuarial methods (Projected Unit Credit Method) for which estimates are necessary. Company-specific fluctuation expectations are applied here. In addition to assumptions related to life expectancy, this involves the following significant premises:

	Dec. 31, 2019	Dec. 31, 2020
Actuarial interest rate	2.71%	2.30%
Salary trend	0.50%	0.50%
Pension trend	1.00 % - 2.50 %	1.00 % - 2.50 %

In addition, deferred compensation models also exist within KUKA Aktiengesellschaft. These cover pension commitments for which the defined benefit obligation is measured exclusively by the fair value of a reinsurance claim. In this respect the commitments meet the conditions of a “value-based pension commitment”. The obligations are therefore valued at the amount of the respective fair value of the insurance policies (as at December 31, 2020: k€1,067; previous year: k€1,041). As the assets are not available to all other creditors and serve exclusively to meet the debts arising from pension obligations, they are known as coverage assets. Accordingly, pursuant to section 246 para. 2 sentence 2 of the German Commercial Code (HGB), the two amounts need to be netted off, which results in a balance sheet value of €0, as in the previous year. The acquisition costs of the assets to be offset correspond to the fair value. In the 2020 financial year, interest income of k€26 (previous year: k€26) was offset against interest expenses from the deferred compensation.

Partial retirement obligations are valued on the basis of the actual agreements and probable future obligations as a shortfall in contribution at the cash value in accordance with the provisions of IDW RS HFA 3 based on an actuarial interest rate of 0.54% (previous year: 0.72%). The expected dynamic of the partial retirement obligation or its basis of measurement is taken into consideration by applying a salary trend of 2.50% (previous year: 2.50%). During the course of the partial retirement obligations shortfalls in contributions are covered by insurance companies. The value of these insurance policies is not available to all the other creditors and serves exclusively to fulfill the obligations from the partial retirement contracts, so there is an offset against the debts in this case too (section 246 para. 2 sentence 2 HGB). During the reporting year in accordance with this offsetting principle, obligations amounting to k€3,347 (previous year: k€3,813) were netted off against the corresponding coverage assets from the pension liability insurance in an amount of k€1,955 (previous year: k€1,796) and expenses amounting to k€21 (previous year: k€30) were netted off against income of k€1 (previous year: k€3). The asset value of the pension liability insurance corresponds to the amortized cost.

Other provisions include all the necessary amounts to allow for the risks of KUKA Aktiengesellschaft. This includes in particular outstanding bills in the amount of k€4,822 (previous year: k€4,700), personnel expenses, Supervisory Board compensation, impending losses, other risks and other costs still due.

In an employee share program in 2016 the company acquired KUKA shares for KUKA employees in Germany (section 71 para. 1 no. 2 AktG) for the last time. Employees of the company are entitled to bonus shares based on the holding period of the shares. An amount of k€5 (previous year: k€5) is included in the other provisions for all employee share programs.

2017 saw the introduction of a so-called “long-term incentive plan” (LTIP) for the executive management team. This is scheduled to cover the period 2017 to 2019. The contractual entitlements were paid out in the 2020 financial year. A second long-term incentive plan was introduced in 2018, running from 2018 to 2020.

The LTIPs are structured as a value-based system of compensation. Depending on the achievement of certain three-yearly performance indicators and certain – also three-yearly – strategic success factors, a payment is made at the end of the term. Early payment is possible only under certain conditions when leaving the Group. An amount of k€50 (previous year: k€38) was set aside as at December 31, 2020 for future claims arising from the LTIP 2018-2020 for the executive management team at KUKA Aktiengesellschaft. For the members of the executive board an amount of k€75 (previous year: k€52) was accrued.

Since the 2019 financial year, Executive Board members and the executive management team have been entitled to participate in the newly designed KUKA Added Value Incentive Plan (hereinafter “KAVI”) as a long-term compensation component. In contrast to the long-term incentive plans, the KAVI is again based on long-term development of the earnings per share and the share price performance of KUKA Aktiengesellschaft and Midea Group Co. Ltd. The 2019-2021 KAVI plan has a term of three financial years. As at the balance sheet date, the provision for the executive management team of KUKA Aktiengesellschaft for the 2019-2021 KAVI is k€39 (previous year: k€35) and for the executive board is k€86 (previous year: k€70). In the 2020 financial year, a new KAVI plan was launched with a term of 2020-2022. As at the balance sheet date, the provision for the executive management team of KUKA Aktiengesellschaft for the 2020-2022 KAVI is k€54 (previous year: k€0) and for the executive board k€107 (previous year: k€0).

See the compensation report for further details about the structure of the LTIP and the KAVI plan.

(12) LIABILITIES

in € thousands	Remaining maturity up to 1 year	> 1 year	> 5 years	Dec. 31, 2019 Total	Remaining maturity up to 1 year	> 1 year	> 5 years	Dec. 31, 2020 Total
Liabilities due to banks	143,271	107,500	-	250,771	151,122	107,500	-	258,622
Trade payables	7,348	-	-	7,348	5,661	-	-	5,661
Accounts payable to affiliated companies	269,942	150,000	150,000	419,942	272,275	150,000	-	422,275
Liabilities to provident funds (affiliated companies)	101	2,313	1,909	2,414	91	2,377	2,015	2,468
Other liabilities	11,013	-	-	11,013	5,103	-	-	5,103
Total	**431,675**	**259,813**	**151,909**	**691,488**	**434,252**	**259,877**	**2,015**	**694,129**

(13) LIABILITIES DUE TO BANKS

Liabilities to banks at the balance sheet date relate to the promissory note loans issued in 2015 as well as liabilities from interest costs to be accrued in connection with the promissory note loans and short-term utilization of the working capital line under the syndicated loan agreement.

Promissory note loans

KUKA Aktiengesellschaft issued unsecured promissory note loans with a total volume of €250.0 million in two tranches on October 9, 2015.

The total volume was placed in two separate maturity tranches. Tranche 1 had a volume of €142.5 million with an initial term to maturity of five years. It was due on October 9, 2020 and was repaid as contractually agreed. Tranche 2 has a volume of €107.5 million with an initial term to maturity of seven years (due in October 2022). Interest payments are made at yearly intervals on October 9. Interest of €0.4 million (2019: €0.8 million) was accrued as at the balance sheet date.

Syndicated loan agreement of KUKA Aktiengesellschaft

On February 1, 2018, KUKA Aktiengesellschaft concluded a syndicated loan agreement with a consortium of banks for a volume of €520.0 million. The agreement includes a surety and guarantee line ("guaranteed credit line") in the amount of €260.0 million and a working capital line ("cash line"), which can also be used for sureties and guarantees, likewise in the amount of €260.0 million.

The initial term of the loan agreement was five years until February 1, 2023 and contained two contractually agreed one-year extension options (5+1+1). With the approval of all banks for the first agreed extension option in 2018 and the second one in 2019, the term was extended in 2018 and 2019 by one year in each case. The loan agreement now terminates in February 2025. The syndicated loan agreement was concluded on an unsecured basis and contains only the customary equal treatment clauses and negative pledges. The agreed financial covenants with regard to thresholds for leverage (net financial liabilities/EBITDA) and interest coverage (EBITDA/net interest expense) remain unchanged.

As at the balance sheet date, the utilization of the guarantee facility and cash credit line from the syndicated loan agreement of KUKA Aktiengesellschaft amounted to a total of €329.3 million (2019: €185.6 million).

The contract contains a change-of-control clause that is typical in the industry, under the terms of which the syndicated banks may demand repayment of the loan in the event that a shareholder (or group of shareholders acting in concert) acquires control of at least 30% of the voting rights of KUKA Aktiengesellschaft, or otherwise has the ability to direct the business policy of the company. A change of the direct owner within Midea Group is not affected by this provision as long as Midea Group Co., Ltd. directly or indirectly holds 100% of the shares and voting rights of the new owner. The creditors may also declare the loan agreement due for repayment in the cases of a delisting, a squeeze-out or the conclusion of a control and/or profit transfer agreement with a company of Midea Group.

Guarantee facilities from banks and surety companies

The guarantee facility lines pledged by banks and surety companies outside the syndicated loan agreement totaled €170.3 million as at December 31, 2020 (2019: €153.0 million) and can be utilized up to a total volume of €150.0 million in accordance with the provisions of the syndicated loan agreement. At the end of the reporting year, the company had utilized €52.1 million (2019: €62.8 million). None of these bilaterally agreed guarantee facility lines contains a change-of-control clause.

(14) ACCOUNTS PAYABLE TO AFFILIATED COMPANIES

Accounts payable to affiliated companies relate primarily to financial resources. Of the liabilities to affiliated companies, €150 million have a term of up to 5 years. These relate to a loan granted in 2019 by Midea International Corporation Company Limited, Hong Kong.

(15) LIABILITIES TO PROVIDENT FUNDS

The liabilities to provident funds reported relate to KUKA Unterstützungskasse GmbH and to IWK Unterstützungseinrichtung GmbH.

(16) OTHER LIABILITIES

Liabilities from the sales tax group of KUKA Aktiengesellschaft in the amount of k€3,945 (previous year: k€9,679) are reported under "Other liabilities". In addition, other tax liabilities of k€880 (previous year: k€1,089) are also reported. As in the previous year there are no social security liabilities.

(17) SALES REVENUES

Sales revenues include proportionate charges to affiliated domestic and foreign companies for services which are recorded in line with the contractual agreements and the services provided. This also includes services provided in connection with KUKA Facility Management. Sales revenues additionally include rents and leasehold payments. Of the sales revenues 73% relate to Germany and 27% to abroad.

(18) OTHER COMPANY-PRODUCED AND CAPITALIZED ASSETS

This item relates to own work capitalized in connection with improvements and renewals in land and buildings and also the IT infrastructure.

(19) OTHER OPERATING INCOME

Other operating income includes gains from foreign currency conversions in a total amount of k€35,093 (previous year: k€15,226). Other operating income also includes an amount of k€115,382 from the disposal of tangible assets. Income received during the financial year relating to other accounting periods amounted to k€1,445 (previous year: k€2,587). This mainly results from the release of provisions created in previous years.

(20) COST OF MATERIALS

in € thousands	2019	2020
Cost of raw materials and supplies and goods purchased	2,411	2,316
Cost of services purchased	70,136	51,749
Total	**72,547**	**54,065**

(21) PERSONNEL EXPENSE / EMPLOYEES

in € thousands	2019	2020
Wages and salaries	54,232	45,107
Social security payments and contributions for retirement benefits and provident funds	6,958	6,115
(of that for retirement benefits)	(54)	(62)
Total	**61,190**	**51,222**

The annual average number of employees of KUKA Aktiengesellschaft and the number of employees at the balance sheet date were as follows:

	Annual average		Balance sheet date	
	2019	2020	2019	2020
Salaried employees	522	470	483	469
Apprentices	159	162	183	177
Headcounts	**681**	**632**	**666**	646

(22) DEPRECIATION AND AMORTIZATION

Scheduled depreciation and amortization of intangible and tangible fixed assets amount to k€16,402 (previous year: k€15,899). The unscheduled depreciation and amortization totaling k€6,237 relate to IT projects.

(23) OTHER OPERATING EXPENSES

Other operating expenses of KUKA Aktiengesellschaft include material costs, losses on foreign currency items and allocations to provisions. Currency translation expenses amount to k€35,703 (previous year: k€13,479). Expenses charged during the financial year relating to other accounting periods amount to k€943 (previous year: k€16). In addition, individual value adjustments on receivables from affiliated companies totaling k€35,800 (previous year: k€0) are included. For reasons of materiality, other taxes are not shown separately and this item amounting to k€934 (previous year: k€1,338) is included under other operating expenses. PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft provided other assurance services. These relate to the audit of systems in accordance with section 20 of the German Securities Trading Act (WpHG) at non-financial counterparties. See Group notes of KUKA Aktiengesellschaft regarding the fees for the auditor, PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, recognized as an expense in the 2020 financial year.

(24) INCOME FROM EQUITY INVESTMENTS

in € thousands	**2019**	**2020**
Income from holdings in affiliated companies	71,320	78,625
Income from profit transfer agreements with affiliated companies	31,656	-
Expenses from loss assumptions for affiliated companies	-65,736	-88,346
Total	**37,240**	**-9,721**

The income from profit transfer agreements and expenses from loss assumptions contain the results of KUKA Deutschland GmbH and KUKA Systems GmbH.

(25) OTHER INTEREST AND SIMILAR INCOME

in € thousands	**2019**	**2020**
Other interest and similar income	12,533	12,553
(of that from affiliates)	(11,962)	(12,126)

(26) DEPRECIATION OF LONG-TERM INVESTMENTS

The depreciation of long-term investments relates to shares in a not operative domestic subsidiary that are expected to be permanently impaired. As a result, a value adjustment was made in the financial year in accordance with section 253 para. 3 sentence 5 of the German Commercial Code (HGB).

(27) INTEREST AND SIMILAR EXPENSES

in € thousands	2019	2020
Interest and similar expenses	-8,347	-8,509
(of that to affiliates)	-(1,059)	-(2,291)

Interest costs of pension provisions and similar obligations amounting to k€299 (previous year: k€353) are included. The included interest expenses for liabilities to provident funds amounting to k€144 (previous year: k€142).

(28) TAXES ON INCOME AND PROFITS

As at the balance sheet date, after netting off the deferred tax assets and deferred tax liabilities, there is a net deferred tax asset balance. On this basis, the company exercises the option under section 274 para.1. sentence 2 HGB not to recognize deferred tax assets in the balance sheet.

Tax arrears of k€495 (previous year: k€285) and tax credits of k€404 (previous year: k€880) for past assessment periods were taken into consideration in the tax expense. In addition to this, k€10,656 (previous year: k€353) was recognized as a tax expense for the current year. This relates primarily to foreign withholding tax.

(29) CONTINGENT LIABILITIES

in € thousands	2019	2020
Liabilities from guarantees	91,306	71,125
Liabilities from warranty agreements	160,162	147,257
Total	**251,468**	**218,382**

Guarantee obligations mainly relate to advance payment and warranty guarantees in favor of affiliated companies.

Obligations from warranty agreements originate mainly from the guaranteeing of leasing agreements and payment and contractual performance guarantees in favor of affiliated companies.

KUKA Aktiengesellschaft only enters into contingent liabilities after carefully assessing the underlying risks. The associated risks are also subject to constant monitoring during the term of the contingent liabilities. On the basis of these continual assessments, KUKA

Aktiengesellschaft assumes that all obligations underlying the contingent liabilities can be met by the respective principal debtors and that KUKA Aktiengesellschaft is not expected to be held liable.

(30) OTHER FINANCIAL COMMITMENTS

in € thousands	2019	2020
Commitments from rental and leasing agreements		
Due within 1 year	1,320	679
(of that due to affiliates)	(63)	(-)
Due in 1 to 5 years	893	392
(of that due to affiliates)	(-)	(-)
Total	**2,213**	**1,071**
Purchase commitments (discounted notes)		
Total	3,809	1,755
(of that due to affiliates)	(-)	(-)
Total	**3,809**	**1,755**
Other commitments		
Due within 1 year	9,055	9,915
(of that due to affiliates)	(-)	(-)
Due in 1 to 5 years	87	1,724
Total	**9,142**	**11,639**

Commitments in connection with rental and leasing agreements include leases for passenger cars and office premises. Purchase commitments mainly relate to purchase obligations under IT service agreements.

Other commitments relate in particular to IT maintenance and insurance agreements. There are no further miscellaneous financial commitments which are not included in the balance sheet or listed above.

(31) DERIVATIVES

The management duties connected with interest rate and currency risks at KUKA Group are carried out primarily by KUKA Aktiengesellschaft. These risks are hedged using customary derivative financial instruments such as forward exchange transactions, non-deliverable forwards and interest rate swaps. The conclusion of transactions is subject to Group guidelines with a strict separation between trading, settlement and control.

Foreign currency hedges

In their operational activities, KUKA Group companies are exposed to currency risks. To hedge against the exchange rate risk, the exchange rate hedging strategy is aimed at general hedging of incoming and outgoing payments in foreign currencies.

There are two types of hedging relationships entered into. On the one hand, exchange rate risks from operating activities in which KUKA Group receives or has to make payments in foreign currency are hedged and, on the other hand, KUKA Aktiengesellschaft hedges exchange rate risks from the granting of intra-Group loans in foreign currency to its subsidiaries.

The fair value of all forward exchange contracts and currency swaps is determined using standard financial mathematical methods based on the respective yield curve of the currency pairs and their exchange rates.

Foreign currency derivatives with valuation units

KUKA Aktiengesellschaft, as the Group's internal central counterparty, concludes hedging transactions with its Group companies and hedges these positions of KUKA Aktiengesellschaft that have arisen in this way by concluding corresponding hedging transactions with banks. The related intragroup derivative with a subsidiary and the outtragroup derivative with a bank are combined in a valuation unit using the freezing method. All hedging transactions are directly related to the manufacture or sale of products and services. In individual cases, particularly on regulated markets on which KUKA Aktiengesellschaft is unable to conclude reasonable collateral transactions with Group companies, it supports and supervises the direct conclusion of hedging transactions of the Group companies with banks. KUKA Aktiengesellschaft only concludes hedging transactions of its own in connection with the financing of Group companies in foreign currencies.

in € thousands	Dec. 31, 2019 Nominal volume	Dec. 31, 2019 Positive Fair Value	Dec. 31, 2019 Negative Fair Value	Dec. 31, 2020 Nominal volume	Dec. 31, 2020 Positive Fair Value	Dec. 31, 2020 Negative Fair Value
Forward exchange transactions						
Foreign exchange purchases with banks	199,321	2,217	-972	150,585	3,781	-2,003
Foreign exchange sales with banks	126,524	459	-1,654	106,191	1,850	-662
	325,845	**2,676**	**-2,626**	**256,776**	**5,631**	**-2,665**

The forward exchange transactions as of December 31, 2020 and in the previous year relate in particular to the currencies CHF, USD, SEK and have a maximum term until August 2024. The forward exchange transactions and swaps are measured individually at their fair value as of the reporting date. They form micro valuation units with the respective underlying transactions. The prospective effectiveness of the hedging relationships is determined at each balance sheet date using the critical terms match method. This ensures that the value-determining factors (nominal value, maturity, currency) for the hedged item and hedging instrument match. The individual hedge relationships are therefore each classified as effective over the entire hedging period. The same applies to the retrospective determination of past effectiveness, as all value-determining factors between the hedged portion of the hedged item and the hedging portion of the hedging instrument match. In these cases, no accounting-relevant ineffectiveness can arise in relation to the valuation units. The transactions combined in the valuation units are subject to the same risk. Accordingly, the offsetting changes in value of the hedged items and hedging instruments are expected to offset each other almost completely in the future for the respective hedged risk.

in € thousands	Dec. 31, 2019 Nominal volume	Dec. 31, 2019 Positive Fair Value	Dec. 31, 2019 Negative Fair Value	Dec. 31, 2020 Nominal volume	Dec. 31, 2020 Positive Fair Value	Dec. 31, 2020 Negative Fair Value
Forward exchange transactions						
with banks	126,524	1,654	-459	106,191	662	-1,850
of which offsetting contracts with affiliated and other companies	199,321	972	-2,217	150,585	2,003	-3,781
	325,845	**2,626**	**-2,676**	**256,777**	**2,665**	**-5,631**

Intra-Group derivatives exist to the same extent, whose positive fair values correspond to k€2,665 (previous year: k€3,460) and whose negative fair values correspond to k€5,631 (previous year: k€3,460). Due to the valuation unit formed, the negative fair value is not recognized as of December 31, 2020.

Foreign currency derivatives without valuation units

KUKA Aktiengesellschaft only concludes hedging transactions of its own in connection with the financing of Group companies in foreign currencies.

	Dec. 31, 2019			Dec. 31, 2020		
in € thousands	**Nominal volume**	**Positive Fair Value**	**Negative Fair Value**	**Nominal volume**	**Positive Fair Value**	**Negative Fair Value**
Forward exchange transactions						
Foreign exchange purchases with banks	101,929	972	-1,334	96,672	63	-454
Foreign exchange sales with banks	186,390	47	-2,278	204,042	1,965	-514
	288,319	**1,019**	**-3,612**	**300,714**	**2,029**	**-968**

For negative fair values relating to KUKA Aktiengesellschaft an impending loss provision of k€968 was formed (previous year: k€3,612). The forward exchange contracts as of December 31, 2020 and in the previous year relate in particular to the currencies CHF, USD, SEK and have a maximum term until December 2021.

Hedging interest rate risk

In KUKA Group, risks from changes in interest rates result only from the USD assignable loan issued by KUKA Toledo Production Operations LLC in 2018, which is linked to a variable interest rate. For most of the issue volume, these variable future interest payments were converted into fixed interest rate agreements by means of interest rate hedging transactions. In this case also, external interest rate hedging transactions with banks were concluded by KUKA Aktiengesellschaft. The interest terms thus secured for a nominal volume of USD 100 million were passed on to the US Group company by means of internal interest rate hedging transactions. The external interest rate hedge and the offsetting internal interest rate hedge are accounted for in a valuation unit using the net hedge presentation method.

	Dec. 31, 2019			Dec. 31, 2020		
in € thousands	**Nominal volume**	**Positive Fair Value**	**Negative Fair Value**	**Nominal volume**	**Positive Fair Value**	**Negative Fair Value**
Interest rate hedging						
with banks	89,015	-	-3,644	81,493	-	-4,695
of which offsetting contracts with affiliated and other companies	89,015	3,644	-	81,493	4,695	-
	178,031	**3,644**	**-3,644**	**162,986**	**4,695**	**-4,695**

The interest rate hedges have maturities corresponding to those of the hedged tranches of the USD assignable loan, i.e. until February 2022 and August 2023. Due to the valuation unit formed, the negative market value of k€4,695 as at December 31, 2020 (previous year: -k€3,644) is not reported in the balance sheet. The present value method is used to determine the market value.

OTHER NOTES

EXECUTIVE BOARD AND SUPERVISORY BOARD COMPENSATION

No business subject to reporting rules was conducted between any KUKA Group companies and members of KUKA Aktiengesellschaft's Executive or Supervisory Boards with the exception of the legal transactions outlined in the compensation report.

The total remuneration of all members of the Executive Board in office in the 2020 financial year in accordance with Section 285 No. 9 of the German Commercial Code (HGB) amounted to k€3,744. With a few exceptions, former Executive Board members whose terms of office ended in 2008 at the latest have been granted benefits from the company pension scheme, which include old-age, vocational and employment disability, widow's and orphan's pensions. The sum of the provisions recognized in 2020 for current pensions and vested pension benefits for this group of persons totals k€9,964 (HGB) (previous year: k€9,966). In addition, former members of the Executive Board received a lump-sum payment of k€416 for variable compensation components in the 2020 financial year.

In the 2020 financial year the members of the Supervisory Board received a total of k€1,076 (previous year: k€1,095) for their activities as members of this body.

Please refer to the notes in the compensation report for further information and details about the compensation of individual Executive Board and Supervisory Board members. The compensation report summarizes the basic principles used to establish the compensation of the Executive and Supervisory Boards of KUKA Aktiengesellschaft. The compensation report is an integral part of the management report.

DECLARATION CONCERNING CORPORATE GOVERNANCE CODE

The identically worded declarations of conformity pursuant to section 161 of the German Stock Corporation Act (AktG) made by the Executive Board and the Supervisory Board can be accessed by any interested parties on the company's website (www.kuka.com) under Investor Relations/Corporate Governance.

NOTIFICATION ON THE EXISTENCE OF SHAREHOLDINGS PURSUANT TO SECTION 160 PARA. 1 NO. 8 OF THE GERMAN STOCK CORPORATION ACT (AKTG)

In the 2020 financial year, we did not receive any notifications in accordance with section 33 of the German Securities Trading Act (WpHG) regarding the existence of shareholdings. The share of the voting rights of Midea Group in KUKA Aktiengesellschaft remains unchanged on the previous year at 94.55% overall and is held directly by Midea Electric Netherlands (I) B.V. and Midea Electric Netherlands (II) B.V. (see voting rights notification dated December 21, 2018).

EVENTS AFTER THE BALANCE SHEET DATE

Effective January 17, 2021, Dr. Chengmao Xu resigned as a member of the Supervisory Board and took on an operational management position within KUKA Group. With effect from February 26, 2021, Lin (Avant) Bai was appointed as a new member of the Supervisory Board by court order.

CORPORATE BODIES

SUPERVISORY BOARD

Name	Current occupation	Year of birth	First appointed**	Appointed until	Membership in statutory supervisory boards and in comparable German and foreign controlling bodies of commercial enterprises As at Dec. 31, 2020
Dr. Yanmin (Andy) Gu Chairman of the Supervisory Board	Director Vice President Midea Group	1963	Feb. 10, 2017	AGM 2023	**International mandates**: Midea Intelligent Technologies (Singapore) Pte. Ltd., Singapore, Singapore Midea Electric Trading (Singapore) Co., Pte. Ltd., Singapore, Singapore Midea Electric Trading (Thailand) Ltd., Bangkok, Thailand Beautiland B.V., Amsterdam, Netherland Frylands B.V., Amsterdam, Netherland South American Holdco III, Amsterdam, Netherland South American Holdco II B.V., Amsterdam, Netherland Midea Electric Netherlands B.V., Amsterdam, Netherland (strike off) Midea Investment (Asia) Co. Ltd., Hongkong, China PT Midea Heating and Ventilating Air Conditioner Indonesia, Jakarta, Indones Carrier Midea North America LLC, North America Midea Heating and Ventilating Equipment Italia S.p.A., Italia Guangdong Midea Intelligent Robotics Co. Ltd.
Michael Leppek* Deputy Chairman of the Supervisory Board	1st Authorized Representative and Managing Director IG Metall Augsburg	1970	Sep. 12, 2013	AGM 2023	**German mandates:** MAN Energy Solutions SE AIRBUS Helicopters Deutschland GmbH
Lin (Avant) Bai	President Midea Group Refrigerator Division	1981	Feb. 26, 2021	AGM 2021	
Wilfried Eberhardt*	Chief Marketing Officer KUKA AG	1959	May 15, 2008	AGM 2023	
Prof. Dr. Henning Kagermann	Chairman of the acatech Board of Trustees acatech Senator	1947	May 31, 2017	AGM 2023	
Armin Kolb*	Chairman of the Works Council of the KUKA Plants at Augsburg	1963	Jun. 05, 2013	AGM 2023	
Carola Leitmeir*	Deputy Chairman of the Works Council of the KUKA Plants at Augsburg	1968	Jul. 01, 2009	AGM 2023	
Min (Francoise) Liu	Chairman of the Supervisory Committee CEO Assistant & HR Director Midea Group	1977	Feb. 10, 2017	AGM 2023	**International mandates**: Guangdong Midea Smart Link Home Technology Co. Ltd., Foshan, China Foshan Midea Zhihui Real Estate Development Co., Ltd., Foshan, China Midea Group (Shanghai) Co. Ltd. Shanghai, China
Manfred Hüttenhofer*	Head of Competence Center Motion Control KUKA Deutschland GmbH	1964	Jun. 06, 2018	AGM 2023	
Dr. Myriam Meyer	Managing Director of mmtec	1962	Jun. 06, 2018	AGM 2023	**German mandates:** Lufthansa Technik AG, Hamburg **International mandates:** Wienerberger AG, Vienna
Tanja Smolenski*	Union Secretary to the Executive Committee of the IG Metall trade union, Fundamental Issues and Social Policy department, Berlin office	1973	Dec. 15, 2017	AGM 2023	

Name	Current occupation	Year of birth	First appointed**	Appointed until	Membership in statutory supervisory boards and in comparable German and foreign controlling bodies of commercial enterprises As at Dec. 31, 2020
Dr. Chengmao Xu	President Corporate Research Center Midea Group (until Jan. 17, 2021) Chief Development Officer KUKA AG (since Jan. 18, 2021)	1965	Jun. 17, 2019	Resigned as of Jan 17, 2021	
Helmut Zodl	CFO Midea Group (until Jan. 31, 2021)	1972	Jan. 24, 2020	AGM 2023	

* Employee representive

** The specification of first appointment is the date of initial membership of the Supervisory Board, whether by election at an Annual General Meeting, election pursuant to the German Co-Determination Act (MitbestG) or by court appointment

EXECUTIVE BOARD

Name	Date of birth	First appointed	Appointed until	Memberships in statutory supervisory boards and in comparable German and foreign controlling bodies of commercial enterprises
Peter Mohnen Chief Executive Officer	Jun. 30, 1968	Aug. 1, 2012	Mar. 3, 2022	
Andreas Pabst Chief Financial Officer	Jul. 30, 1973	Dec. 6, 2018	Dec. 6, 2021	
Prof. Dr. Peter Hofmann	Sep. 14, 1964	Nov. 1, 2019	Feb. 20, 2020 left office	

SHAREHOLDINGS OF KUKA AKTIENGESELLSCHAFT

	Name and registered office of the company	Currency	Method of conso-lidation	Share of equity in %	Equity in thousands local currency	Net income in thousands local currency	Seg-ment
	Germany						
1	Bopp & Reuther Anlagen-Verwaltungsgesellschaft mbH, Augsburg, Germany	EUR	k	100.00	16,060	-1,653 (3)	CF
2	Device Insight GmbH, München, Germany	EUR	k	100.00	4,724	458 (3)	RO
3	Faude Automatisierungstechnik GmbH, Ehningen, Germany	EUR	k	100.00	0	-1,185 (3)	RO
4	KUKA Assembly & Test GmbH, Bremen, Germany *	EUR	k	100.00	-	- (1)	SY
5	KUKA Germany GmbH, Augsburg, Germany *	EUR	k	100.00	59,187	0 (1), (3)	RO
6	KUKA Industries GmbH & Co. KG, Obernburg, Germany *	EUR	k	100.00	0	-36,462 (3)	RO
7	KUKA Real Estate GmbH & Co. KG, Augsburg, Germany *	EUR	k	100.00	-	-	CF
8	KUKA Real Estate Management GmbH, Augsburg, Germany	EUR	k	100.00	-	-	CF
9	KUKA Systems GmbH, Augsburg, Germany *	EUR	k	100.00	23,794	0 (1), (3)	SY
10	Reis GmbH, Obernburg, Germany	EUR	k	100.00	78	3 (3)	RO
11	Reis Group Holding GmbH & Co. KG, Obernburg, Germany *	EUR	k	100.00	28,173	975 (3)	RO
12	Reis Holding GmbH, Obernburg, Germany	EUR	k	100.00	406	53 (3)	RO
13	Swisslog (Germany) GmbH, Dortmund, Germany	EUR	k	100.00	0	-6,061 (2)	LA
14	Swisslog Augsburg GmbH, Augsburg, Germany	EUR	k	100.00	529	0 (1), (3)	HC
15	Swisslog GmbH, Dortmund, Germany	EUR	k	100.00	1,000	0 (1), (3)	LA
16	Swisslog Healthcare GmbH, Westerstede, Germany	EUR	k	100.00	0	-2,929 (3)	HC
17	Verwaltungsgesellschaft Walter Reis GmbH, Obernburg, Germany	EUR	k	100.00	46	2 (3)	RO
18	Visual Components GmbH, München, Germany	EUR	k	100.00	184	15 (3)	RO
19	Walter Reis GmbH & Co KG, Obernburg, Germany *	EUR	k	100.00	12,215	811 (3)	RO
20	WR Vermögensverwaltungs GmbH, Obernburg, Germany	EUR	k	100.00	460	-1,010 (3)	RO
21	RoboCeption GmbH, München, Germany	EUR	b	26.74	394	-167 (3)	RO
22	IWK Unterstützungseinrichtung GmbH, Karlsruhe, Germany	EUR	nk	100.00	5,324	438 (2)	CF
23	KUKA Unterstützungskasse GmbH, Augsburg, Germany	EUR	nk	100.00	8,525	530 (2)	SY
	other europe						
24	KUKA Automation ČR s.r.o. i.L., Chomutov, Czech Republic	CZK	k	100.00	15,597	-40,321 (5)	RO
25	KUKA Automatisering + Robots N.V., Houthalen, Belgium	EUR	k	100.00	4,116	842 (5)	RO
26	KUKA AUTOMATISME + ROBOTIQUE S.A.S., Villebon-sur-Yvette, France	EUR	k	100.00	2,152	-84 (5)	RO
27	KUKA AUTOMATIZARE ROMANIA S.R.L., Sibiu, Romania	RON	k	100.00	25,504	-1,481 (5)	SY
28	KUKA CEE GmbH, Steyregg, Austria	EUR	k	100.00	3,762	1,014 (5)	RO
29	KUKA Hungaria Kft. , Taksony, Hungary	EUR	k	100.00	19,519	-22 (5)	RO
30	KUKA Iberia, S.A.U. , Vilanova i la Geltrú, Spain	EUR	k	100.00	8,873	1,787 (5)	RO
31	KUKA Nordic AB, Västra Frölunda, Sweden	SEK	k	100.00	15,444	7,038 (5)	RO
32	KUKA Roboter Italia S.p.A., Rivoli, Italy	EUR	k	100.00	8,470	249 (5)	RO
33	KUKA Robotics Ireland Ltd, Dundalk, Ireland	GBP	k	100.00	-	-	RO
34	KUKA Robotics UK Limited, Wednesbury, United Kingdom	GBP	k	100.00	1,697	59 (5)	RO
35	KUKA Russia OOO , Moskau, Russia	RUB	k	100.00	143,204	41,875 (5)	RO
36	KUKA S-Base s.r.o. i.L., Roznov p.R., Czeck Republic	CZK	k	100.00	831	-20 (5)	SY
37	KUKA Slovakia s.r.o., Dubnica nad Váhom, Slovakia	EUR	k	100.00	784	-52 (5)	SY
38	KUKA Systems Aerospace SAS, Bordeaux-Merignac, France	EUR	k	100.00	-3,256	-3,408 (5)	SY
39	KUKA Systems France S.A., Montigny, France	EUR	k	99.99	-275	-57 (5)	SY
40	KUKA Systems UK Limited, Halesowen, United Kingdom	GBP	k	100.00	866	-6,238 (5)	RO
41	Reis Espana S.L. i.L., Esplugues de Llobregat (Barcelona), Spain	EUR	k	100.00	-	-	RO
42	Swisslog (UK) Ltd., Redditch, United Kingdom	GBP	k	100.00	-9,163	-1,017 (5)	LA
43	Swisslog AB, Partille, Sweden	SEK	k	100.00	12,374	16,089 (5)	LA
44	Swisslog AG, Buchs AG, Switzerland	CHF	k	100.00	29,256	13,423 (5)	LA
45	Swisslog AS, Oslo, Norway	NOK	k	100.00	19,000	-12,197 (5)	LA
46	Swisslog B.V., Culemborg, Netherlands	EUR	k	100.00	884	829 (5)	LA
47	Swisslog France SAS, Suresnes, France	EUR	k	100.00	-5,104	-2,400 (5)	HC
48	Swisslog Healthcare AG, Buchs AG, Switzerland	CHF	k	100.00	16,769	-14,687 (5)	HC
49	Swisslog Healthcare Holding AG, Buchs AG, Switzerland	CHF	k	100.00	77,807	-329 (5)	HC
50	Swisslog Healthcare Italy SpA , Cuneo, Italy	EUR	k	100.00	-339	-202 (5)	HC
51	Swisslog Holding AG, Buchs AG, Switzerland	CHF	k	100.00	379,671	4,721 (5)	CF
52	Swisslog Italia S.r.l., Mailand, Maranello, Italy	EUR	k	100.00	4,227	2,840 (5)	LA
53	Swisslog N.V., Wilrijk, Belgium	EUR	k	100.00	-674	-1,111 (5)	LA
54	Swisslog Technology Center Austria GmbH, Sipbachzell, Austria	EUR	k	100.00	6,403	237 (5)	LA
55	Swisslog Technology Center Netherlands B.V., Valkenswaard, Netzerlands	EUR	k	100.00	-3,113	-1,627 (5)	LA
56	Swisslog Technology Center Sweden AB, Boxholm, Sweden	SEK	k	100.00	124,567	18,373 (5)	LA
57	Swissog Healthcare Netherlands B.V., Apeldoorn, Niederlande	EUR	k	100.00	-305	-485 (5)	HC
58	Visual Components Oy, Espoo, Finland	EUR	k	100.00	3,927	1,129 (5)	RO

	Name and registered office of the company	Currency	Method of conso-lidation	Share of equity in %	Equity in thousands local currency	Net income in thousands local currency	Seg-ment
	North America						
59	KUKA Aerospace Holdings LLC, Sterling Heights, Michigan, USA	USD	k	100.00	-	-	SY
60	KUKA Assembly and Test Corporation, Saginaw, Michigan, USA	USD	k	100.00	49,056	4,875 (5)	SY
61	KUKA de Mexico S.de R.L.de C.V., Mexico City, Mexiko	MXN	k	100.00	76,239	10,059 (5)	RO
62	KUKA Recursos S. de R.L. de C.V., Toluca, Mexiko	MXN	k	100.00	-	-	SY
63	KUKA Robotics Canada Ltd., Mississauga, Kanada	CAD	k	100.00	-183	-779 (5)	RO
64	KUKA Robotics Corp., Shelby Township, Michigan, USA	USD	k	100.00	12,643	1,005 (5)	RO
65	KUKA Systems de Mexico S. de R.L. de C.V., Toluca, Mexiko	MXN	k	100.00	136,288	3,698 (5)	SY
66	KUKA Systems North America LLC, Sterling Heights, Michigan, USA	USD	k	100.00	150,432	41,970 (5)	SY
67	KUKA Toledo Production Operations, LLC, Toledo, Ohio, USA **	USD	k	100.00	85,545	20,090 (5)	SY
68	KUKA U.S. Holdings Company LLC, Sterling Heights, Michigan, USA	USD	k	100.00	83,140	78,626 (5)	SY
69	Reis Robotics USA Inc. , Carpentersville, USA	USD	k	100.00	403	-154 (5)	RO
70	Swisslog Logistics, Inc., Newport News, USA	USD	k	100.00	-9,190	-6,659 (5)	LA
71	Swisslog USA Inc., Dover, Delaware, USA	USD	k	100.00	44,462	9,482 (5)	HC
72	Translogic CORPORATION, Dover, Delaware, USA	USD	k	100.00	84,994	11,120 (5)	HC
73	Translogic Ltd. (Canada), Mississauga, Ontario, Kanada	CAD	k	100.00	3,795	3,987 (5)	HC
74	Visual Components North America Corporation, Lake Orion, Michigan, USA	USD	k	100.00	296	169 (5)	RO
	South and Central America						
75	KUKA Roboter do Brasil Ltda., Sao Bernando do Campo / Sao Paulo, Brasil	BRL	k	100.00	7,921	2,920 (5)	RO
76	KUKA Systems do Brasil Ltda., Sao Bernando do Campo / Sao Paulo, Brasil	BRL	k	100.00	-40,670	-14,739 (5)	SY
	Asia / Australia						
77	KUKA (Thailand) Co., Ltd., Bangkok, Thailand	THB	k	100.00	-7,173	4,596 (5)	RO
78	KUKA Automation Equipment (Shanghai) Co., Ltd. , Shanghai, China	CNY	k	100.00	27,273	213 (5)	CN
79	KUKA Automation Taiwan Ltd., Taipei, Taiwan, Taiwan	TWD	k	100.00	58,636	9,037 (5)	RO
80	KUKA India Pvt. Ltd. , Haryana, Indien	INR	k	100.00	270,256	49,750 (5)	RO
81	KUKA Industries Automation (China) Co., Ltd., Kunshan, China	CNY	k	100.00	-219,205	32,646 (5)	CN
82	KUKA Industries Singapore Pte. Ltd., Singapore, Singapore	SGD	k	100.00	993	8 (5)	RO
83	KUKA Japan K.K., Yokohama, Japan	JPY	k	100.00	208,263	6,358 (5)	RO
84	KUKA Robot Automation Malaysia Sdn BhD, Puchong, Selangor, Malaysia	MYR	k	100.00	10,495	1,031 (5)	RO
85	KUKA Robotics Australia Pty. Ltd., Port Melbourne, Australien	AUD	k	100.00	210	157 (5)	RO
86	KUKA Robotics China Co. Ltd., Shanghai, China	CNY	k	50.00	425,300	-92,229 (5)	CN
87	KUKA Robotics Guangdong Co., Ltd., Foshan, Shunde, China	CNY	k	100.00	3,273,103	128,493 (5)	CN
88	KUKA Robotics Korea Co. Ltd., Ansan, South Korea	KRW	k	100.00	-2,486	185 (5)	RO
89	KUKA Robotics Manufacturing China Co. Ltd., Shanghai City, China	CNY	k	50.00	3,804,145	46,742 (5)	CN
90	KUKA Systems (China) Co. Ltd., Shanghai, China	CNY	k	100.00	-18,296	-41,145 (5)	CN
91	KUKA Systems (India) Pvt. Ltd., Maharashtra, Pune, India	INR	k	100.00	60,611	-10,114 (5)	RO
92	KUKA Vietnam Co., Ltd., Hanoi, Vietnam	VND	k	100.00	-2,693	-1,519 (5)	RO
93	Swisslog (Malaysia) Sdn Bhd, Selangor, Malaysia	MYR	k	100.00	29,061	14,451 (5)	LA
94	Swisslog Asia Ltd., Hongkong, China	HKD	k	100.00	190,106	-155 (5)	LA / CN
95	Swisslog Australia Pty Ltd., Sydney, Australia	AUD	k	100.00	-610	4,186 (5)	LA
96	Swisslog Healthcare Asia Pacific Pte. Ltd. , Singapore, Singapore	SGD	k	100.00	139	-1,687 (5)	HC
97	Swisslog Healthcare Korea Co., Ltd. , Bucheon si, Kyeonggi-do, South Korea	KRW	k	100.00	-4,073	-1,329 (5)	HC
98	Swisslog Healthcare Shanghai Co., Ltd., Shanghai, China	CNY	k	50.00	118,376	4,571 (5)	HC / CN
99	Swisslog Healthcare Trading MEA LLC, Emirate of Dubai, United Arab Emirates	AED	k	49.00	6,364	1,901 (5)	HC
100	Swisslog Middle East LLC, Dubai, United Arab Emirates	AED	k	49.00	-6,954	-3,932 (5)	LA
101	Swisslog Singapore Pte Ltd., Singapore, Singapore	SGD	k	100.00	4,272	1,162 (5)	LA
102	Chang'an Reis (Chongqing) Robotic Intelligent Equipment Co. Ltd, Chongqing, China	CNY	at	50.00	15,228	624 (4)	RO
103	Guangdong Swisslog Technology Co., Ltd. , Shunde, China	CNY	at	50.00	-7,695	-4,810 (5)	LA / CN
104	Swisslog (Shanghai) Co. Ltd., Shanghai, China	CNY	at	50.00	296,694	-17,629 (5)	LA / CN
105	Yawei Reis Robot Manufacturing (Jiangsu) Co. Ltd., Yangzhou City, China	CNY	at	49	7,841	525 (5)	RO
106	Servotronix Motion Control Ltd., Petach-Tikva, Israel	ILS	b	12.8	-	-	RO

Fußnoten

*) Companies that have made use of the exemption pursuant to section 264 para. 3 or section 264 b of the German Commercial Code
**) Principle place of business
1) after profit transfer
2) Annual Financial Statement as of December 31, 2018
2) Annual Financial Statement as of December 31, 2019
4) Group's Annual Financial Statement as of December 31, 2019
5) Group's Annual Financial Statement as of December 31, 2020

Method of consolidation as of December 31, 2020

k - Fully consolidated companies
nk - Non-consolidated companies
at - Financial asset accounted for by the equity method
b - Participating interest

Segments

SY	Systems
RO	Robotics
LA	Logistic Automation
HC	Healthcare
CN	China
CF	Corporate Functions

PROPOSED APPROPRIATION OF PROFIT

One half, or k€12,776, of the annual net income of KUKA Aktiengesellschaft amounting to k€25,553 will be transferred to the other retained earnings. Of the remaining net income of k€48,408, the Executive Board proposes to the Annual General Meeting that a further k€22,016 be allocated to other revenue reserves and that a dividend of EUR 0.11 per share, totaling k€4,375, be paid. The then remaining amount of k€22,016 is to be carried forward.

GROUP ACCOUNTS

KUKA Aktiengesellschaft prepares consolidated financial statements in accordance with IFRS and these are submitted to the Federal Gazette and can be viewed on the central register of companies at (www.Unternehmensregister.de). The consolidated financial statements include all direct and indirect shareholdings of KUKA Aktiengesellschaft.

KUKA Aktiengesellschaft is a 94.55% indirect subsidiary of Midea Group Co. Ltd., Foshan City, Guangdong Province, China. KUKA Aktiengesellschaft is incorporated in the consolidated financial statements of Midea Group Co. Ltd., Foshan City, Guangdong Province, China, which are available from the website www.cninfo.com.cn or directly on the website of Midea Group Co. Ltd. at www.midea-group.com/Investors/reports.

Augsburg, March 2, 2021

KUKA Aktiengesellschaft

The Executive Board

Peter Mohnen Andreas Pabst

RESPONSIBILITY STATEMENT

“To the best of our knowledge, and in accordance with the applicable reporting principles, the financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of KUKA Aktiengesellschaft, and the management report includes a fair review of the development and performance of the business and the position of the company, together with a description of the principal opportunities and risks associated with the expected development of the company.”

Augsburg, March 2, 2021

KUKA Aktiengesellschaft

The Executive Board

Peter Mohnen Andreas Pabst

OPINION OF THE INDEPENDENT AUDITOR

The following copy of the auditor's report also includes a "Report on the audit of the electronic renderings of the financial statements and the management report prepared for disclosure purposes in accordance with § 317 Abs. 3b HGB" ("Separate report on ESEF conformity"). The subject matter (ESEF documents) to which the Separate report on ESEF conformity relates is not attached. The audited ESEF documents can be inspected in or retrieved from the Federal Gazette.

INDEPENDENT AUDITOR'S REPORT

To KUKA Aktiengesellschaft, Augsburg

REPORT ON THE AUDIT OF THE ANNUAL FINANCIAL STATEMENTS AND OF THE MANAGEMENT REPORT

Audit Opinions

We have audited the annual financial statements of KUKA Aktiengesellschaft, Augsburg, which comprise the balance sheet as at December 31, 2020, and the statement of profit and loss for the financial year from January 1 to December 31, 2020, and notes to the financial statements, including the presentation of the recognition and measurement policies. In addition, we have audited the management report of KUKA Aktiengesellschaft, which is combined with the group management report, for the financial year from January 1 to December 31, 2020. In accordance with the German legal requirements, we have not audited the content of those parts of the management report listed in the "Other Information" section of our auditor's report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying annual financial statements comply, in all material respects, with the requirements of German commercial law and give a true and fair view of the assets, liabilities and financial position of the Company as at December 31, 2020 and of its financial performance for the financial year from January 1 to December 31, 2020 in compliance with German Legally Required Accounting Principles, and

- the accompanying management report as a whole provides an appropriate view of the Company's position. In all material respects, this management report is consistent with the annual financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the management report does not cover the content of those parts of the management report listed in the "Other Information" section of our auditor's report.

Pursuant to § [Article] 322 Abs. [paragraph] 3 Satz [sentence] 1 HGB [Handelsgesetzbuch: German Commercial Code], we declare that our audit has not led to any reservations relating to the legal compliance of the annual financial statements and of the management report.

Basis for the Audit Opinions

We conducted our audit of the annual financial statements and of the management report in accordance with § 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of

Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the “Auditor’s Responsibilities for the Audit of the Annual Financial Statements and of the Management Report” section of our auditor’s report. We are independent of the Company in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the annual financial statements and on the management report.

Key Audit Matters in the Audit of the Annual Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the annual financial statements for the financial year from January 1 to December 31, 2020. These matters were addressed in the context of our audit of the annual financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In our view, the matter of most significance in our audit was as follows:

❶ Valuation of investments in affiliated companies and receivables from these affiliated companies

Our presentation of this key audit matter has been structured in each case as follows:

① Matter and issue

② Audit approach and findings

③ Reference to further information

Hereinafter we present the key audit matter:

❶ **Valuation of shares in affiliated companies and receivables from these affiliated companies**

① In the annual financial statements of the Company shares in affiliated companies amounting to EUR 495.7 million are reported under the "Financial assets" balance sheet item. In addition, receivables from and payables to these affiliated companies amounting to EUR 946.9 million are reported. Together, the carrying amount of the total engagement amounts to EUR 1,442.6 million (95.2% of total assets). Shares in affiliated companies and receivables are measured in accordance with German commercial law at the lower of cost and fair value. The fair values are calculated based on present values of the expected future cash flows according to the planning projections prepared by the executive directors using discounted cash flow models. Expectations relating to future market developments and assumptions about the development of macroeconomic factors as well as the expected effects of the ongoing Corona crisis on the business activities of the affiliated companies are also taken into account. The discount rate used is the individually determined cost of capital for the relevant affiliated company. On the basis of the values determined and supplementary documentation, write-downs of shares in affiliated companies amounting to EUR 10,0 million and receivables against affiliated companies amounting to EUR 35.8 million were required for the financial year.

The outcome of this valuation is dependent to a large extent on the estimates made by the executive directors of the future cash flows, and on the respective discount rates and rates of growth used. The valuation is therefore, also against the background of the effects of the Corona crisis, subject to material uncertainties. Against this background and due to the highly complex nature of the valuation and its material significance for the Company's assets, liabilities and financial performance, this matter was of particular significance in the context of our audit.

② As part of our audit, we assessed the methodology used by the Company for the purposes of the valuation of shares in affiliated companies and receivables from these affiliated companies, among other things. In particular, we assessed whether the fair values had been appropriately determined based on discounted cash flow models in compliance with the relevant measurement standards. We based our assessment, among other things, on a comparison with general and sector-specific market expectations as well as on the executive directors‘ detailed explanations regarding the key value drivers underlying the expected cash flows. We also evaluated the assessment of the executive directors regarding the effects of the Corona crisis on the business activities of the affiliated companies and examined how they were taken into account in determining the future cash flows. In the knowledge that even relatively small changes in the discount rate applied can have a material impact on the value of the entity, we focused our testing in particular on the parameters used to determine the discount rate applied, and assessed the calculation model. Finally, we evaluated whether the values calculated in this way were properly compared against the carrying amount in order to determine any write-downs or reversals of write-downs.

In our view, taking into consideration the information available, the valuation parameters and underlying assumptions used by the executive directors are appropriate overall for the purpose of appropriately measuring the shares in affiliated companies and receivables from these affiliated companies.

③ The Company's disclosures relating to the shares in affiliated companies and receivables from these affiliated companies are contained in the sections “Accounting and Valuation – Assets” and “Notes to the Balance Sheet and the Statement of Profit and Loss” and subsections “(1) Fixed Assets”, “(3) Receivables against affiliated companies”, “(23) Other operating expenses” and “(26) Impairments on Financial Assets” of the notes to the financial statements.

Other Information

The executive directors are responsible for the other information. The other information comprises the following non-audited parts of the management report we obtained before the date of our auditor´s report:

- the statement on corporate governance pursuant to § 289f HGB and § 315d HGB included in section “Corporate Governance Statement” of the management report

- the sub-sections marked with (*) in the sections “research and development” as well as “sustainability at KUKA”

The separate non-financial report pursuant to § 289b Abs. 3 HGB and § 315b Abs. 3 HGB is expected to be made available to us after the date of the auditor’s report.

Our audit opinions on the annual financial statements and on the management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the annual financial statements, with the management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the Executive Directors and the Supervisory Board for the Annual Financial Statements and the Management Report

The executive directors are responsible for the preparation of the annual financial statements that comply, in all material respects, with the requirements of German commercial law, and that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German Legally Required Accounting Principles. In addition, the executive directors are responsible for such internal control as they, in accordance with German Legally Required Accounting Principles, have determined necessary to enable the preparation of annual financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the annual financial statements, the executive directors are responsible for assessing the Company's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, provided no actual or legal circumstances conflict therewith.

Furthermore, the executive directors are responsible for the preparation of the management report that as a whole provides an appropriate view of the Company's position and is, in all material respects, consistent with the annual financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the management report.

The supervisory board is responsible for overseeing the Company's financial reporting process for the preparation of the annual financial statements and of the management report.

Auditor's Responsibilities for the Audit of the Annual Financial Statements and of the Management Report

Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the management report as a whole provides an appropriate view of the Company's position and, in all material respects, is consistent with the annual financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the annual financial statements and on the management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements and this management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual financial statements and of the management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

- Obtain an understanding of internal control relevant to the audit of the annual financial statements and of arrangements and measures (systems) relevant to the audit of the management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems of the Company.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the annual financial statements and in the management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the annual financial statements, including the disclosures, and whether the annual financial statements present the underlying transactions and events in a manner that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German Legally Required Accounting Principles.

- Evaluate the consistency of the management report with the annual financial statements, its conformity with German law, and the view of the Company's position it provides.

- Perform audit procedures on the prospective information presented by the executive directors in the management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the annual financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Assurance Report in Accordance with § 317 Abs. 3b HGB on the Electronic Reproduction of the Annual Financial Statements and the Management Report Prepared for Publication Purposes

Reasonable Assurance Conclusion

We have performed an assurance engagement in accordance with § 317 Abs. 3b HGB to obtain reasonable assurance about whether the reproduction of the annual financial statements and the management report (hereinafter the "ESEF documents") contained in the attached electronic file „KUKA_JA_LB.zip" and prepared for publication purposes complies in all material respects with the requirements of § 328 Abs. 1 HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance engagement only extends to the conversion of the information contained in the annual financial statements and the management report into the ESEF format and therefore relates neither to the information contained within this reproduction nor to any other information contained in the above-mentioned electronic file.
In our opinion, the reproduction of the annual financial statements and the management report contained in the above-mentioned attached electronic file and prepared for publication purposes complies in all material respects with the requirements of § 328 Abs. 1 HGB for the electronic reporting format. We do not express any opinion on the information contained in this reproduction nor on any other information contained in the above-mentioned electronic file beyond this reasonable assurance conclusion and our audit opinion on the accompanying annual financial statements and the accompanying management report for the financial year from January 1 to December 31, 2020 contained in the "Report on the Audit of the Annual Financial Statements and on the Management Report" above.

Basis for the Reasonable Assurance Conclusion

We conducted our assurance engagement on the reproduction of the annual financial statements and the management report contained in the above mentioned attached electronic file in accordance with § 317 Abs. 3b HGB and the Exposure Draft of IDW Assurance Standard: Assurance in Accordance with § 317 Abs. 3b HGB on the Electronic Reproduction of Financial Statements and Management Reports Prepared for Publication Purposes (ED IDW AsS 410) and the International Standard on Assurance Engagements 3000 (Revised). Accordingly, our responsibilities are further described below in the "Auditor's Responsibilities for the Assurance Engagement on the ESEF Documents" section. Our audit firm has applied the IDW Standard on Quality Management: Requirements for Quality Management in the Audit Firm (IDW QS 1).

Responsibilities of the Executive Directors and the Supervisory Board for the ESEF Documents

The executive directors of the Company are responsible for the preparation of the ESEF documents including the electronic reproduction of the annual financial statements and the management report in accordance with § 328 Abs. 1 Satz 4 Nr. 1 HGB.

In addition, the executive directors of the Company are responsible for such internal control as they have considered necessary to enable the preparation of ESEF documents that are free from material non-compliance with the requirements of § 328 Abs. 1 HGB for the electronic reporting format, whether due to fraud or error.

The executive directors of the Company are also responsible for the submission of the ESEF documents together with the auditor's report and the attached audited annual financial statements and audited management report as well as other documents to be published to the operator of the German Federal Gazette [Bundesanzeiger].

The supervisory board is responsible for overseeing the preparation of the ESEF documents as part of the financial reporting process.

Auditor's Responsibilities for the Assurance Engagement on the ESEF Documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material non-compliance with the requirements of § 328 Abs. 1 HGB, whether due to fraud or error. We exercise professional judgment and maintain professional skepticism throughout the assurance engagement. We also:

- Identify and assess the risks of material non-compliance with the requirements of § 328 Abs. 1 HGB, whether due to fraud or error, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance conclusion.

- Obtain an understanding of internal control relevant to the assurance engagement on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance conclusion on the effectiveness of these controls.

- Evaluate the technical validity of the ESEF documents, i.e., whether the electronic file containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815 in the version applicable as at the balance sheet date on the technical specification for this electronic file.

- Evaluate whether the ESEF documents enables a XHTML reproduction with content equivalent to the audited annual financial statements and to the audited management report.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as auditor by the annual general meeting on June 19, 2020. We were engaged by the supervisory board on December 22, 2020. We have been the auditor of KUKA Aktiengesellschaft, Augsburg, without interruption since the financial year 2020.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is Holger Grassnick.

Munich, March 10, 2021

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

(sgd. Holger Graßnick)
Wirtschaftsprüfer
(German Public Auditor)

(sgd. ppa. Stefan Postenrieder)
Wirtschaftsprüfer
(German Public Auditor)