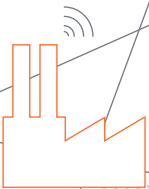
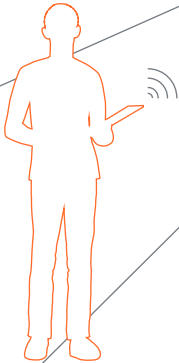
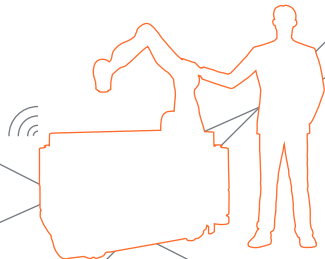
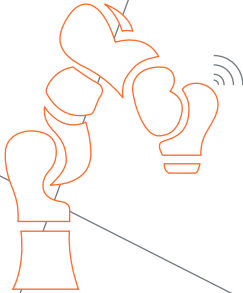


KUKA



Hello Future.

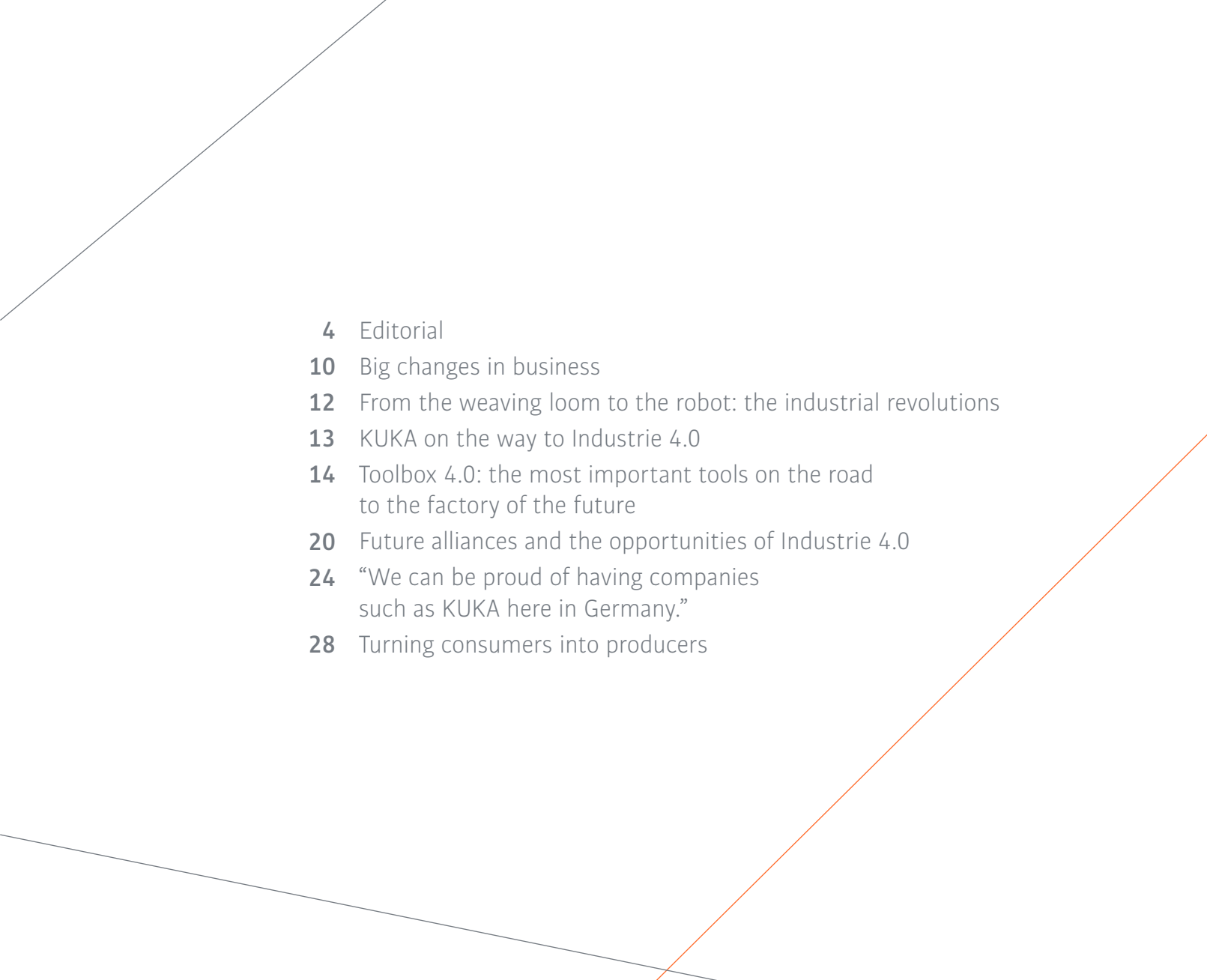
Annual Report 2015

The background features several thin, intersecting lines. Two lines are orange, and two are grey. They create a series of overlapping triangles and quadrilaterals, primarily concentrated in the upper-left and middle-left areas of the frame.

Hello Industrie 4.0.

We are ready.

KUKA is a driver of Industrie 4.0 and provides **key technologies** for the intelligent factory of the future. With sensitive and mobile robots, KUKA is setting trends in automation.

- 
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 - 28** Turning consumers into producers



Dr. Till Reuter, Chief Executive Officer

Dear Stakeholders,

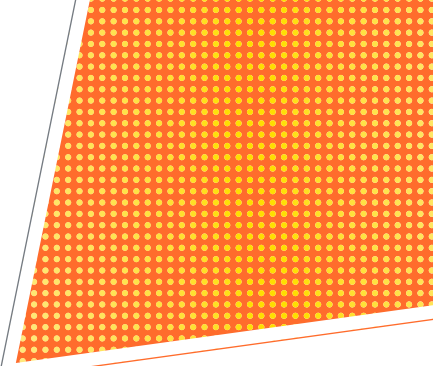
2015 was a special year. We managed to achieve outstanding results. With sales revenues of around 3 billion euro and an EBIT margin of 6.6 percent, we continued the trend of the successful preceding years. In addition, we have set central elements of our course for the future.

Industrie 4.0 – The opportunities of digitization

At KUKA, we are addressing the topic of digitization in two directions. Within the company, we are working on new business models. KUKA has the right technologies and products for the factory of the future. Our robots are capable of working together with humans and of moving around them. At last year's Hannover Messe, we showcased these technologies under the slogan of "Hello Industrie 4.0 we are ready". We see humans at the center of this development at all times, conducting the digital orchestra, so to speak.

However, digitization does not concern KUKA alone. That is why we also regard ourselves as a driver of Industrie 4.0. Together with our customers and partners, we aim to bring about the digital transition. This will affect the production and process landscapes of our customers, open up new business models and gradually change society. Digital technology will account for a high proportion of the value creation chain. The challenge now is to find solutions for shared use of the data. An important role here is played by the platforms on which large quantities of data can be stored and processed.

The visit by the German Chancellor Angela Merkel in March gave us the opportunity to launch a public discussion about the part that German companies can play in this development. We have continued this discussion since then, taking a clear stand for German engineering companies. It is our aim to use the data together with our customers so as to extend the value creation chain for both them and ourselves. We want to establish a platform of trust to the benefit of our customers, partners and German SMEs. Our knowledge of the processes in factories is second to none. We must take advantage of this competitive edge.



Focus sectors as drivers of diversification

Digitization is thus making the market environment increasingly dynamic and innovation-driven while redefining the concept of robot-based automation.

KUKA is continuing to concentrate on strengthening its position as a market leader in the automotive industry. Of particular importance in this context are collaborative innovation projects on future-oriented concepts. Only recently we won the Daimler Supplier Award in the “Innovation” category for implementation of the LBR iiwa. Daimler AG is one of our first partners accompanying us in human-machine collaboration and we are very proud of this distinction.

However, we also see opportunities for growth in other sectors, namely in general industry. This includes business segments, such as electronics or aerospace, where the degree of automation is still relatively low in comparison with the automotive industry.

» KUKA is continuing to concentrate on strengthening its position as a market leader in the automotive industry. «

Integration of Swisslog

Swisslog delivers automation solutions for hospitals and other health systems. KUKA products too have long been deployed in medical applications. We are therefore anticipating new opportunities to arise from the combination of Swisslog solutions with mobile and sensitive robotics.

Large goods distribution centers are a central feature of e-commerce. Huge quantities of goods that can only be handled by means of automation are shipped through these centers. Stacker cranes, high-bay warehouses and storage systems from Swisslog, supplemented by technologies from KUKA, have excellent prospects.

After more than a year in KUKA Group, the integration of the Swisslog team is practically completed. New structures and interfaces have been created. We are also pleased about success in initial joint projects.

Furthermore, we strengthened our international profile in the year under review. We see potential for further growth in Asia and the USA and are responding accordingly. Last year, for example, we launched a product tailored to the requirements of the Chinese market. KR CYBERTECH nano premiered at the China International Industry Fair in Shanghai. In order to further increase our proximity to our customers, and not only to understand their requirements but also to address them in our solutions, we have additionally built up international development capacities. A KUKA team in Austin, Texas, for instance, is carrying out development work in the field of data analysis.

KUKA 2020

We have set ourselves targets for 2020 and also taken internal measures to achieve them. For example, we are permanently working at improving the efficiency of our processes and structures. To assure

» We see potential for further growth in Asia and the USA. «

our competitiveness in the long term, we launched “Power ON” in the year under review – a key initiative with which we will optimize and harmonize the procedures, organizational structure and IT systems and tools throughout the Group over the coming years.

KUKA is evolving into a global enterprise. With a workforce now numbering 12,300, we stand for innovation and leading-edge technology in automation. We offer our customers sector-specific expertise encompassing the product, system and process. In the future, this range of products and services will be

united under an umbrella brand, which we established internally in the year under review and will be rolling out in 2016. Our core brand identity “Orange Intelligence” is intended to emphasize the strength that results when KUKA staff from different areas work together or when we create the best solutions with our customers and partners. However, it is also an expression of the disciplines for which we stand in the future: mechatronics, process and IT expertise. “Orange Intelligence” is our commitment to deliver the best at all times.

Hello Industrie 4.0_we go digital

The world of work is changing and we will play an active role in shaping it. We regard digitization as an opportunity. Hence our slogan “we go digital” at Hannover Messe, where we are showcasing our vision of the factory of the future.

For KUKA’s employees, 2015 was a challenging year in a fast-paced market environment. Our employees had to hold this pace, accommodate changes and help to design new processes and business models. This calls for innovative, unorthodox thinkers and motivated colleagues capable of putting ideas into action. Our success shows that we have exactly these people on board. And they ultimately deserve the credit for making KUKA what it is.

I extend my sincere thanks to these colleagues for their motivation, dedication and passion.

I would also like to thank you, our shareholders, for your interest and above all for your trust. Your support is the foundation of our global success.

Sincerely,



Till Reuter

Dr. Till Reuter, CEO

Dr. Till Reuter (born 1968) has been CEO of KUKA Aktiengesellschaft since 2009. Prior to that he worked as a lawyer and investment banker in Europe and the United States. In May 2008, he founded the holding company Rinvest AG, of which he is Supervisory Board Chairman.

Peter Mohnen, CFO

Peter Mohnen (born 1968) has been CFO of KUKA Aktiengesellschaft since 2012. Previously he was CFO at E.ON in Hungary, after having worked for many years in leading positions in accounting at E.ON in Essen.

Left: Dr. Till Reuter, CEO
Right: Peter Mohren, CFO



4.0

Big changes in business

Booking a vacation, buying shoes or greeting friends on the other side of the world at a click – this has become a matter of course for us.

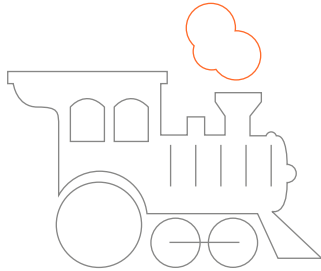
Our cars park themselves independently, robots mow our lawns and navigation devices give us directions. The digital world is an integral part of daily life and this also influences our desires and demands. We want inexpensive, tailor-made products from all over the world – manufactured with minimum environmental impact and delivered quickly. This trend is revolutionizing business across the globe.

In order to work more efficiently and simultaneously respond to customer requirements more quickly, companies must adapt their production. In the factory of the future, machines can communicate with one another and set themselves up independently for various tasks. This is the goal of Industrie 4.0. Recognizing bottlenecks and pending orders, quickly adapting production or taking advantage of low energy prices. At the same time, the major industrial nations are addressing the challenges of an aging society and demographic change. Here, robots can make up for the shortage of skilled labor by assisting humans in their work. In this way, automation makes our economy fit for the future.

The image features a minimalist design on a white background. A central text element, "We are ready.", is surrounded by several thin, intersecting lines. One line is a vibrant orange, while the others are a muted grey. The lines cross each other and the text, creating a sense of dynamic movement and depth. The overall composition is clean and modern.

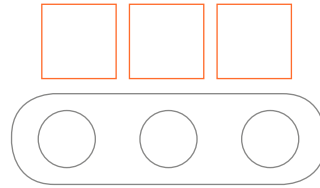
We are ready.

From the weaving loom to the robot: the industrial revolutions



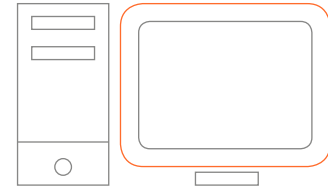
18th century 1st industrial revolution

In the 18th century, the Scotsman James Watt starts the first industrial revolution with his improvement of the steam engine. The introduction of mechanical production systems using steam and water power gives a massive boost to the textile industry – particularly in England. Steam pumps improve conveyance in mining and drive weaving looms. Steam ships and locomotives transport raw materials quickly over long distances.



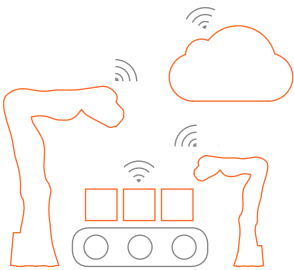
Early 20th century 2nd industrial revolution

At around the start of the 20th century, the second industrial revolution allows Germany and the United States to become major industrial nations. Electricity, assembly lines and mass production increase productivity. Factories have hundreds of employees. For example, Henry Ford manufactures along an assembly line in his car plant for the first time in 1913. Besides heavy industry, new sectors such as the electrical and chemical industries arise.



Early 1970s 3rd industrial revolution

In the 1970s, electronics, IT and automation change our world of work. The third industrial revolution, also called the digital revolution, is associated with the introduction of computers and automated workplaces. But climate change and environmental problems also increasingly lead companies and politicians to rethink their approach. The goal: to produce more using fewer resources and to avoid pollutants.



Today

Industrie 4.0

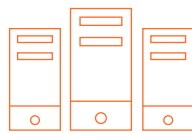
Experts see the world today as being on the threshold of the fourth industrial revolution. In companies, hardware and software are merging, resulting in cyber-physical systems. Machines are being networked, giving them the capability, in the future, of communicating with one another and optimizing themselves. This creates smart factories which can be controlled in real time, making customized manufacturing possible at mass production prices.

KUKA on the way to Industrie 4.0

As an automation specialist, KUKA is an innovation leader in tomorrow's industry. Instead of conventional industrial robots behind safety fences, KUKA has introduced the sensitive lightweight robot iiwa, combining the power, precision and repeatability of machines with human creativity and perception. Today at our headquarters in Augsburg, humans and robots are already working closely together. The networked factory too is already an everyday reality for us: for instance, some 250 robots communicated with around 60,000 other devices and machines during the construction of a body-in-white facility at KUKA Toledo Production Operations (KTPO) in the United States. And movable robots or completely autonomous systems help to make production in the factory of the future more mobile.

But there are still large barriers between the digital and real worlds. There is a lack of international standards and we need sophisticated IT solutions to be able to effectively handle the enormous amounts of data. For KUKA, it is clear: Industrie 4.0 is not a short-lived trend, but rather a sustainable development. That is why we will be working even more intensively on solutions for the smart factory in 2016.

Toolbox 4.0:
the most important
tools on the road to the
factory of the future



Big Data



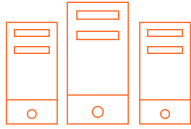
Cloud



Norms and standards



Data security



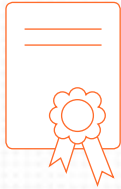
Big Data

Information and its exchange in real time are the backbone of Industrie 4.0. Networked factories bring a flood of data with them, which must be processed extremely quickly. This procedure has been termed “Big Data”. Because in order to effectively manage the factory of the future, the manner in which this flood of information is evaluated and made usable is of crucial importance.



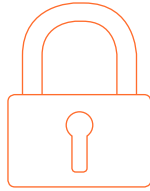
Cloud

In a networked company, it is just as important to be able to access information from various devices around the world. The Cloud is a suitable means of doing so. Data are not saved on the company server, but rather with an external service provider in the Cloud. That is efficient and flexible, and it enables almost unlimited secure storage space.



Norms and standards

In order to fully realize the potential of Industrie 4.0, it is essential to establish fixed norms and standards. After all, those who define the programs through which machines communicate have decisive advantages and do not have to adapt their hardware and software. This is why medium-sized companies must form networks in order to establish communication and data standards. An example of a possible future standard would be the Java programming language or the OPC Unified Architecture protocol, which, among other things, transports process values and measured data.



Data security

A fundamental condition for networked production is the secure transmission of data and effective protection against unauthorized access. Only then will Industrie 4.0 be a success. KUKA is in discussions here with market leaders in this sector to offer the best solutions.

Future alliances and the opportunities of Industrie 4.0



Dr. Christian Schlögel, Chief Technology Officer

Our networked world is on the threshold of the fourth industrial revolution. KUKA is one of the pioneers of this future-oriented initiative with intelligent factories and learning machines. In this interview, Chief Technology Officer Dr. Christian Schlögel talks about the opportunities and challenges of Industrie 4.0 and explains how he envisages the employee of the future will work.

How would you explain to an ordinary person what the term “Industrie 4.0” is all about?

Networking machinery, using sensors for information and actions as well as learning from data are the key aspects of Industrie 4.0; all of this is enriched with information that is available on the Internet. The aim is to act more quickly and get to the point where the system optimizes itself, in other words a “learning factory”.

Industrie 4.0 also enables us to manufacture small batch sizes at mass production prices due to increased flexibility and intelligence. This is essential, because there is an increasing trend towards customized products with very short lead times: ordered and

» For a company like KUKA that combines robotics and systems engineering with first-class software expertise, this will open up huge opportunities which we plan to capitalize on. «

customized today, delivered tomorrow. This also shows how logistics and production are merging into a single entity in order to meet customer requirements in an optimum manner. At KUKA, we are well on the way to that.

What are the greatest opportunities and risks associated with Industrie 4.0?

Established structures will change, the market will open up to new players. We are seeing software companies enter the production and logistics markets. Software and mechanical engineering are merging. Looking at robotics, it is already the case that 50 to 60 percent of the developers have a software background. At KUKA, we are in a very good position in this respect too since we have market-leading mechatronics expertise and also understand software. However, we have to acquire new skills as well, such as handling large amounts of data. For a company like KUKA that combines robotics and systems engineering with first-class software expertise, this will open up huge opportunities which we plan to capitalize on.

Would a networked factory not be susceptible to cyber crime and industrial espionage?

Industrie 4.0 can only be a success if security standards are improved at the same time. It's impossible to prevent attacks altogether, but we are in discussions with other companies with a view to providing the best possible solutions as part of an alliance. Because the

question of how they should approach the Cloud and the Internet is a key consideration for customers: how do I ensure that I don't open the door to unwanted visitors?

There has been criticism from experts that Germany is lagging behind developments in the USA and that people here are a lot more skeptical of digital advancement. What would you say to that?

We are certainly a leading nation in terms of production technology. In Germany, we have to ensure that we secure ourselves a strong position in the IT and software sectors and establish platforms. It is not only the American IT giants who have something to offer; the European economy can do that too. You have to make use of expertise from various regions and enterprises. No company will be able to accomplish these significant changes on its own. In Germany, we have to learn to form broader alliances a lot more quickly in order to make progress. There must also be a greater willingness to try out new things, even if certain aspects are not yet one hundred percent clear. In this new environment, it is important that we acquire new skills, for example in Big Data.

What are KUKA's business models and plans for the near future with regard to Industrie 4.0?

We are preparing to roll out new business models. Until now, we have sold robots and systems. In the future, pay-per-use, efficiency gains and energy conservation will also be on offer. I believe the industry will change. That is why we are also creating the internal structural framework to prepare our organization for these changes. In the future, I think the

» We have to train employees to use, for example, collaborative robots as assistants anywhere. «

product and solutions business will be on a par with service offerings focused on pay-per-customer value. This is because every customer has a different objective: one is aiming for greater energy efficiency, the other is looking for the lowest possible unit cost.

With Industrie 4.0, we find ourselves in the fourth industrial revolution, after steam engines, assembly line production and IT. Back then, many workers lost their jobs as a result of those developments.

Could that also happen with Industrie 4.0?

I don't think so. Everyone expected that to happen when the big software systems were introduced. Of course, many jobs were sacrificed, but many new jobs were created in return. Automation is affecting office workers for the first time, rather than just factory workers. Job profiles in that field will also change, positions will cease to exist and new ones will be created in their place. This means that personnel working in an Industrie 4.0 environment will have to change their outlook – we call this Employee 4.0.

How do you envisage Employee 4.0?

Robots and machines will perform simple tasks. We have to focus on where humans have an advantage over machines. This means that we have to train employees to use, for example, collaborative robots as assistants anywhere. Even in the present day, humans have to perform tasks which could cause health issues. Automation can

and will help in this respect. The demographic pyramid is inverting in western societies and in China. We have to ensure that employees retain their health and working capacity, find their way in the new world and are able to make their required contribution.

Biographical note

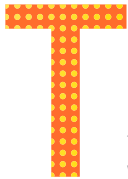
Christian Schlögel, born in 1964, is Chief Technology Officer (CTO) of KUKA AG and Member of the Board for Research and Development at KUKA Roboter GmbH. The computer scientist and doctor of business informatics joined KUKA in Augsburg in February 2015. Dr. Schlögel had previously been Global Head of Software Development at Wincor Nixdorf and had worked for SAP in Germany and the USA, holding various positions including Senior Vice President Technology Solution Management.

**“We can be proud
of having companies
such as KUKA here in
Germany.”**

German Chancellor Angela Merkel's visit to Augsburg



Employees demonstrated technology to the Chancellor:
automation of screw logistics with the KMR iiwa
(from the left: Christoph Bick, Dr. Till Reuter, Dr. Angela Merkel)



he call came two hours before the event was due to start. Due to poor weather conditions, the official government aircraft was grounded and Chancellor Angela Merkel was stuck in Berlin. For the journalists who had arrived from all over Germany, however, there was nonetheless a full program showcasing KUKA's innovations – a successful dress rehearsal, as it were.

Four weeks later, the event was repeated on Friday, March 13. It turned out to be an auspicious date: wearing a blue blazer, the Chancellor arrived to find out all about KUKA. KUKA employees standing in the courtyard, in the production shops and at the windows pulled out their smartphones. "I'll believe it when I see it," said Martin Vietze, a KUKA staff member.

Till Reuter greeted Merkel on her arrival. The CEO of KUKA AG had publicly raised awareness of Industrie 4.0. In the preceding years, the Augsburg-based automation specialist had become an innovative driving

force behind the fourth industrial revolution that is dawning in the industrialized nations, following on from the steam engine, assembly line production and IT.

Reuter stressed that the Chancellor's visit was of great importance for KUKA. "Cooperation between the worlds of politics and business is an indispensable prerequisite for the positioning of German companies in the fourth industrial revolution." Reuter and Merkel discussed the influence of digitization on business, what production and work in

general might be like in the future and the role of German companies in Industrie 4.0.

"We can be proud of having companies such as KUKA here in Germany," said the Chancellor. "For me, the visit was important for the purpose of gaining a clearer impression of Industrie 4.0 in order to enable us to provide the right political stimuli

and to allow industry room for maneuver." The Federal Government thus supports a platform that will enable many companies to exploit the opportunities of Industrie 4.0.

The Chancellor visited the Augsburg site and got to see the factory of the future at KUKA at first hand. The central topic was human-robot collaboration with the LBR iiwa sensitive lightweight robot. It assists

» Cooperation between the worlds of politics and business is an indispensable prerequisite for the positioning of German companies in the fourth industrial revolution. «

in the robot assembly shop, bringing screws and other parts to the workstations.

Around 50 journalists, camera teams and politicians from the region accompanied Merkel on her tour of the plant, during which she shook hands with many employees. “Everything’s a little different from usual,” said Ludwig Lindermeir, production foreman responsible for the LBR iiwa.

» For me, the visit to KUKA was important for the purpose of gaining a clearer impression of Industrie 4.0. «

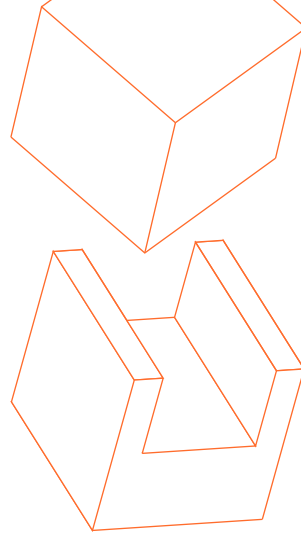
As a scientist herself, Merkel was particularly interested in the future trends in the field of technology development and also informed herself about the company’s cooperation with universities and research institutes.

The Chancellor’s visit lasted two hours. As a parting gift, the apprentices presented the woman who tops the Forbes list of the world’s most powerful women with a memento for her desk. “We made a truck with models of robots and a paperweight with our logo,” said Jasmin Bandasch, an apprentice. They were somewhat excited. “After all, it’s not every day that you meet the Chancellor.”

“Hello Industrie 4.0”

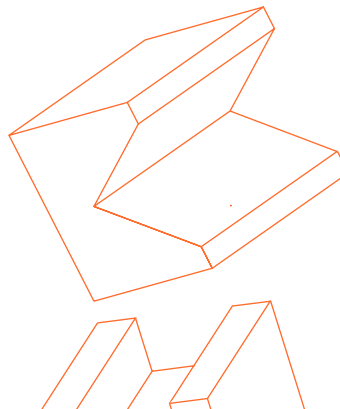
The underlying theme at Hannover Messe 2015 was Industrie 4.0.

From increasing digitization in production to close collaboration between humans and machines: KUKA is using its products to advance the fourth industrial revolution. The focal point of the factory of the future is the human worker, with the robot as the decisive component. In Hanover, KUKA presented applications involving the innovative LBR iiwa – the world’s first collaborative lightweight robot using safe technology and suitable for series production – together with its Sunrise controller. Specific robot and system solutions were used to illustrate the focal points of mobility, control and human-robot collaboration. Examples included a bartending application in which the robot autonomously performed all tasks from washing up glasses and opening bottles to pouring the perfect pint. Sebastian Prues explained that with the LBR iiwa KUKA is offering innovative products that are ready for Industrie 4.0.



Turning **consumers** into producers

ROBOCHOP application at CeBIT 2015: when 600 degrees Celsius meets hard foam.





“They are all my babies,” states Reed Kram, a designer from Stockholm, speaking behind the scenes of the ROBOCHOP application at CeBIT in Hanover, in response to the question as to which of the approximately 2,000 hard foam cubes produced live during the show is his favorite. What used to be a pipe dream became reality at the world’s largest trade fair for information technology: with a mobile phone app, Internet users were able to design a 40 × 40 × 40 cm cube themselves and send the order directly to one of four KUKA robots.

A chrome-nickel wire heated to 400–600 degrees Celsius was used by the four robots from the KR QUANTEC series to cut individual shapes out of the cubes. The installation provided a taste of what production methods might be possible in the future. The designers Clemens Weishaar and Reed Kram developed it on behalf of the GFT Group and they regard the installation as a harbinger of Industrie 4.0: it turns consumers into producers at the same time. 2,000 cubes, 2,000 design ideas ranging from stools or side tables through to abstract artistic objects. This demands maximum flexibility from the production process and each individual component. That is why the creators of the installation decided to use flexible industrial robots from KUKA.

The robot system was the focus of attention in the CODE_n innovation competition, initiated by the GFT Group; at CeBIT 2015, 50 international start-ups had the opportunity to present their solutions related to the Internet of Things to a specialist audience. KUKA supported this initiative for young companies as a strategic partner.

Technology partner GFT Technologies SE

GFT Technologies SE based in Stuttgart is a global technology partner for digital transformation in the financial sector. The company generates sales revenues of around 4,000 million euro worldwide (2014). Through the CODE_n innovation platform, the GFT Group offered start-ups, technology pioneers and established companies access to a global network in order to detect disruptive trends in the financial sector at an early stage and to integrate these into new business models.

Company



Hello KUKA 2020.

We are ready.



» I see KUKA 2020 as a chance to set and continually fine-tune the course for our future success and as the cornerstone of our corporate culture. «

Silvia Buchinger
Head of Corporate Human Resources, KUKA AG



» KUKA 2020 is our mission to align our expertise, products and services through collaboration and ingenuity; creating a unified delivery of KUKA brand performance for excellence in customer experience. «

Rebecca Markel
Marketing Manager, North America, KUKA Robotics




» KUKA 2020, to me, means that we are on the way to becoming an automation powerhouse. We are collaborating on a cross-company basis and supporting our customers in existing and new markets as a competent and reliable partner. «

Gernot Schödel, Managing Director Finance & Administration,
KUKA Industries



» For me, KUKA 2020 is the path to a global KUKA that benefits from local strengths and individual competencies within a strong global network. We are creating the foundation for growth in existing and new markets through market orientation and technical innovations. «


Henning Borkeloh
Head of Advanced Technology Solutions, KUKA Systems

- 
- 4** KUKA Culture
“ONE KUKA” stands for unity in diversity
 - 10** All under one umbrella – the new brand image
 - 14** Big Data @ KUKA
 - 18** Hello warehouse and healthcare automation
 - 21** Awards 2015

KUKA Aktiengesellschaft
Hello Future. Hello KUKA 2020.

KUKA 2020





Humans are the central focus in the production environment – and will remain so in the future.

KUKA Culture

“ONE KUKA” stands for unity in diversity

Were KUKA a house, the company would have a helipad and a port as well as humans, robots and machines working and communicating with each other. At least, this is how the roughly 100 participants attending the inaugural Women’s Networking Day at KUKA would imagine their company. The new initiative, called OrangeWIN (Women in Network), aims to encourage diversity within the company.





FUTURE

*KUKA is evolving into a global
automation enterprise.*



he helipad and the port, of course, symbolically represent global networking. KUKA has grown immensely in recent years. More than 12,000 employees are working across the globe for the success of the company.

The initiative is just one element contributing to the further development of the corporate culture. Besides a uniform process landscape and IT structures, cross-cultural leadership principles and the new umbrella brand also create the basis for moving the company ahead.

In other words, diversity is not just a gender topic, but first and foremost an intercultural one. KUKA is in the midst of a transformation: from a company with international operations to a global automation enterprise with software expertise. "In the future, employees will not only have to work across companies but across countries as well," notes HR Director Silvia Buchinger. "We

have to take this into account in all that we do. And that presents us with new challenges in every area." To this end, the ON (OrangeNews) employee magazine now not only appears in English and German, but also in Chinese. "The time difference alone makes collaboration on the articles a bit of a challenge," explains editor-in-chief Teresa Fischer. Every now and then she also travels to visit the colleagues in China. "Once you know the colleagues' environment, it is easier to develop a feel for what is important to them over there at the moment." Many things are different in China. But there are also similarities. For instance, a sense of what makes for effective social media presence. KUKA's most prominent campaign is likely the one with Timo Boll. He has now challenged a KUKA robot on the Internet for the third time in various disciplines and garnered a hefty number of clicks for the company. For their part, the Chinese colleagues at KUKA Robotics Shanghai surprised many with

an unconventional campaign on the Chinese platform "WeChat" – the most popular social media platform in China. In the campaign, KUKA employees were called upon to demonstrate different ways of wearing an orange silk scarf.

The Americans, on the other hand, are very similar to their German colleagues when it comes to charity work. While the employees in Augsburg are active through the charitable association "Orange Care", in Detroit there is the "KUKA Cares" initiative, which, among other things, helps children who are seriously ill. The employees themselves choose which organizations to support. And when it comes to fundraising, our colleagues in the US are imaginative too. Those wearing jeans on Fridays must contribute to the donation fund. This adds a whole new dimension to "Casual Friday".



As growth increases, KUKA is confronted with new challenges.





Wilfried Eberhardt (right) is responsible for Corporate Marketing, Boris Dolkhani (right) is a strong proponent of the brand.

All under one umbrella – the new **brand image**

With the new umbrella brand, KUKA is uniting its companies worldwide under a joint brand image. The revised, uniform corporate design and the new brand values provide orientation and strengthen the common identity. With its new appearance, the brand underscores KUKA's image as an innovation leader.



A

t the beginning of the brand project, many employees from various departments discussed the definition of the core brand message during workshops: What makes our company special? What values does KUKA stand for? After all, a brand describes not only the range of services and products, but also the values and the character of a company. The brand team ultimately came to the conclusion that added value is only created when several units work together. The overarching value “Orange Intelligence” was derived from this realization. Orange Intelligence evolves through the collaboration of KUKA expertise in different areas. KUKAns, partners and customers benefit equally from integrated thinking and action.

Five questions – Five answers

1. What goals is KUKA pursuing with the new umbrella brand?

The new umbrella brand is a component of the KUKA 2020 strategy. The corporate design unites the individual divisions into ONE KUKA. The new brand values provide orientation and a common character. The goal is for all KUKAns to orient themselves according

» A central brand symbol and a uniform image give the KUKA brand its strength. «

to the same values, thereby sharing a common identity and outwardly demonstrating a unified image. This is an important precondition for achieving the targets inherent in the KUKA 2020 strategy. A central brand symbol and a uniform image give the KUKA brand

its strength. The intention is to give visual expression to our company’s forward-looking positioning and to our modern and innovative character. This is why the design has also been revised.

2. Which brand values has KUKA defined?

The brand values of KUKA arose from the inside out. Surveys were conducted among KUKA employees to find out what KUKA means to each individual, what they associate with it and how they understand it. The answers were then used to draw out the core values: integrative, creative and effective. Beyond this, the participants – from across all divisions and levels of the enterprise – consistently brought up the term “orange”. As a result, “orange” was anchored in the meta value “Orange Intelligence” – in the value which is derived from the core values and emanates outwards.



Wilfried Eberhardt, Chief Marketing Officer (middle), and his team discussing the meta value of the KUKA brand: Orange Intelligence.

3. What does KUKA mean by “Orange Intelligence”?

The central value and unique added value of the KUKA brand is “Orange Intelligence”. It makes us successful. Our uniqueness results from the interaction of expertise in different areas. Each service and every product is the result of this melding. At KUKA, added value is created, for example, through the interaction of software, hardware and mechanical systems, through the collaboration of Industries, Systems and Robotics and also through the fact that KUKAs, partners and customers work jointly on a solution. Integrated thinking and action opens up unimagined application potential both internally and for external partners. The embodiment of this exceptional added value is “Orange Intelligence”.

4. What are the main elements of the umbrella brand?

The main elements of the new umbrella brand are, on the one hand, the visual changes in the corporate design, such as the redesign of the logo, the altered typography, the catalog of images and the color scheme. KUKA is already a strong brand with high brand awareness. Here, only a moderate change – a facelift – was called for. Adjusted to reflect the position of KUKA as an innovation leader in automation, the primary colors have been changed and the font has become more technical, the graphics and images more modern. Orange has now been moved to a secondary level. The new primary colors are white, silver and various gray tones. Colors that stand for innovation, technology and Industrie 4.0. We now only use orange very selectively and for accentuation purposes. Wherever we want to highlight “Orange Intelligence” or to draw attention to finesse and customer benefits. A new symbol has been created for the meta value “Orange Intelligence”: the three-part

ring. These three connected segments stand for everything that we develop and produce in collaboration, for the elements that we intelligently bring together.

5. How do Reis and Swisslog fit into the KUKA umbrella brand?

Reis came into KUKA Group during the analysis phase of the brand project. And it quickly became apparent that the Reis product and service range fits KUKA perfectly and thus clearly belongs under the umbrella brand. But with the aim of also doing justice to the tradition, the positive brand appeal in the market and, above all, the pride that employees have in the Reis brand, the Reis logo in black will continue to be used as a product brand logo. Swisslog has established a strong market position in the logistics and healthcare industries. That is why the Swisslog brand will be retained as an independent brand within KUKA Group. In the future it will have the addition “Member of the KUKA Group”.

Big Data @ KUKA

Industrie 4.0, the Internet of Things (IoT), Integrated Industry, Big Data, Deep Learning: these are terms many of us know in relation to modern industry, but what do they actually mean? And what consequences do they have for automation? A small group of software developers based in the up-and-coming technology hub of Austin, Texas/USA, is addressing precisely these questions.

This new team is tasked with ensuring that KUKA products can be integrated into the increasingly diverse Internet-connected landscape, not only making them even more user-friendly but also providing truly groundbreaking and valuable new features.

Leading this team is David Fuller, an expert in managing global software R&D teams with experience stretching back over more than 20 years; he joined KUKA last year in a new position as Chief Service Robotics Strategy and R&D Officer North America. Since then, he has headed what is now often referred to as “KUKA ATX” (ATX is the abbreviation used locally for Austin, Texas). This team comprises seven individuals with an average of 17 years of experience in software engineering, software architecture, technical marketing and web, cloud and mobile development. By merging the perspective of the US technology sector with existing KUKA knowledge surrounding the Industrial Internet and machines, Fuller and his team

» The finished result will connect operating technologies such as robots and logistics machines to the cloud, the web, mobile platforms and other modern IT technologies. «





want to ensure that KUKA can capitalize on new business opportunities created by the trend towards the Internet of Things.

According to Fuller, the recipe for success in developing this technology takes IoT middleware, mixes it with technology competencies in web, cloud and mobile platforms, and then applies those perspectives to the existing core mechatronics capabilities of KUKA. The finished result will connect operating technologies such as robots and logistics machines to the cloud, the web, mobile platforms and other modern IT technologies.

“Central Europe is amazing when it comes to advanced control theory,” says Fuller. “The education system there is incredibly good at fostering this understanding and creativity and churning out the talent to supply these needs. That is why there is so much advanced automation that comes out of that region. At the same time, if you want to look at cloud, web and mobile technology, these are very US-centric advances that are coming out of



Jon Fourni, David Fuller and Andy Chang (f.l.t.r.) in a team discussion of joint solutions.

US tech hubs, so we need to grow a technology and competency center around things that the US is known as being good at.”

In order to begin this process, Fuller is currently surveying the technology portfolio of the entire KUKA Group. Ultimately, the goal is to build a horizontal software platform that can be applied to all devices and assets in the KUKA portfolio.

“We want to provide real additional value to our customers by uniting the entire portfolio for improved support, service, sales, deployment, installation and proactive maintenance. Furthermore, we aim to harness the Big Data provided by this horizontal platform to ensure we are doing it in the most user-friendly and efficient way possible,” says Andy Chang, Head of Technical Software Marketing for KUKA North America. “In this way, we can create a strong value-added ecosystem through intuitive software and

» *We want to provide real additional value to our customers by uniting the entire portfolio for improved support, service, sales, deployment, installation and proactive maintenance.* «

open interfaces. It’s an over-used analogy, but it is similar to the concept of the Apple ecosystem surrounding iTunes, the App Store and Apple Music, where you have connected devices and standard interfaces that are supplied by the OEM.

In addition, the team in Austin is surveying Big Data platforms geared towards Machine Learning and Deep Learning, to see what kind of business insight and analytics can be applied to robotic work environments. “The right mix of features will result in KUKA being fully engaged in IoT and Industrie 4.0,” says Chang with confidence. “From a customer perspective, they want to be able to

connect their robots and have visibility into their real-time operation and historical statistics. They want to know the robots are running well and when to service them to minimize down-time – and they want to have all that integrated in a way that’s intuitive and cloud-friendly.

Essentially, they are saying ‘Don’t make me work so hard to use my robot,’ and our goal is to deliver on that idea.”

David Fuller

David Fuller is Chief Service Robotics and R&D Officer North America for KUKA U.S. Holdings Company LLC. Fuller joined KUKA in July 2015.



The human-robot workstation "Automated Item Pick" for e-commerce was developed jointly by Swisslog and KUKA.

Hello warehouse and healthcare automation

From the transportation of laboratory samples to conveyor systems: Swisslog stands for leading automation solutions in hospitals, warehouses and distribution centers. The Swiss automation specialist has been part of KUKA Group for a year now.



» Cooperation with our new colleagues at KUKA during the development project was outstanding and very intuitive. «

Joint development, joint presentation

In August 2015, Swisslog shares were delisted from the Swiss stock exchange. Since then, both companies have been growing ever closer together.

“The sales teams of KUKA and Swisslog coordinate very closely,” explains Daniel Hauser, Managing Director for the Central Europe region. “We visit our customers together and are in close contact with one another. In this way, we get to learn a lot about KUKA and our colleagues at KUKA find out a lot about Swisslog.”

KUKA and Swisslog also present themselves together to the public at trade fairs and events. This approach got off to a successful start at last year’s Hannover Messe. There, the human-robot workstation “Automated Item Pick” developed by both companies for e-commerce was unveiled. “Cooperation with our new colleagues at KUKA during the development project was outstanding and very intuitive,” said Kirt Laeske, Product Manager for robotics applications at Swisslog. “It quickly transpired that the ideas and solutions from KUKA and Swisslog can be excellently combined.”

A few months later, at the world’s largest medical trade fair – MEDICA – in Düsseldorf, a KUKA LBR iiwa lightweight robot unloaded carriers from the receiving station of Swisslog’s TranspoNet pneumatic tube system.

Utilizing synergies

Swisslog staff also work hand in hand with KUKA colleagues in central internal departments, such as Human Resources. Bernhard Richard, for example, has been responsible for the remuneration systems and personnel controlling of the entire Group since the beginning of 2016. Until recently, he was Head of Human Resources at Swisslog and is delighted at the prospect of pushing ahead with important issues.

Swisslog in Augsburg

In December 2015, the staff of Swisslog Healthcare Solutions relocated from Puchheim, on the outskirts of Munich, to Augsburg. The geographical proximity will further enhance cooperation within the Group. “The relocation to Augsburg was a new departure for all of us and a source of tremendous motivation for the team at Swisslog Augsburg GmbH,” says Joachim Riegg, Project Manager for automated guided vehicles. “The proximity to KUKA enables us to benefit from all the advantages of the existing infrastructure.”

Three questions to Christian Baur, Managing Director of Swisslog Warehouse & Distribution Solutions

Dr. Christian Baur has been Chief Operating Officer at Swisslog since February 2015 and additionally Head of the Warehouse & Distribution Solutions division (WDS) since September 2015. From 2013 to January 2015, he was Head of Corporate Development and M&A at KUKA.

Christian Baur, Managing Director of Swisslog Warehouse & Distribution Solutions



How have you found the first year of the Swisslog integration?

It has been a very intensive and challenging year. This was primarily because I first had to get to know the business processes and colleagues at Swisslog in order to be able to manage the diverse expectations from all sides. The entire team has mastered this process in exemplary fashion and the employees realize that, as part of KUKA, we now have new possibilities in terms of technology, shared customers and global outreach.

What are the major challenges in 2016?

First and foremost, we naturally want to be successful in our business. We are on a good operative footing at Swisslog Warehouse & Distribution Solutions and were able to improve margins and reduce quality costs in 2015. We have also adapted structures so as to be able to react more quickly to the requirements of the market. Furthermore, we have developed a strategy for positioning ourselves even better in the growing e-commerce/retail market in the future. In 2016,

we want to develop and grow in all these areas. We also aim to intensify our sales cooperation with KUKA.

What areas are you focusing on in terms of technology?

Swisslog Warehouse & Distribution Solutions sees itself as a best-in-class solution provider for the automation of logistics processes. For this reason, it is important for us to close the gap in the light goods portfolio this year with the launch of the CycloneCarrier, a shuttle-based storage system for cases. With the “Automated Item Pick” and the “Automated Case Pick” solutions – both cells with KUKA robots – we intend to make significant progress in the personnel-intensive field of order picking. With these and our existing software solutions we are striving to achieve a leading position in Industrie 4.0.

Awards 2015

Whether for communication, innovation or design, KUKA garnered numerous international awards in 2015.



KUKA brand ambassador Timo Boll



The biggest haul at KUKA went to the KR Agilus robot. It won five international awards, including the Red Dot Design Award and the US Good Design Award. The exciting duels of table tennis player Timo Boll with KUKA robots not only notched up millions of clicks on YouTube but also convinced the juries of the German Prize for Online Communication and the Digital Communication Award.

For their success in communicating the complex topics of innovation and technology in a clearly comprehensible manner, CEO Dr. Till Reuter and the KUKA AG communications team led by Katrin Stuber-Koeppe were honored with the Thought Leadership Award. In addition, the team from KUKA Industries was delighted to win the prestigious Red Dot Design Award in 2015 for the modular friction welding machine KUKA Genius, which scored highly for its attractive design combined with high functionality. "I am really pleased about all these distinctions," said Till Reuter. "Winning an award is always a team effort."

AWARDS for the KR AGILUS

International Design Excellence Award 2015

Organizer: Industrial Designers Society of America (IDSA)

Award: "Silver IDEA"

Award ceremony: International conference of the Industrial Designers Society of America (IDSA), August 2015, Seattle

iF Design Award 2015

Organizer: iF International Forum Design GmbH, Hanover

Award: Category "Product"

Award ceremony: BMW Welt in Munich, February 2015

Red Dot Design Awards

Organizer: Design Zentrum Nordrhein Westfalen e.V.

Award: Red Dot Award Product Design Honourable Mention 2015

Award ceremony:

Red Dot Gala: June 29, 2015, at the Aalto Theater in Essen

German Design Award

Organizer: Rat für Formgebung

Award: German Design Award Special Mention

Good Design Award USA 2015

Organizer: Chicago Athenaeum Museum of Architecture and Design

Award: Category "Robotics"



Thought Leadership Award: Dr. Christian Schlögel received the prize on behalf of Dr. Till Reuter. From left to right: Claas Sandrock (Unicepta), Katrin Stuber-Koeppe (KUKA Group Spokesperson), Kerstin Heinrich (Deputy KUKA Spokesperson), Dr. Christian Schlögel (KUKA Chief Technology Officer), Anna Pfau (Unicepta)

Further awards

Thought Leadership Award

Organizer: DPRG and Unicepta

Award: Thought Leadership Award

Award ceremony: Kap Europa Conference Center, Frankfurt, January 22, 2016

iF Design Award 2015

Organizer: iF International Forum Design GmbH, Hanover

Award: Category “Communication”;

Film: “The Duel: Timo Boll vs. KUKA Robot”

Number of entries:

about 5,000 submissions

Award ceremony: BMW Welt in Munich, February 27, 2015

German Prize for

Online Communication 2015

Organizer: “Pressesprecher” magazine

Award: Category “Image Film”;

Film: “The Revenge 2015”

Award ceremony:

at the Kino International in Berlin

Digital Communication Award 2015

Organizer: “Pressesprecher” magazine

Award: Category “Corporate Film”;

Film: “The Revenge 2015”

Award ceremony: Berlin

FORD Excellence Award

Organizer: FORD USA

Award: FORD Supplier Diversity Overachiever Award

Award ceremony: KUKA Systems USA, March 2015

FORD World Excellence Award

Organizer: FORD USA

Award: Quality and Innovations – Suppliers

Award ceremony: KUKA Systems USA

Daimler Supplier Award

Organizer: Daimler AG

Award: Quality, Partnership and Innovation

Award ceremony: Mercedes Benz Stuttgart-Branch



The KUKA team is delighted to have won the Red Dot Award for the KUKA Genius. From the left: Sabine Neubauer, Michael Grewer, Otmar Fischer, Harald Heinrich, Stephanie Glock and Michael Büchler

Red Dot Design Award

Organizer: Design Zentrum Nordrhein Westfalen e.V.

Award: Red Dot Award Product Design 2015; KUKA Genius

Number of entries:

4,928 entries from 56 countries, 1,240 receive “Red Dot”

Award ceremony:

Red Dot Gala: June 29, 2015, at Aalto Theater, Essen

Good Design Award 2015

Organizer: Chicago Athenaeum Museum of Architecture and Design

Award: Category “Industrial”; KUKA Genius

Award ceremony: Museum of Architecture and Design and the European Centre for Architecture Art Design and Urban Studies

German Business Innovation Award for LBR iiwa

Organizer: The prize is sponsored by the Federal Ministry for Economic Affairs and Energy and the Federal Ministry for Education and Research

Award: German Business Innovation Award

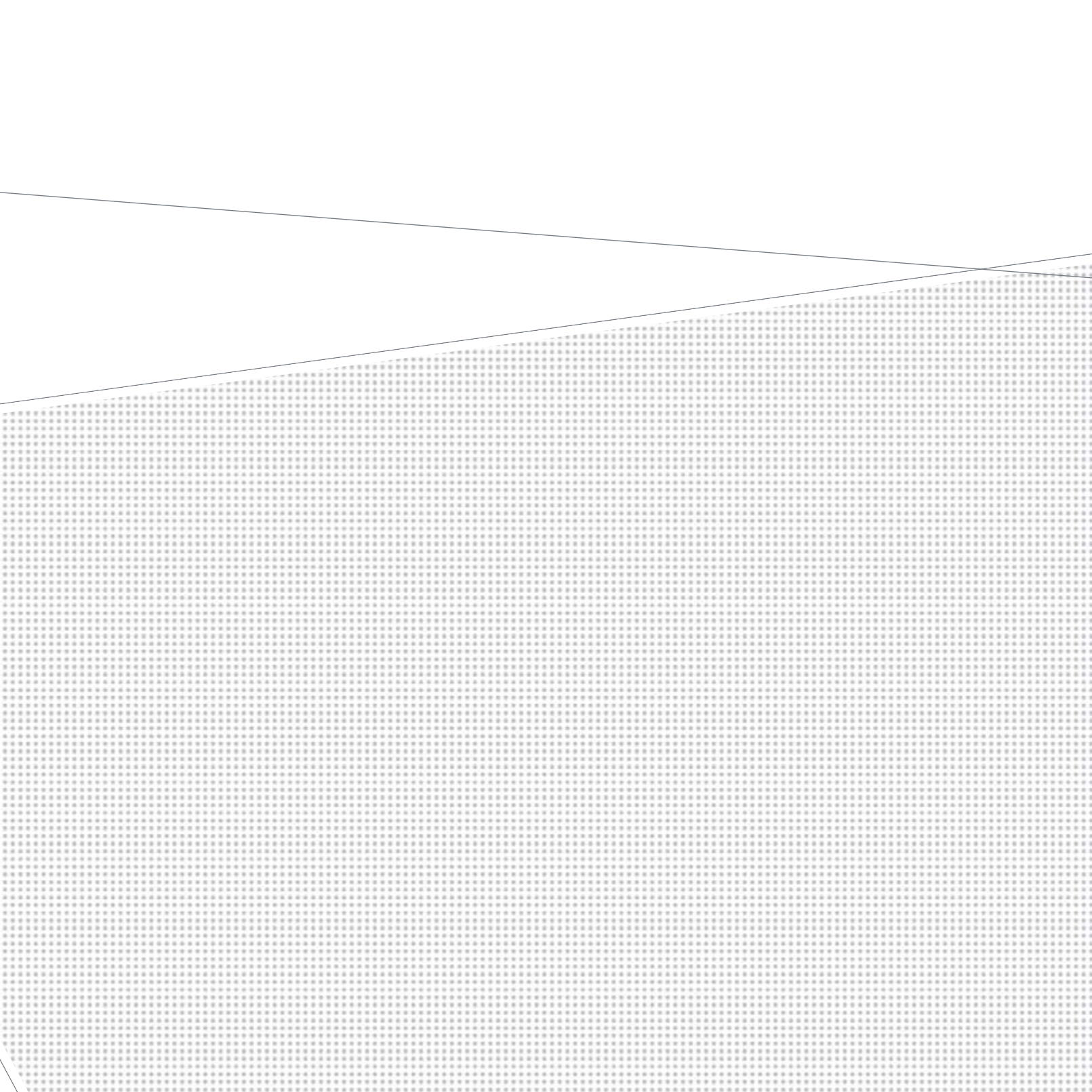
Award ceremony: Gesellschaftshaus Palmengarten, Frankfurt

Technology Transfer Award for autonomous navigation – LBR iiwa

Award: euRobotics Technology Transfer Award

Award ceremony:

European Robotics Forum, Vienna



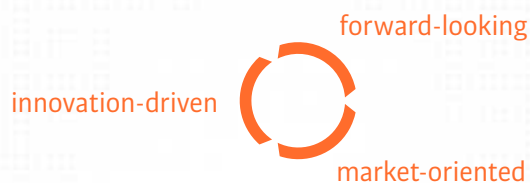
Markets

Hello World.

We are ready.



Hello World. We are ready. Our products and solutions are used by customers around the world in every conceivable branch of industry – from stacking drinks crates to fast and error-free work procedures in patient care. We understand the requirements of our customers and supply tailored automation solutions.



North/South America

On the American continent, KUKA is primarily represented in the USA, but also in Mexico and Brazil. In addition to subsidiaries in Detroit, KUKA is investing in a new development site in Texas/USA, concentrating on the further development of software applications as well as data analysis.

Europe

KUKA has a strong position on the European market. The company has its headquarters in Augsburg and serves the profitable, high-growth markets of Europe, Asia and North America from Germany.

Asia

KUKA has been represented for many years by several subsidiaries in Asia. The headquarters for the Asian business is Shanghai. Robots for the Asian market are shipped from there. A hub is being formed there in 2016 to bundle various functions. China is the biggest growth market for automation.

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KUKA celebrates a **world premiere** in China

In the setting of China's most important robotics trade fair, KUKA celebrated the world premiere of a new product series: the compact KR CYBERTECH nano was presented to the global public for the first time at the China International Industry Fair (CIIF) in Shanghai.



KR CYBERTECH nano –
fast, agile and flexible

It has long been known in the robotics scene that China is a major center of interest. The local market is growing so fast that, according to official information from the International Federation of Robotics (IFR), one third of all robots installed worldwide will be located in China within two years. This is why KUKA too is present like never before in what is already the world's largest and fastest growing robot market.

KUKA and China, that is a growth story characterized by many years of successful cooperation. Back in the 1990s, KUKA was one of the first robotics manufacturers in the world to set foot in the Chinese market. In the beginning, orders were exclusively from the automotive industry, whereas today China is a locomotive for growth throughout all kinds of sectors. From welding and metal processing through to the electronics industry.

This also became clear at the flagship China International Industry Fair (CIIF) in November 2015. As part of the Robotics Show (RS), KUKA was literally at the center of the global robotics scene. "Almost all of the world's

robot manufacturers are present at this trade fair," said Bing Kong, CEO of KUKA Robotics in China. "With our tailor-made products for Chinese customers such as the KR CYBERTECH nano series, we have been right on target this

» With our tailor-made products for Chinese customers such as the KR CYBERTECH nano series, we have been right on target this year. «

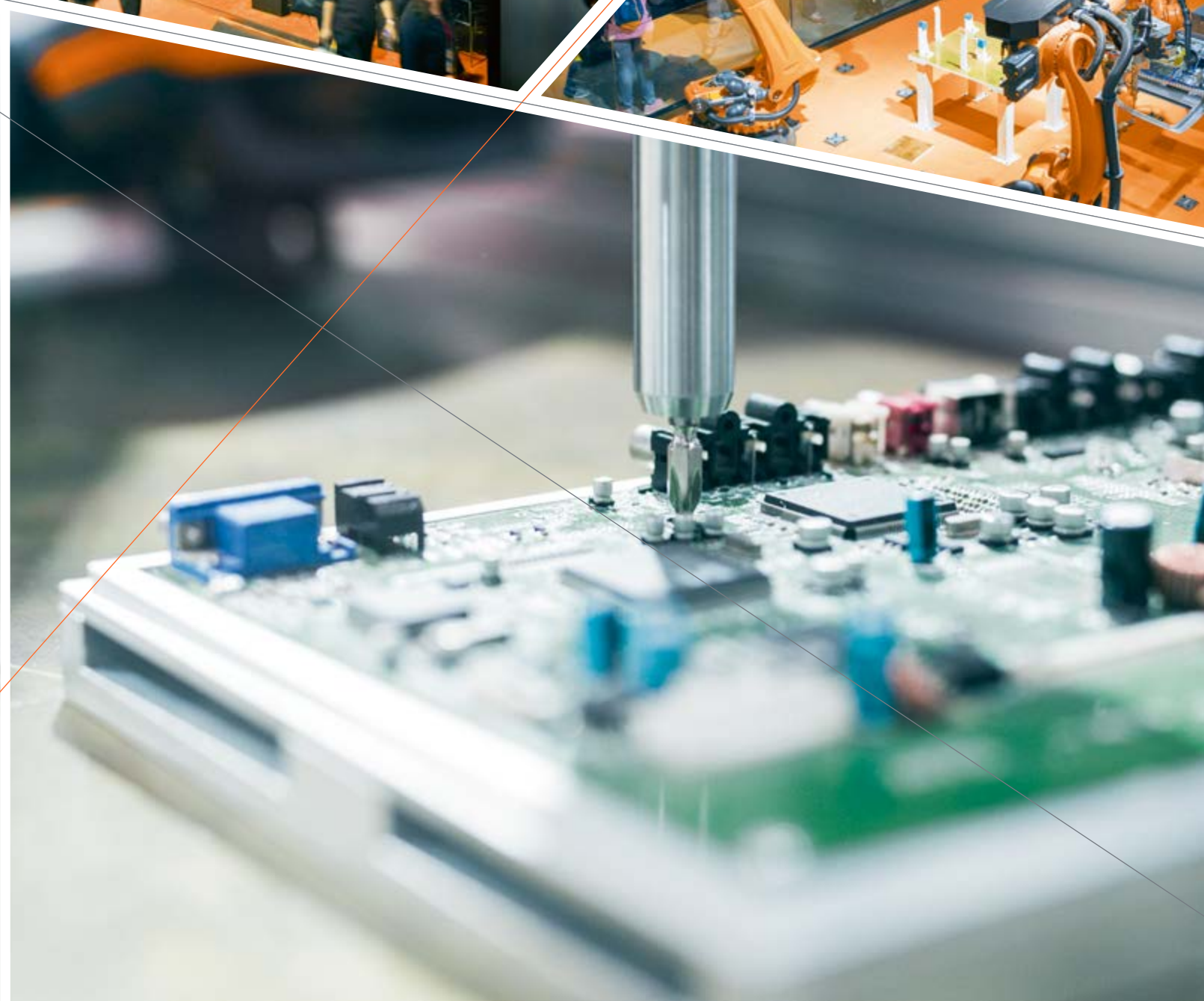
year," explained Kong. After all, this was the first time in the history of KUKA that a new product series of especially compact, slender and high-performance small robots was not unveiled in Germany or Europe, but directly in the heart of the largest and most important market in the world. And the response was impressive: the official curtain-raising ceremony was conducted by Martin Kuhnhen, Chief Sales Officer (CSO) of KUKA Roboter GmbH, the Head of Sales in China Steven Hua and KUKA's brand ambassador Timo Boll. The table tennis star is particularly popular in China. He signed autographs during the opening ceremony and played table tennis against fans and visitors to the booth.

Alongside this, KUKA presented an impressive overview of the robot portfolio. KUKA showcased the complete spectrum from the autonomously navigating and sensitive production assistant, the KMR iiwa (KUKA Mobile Robotics), through to welding and machine handling systems, also including precise and agile small robots. And with success. After all, the range of products on offer has got to be right in order to respond to the growth

and meet the increasing needs of customers in China. This is why KUKA is pushing ahead with its business in China and entering into partnerships with local application partners so as to develop solutions for forward-looking automation in close proximity to the customer.

About the KR CYBERTECH nano series

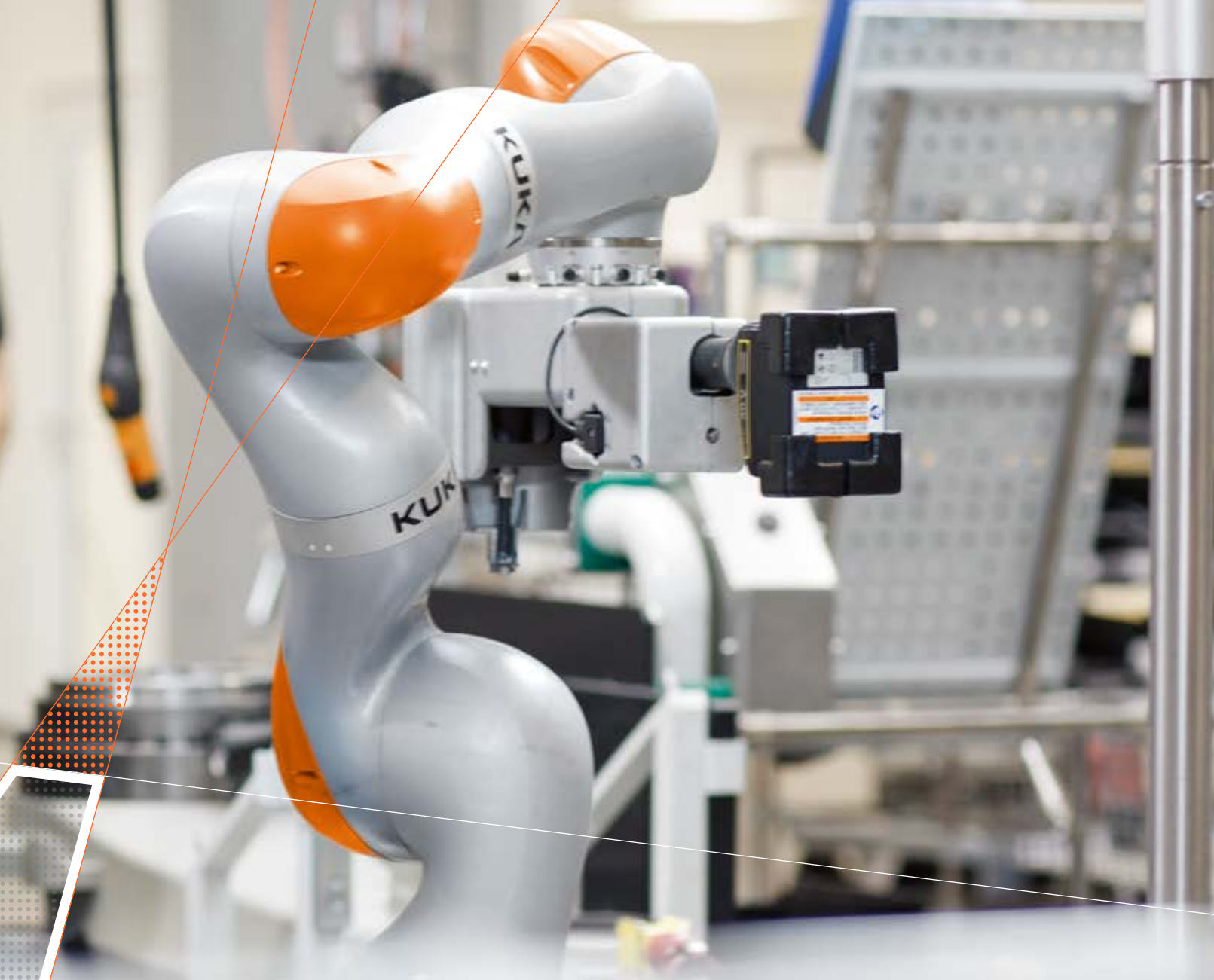
Fast, agile, flexible and with a long reach in compact spaces: these are the performance features promised by the new robot class in the low payload category, consisting of two product families – KR CYBERTECH nano for the handling and assembly of small parts and KR CYBERTECH ARC nano as a specialist process robot for welding. Both product families are perfectly tailored to the requirements of the Chinese market.





The KUKA flexFELLOW concept

The KUKA flexFELLOW is a robot unit that can be manually moved to its place of use and put into operation there extremely quickly. This allows entirely new flexibility when planning systems as well as fluid variation in terms of the degree of automation. Fitted with the LBR iiwa, the KUKA flexFellow makes new solutions in production technology possible. The robot's integrated, high-performance, flexible sensor technology, along with the great freedom of movement provided by its seven axes, allows it to perform joining processes with the sensitive touch of a human.



A new assembly colleague

They are robust, strong and efficient, yet as sensitive and flexible as a human: the robots that KUKA uses in its own robot assembly shop. Together with its human colleague, the LBR iiwa lightweight robot screws together the gear units for the KR QUANTEC industrial robot. It ensures that work is more productive and ergonomical.

How do you go about optimizing your own robot assembly? “In exactly the same way that we would go about it for a customer,” says Dr. Richard Zunke, Head of Product Management in the Advanced Technology Solutions department at KUKA Systems. “By asking the right questions, finding a suitable individual solution and implementing it as a practical application.” Use of the LBR iiwa lightweight robot had already proved to be efficient in assembling the in-line wrist for the KR QUANTEC industrial robot.

The new task to be accomplished was the screw-fastening of link arm gear units. The assistant on wheels took up its new job in the assembly shop at the start of 2015.

Service-proven at KUKA

The human operator touches the KUKA LBR iiwa, thereby signaling to the robot that it should start the automated screw-fastening process. The lightweight robot then begins to calibrate itself in its workstation. It is able to do so

because sensors provide it with the required sensitivity. During this time, the human operator loads a new link arm onto the second support table. This is fitted with pre-inserted screws which the LBR iiwa tightens to a torque of exactly 104 Nm as defined in the design specifications. Once the gear unit has been fastened in the first link arm, the robot assumes the second position. Only when it is touched again by the human operator does it begin tightening the screws on the second link arm. The operator can intervene in the work process at any time. No safety fences are required. Furthermore, the process can be documented by the robot, thereby increasing quality and process reliability. “Here, robots

» To ensure that the robot can work safely together with its colleague, we have taken the entire system into consideration from the outset. «

The LBR iiwa fastening a gear unit to the robot link arm in direct and safe collaboration with the human operator.





Kai Demele and Jasmin Bandasch load the support table with a link arm, which is then further processed by the LBR iiwa.

build robots in collaboration with human operators. The advantages are the low space requirements of the system, the efficiency and the improved ergonomics for the human worker,” says Edmund Bahr, Head of Production at KUKA Robotics.

Everything is geared towards collaboration between human operators and robots. Additionally, the KUKA flexFELLOW can also be used in manual assembly. Whether by humans or robots, ongoing production is thus always assured.

Safety first

In human-robot collaboration (HRC), safety is the top priority.

To ensure that the robot can work safely together with its colleague, KUKA has taken the entire system into consideration from the outset. This has also been confirmed by an independent body: in 2015, the Test and Certification Center of the German Statutory Accident Insurance Body (DGUV Test)

for machinery and automated production certified the flexFELLOW system. It thus meets all the criteria for biomechanical limit values in accordance with ISO/TS 15066 and conforms to the stipulations of Machinery Directive 2006/42/EC. We take safety seriously.

Robotic precision supports zero-error production

The ALNEA-ZEUS control system for the selective soldering of parts makes use of KUKA robots.

Warsaw-based ALNEA Sp. z o. o. designs and manufactures semi- and fully-automatic mechanical, electrical and pneumatic testing devices for specific customer requirements. The Polish company has specialized in the selective soldering process. The ALNEA-ZEUS controller developed some years ago by ALNEA was meanwhile in need of a major update to ensure that it could continue to meet the standards set in the future by the international association of the printed circuit and electronics industries (IPC). ALNEA implemented the new development in close cooperation with KUKA.

The soldering process used in so-called through-hole technology (THT) requires the utmost precision. "A reliably controlled selective soldering process is the decisive first step on the path to zero-error production for our customers," says Krzysztof Kamiński, President of ALNEA Sp. z o. o.

Avoidance of errors by means of reliable process monitoring and correction

For these reasons, in addition to the further development of the controller, it was also necessary for ALNEA to install a robot that could perform the soldering operation and precisely position the components. ALNEA decided in favor of a KR AGILUS as a prototype. The KUKA KR 6 R900 sixx precisely meets the requirements placed on it by the selective soldering process. It controls the

can also be combined with the new ALNEA-ZEUS control system in addition to the KR 6 R900 sixx. Moreover, the KUKA KR C4 controller met ALNEA's requirement that the process had to be controlled via a simple teach pendant. The open architecture of this controller supports effortless technical integration into existing machine environments.

"During integration of the robotic automation solution, communication between the soldering controller and the robot controller had to be optimally

» A reliably controlled selective soldering process is the decisive first step on the path to zero-error production for our customers. «

motions of the soldering iron and also holds the board in a fixed position. Essentially, however, other KUKA robot models

coordinated," explains Kamiński. For this, a software package for controlling the parameters of the selective soldering process was



It stands out for its speed, utmost precision and compact dimensions: the KR AGILUS in a selective soldering application.

loaded, in a manner of speaking, into the robot's memory. In this way, ALNEA's customers can control the robot directly in the production process using the KUKA smartPAD teach pendant. Commands are transferred to the ALNEA-ZEUS controller via Ethernet communication. The controller then executes the command on the basis of the customer-specific hardware and software. The solution dispenses with a PLC or HMI panel and requires no additional interfaces.

The result: 50 percent shorter process time and minimization of errors

Thanks to the robotic automation solution, all parameters of the selective soldering process can now be monitored reliably via the teach pendant. This has led not only to a noticeable reduction of errors, but also to a significant increase in productivity. "With the new solution, we have shortened the process time by 50 percent," stresses Kamiński.

» During integration of the robotic automation solution, communication between the soldering controller and the robot controller had to be optimally coordinated. «



The American brewery Widmer Brothers has automated its production – with a KR QUANTEC robot from KUKA.

Crate lifting champion

A KR QUANTEC robot depalletizes high stacks of beer crates for the regional brewery Widmer Brothers Brewing.



» Today, we can deliver all pallet loads for depalletizing at their full height and thus produce faster. «

The Craft Brew Alliance (CBA) is an American independent and publicly traded regional brewery created through the merger of the leading breweries along the US Pacific Northwest coast: Widmer Brothers Brewing, Redhook Ale Brewery and Kona Brewing Company. The breweries create popular and innovative varieties of beer in these modern production facilities. A robot from the KR QUANTEC series is tackling the unloading of beer crates at the beer factory in Portland, Oregon (USA).

A new solution was needed

As demand for Widmer products increased, so too did the production requirements and all of the associated work steps (such as packaging and palletizing the beer bottles). And here it was not only volume and speed that counted, but precision as well. The existing semi-automatic system was no longer able to keep up with the faster cycle times.

One important criterion had priority in the search for a new system: safety. “Unloading the crates by hand is a physically strenuous and monotonous task that can often result in injuries,” explains Rick Ginter, Director of Engineering at Widmer Brothers Brewing. “Moreover, the pallets were to be stacked higher than previously,” emphasizes Ginter.

The ceiling was too low for a conventional depalletizer, however, so the integrator and official KUKA system partner Midwest Engineered Systems turned to a robot-based solution. “The robot had to be able to move the upper layers of the incoming pallet load underneath an existing beam,” notes Ginter, explaining the challenge. The KUKA KR QUANTEC series robot selected by Widmer Brewing was programmed to easily avoid the beam and to unload the pallet stacked to full height. Using a universal vacuum gripper, the KUKA KR 270 R2700 ultra robot then positions itself above the top layer of the pallet load, takes

the uppermost layer of crates from the pallet, moves to the layer separation conveyor and sets the layer down on the conveyor, repeating the process until the pallet is completely empty.

20 percent increase in productivity

The KUKA KR 270 R2700 ultra performs convincingly at Widmer Brothers Brewing through maximum flexibility and an ideal ratio of payload to reach. Thanks to its six axes, it perfectly masters the difficult installation situation resulting from the low ceiling height.

“Today, we can deliver all pallet loads for depalletizing at their full height and thus produce faster. For our 12-packs of beer, this means a hefty increase of 20 percent in productivity,” sums up Ginter.

Perfect cutting solutions

KUKA KR AGILUS WP enables fast and precise feeding of tools at SAACKE

Top performer at the machine
tool: the water and dirt-resistant
KR AGILUS WP







ger. SAACKE GmbH & Co. KG in the German town of Pforzheim has specialized in the manufacture of precision tools and tool grinding machines. SAACKE was looking to achieve a significant reduction in changing times for the smooth loading of various workpieces into a grinding center. "For the tool grinding center of type UW I F, we were looking for an automated solution which works with speed and precision. To ensure maximum flexibility, it was our aim to integrate a robot capable of performing various tasks into the system," explains Gerhard Kopp, Head of Design at SAACKE's Machines Division. Today, a KR AGILUS small robot in a waterproof design ensures fast and precise transfer and unloading and has thus optimized the capacity utilization of the tool grinding machine.

Robot-based automation of the grinding process

The KR AGILUS WP removes the workpiece to be machined – an indexable insert or a shank tool – from a pallet in the robot cell and sets it down on a pin. Following this, it positions the workpiece in front of the door of the cell, which opens automatically. The robot arm then moves through the open door to the grinding device outside of the robot cell, where a machined workpiece is already located during ongoing operation. Using the second gripper, the KR AGILUS WP picks up this workpiece and then loads the new workpiece with a quick rotation of the gripper arm. During machining, the six-axis robot returns to the robot cell. There, the machined workpiece is cleaned in the blowing station and then set down again on the pallet before the robot grips the next workpiece to be ground and the work sequence is repeated from the beginning.

High-end implementation for a perfect production process

The extremely robust waterproof variant of the KR AGILUS is used in the cell. It features stable stainless steel covers, resistant surface treatment and additional seals in the interior. This prevents ingress of cooling lubricant and grinding oil into the robot, which meets the increased IP 67 protection rating. "To be sure, the robot is not directly exposed to the spray of cooling lubricant. However, cooling lubricant and oil mist is indeed generated in the workspace during the workpiece change," explains Kopp. As a result, damage to the seals, cables and hoses or the measurement system could therefore occur without special protection.

Robot-based solution for other SAACKE grinding centers as well

SAACKE already presented the pilot version of the robot-based automation at the 2015 EMO trade fair in Milan. "The positive customer reaction was confirmation to us that this offer represents an important addition to our portfolio," summarizes Kopp. Thanks to a shortened cut-to-cut time – the time between the unloading of a tool and introduction of a subsequent tool to the same machining position – the capacity utilization of the machine has been substantially improved. Furthermore, the reliable procedure has enabled the operator control requirements of the machine to be significantly simplified. "This solution makes it possible to implement large-scale series production of workpieces without any difficulties," sums up Kopp.

» The positive customer reaction was confirmation to us that this offer represents an important addition to our portfolio. «



The small robot from KUKA performs various tasks in the compact robotic cell.




Stable stainless steel covers, resistant surface treatment and additional seals in the interior protect the KR AGILUS WP against dirt and water spray.



About Swisslog

Swisslog designs, develops and delivers best-in-class automation solutions for forward-thinking hospitals, warehouses and distribution centers. Swisslog provides integrated systems and services from a single source – from consulting to design, implementation and lifetime customer service.



Barcode scanning of a blood bag for
100 percent transparency of all patient
care processes

More power for enhanced **patient** **experiences**

Delivering blood donations and chemotherapeutic agents more quickly and eliminating errors in administering medication: digitization and automation are also helping to save lives. KUKA subsidiary Swisslog is improving patient care with chain-of-custody solutions and catering for fast and flawless processes.



TranspoNet pneumatic tube system for transporting laboratory samples, blood donations and medication



PillPick – Automated packaging and dispensing system for hospital pharmacies

S

uccessful hospitals are characterized by efficiency and high-quality patient care. Efficient hospitals must have secure and cost-effective workflows and processes. Swisslog “chain-of-custody” solutions comprise seamless integration and traceability of the processes needed for patient care – from transporting blood, patient specimens and therapies to medication storage and dispensing.

Secure transport, storage and dispensing

Hospitals trust KUKA subsidiary Swisslog Healthcare Solutions to provide fully integrated solutions to optimize their processes. For example, the French Blood Establishment needed a solution to guarantee security for transfusion products from donor to recipient. A custom Swisslog pneumatic tube system tracks labile blood storage and transport at every touch point to meet regulatory requirements. Every step of the process is controlled, and the blood is ready as soon



as the patient needs it. At the Oscar Lambret Cancer Treatment Center in Lille, France, KUKA robots enable automated storage of cytotoxic bags and on-demand delivery through a Swisslog pneumatic tube system to the infusion clinic for just-in-time dispensing of patient-specific therapies.

To improve turnaround times for deliveries of chemotherapy doses from a satellite pharmacy to the IV infusion center at MedStar Georgetown University Hospital in Washington, DC, a Swisslog automated mobile

» Every step of the process is controlled, and the blood is ready as soon as the patient needs it. «

robot securely delivers patient doses – releasing them to authorized nurses upon badge swipe. For St Olav's University Hospital in Trondheim, Norway, Swisslog designed a complete chain-of-custody solution – automating the entire process from patient prescription to medication packaging, labelling, storage and dispensing to delivery through the pneumatic tube system,

eliminating errors and increasing patient safety by reducing the human touches. These systems also alleviate patient wait times and give nurses more time for patient care.

Through Swisslog Healthcare Solutions, KUKA is the only supplier with the experience, knowledge, systems and software in automated material handling, medication management, warehousing and distribution to enable integrated chain-of-custody solutions for forward-thinking hospitals and health systems.

Online shopping – The future of warehouse logistics in e-commerce

Online commerce has revolutionized retail logistics. Swisslog Warehouse & Distribution Solutions is responding to the new situation and further consolidated its position last year as a leading supplier of automated intralogistics solutions. Three customer examples:



DB Schenker, Sweden

The guiding principle of global logistics provider DB Schenker is to meet customer requirements quickly and reliably. In order to gain a stronger foothold in the online sector, DB Schenker is implementing the new Swisslog solution CarryPick for its customer Lekmer.com, Scandinavia's largest online toy retailer. CarryPick has been specially developed for the requirements of e-commerce. The modular system at DB Schenker consists of 65 automated guided vehicles, 1,500 mobile racking units, seven ergonomic workstations and Swisslog's WarehouseManager software. "Together with Swisslog, we have developed an inventory management solutions that is unique for online businesses in Europe. This is designed to deliver levels of productivity that exceeds all manual solutions in the industry and equips our customer for future growth," says Anders Holmberg, Business Development Manager at DB Schenker Logistics.

» Together with Swisslog, we have developed a unique warehousing solution for online companies in Europe. «

Efficient warehouse and goods-to-person picking with CarryPick from Swisslog



Hama, Monheim, Bavaria

Hama GmbH & Co KG, with a product range covering around 18,000 items, is one of the world's leading suppliers of accessories in the field of entertainment electronics. In order to keep pace with the ever increasing demands of the online commerce sector in terms of fluctuating SKU quantities, depth and breadth of product range, speed of delivery and rate of returns, Hama has invested in its logistics systems. Swisslog set up a unique warehousing, picking and shipping center at Hama's headquarters in the Bavarian town of Monheim that will enable the company to meet future requirements. Hama's intralogistics center, covering an area of around 25,000 m², includes two fully-automated high-bay pallet warehouses, an automatic carton and case warehouse and a highly dynamic shuttle warehouse as well as order line and shipping buffers. At the automatic palletizing station, the cartons are prepared for shipping. Despite the very high degree of automation, this innovative logistics concept gives Hama maximum flexibility, for example by enabling the cost-efficient processing of seasonal fluctuations and returns. Roland Hanschiegel, Head of Logistics at Hama, is more than satisfied: "The perfect interaction of humans and technology ensures a smooth material flow: on average, Hama dispatches half a million articles to customers every day."

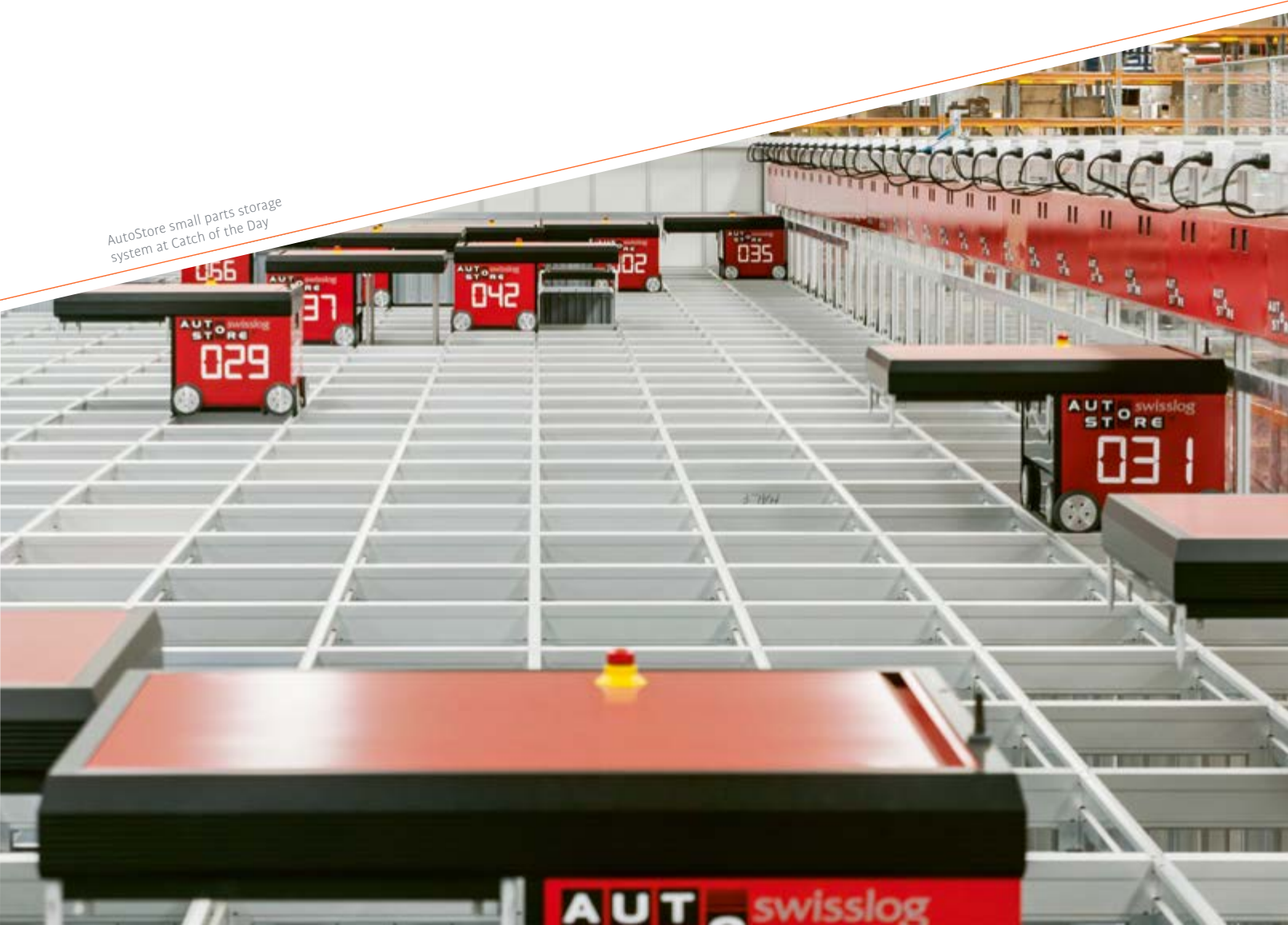
Stacking cartons –
automatic palletization at Hama

Catch of the Day, Australia

In a short space of time, Catch of the Day has grown to become Australia's leading e-commerce group. On average, one article is sold every second – 24 hours a day, seven days a week. This poses tough logistical challenges. The new warehousing and distribution solution from Swisslog is based on the proven AutoStore small parts storage system – the first in the southern hemisphere. The compact and efficient storage system allows for optimal utilization of the space available in the existing warehouse and can be easily expanded without interrupting operation. "This project will support our continued business growth and ensure fast, accurate and reliable order fulfillment to our customers," says Gabby Leibovich, Catch of the Day's founder. "At the same time it provides us with the ability to maximise our operational efficiency along with a reduction in operating cost."

» AutoStore also enables us to maximize our operational efficiency and significantly reduce our running costs. «

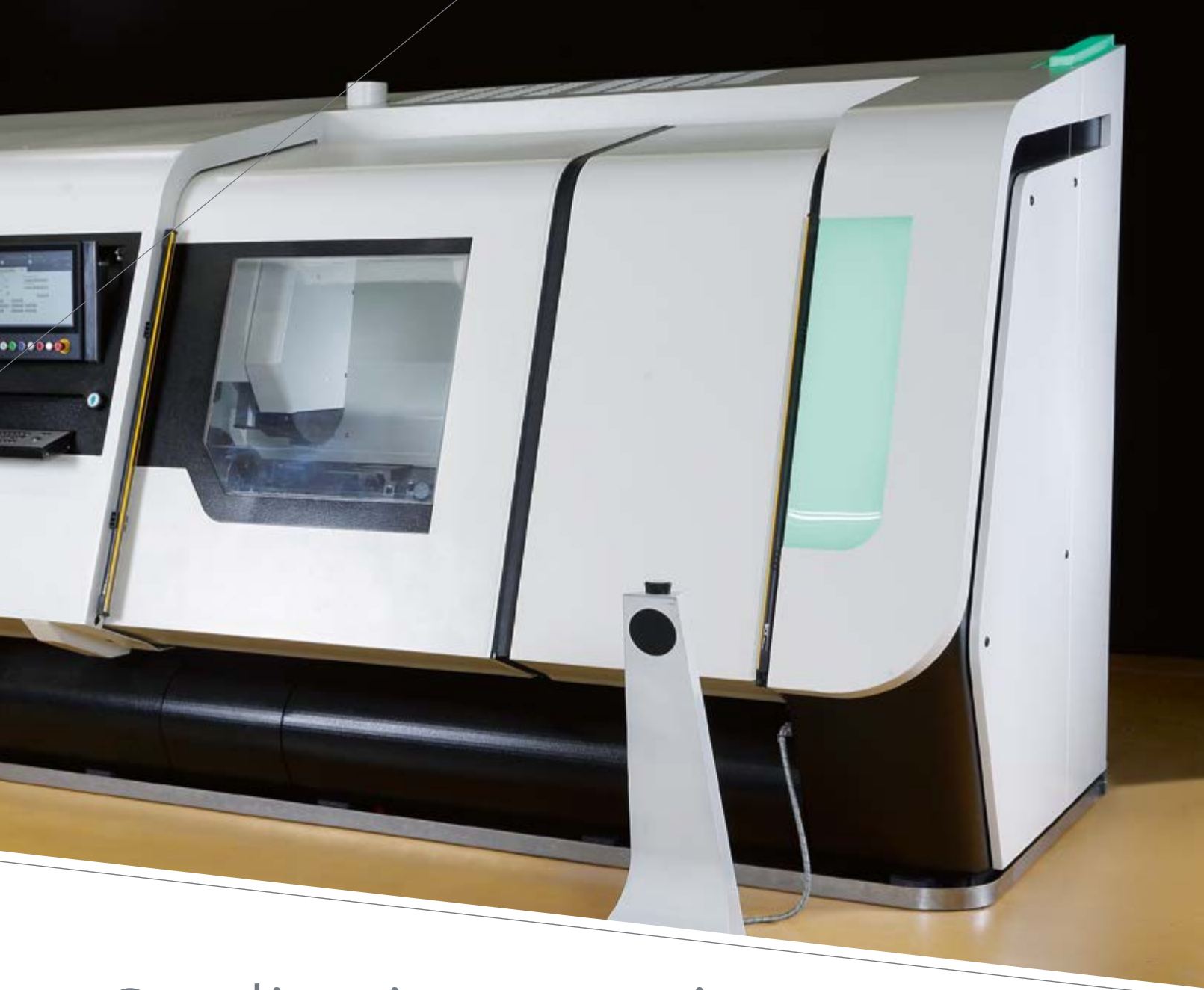
AutoStore small parts storage system at Catch of the Day





Recipient of the Red Dot award and fast gaining popularity in China: KUKA Genius.

» The friction welder is not just pleasing to look at, however, but also has a convincingly high level of functionality. «



Quality is asserting itself in the **Chinese market**

The KUKA Genius has a great appeal for Chinese customers. They have high demands for quality and are gearing their production facilities to meet them.

» Only those who offer high-quality goods can also produce for the premium segment. «



Demand for the KUKA Genius has risen significantly in China. Andreas Gistl, Head of Sales AWS Asia & Pacific in the Advanced Welding Solutions department, is well aware of the reason for this: “KUKA stands for quality.” Customers worldwide know that and appreciate us. These quality standards are now also asserting themselves in the Chinese market. “Only those who offer high-quality goods can also produce for the premium segment,” says Gistl. “And that is precisely what consumers in China are looking for.”

Easy to operate

SMEs are advertising themselves to end customers with the KUKA brand.

From the entry-level “Eco” variant to the “Plus” and “Power” variants, or even fully-automated friction welding systems with a wide range of functions, the customer can decide which KUKA Genius is right for his production facility. In China, demand is growing for the “Power” model as SMEs, in particular, plan to raise their production from the low-wage segment to the premium class in the future. All that counts is quality. And that is what KUKA stands for worldwide.

Chinese user interface simplifies initial steps.

The KUKA Genius also impresses optically. The Red Dot Design Award 2015 and the German Design Award 2016 leave no room for doubt. Not just one, but two major awards. That speaks for itself. “The friction welder is not just pleasing to look at, however, but also has a convincingly high level of functionality,” stresses Gistl. The ergonomic and user-friendly operation, simple control and short start-up time are decisive factors behind the success of the machine. Furthermore, the Chinese user interface makes it easier to launch into automation in the Chinese market. Operating personnel are quickly able to identify with the machine. Long learning phases are avoided, thereby assuring fast integration into the production environment.

Outlook: the Chinese market is growing.

The Chinese market is growing, demand for high-quality KUKA friction welding machines is on the rise and the challenge for the KUKA team is great. “In addition to the Chinese market, we also wish to gain a foothold in the Southeast Asian region. To this end, we are working closely together with our new colleagues from KUKA Singapore (Reis) in order to be able to serve this market,” says Alwin Berninger, Chairman of the KUKA Industries Board of Management. “A KUKA Genius is also due to be installed soon at the Chinese subsidiary for contract manufacturing and training,” says Alwin Berninger, providing a glimpse into the future.

Three questions to...

...Jiangbing Wang, CEO of KUKA Systems China

How would you describe the current state of the Chinese automotive industry?

Looking over the past five years, the Chinese automotive industry has experienced double-digit annual growth. Personal car sales reached 24 million in 2015. However, along with the slowing economy, the car market is developing moderately.

And what effect will this have on the market?

There is an intense price pressure for car makers and their suppliers. At the same time, opportunities for more business are opening up everywhere. Consider car purchasing, for example. These days, car buyers are becoming more rational, putting quality, good performance, fashionable design and other

factors above mere financial considerations. This requires automobile manufacturers to introduce or change car models more frequently than ever. It also means improving the quality with highly automated and more flexible production lines. That is where we – as one of the world's leading suppliers of automated production and assembly solutions – can really contribute.

» *The automotive industry is developing a new approach. We are prepared for this challenge.* «

What is your answer to this rapidly changing market?

We are ready! Our strategic framework is set up. We expect to maintain our market position in the premium segment while continuing to expand into the middle segment. One important step was to optimize our cost structure. Initial results – as seen in our body structure business in 2015 – are very promising and prove that our strategy is working. So far, we are very happy with the results and I am personally very proud that our team is part of KUKA's success. The automotive industry is developing a new approach. We are prepared for this challenge – we will achieve excellent performance by applying our expertise to this dynamic business segment.

Jiangbing Wang, CEO
KUKA Systems (China) Co., Ltd.



Biographical note

Jiangbing (James) Wang has a background of 25 years in business management. Prior to joining KUKA Systems China in November 2014 as CEO, he built a solid track record working mainly for German companies such as Siemens, Roland Berger and Gerresheimer with increasing responsibilities. He studied medical engineering in China and holds a degree in Business Administration and Management from the Munich University of Applied Sciences. He lives in Shanghai with his wife and 14-year-old son.

The **virtual** world of KUKA

KUKA Robotics

<http://www.kuka-robotics.com/en/company/>



KUKA Systems USA

http://www.kuka-systems.com/usa_ao/en/



Swisslog

<http://www.swisslog.com/en>



KUKA Systems Germany

<http://www.kuka-systems.com/en/>



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Hello Future.

KUKA sees itself as a driver of Industrie 4.0 and is developing technologies for the intelligent factory of the future. The introduction of digitization will bring about production that increasingly organizes itself with the aid of decentralized networked systems. Robots that collaborate directly with humans, are mobile and capable of autonomous navigation enable flexibility in the production process. They also are the key component in the interaction of production and IT.



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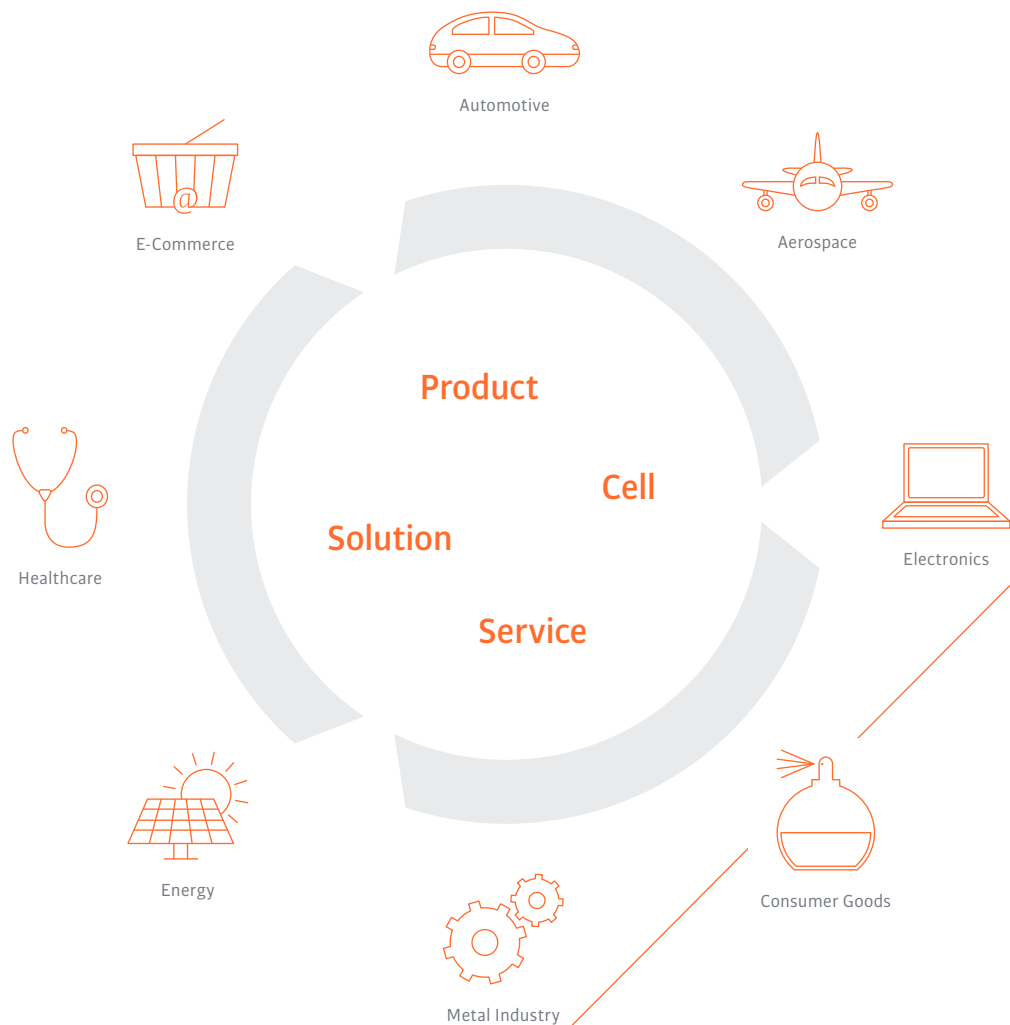
in € millions	2014	2015	Change in %
Orders received			
Robotics	805.5	891.2	10.6
Systems	1,456.0	1,428.1	-1.9
Swisslog	–	551.8	–
Group	2,229.0	2,838.9	27.4
Sales revenues			
Robotics	834.6	909.6	9.0
Systems	1,285.6	1,471.7	14.5
Swisslog	–	620.8	–
Group	2,095.7	2,965.9	41.5
Order backlog (Dec. 31)	1,702.5	1,639.0	-3.7
EBIT			
Robotics	88.9	100.2	12.7
Systems	80.2	114.7	43.0
Swisslog	–	-45.9	–
Group	141.8	135.6	-4.4
EBIT in % of sales			
Robotics	10.7	11.0	–
Systems	6.2	7.8	–
Swisslog	–	-7.4	–
Group	6.8	4.6	–
Earnings after taxes	68.1	86.3	26.7
Financial situation			
Free cash flow	-172.2	95.7	155.6
Capital employed (annual average)	492.0	676.8	37.6
ROCE (EBIT in % of capital employed)	28.8	20.0	–
Capital expenditure	94.3	107.0	13.5
Employees (Dec. 31)	12,102	12,300	1.6
Net worth			
Balance sheet total	1,979.5	2,381.7	20.3
Equity	541.1	732.5	35.4
in % of balance sheet total	27.3	30.8	–
Share			
Weighted average number of shares outstanding (in millions of shares)	34.2	36.1	5.6
Earnings per share (in €)	1.99	2.39	20.1
Dividend per share (in €)	0.40	0.50*	25.0
Market capitalization (Dec. 31)	2,106.0	3,197.5	51.8

* Subject to approval by shareholders at the Annual General Meeting on May 27, 2016

KUKA at a glance

KUKA is a global automation company with sales revenues of around 3 billion euro and a workforce of 12,300 worldwide. The company is one of the world's leading suppliers of automation solutions. KUKA offers its customers tailored solutions ranging from the core component – the robot – to cells and large-scale systems. As a technology leader, KUKA sets standards the world over. In addition to the headquarters at the production and development site in Augsburg, the Group is internationally represented with about 100 companies. KUKA stands for innovations in automation and is a driver of Industrie 4.0.

In 2015, the company realigned itself to concentrate on eight focus markets that are characterized by their high growth and profit potential:



Supervisory Board Report

Dear Shareholders,

The Supervisory Board has great pleasure in presenting its report for the past financial year, during which it once again successfully performed the tasks conferred on it under the law, the Articles of Association and its Standing Rules of Procedure on behalf of KUKA. The activities of the Supervisory Board included advising the Executive Board and carrying out its control function. The activities mainly focused on corporate planning and strategy, particularly with respect to the further profitable growth of the company.

The Supervisory Board held plenary sessions and organized a telephone conference. Copious work on details was accomplished by the various committees. The Supervisory Board attended the company's Annual General Meeting on June 10, 2015. The Supervisory Board continuously monitored business development, particularly through the regular management report presentations by the Executive Board at the meetings of the Supervisory Board. The Executive Board informed us of orders received, sales revenues, EBIT, staffing numbers and

other key indicators. There were good outcomes throughout. Outside the Supervisory Board meetings the Chairman was in constant contact with the Executive Board and was thus kept up-to-date with the economic situation of the company. The other members of the Supervisory Board too, particularly those chairing the committees, had repeated bilateral contact with the Executive Board members, during which they discussed various business transactions. This rendered the Supervisory Board capable of giving optimal attention to its control and advisory function.

Bernd Minning,
Chairman of the Supervisory Board



Corresponding to the legal requirements, it resolved in plenum concerning all questions of Executive Board emoluments. It had to deal with transactions that required approval. The Audit Committee paid particular attention to the issues of risk and compliance management.

Changes to the Executive Board and Supervisory Board

The Executive Board is unchanged, with Dr. Till Reuter, CEO, and Mr. Peter Mohnen, CFO. Dr. Till Reuter's appointment lasts until April 25, 2020 and Mr. Peter Mohnen's until July 31, 2020. In view of the above terms in office, the Supervisory Board has set the quota for female Executive Board members at 0% as of June 30, 2017 (fulfillment deadline).

Some changes occurred in the Supervisory Board. Dr. Walter Bickel retired from the Supervisory Board on March 26, 2015, and Dr. Michael Proeller and Guy Wyser-Pratte stepped down from the Supervisory Board at the end of the Annual General Meeting held on June 10, 2015. Dr. Hubert Lienhard, Friedhelm Loh and Hans Ziegler were elected to the Supervisory Board as new members during the Annual General Meeting held on June 10, 2015. At the subsequent meeting of the Supervisory Board on June 10, 2015, Dr. Hubert Lienhard was appointed a member of the Mediation Committee and the Technology and Production Committee, Hans Ziegler became a member of the Nomination Committee, the Personnel Committee and the Audit Committee, and Mr. Loh a member of the Strategy and Development Committee. Also, Prof. Dr. Uwe Loos was elected a new member of the Audit Committee.

The Supervisory Board would like to thank Dr. Michael Proeller, Guy Wyser-Pratte and Dr. Walter Bickel for their effective support during their terms of office. The Supervisory Board remains elected until the Annual General Meeting of 2018. In view of the continuing periods in office, the Supervisory Board has set itself a target quota for female members of 8.33% by June 30, 2017 (fulfillment deadline) taking into account that Ms Carola Leitmeir is a current member.

Meetings of the Supervisory Board and its committees

The Supervisory Board held six plenary sessions. It passed one resolution by written circulatory procedure.

On March 24, 2015 the Supervisory Board met for its financial statements meeting. During this meeting, the Executive Board presented the annual financial statements for 2014 and the consolidated financial statements and consolidated management report for KUKA Aktiengesellschaft and the Group. The Executive Board explained the annual financial statements and KPMG in its role as auditor along with the Chairman of the Audit Committee presented their reports concerning the financial statements. By approving the annual accounts of KUKA Aktiengesellschaft the Supervisory Board adopted the respective financial statements. The Supervisory Board then supported the Executive Board's proposal to the Annual General Meeting to approve the distribution of a dividend of €0.40 per share, carrying forward the remaining balance sheet profit.

The Supervisory Board also approved the consolidated financial statements of the KUKA Group for 2014. The Supervisory Board approved the Corporate Governance report and dealt with the other proposed resolutions for the Annual General Meeting planned for June 10, 2015. A further item on the agenda was the resolution and approval of the report of the Supervisory Board for the 2014 financial year. At the meeting held on March 24, 2015 the Supervisory Board also considered adaptable production and the general outlook for Industrie 4.0 in relation to the topic of the future: Automation Powerhouse. Finally at this meeting, the Supervisory Board had to decide on the variable emoluments of the members of the Executive Board, as well as the achievement levels for the personal targets of 2014 and the specification of personal targets for the 2015 financial year, as well as the definition of key parameters for the phantom share program 2015–2017.

On April 13, 2015 an extraordinary meeting of the Supervisory Board was held at Hannover Messe, at which the shareholders' representatives nominated Dr. Hubert Lienhard, Friedhelm Loh and Hans Ziegler as candidates for election to the Supervisory Board by the Annual General Meeting.

The Supervisory Board met before and after the Annual General Meeting held on June 10, 2015. It received a report on the internal control system (ICS) and passed resolutions on the sale of the Tools and Dies business unit of KUKA Systems GmbH and HLS Ingenieurbüro GmbH, a subsidiary of KUKA Systems GmbH.

The meeting on September 25, 2015 was devoted to Group strategy. The Group strategy as well as the individual strategies of Robotics, Systems, KUKA Industries and Swisslog were discussed. The Supervisory Board was also informed of the procedure for renewed verification of its efficiency.

The final meeting of the full Supervisory Board in 2015 took place on December 11. This meeting focused on planning. The Supervisory Board passed a resolution to approve the 2016 budget and the medium-term planning up to 2018. The work of the committees was also reported on at this meeting. As part of the ongoing professional training of the Supervisory Board, an expert paper was presented on supervisory board duties, particularly focusing on recent developments in the law and the German Corporate Governance Code. Finally the Supervisory Board altered its Standing Rules of Procedure in particular to take account of the changes in the German Corporate Governance Code (GCGC) of 2015 with regard to putting forward candidates for the Supervisory Board.

The written resolution concerned the declaration of compliance and declaration regarding corporate management.

All members of the Supervisory Board except Dr. Michael Proeller participated in more than half of the Supervisory Board meetings; all members of the Supervisory Board attended more than half of the meetings of the committees to which they belonged (German Corporate Governance Code, section 5.4.7). The Executive Board was regularly in attendance at the Supervisory Board meetings, except when the Executive Board's remuneration was on the agenda (German Corporate Governance Code, section 3.6). In addition, reference is made to the report on corporate governance with the same title, forming part of the business report.

The Supervisory Board has the following committees: Personnel Committee (chaired by Mr. Minning), Audit Committee (chaired initially by Dr. Bickel, then Mr. Ziegler), Strategy and Development Committee (chaired by Mr. Minning), Technology and Production Committee (chaired by Prof. Dr. Loos) and Mediation Committee in accordance with section 27 para. 3 of the German Co-determination Act (MitbestG) (chaired by Mr. Minning). A Nomination Committee also exists in accordance with section 5.3.3 of the German Corporate Governance Code (chaired by Mr. Minning).

The Personnel Committee met twice during 2015. It prepared all the items on the agenda of the plenum concerning issues relating to the Executive Board. The principal agenda items were the remuneration of the Executive Board and the proportion of women on the Executive Board.

The Audit Committee convened six meetings during the year under review. Regular discussions took place on the results in connection with the treatment of the respective financial statements. It was also the Committee's task to handle the review of the annual financial statements for 2014 by the Deutsche Prüfstelle für Rechnungslegung (DPR). Its work on risk management and compliance issues has already been mentioned above.

The Strategy and Development Committee was convened four times. At these meetings, it reviewed the 2016–2020 corporate strategy as well as in particular various aspects of Industrie 4.0, diverse application technologies for robots and the marketing of robots in certain segments of the economy. A new focus of attention was Swisslog and its steadily developing markets.

There were six meetings of the Technology and Production Committee. The roadmap for Industrie 4.0 was part of the agenda. However, the committee also addressed purchasing and assembly issues and product quality; finally the review of the post-merger integration processes regarding Reis and Swisslog is likewise worthy of mention.

There was no occasion to convene the Mediation Committee.

In connection with the changes in composition of the Supervisory Board, the Nomination Committee was required to hold a meeting in 2015.

Independence and conflicts of interest, declaration of compliance

It must be noted that Dr. Hubert Lienhard is CEO of Voith Group and Mr. Friedhelm Loh is sole shareholder of SWOCTEM GmbH as well as owner and managing director of the Loh group of companies. According to the latest WpHG notifications (as of December 31, 2015), Voith Group holds an interest of 25.10% and SWOCTEM GmbH an interest of 10.018% in KUKA Aktiengesellschaft. KUKA Group has business relations with firms in Voith Group as well as the Loh group of companies. The indirect relationship between the Supervisory Board Chairman and KBee AG was already discussed in the 2014 annual report. KBee AG maintains a business relationship with KUKA Group.

Mr. Bernd Minning has also announced that he will terminate his role as CEO of Grenzebach Maschinenbau GmbH. Furthermore, this company (as of December 3, 2014) disclosed its interest in KUKA Aktiengesellschaft as 0%. Mr. Minning reported that he now holds stakes in logic-base GmbH ("4Sellers") and WM Industries in Shanghai. These firms may be considered potential business partners of KUKA Group.

The above-mentioned business relationships featured neither in discussions nor in resolutions of the Supervisory Board during the year under review. Concerning KBee, only one status report has been received.

The Supervisory Board and the Executive Board submitted identically worded declarations in accordance with section 161 of the German Stock Corporation Act (AktG). The Executive Board made its annual declaration on January 18, 2016 and the Supervisory Board followed suit on February 8, 2016. The declaration of compliance was made permanently available to shareholders on the company's website.

Work with the auditors

The annual financial statements of KUKA Aktiengesellschaft as of December 31, 2015 and the consolidated financial statements of KUKA Group as of December 31, 2015, as well as the consolidated management report of KUKA Aktiengesellschaft and KUKA Group, including the bookkeeping, were audited by auditors KPMG Aktiengesellschaft, Wirtschaftsprüfungsgesellschaft, Berlin, which issued an unqualified audit opinion in each case on February 29, 2016. The auditors also checked 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 Group's mid-year report dated June 30, 2015 was also reviewed by the auditors. KUKA Aktiengesellschaft's consolidated statements were prepared in accordance with section 315 a 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 retained the external auditors, KPMG, as per the resolution at the Annual General Meeting of June 10, 2015. During the course of retaining 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 Executive 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 independence declaration of the auditors in accordance with section 7.2.1 of the GCGC and monitored the auditors' independence.

As in the previous years – always in respect of other topics – the company asked the auditors to focus especially on a number of items during the annual review of fiscal 2015, such as deconsolidation effects from the sale of Group companies, valuation of acquisitions in the event of company expansion, cost calculation in the case of contract manufacturing, capitalization and impairment of self-generated intangible assets, and recognition and valuation of deferred taxes. The auditors found no major issues regarding these items.

On February 1, 2016, the auditors gave the Audit Committee chair a detailed explanation of the preliminary audit results. Because they had been contracted to review the June 30, 2015 mid-year financial report, the auditors attended the August 4, 2015 Audit Committee meeting.

In a joint meeting with the auditors on March 8, 2016, the Audit Committee reviewed the two sets of financial statements for fiscal 2015, taking into consideration the auditors' reports. The Executive Board and the auditors presented the highlights of the financial reports to the panel. 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 8, 2016 and recommended that the Board approve KUKA Aktiengesellschaft's annual financial statements and KUKA Group's consolidated annual financial statements for fiscal 2015.

The full Supervisory Board reviewed the draft annual financial statements and the Executive Board's recommendation on appropriation of net income on March 8, 2016. The auditors, KPMG, 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. KPMG explained in detail the financial position and performance of the company and the Group. The auditor also reported that there are no material weaknesses in the internal controlling of the accounting system or the risk early detection system. The Board and the auditors jointly reviewed and discussed the financial statements and KPMG answered all questions posed by the Supervisory Board.

2015 financial statements adopted

After completing its own review of the financial statements for 2015 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 8, 2016. 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 Executive 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.

In its financial statements meeting on March 8, 2016, the Supervisory Board therefore approved KUKA Aktiengesellschaft's financial statements for fiscal 2015 as prepared by the Executive Board. The annual financial statements are thereby adopted.

The Supervisory Board also approved KUKA Aktiengesellschaft's consolidated financial statements and the Corporate Governance report for the 2015 financial year as prepared by the Executive Board.

The Executive Board recommended that a dividend of €0.50 per entitled no-par-value share be paid from the balance sheet profit, €50 million be transferred to the other retained earnings and the remaining amount be carried forward. We reviewed this recommendation and endorsed it.

Thanks to the staff

2015 was another very successful year for KUKA. As a result, the dividend can be increased once again this year. Industrie 4.0 was not just considered strategically, but was already supported through practical applications, as was demonstrated at Hannover Messe. The staff made a major contribution to this through their extraordinary level of commitment. Not just the Executive Board but also the workforce in the entire KUKA Group merit our gratitude.

The Supervisory Board therefore thanks all staff of the KUKA companies for their exceptional commitment. They rendered outstanding service to their company during 2015. However, the Supervisory Board also extends its thanks to the members of the Executive Board, the management boards of the Group companies and the employee representatives. All deserve to be proud of their service to the company, its shareholders and customers. We can be confident of the continuing success of the company in the future.

Augsburg, March 8, 2016
The Supervisory Board



Bernd Minning
Chairman

Corporate Governance Report

The Executive Board and Supervisory Board report below on corporate governance at KUKA in accordance with section 3.10 of the German Corporate Governance Code (GCGC).

Corporate governance refers to the entire system of managing and monitoring a company and a group of companies. This includes in particular a company's organization, business policy and guidelines as well as internal and external control and monitoring mechanisms. Good, responsible corporate governance is one of KUKA's core principles. It creates transparency and confidence in KUKA among shareholders, customers and suppliers, the staff, the financial markets and the public.

Also for this reporting year, the Executive Board and Supervisory Board of KUKA Aktiengesellschaft examined the requirements of the GCGC in detail in its current version as of May 5, 2015 and issue the following declaration of compliance:

Declaration of Compliance

The declarations of compliance of the Executive Board and the Supervisory Board that have been issued for every financial year since 2002 are available to the public on the company's website at www.kuka-ag.de.

The identical declarations of the Executive Board (dated January 18, 2016) and the Supervisory Board (dated February 8, 2016) in accordance with section 161 para. 1 sentence 1 of the German Stock Corporation Act (AktG) and the GCGC read as follows:

"Since issuing the latest declarations of compliance of the Executive Board (January 20, 2015) and of the Supervisory Board (February 6, 2015), KUKA Aktiengesellschaft has complied with, and continues to comply with, the recommendations of the Government Commission on the German Corporate Governance Code as on June 24, 2014, which were published in the Bundesanzeiger (German Federal Gazette) dated September 30, 2014, with the exception of the divergences mentioned in these declarations of competence.

KUKA Aktiengesellschaft complies with the recommendations of the Government Commission on the German Corporate Governance Code of May 5, 2015, as published in the electronic Federal Gazette of June 12, 2015, and will also comply with them in the future subject to the following exceptions:

1. KUKA Aktiengesellschaft does not follow the recommendation for the Supervisory Board outlined in section 3.8 para. 3 of the GCGC. The Group D & O insurance policy does not provide for a deductible for members of the Supervisory Board. In KUKA Aktiengesellschaft's view, Supervisory Board members do not require a deductible to ensure that they properly fulfill their monitoring role.
2. KUKA Aktiengesellschaft does not at present follow the recommendation for the Executive Board outlined in section 4.2.3 para. 2 sentence 6 of the GCGC. The reason is that the phantom share programs that are still current, and form part of the variable compensation of the Executive Board, are not restricted to certain maximum amounts. In addition to the maximum limits on the fixed remuneration and variable bonus, the employment contracts of the Executive Board members now also stipulate a maximum limit for phantom shares issued from 2015 onwards and payable from 2018 onwards. This is linked to a corresponding cap on the total remuneration. Retroactively capping total compensation (for overall salaries and variable payment components) would constitute a change in the terms of the contract, which cannot be unilaterally implemented by the Supervisory Board. Furthermore, it does not appear appropriate given the expected cooperation based on mutual trust between the Supervisory and Executive Boards (which is in fact expected by the GCGC).

KUKA Aktiengesellschaft adheres to almost all the other suggestions contained in the Code."

The identical declarations of the Executive Board and Supervisory Board have been available on the company's website at www.kuka-ag.de since February 12, 2016.

Corporate and management structure

KUKA Group consists of KUKA Aktiengesellschaft – the Group’s managing holding company – and the divisions Robotics, Systems and Swisslog. The Systems division comprises of the engineering and assembly business as well as the solution business of KUKA Industries (including Reis). Apart from the US business, the Group companies are – in most cases – 100% held by the management companies of the individual divisions directly or indirectly.

Similarities between the business divisions in terms of product portfolios, markets, customers, and geographic focus are identified, and intense efforts are made to further develop these similarities. This is an expression of the “One KUKA” approach. However, the divisions are responsible for their business and thus also for their earnings. Moreover, as in the past, project and risk managers monitor implementation of the established targets by focusing intensively on key indicators, as well as developing executive staff and maintaining brand strategy.

Executive Board and Supervisory Board

As a German stock corporation, the statutory rules impose on KUKA Aktiengesellschaft a dual management system comprising the Executive Board and Supervisory Board. The Executive Board is responsible for managing the company. The members of the Executive Board share this responsibility for company management. The Chairman of the Executive Board and Chief Executive Officer coordinates the work of the entire Board; he is responsible for representing and leading the Board in its cooperation with the Supervisory Board and its members. The Supervisory Board appoints, monitors and advises the Executive Board. The Chairman of the Supervisory Board coordinates the work of the Supervisory Board.

Responsible cooperation between the Executive Board and the Supervisory Board

The common goal of the Executive Board and Supervisory Board is to sustainably increase shareholder value. To this end, the Executive Board and Supervisory Board work closely together in the interest of the company. No former members of the Executive Board sit on the Supervisory Board. The Executive Board reports to the Supervisory Board regularly, in a timely manner, and comprehensively regarding all matters relevant to the company with respect to planning, business development, risk exposure, risk management and any corresponding action taken. The Executive Board also addresses any deviations in the business results from the established plans and targets and explains the causes of such deviations. The Executive Board and/or Chief Compliance Officer also reports to the Supervisory Board regarding corporate compliance. The Articles of Association and the Supervisory Board’s rules of procedure contain provisions ensuring the right of the Supervisory Board to withhold its consent on significant transactions. Further information on cooperation between the Executive Board and the Supervisory Board can be found in the Supervisory Board Report on pages 6 to 9.

In fiscal 2015, no consulting or other contracts for work or services existed between Supervisory Board members and the company.

In fiscal 2015, no resolutions were reached on business transactions in which any conflicts of interest could have arisen among members of the Executive and Supervisory Boards. For other details, please refer to the Supervisory Board Report (pages 6 to 9).

Executive Board

The Executive Board of KUKA Aktiengesellschaft consists of two persons: the Chief Executive Officer (CEO) and the Chief Financial Officer (CFO). KUKA Aktiengesellschaft’s Articles of Association expressly state that the Executive Board may consist of two persons (section 6 para. 1 of the Articles of Association).

In fiscal 2015, the responsibilities of the members of the Executive Board were assigned as follows:

Dr. Till Reuter, Chief Executive Officer (CEO), is responsible for (i) investor relations, (ii) strategic corporate development, (iii) public relations, (iv) senior Group executives, (v) internal audit, (vi) personnel and (vii) legal affairs/compliance. Dr. Reuter is also director of industrial relations at KUKA Aktiengesellschaft.

Mr. Peter Mohnen, Chief Financial Officer (CFO), is responsible for (i) finances and controlling, which includes the financial accounting, controlling, treasury and tax departments, (ii) risk management, (iii) IT and (iv) facility management.

The Executive Board members normally convene at least every 14 days, and otherwise keep in constant close contact.

In accordance with the recommendations of the GCGC (section 4.1.5), the Executive Board takes diversity into consideration when filling managerial positions in the company and, in particular, aims for an appropriate consideration of women. The Executive Board sets targets for the proportion of women at the two management levels below the Board itself (see corporate management declaration as per section 289a of the German Commercial Code (HGB) on the Company’s website at www.kuka-ag.de).

Executive Board compensation

Executive Board compensation is outlined in the Compensation Report on page 15.

Supervisory Board

The Supervisory Board is composed in accordance with the German Act on Company Co-determination and consists of twelve members as per the Articles of Association; six members are elected by the shareholders and six by the employees.

The election of employee representatives to the Supervisory Board was held on April 18, 2013. The results of the vote were published in the Federal Gazette (Bundesanzeiger) on April 24, 2013. A new election of Supervisory Board shareholder representatives was held at the Annual General Meeting on June 5, 2013.

The term of office of the employee and shareholder representatives ends upon adjournment of the Annual General Meeting in 2018. This also applies to substitute members and other successors of employees and shareholders who are subsequently brought on to the Supervisory Board. This is because section 10 para. 4 sentence 1 of the Articles of Association stipulates that where a Supervisory Board member leaves office early, the term of office of the new Supervisory Board member runs only for the remaining term of office of the retiring member.

This specifically relates to one employee representative who was appointed to the Supervisory Board by order of the Augsburg Local Court dated September 10, 2013. It also relates to three members of the Supervisory Board representing the shareholders who were elected by the Annual General Meeting on June 10, 2015.

The Supervisory Board established the following targets for its future makeup to address the requirement regarding diversity in section 5.4.1 of the GCGC, which are also to be taken into account when recommending candidates to the shareholders at the Annual General Meeting:

- (i) At least two Supervisory Board members shall have sector-specific experience.
- (ii) At least one Supervisory Board member shall have considerable professional experience abroad.
- (iii) At least two Supervisory Board members to be elected at the Annual General Meeting shall be independent in terms of section 5.4.2 of the GCGC and shall not be affected by conflicts of interest in terms of section 5.5.2 of the GCGC.
- (iv) Normally, Supervisory Board members shall be no younger than 35 and no older than 73 years of age at the time of their election.
- (v) A member of the Supervisory Board may carry out his or her mandate for up to a maximum of three consecutive periods in office, although this limit may be ignored in exceptional cases when it is in the company's interests to do so.

- (vi) In addition, the requirements of the German act to promote equal participation of women and men in management positions in the private and public sector (FührposGleichberG) of April 24, 2015 and the targets set by the full Supervisory Board concerning the number of women are to be observed.

Given the criteria for independence outlined under section 5.4.2 of the GCGC, it must be mentioned that Dr. Hubert Lienhard, a member of the Supervisory Board, is CEO of Voith GmbH. Voith GmbH is the holding company of Voith Group and is allocated the KUKA shares which are directly held by J.M. Voith GmbH & Co. KG. It is also notable that Mr. Friedhelm Loh, as a member of the Supervisory Board, is the sole shareholder of SWOCTEM GmbH and owner of the Friedhelm Loh Group. The KUKA shares directly held by SWOCTEM GmbH are allocated to Mr. Loh. It must also be pointed out that companies in KUKA Group have business relations with firms in Voith Group as well as the Friedhelm Loh group of companies.

In respect of the independence criteria outlined in section 5.4.2 of the GCGC, it is also to be reported that the Supervisory Board chairman, Mr. Minning, gave notice that he stepped down from his position as CEO at Grenzebach Maschinenbau GmbH, which in turn already sold its KUKA shares in November 2014. Mr. Minning therefore fulfills the independence criteria set out in section 5.4.2 of the GCGC.

To the extent that members of the Supervisory Board held or hold key positions with important business partners, transactions with them were subject to the standard terms and conditions for arm's length transactions.

All other members of the Supervisory Board fully comply with the independence criteria.

The Supervisory Board formed six committees consisting of Supervisory Board members. These are:

- (i) the Mediation Committee as per section 27 para. 3 of the German Act on Company Co-determination (MitbestG),
- (ii) the Personnel Committee,
- (iii) the Audit Committee (section 5.3.2 GCGC),
- (iv) the Nomination Committee (section 5.3.3 GCGC),
- (v) the Strategy and Development Committee, and
- (vi) the Technology and Production Committee.

In accordance with the provisions of the Corporate Governance Code, the Supervisory Board or the Audit Committee dealt with compliance issues, and the Executive Board reported to this committee accordingly.

It has been agreed with the independent auditor that the independent auditor will immediately report to the Supervisory Board any material findings or occurrences related to the Supervisory Board's work that arise in the course of auditing the financial statements. Finally, it was also agreed with the independent auditor that the independent auditor will inform the Supervisory Board and/or note in its audit report any

finding of facts during the performance of the audit indicating that the declarations issued by the Executive Board and the Supervisory Board with respect to the Code are in any way incorrect (section 7.2.3 GCGC). As stipulated in the audit contract, the auditor reviewed the interim report as of June 30, 2015.

The Supervisory Board regularly reviews the efficiency of its activities (section 5.6 GCGC). It reviewed the "Best Practice Scenarios" presented to it in 2014 and decided to have an initial analysis of the situation carried out in fiscal 2015. This commenced in fiscal 2015.

Supervisory Board compensation

Supervisory Board compensation is also outlined in the Compensation Report on page 19.

Shareholdings

As sole shareholder of SWOCTEM GmbH, Mr. Loh is allocated more than 1% of the shares in KUKA Aktiengesellschaft. The other members of the Executive Board and Supervisory Board hold less than 1% of the shares in circulation. The overall investment in KUKA shares held by the remaining members of the Executive and Supervisory Boards is also less than 1% of the company's shares in circulation.

Members of the Executive and Supervisory Boards or related parties are obliged according to section 15a of the Securities Trading Act (WpHG) to disclose the purchase or sale of shares in KUKA Aktiengesellschaft, or financial instruments relating thereto, if the value of these transactions within one calendar year reaches or exceeds the sum of €5,000. The transactions by persons with management roles or their related parties reported to KUKA Aktiengesellschaft in fiscal 2015 were duly published and can be examined on the company website at www.kuka-ag.de.

Corporate Compliance

KUKA has always applied a high standard of ethical principles. Essential components are strict obedience to the law and value-oriented conduct. These form the basis of the Corporate Compliance Program adopted by the Executive Board in November 2007 and approved by the Supervisory Board in December 2007, which took effect throughout the Group on February 1, 2008. The key contents of the Corporate Compliance Program are contained in the Corporate Compliance Handbook, which comprises several compliance-related guidelines. The Corporate Compliance Handbook was revised and updated in fiscal 2010. It was again reviewed and updated in fiscal 2013 and the version now applicable is dated April 1, 2013.

The Executive Board passed a resolution making the CEO ultimately responsible for the Corporate Compliance Program. A Compliance Committee consisting of persons employed by the Group was established to steer, implement, monitor and develop the Corporate Compliance Program. In addition, compliance officers were established at the Group companies for the individual divisions and regions under the Compliance Committee. The compliance officers are intended to be the employees' direct and (first) point of contact for compliance-related issues. The position of external ombudsman has also been established.

For KUKA, regular training of its employees and continuous development of the existing compliance system are key to anchoring our value-based standards in the company and avoiding any violations of law. For example, since 2011, all KUKA employees have participated in online compliance training based on an in-house e-learning program designed especially for this purpose. The e-learning program was progressively expanded to include the foreign Group companies and is currently being updated. In 2013, a survey related to the online compliance training was issued to measure the acceptance and understanding of the compliance program at KUKA Group. The company also held a series of seminars on selected topics.

Annual General Meeting

The 2016 Annual General Meeting will take place in Augsburg on May 27, 2016.

Each share is entitled to one vote. No-par-value shares have been issued and global certificates created. The shares are bearer shares. The Executive Board makes it easier for shareholders to exercise their voting rights at the Annual General Meeting by offering them the right to issue powers of attorney to proxies who are appointed by the company and bound by the instructions of the shareholder. The proxies appointed by the company are also available at the Annual General Meeting to the shareholders who are present. In addition, powers of attorney may be issued to financial institutions, shareholder associations or other third parties.

Accounting and annual audit

Since 2004, the annual financial statements of KUKA Group have been prepared in accordance with the International Accounting Standards (IAS) and the International Financial Reporting Standards (IFRS) as adopted by the European Union. An independent auditor elected at the Annual General Meeting audits the annual financial statements and the consolidated financial statements. At the recommendation of the Supervisory Board, shareholders at the 2014 Annual General Meeting chose KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin, as auditor for the annual financial statements and Group auditor for fiscal 2015 as well as for a potential review of the mid-year report for fiscal 2015. The mid-year report for fiscal 2015 was reviewed by the auditor based on the aforementioned resolution.

In accordance with the provisions of the Corporate Governance Code, the Supervisory Board's Audit Committee reviewed the independence of the auditor, commissioned the auditor to carry out the audit, determined the key audit points and agreed on the fee.

Opportunity and risk management, controlling

Opportunity and risk management at KUKA Group is described in the risk report included in the annual report on pages 53 to 59. In accordance with legal requirements, the aim of risk management is early identification of any risk that could jeopardize the existence of KUKA Group and its operating companies as going concerns to enable measures to minimize, transfer or avoid risk to be taken. The risk strategy and risk policy is guided in particular by business risks, financial risks (including currency risks), and the specific risks of the divisions – in each case from a short, intermediate and long-term perspective. Controlling in particular is an essential tool for efficient risk management at KUKA Group.

KUKA further optimized opportunity and risk management in 2015. The Executive Board is tasked with adapting opportunity and risk management to changes in the business environment on an ongoing basis.

Financial publications

The company informs its shareholders, participants in the capital markets, and the media of its position and of significant business events, in particular by publishing quarterly financial reports, a mid-year financial report, and a business report, holding a financial statements press conference on the annual financial statements and conducting the Annual General Meeting each year. In addition, it issues ad-hoc releases under section 15 of the German Securities Trading Act (WpHG), notices under section 15a of the WpHG (directors' dealings), and under section 26 of the WpHG (disclosure of notifications by shareholders and holders of certain financial instruments), holds conferences with analysts, meets with analysts and investors in Germany and abroad, and issues other press releases.

All information is published in both German and English and is also available on the company's website from the time of publication. All regular financial reporting dates are published in the company's financial calendar, which can be found on the back cover page of the annual report and on the website at www.kuka-ag.de.

Declaration regarding Corporate Management

The corporate management declaration as per section 289a of the German Commercial Code (HGB) is posted on the company's website at www.kuka-ag.de.

Compensation Report

The compensation report summarizes the basic principles used to determine the compensation of the Executive and Supervisory Boards of KUKA Aktiengesellschaft and describes the structure and compensation of the members of the Executive and Supervisory Boards. The compensation report is an integral part of the combined management report.

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 thus conforms with section 87 of the German Stock Corporation Act (AktG) and the requirements of the GCGC regarding sustainable corporate performance. The variable components take into consideration both positive and negative business developments.

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.

One half of the variable compensation is based on the achievement of personal targets and the other half is dependent on the performance of KUKA Group's key indicators, EBIT and free cash flow. The associated details are agreed separately each year. The variable compensation component is capped (maximum target achievement of 200%) and achievement of the financial targets is linked to business performance over several years.

In addition, annual allocation volumes for participation in phantom share programs (hereinafter also referred to as the "programs") are stipulated for members of the Executive Board as a further variable compensation component designed to provide a long-term incentive. Phantom shares are virtual shares that grant the holder the right to a cash payment in the amount of the company's applicable share price. In contrast to stock options, the proceeds from phantom shares reflect not only the increase in share value, but also the full value of the stock. Moreover, a dividend equivalent that mirrors the actual dividend distributed on real KUKA shares is paid annually during the life of the plan for each virtual share held. There are no voting rights associated with phantom shares.

The programs each run for three calendar years. The allocation volume is either already contractually agreed or is set by the Supervisory Board before the respective three-year period commences. The allocation volume divided by a reference price for the KUKA share then results in a provisional number of phantom shares. The Supervisory Board has calculated the provisional number of phantom shares based on the average price of the KUKA share (opening price in XETRA trading on the Frankfurt Stock Exchange) between January 2, 2015 and March 23, 2015 (the last trading day prior to the Supervisory Board's financial review meeting). The relevant price thus determined for the KUKA share is €65.10.

The Supervisory Board also establishes an EVA (economic value added) for continuing operations (before taxes) at the beginning of the three-year performance period. The EVA is based on the operational planning for the first three years of the program, which is geared towards the budget for the first financial year of the three-year period and the projections for the two subsequent financial years.

The cumulative EVA (actual EVA) for the three-year performance period is divided by the EVA for continuing operations in accordance with the operational planning for the three program years in order to determine a success factor. The success factor may fluctuate between 0 and 2.0. The final number of phantom shares depends on the success factor achieved, which is multiplied by the provisional number of phantom shares. The upper limit for the final number of phantom shares is capped at twice the number of provisional shares, which would constitute a success factor of 2.0. Payment is based on the final number of phantom shares at the final price of the KUKA share (average price of the KUKA share between January 2 of the year subsequent to the three reference years ("subsequent year") and the day prior to the financial review meeting of the Supervisory Board in the subsequent year).

In the event that an Executive Board member's contract is terminated – regardless of which party initiates the termination – all phantom shares allocated to that member expire. However, this does not apply if an Executive Board member uses their right to step down from their place on the Board owing to a change of control at the company. In this case, a proportionate payment is made in accordance with the terms and conditions of the phantom share program.

Each Executive Board member is obliged to purchase a certain number of KUKA shares from the gross proceeds paid out on the basis of the programs, in order to build up a holding volume of 50% of the annual base remuneration (fixed annual remuneration) in the year of allocation. Until the holding volume has been built up, 25% of the gross amount paid out for the relevant year must be spent on purchasing KUKA shares. The purchase amount is retained from the net proceeds. The obligation ends with the participant's departure from KUKA Group.

The Supervisory Board decides each year on the amount of the Executive Board's equity-linked remuneration, unless such equity-linked remuneration has been contractually agreed before. The objective of the phantom share program and its configuration is to ensure that every member of KUKA's Executive Board is also a shareholder. The program promotes share ownership among members of KUKA's Executive Board and thereby ties the interests of these governing body members more closely to the interests of shareholders. The profit targets and comparative parameters may not be changed retroactively.

The payment amounts (to be paid out in 2018) for the 2015 – 2017 phantom share program were limited for the first time to an amount equal to three times the allocation volume. Future phantom share programs will also be limited correspondingly, so that the Executive Board compensation as of 2018 is therefore limited by the accumulation of caps on individual items (fixed annual salary, variable bonuses and payments from a phantom share program).

The amounts paid out from the 2013 – 2015 and 2014 – 2016 phantom share programs currently still running are not yet subject to a limit. For this reason the total compensation of the Executive Board is currently not limited (the Executive and Supervisory Boards reported on the resulting divergence from the recommendation as per section 4.2.3 para. 2 sentence 6 of the GCGC in their joint declarations of compliance).

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.

The employment contracts of Executive Board members additionally contain "change-of-control" clauses. In the event of a change in control within the company (sections 29 para. 2 and 30 WpÜG), the Executive Board members are entitled to terminate the employment contract within three months of the change in control occurring, subject to a notice period of three months. In the event of a termination, the Executive Board members will be entitled to a severance payment, which is measured against the compensation due for the remainder of their contract, but is restricted to twice the annual compensation at most.

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

2. Compensation for 2015

Executive Board compensation for fiscal 2015 is disclosed for each individual member in accordance with the standardized reference tables recommended in the GCGC. 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.

Payments granted to members of the Executive Board – taking into account the actual inflow – totaled €7,911,000 in fiscal 2015.

Table 1: Executive Board compensation for 2015 – Overview of benefits

in € thousands	Dr. Till Reuter CEO				Peter Mohnen CFO			
	FY 2014	FY 2015	FY 2015 (min)	FY 2015 (max)	FY 2014	FY 2015	FY 2015 (min)	FY 2015 (max)
Fixed compensation	568	600	600	600	381	425	425	425
Fringe benefits ¹	25	25	25	25	29	31	31	31
Other compensation ²	–	131	131	131	–	–	–	–
Total	593	756	756	756	410	456	456	456
One-year variable compensation ³								
Bonus	347	350	0	700	210	225	0	450
Offsetting of other compensation ⁴	–	-131	-131	-131	–	–	–	–
Multi-year variable compensation								
Company targets bonus for 2014 ⁵	347	–	–	–	210	–	–	–
Company targets bonus for 2015 ⁵	–	350	0	700	–	225	0	450
Phantom share program 2014 – 2016 ⁶	426	–	–	–	296	–	–	–
Phantom share program 2015 – 2017 ⁶	–	443	0	1,200	–	277	0	750
Total	1,713	1,768	625	3,225	1,126	1,183	456	2,106
Pension cost	0	0	0	0	0	0	0	0
Total compensation	1,713	1,768	625	3,225	1,126	1,183	456	2,106

¹ The fringe benefits include expenses and non-cash benefits for the provision of company cars and insurance allowances. The premium for D & O insurance is included in the fringe benefits because, unlike the accident insurance, it cannot be allocated individually, as the company pays a lump sum premium for the insured group of persons which goes beyond the members of the Executive Board.

² Dr. Reuter received compensation of CHF 145,000 in fiscal 2015 as President of the Administrative Board of Swisslog Holding AG (Buchs/Switzerland). At an exchange rate of €1 = CHF 1.1022, this is equivalent to €131,555. This amount is taken into account in the overview of benefits.

³ Proportion of variable bonus for achieving personal targets (with 100% target achievement) in the specified fiscal year (possible target achievement from 0 to 200%).

⁴ The employment contracts with the Executive Board members stipulate that compensation granted on the basis of a Supervisory Board, Advisory Board or Administrative Board mandate in a company affiliated to KUKA Aktiengesellschaft shall be offset against the bonus payable to the member of the Executive Board. The compensation paid to Dr. Reuter by Swisslog Holding AG amounting to €131,555 therefore counts towards his variable compensation.

⁵ Deferred percentage (50%) of variable bonus (with 100% target achievement) for the specified fiscal year.

⁶ Allocation value on the date the phantom share program was established by the Supervisory Board. The price of the KUKA share on this date is multiplied by the provisional number of phantom shares. For the phantom share program 2014 – 2016 the share price was €42.14 at this time (Xetra closing price on May 28, 2014). For the phantom share program 2015 – 2017 the share price was €72.14 (Xetra closing price on March 24, 2015).

Table 2: Executive Board compensation for 2015 – Overview of inflow

in € thousands	Dr. Till Reuter CEO		Peter Mohnen CFO	
	FY 2014	FY 2015	FY 2014	FY 2015
Fixed compensation	568	600	381	425
Fringe benefits ¹	25	25	29	31
Other compensation ²	0	131	0	0
Total	593	756	410	456
One-year variable compensation ³				
Bonus	587	640	390	408
Multi-year variable compensation				
Company targets bonus for 2012 ⁴	524	–	141 ⁷	–
Company targets bonus for 2013 ⁴	–	610	–	400
Phantom share program 2011 – 2013 ⁵	1,022	–	–	–
Phantom share program 2012 – 2014 ⁵	–	3,082	–	1,541
Other equity-linked compensation ⁶	14	11	8	7
Total	2,740	5,099	949	2,812
Pension cost	0	0	0	0
Total compensation	2,740	5,099	949	2,812

¹ The fringe benefits include expenses and non-cash benefits for the provision of company cars and insurance allowances. The premium for D & O insurance is included in the fringe benefits because, unlike the accident insurance, it cannot be allocated individually, as the company pays a lump-sum premium for the insured group of persons which goes beyond the members of the Executive Board.

² Dr. Reuter received compensation of CHF 145,000 in fiscal 2015 as President of the Administrative Board of Swisslog Holding AG (Buchs/Switzerland). At an exchange rate of €1 = CHF 1.1022, this is equivalent to €131,555. This amount is taken into account in the overview of inflow.

The employment contracts with the Executive Board members stipulate that compensation granted on the basis of a Supervisory Board, Advisory Board or Administrative Board mandate in a company affiliated to KUKA Aktiengesellschaft shall be offset against the bonus payable to the member of the Executive Board. The compensation paid to Dr. Reuter by Swisslog Holding AG amounting to €131,555 therefore counts towards his variable compensation for fiscal 2015 (to be disbursed in April 2016).

³ Variable compensation paid out during the fiscal year.

⁴ Deferred portion of variable compensation from the 2012 and 2013 fiscal years, which was paid out in the 2014 and 2015 fiscal years.

⁵ Phantom share program 2011 – 2013 payout at a final price of €35.65 (average KUKA share price (opening price in Xetra trading on the Frankfurt Stock Exchange) between January 1, 2014 and March 22, 2014). Phantom share program 2012 – 2014 payout at a final price of €65.10 (average KUKA share price (opening price in Xetra trading on the Frankfurt Stock Exchange) between January 1, 2015 and March 23, 2015). 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.

⁶ Payout of dividend equivalents in 2014 of €0.30 per provisional share from the phantom share programs 2012 – 2014, 2013 – 2015, 2014 – 2016 and in 2015 of €0.40 per provisional share from the phantom share programs 2013 – 2015, 2014 – 2016, 2015 – 2017.

⁷ Only proportionate amount due to commencement of employment during the year with effect from August 1, 2012.

Provisions, which took the total expected expense from the phantom share programs into account, were recognized as of December 31, 2015 for all phantom share programs in effect on that date and that have yet to be paid out (i.e. the 2013 – 2015, 2014 – 2016 and 2015 – 2017 programs).

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 2015 for current pensions and expected pension benefits for this group of persons totaled €10,018,000 (German Commercial Code) (2014: €9,846,000).

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 €30,000, payable at the end of the fiscal year.

The chair 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 €30,000 for chairing the Annual General Meeting, provided this task is not fulfilled by the chair of the Supervisory Board, and for membership in one or more committees that are not of an interim nature. Committee chairs are paid at most one and a half times the annual compensation, even if they chair more than one committee or are members of another committee; this does not apply to the committee formed pursuant to section 27 para. 3 of the German Act on Co-determination (MitbestG).

In addition, for each Supervisory Board meeting (including meetings of Supervisory Board committees), each Supervisory Board member has the choice of either being reimbursed for expenses or receiving 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 2014 and 2015

The following table compares the compensation paid to members of the Supervisory Board in the 2014 and 2015 financial years:

Table 3: Supervisory Board compensation in 2015

in € thousands	Payment in 2015 for 2014	Payment in 2016 for 2015 ¹
Bernd Minning Chairman of the Supervisory Board and Chairman of the Personnel Committee, Strategy and Development Committee, Mediation Committee and Nomination Committee	165	165
Michael Leppke ² Deputy Chairman of the Supervisory Board	90	90
Prof. Dr. Dirk Abel	60	60
Dr. Walter Bickel ¹ Chairman of the Audit Committee (until March 26, 2015)	75	17
Wilfried Eberhardt	30	30
Siegfried Greulich ²	60	60
Thomas Knabel ²	60	60
Armin Kolb ²	60	60
Carola Leitmeir ²	60	60
Dr. Hubert Lienhard (from June 10, 2015)	0	34
Friedhelm Loh (from June 10, 2015)	0	34
Prof. Dr. Uwe Loos Chairman of the Technology and Production Committee	75	75
Dr. Michael Proeller ¹ (until June 10, 2015)	60	26
Guy Wyser-Pratte ¹ (until June 10, 2015)	60	26
Hans Ziegler Chairman of the Audit Committee (from June 10, 2015)	0	42

¹ Dr. Bickel, Dr. Proeller and Mr. Wyser-Pratte already stepped down from the Supervisory Board as of March 26, 2015 or June 10, 2015. Their proportionate compensation for 2015 was already settled and paid out in 2015.

² 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.

KUKA and the capital market

The KUKA share is listed on the MDAX, the German stock market segment for mid-cap companies. Reporting is conducted in line with the Prime Standard rules of Deutsche Börse. The company attends international road shows and investor conferences on a regular basis. In 2015, the daily trading volume of KUKA shares on the stock exchange averaged 156,000 shares and was thus at the same level as the previous year. Market capitalization was more than €3 billion at the end of 2015.

		2011	2012	2013	2014	2015
Weighted average number of shares outstanding	millions of shares	33.43	33.92	33.92	34.17	36.14
Earnings per share	€	0.89	1.64	1.72	1.99	2.39
Dividend per share	€	–	0.20	0.30	0.40	0.50*
High for the year (closing price)	€	20.00	29.02	38.50	62.51	85.59
Low for the year (closing price)	€	12.50	14.68	26.40	33.85	56.86
Closing price for the year (closing price)	€	14.14	27.67	34.05	58.98	83.05
Change compared to prior year	%	-14.8	95.7	23.1	73.2	41.0
Market capitalization (Dec. 31)	€ millions	472	938	1,154	2,106	3,198
Average daily volume	No. of shares	132,000	120,000	144,000	157,000	156,000

* Subject to approval by shareholders at the Annual General Meeting on May 27, 2016

KUKA share – better than the MDAX in 2015

In the year under review, the KUKA share price rose by 41% from €58.98 to €83.05. The share price thus developed better in the past financial year than the MDAX (+23%), having already been the best performer of the index in 2014. This positive share price performance is attributable, among other factors, to the good financial results of the previous year and the high level of interest among investors for KUKA as a result of the “Automation”, “Growth in China” and “Industry 4.0” megatrends. The MDAX, on which the 50 medium-sized stocks in Germany are listed, improved by 23% in 2015 from 16,935 points (year-end 2014) to 20,775 points (year-end 2015). The MDAX benefited from the relatively healthy development of the German economy and the expansive monetary policy of the European Central Bank as well as the improved development in certain European countries in the wake of the financial crisis. KUKA also outperformed all but one of the companies in its peer group (companies that have a similar business base and are of a comparable size). The share prices within the peer group developed within the range of -26% to +70%.

Investor relations

KUKA places a high priority on communicating regularly with the capital market. In order to further boost investor confidence in the company, it provides transparent, timely reports. The investor relations team engages in intensive dialog with the capital markets, reporting on all important events which have an impact on the KUKA share. KUKA held meetings at the sites in Augsburg and Shanghai and was present at international investor conferences and road shows. Activities in Germany were primarily centered on the financial centers in Frankfurt am Main and Munich. Additional events were held in Berlin, Cologne/Dusseldorf and Baden-Baden. The focus of communications abroad was on the financial centers in New York, London and Zurich/Geneva, which were visited on multiple occasions. The company held additional road shows at the financial centers of Boston, Lyon, Milan, Paris, Shanghai, Vienna and in Scandinavia. All investors can access further details at any time on the Internet at www.kuka-ag.de/en/investor_relations. This is where quarterly, mid-year and annual reports and corporate presentations are published. You can find the financial calendar with the schedule for 2016 on this website as well as at the end of this financial report.

Shareholder structure

The free float of KUKA's shares remains unchanged at a relatively high level. As of December 31, 2015, the free float, including shares held by institutional investors, totaled around 60% of share capital. Compared to the end of 2014, however, the free float had declined slightly (December 31, 2014: 65%). According to the mandatory disclosures submitted to the company, the following investors hold more than 3% of share capital (as of December 31, 2015): Voith Group 25.1%, SWOCTEM GmbH 10.0% and Midea Group 5.4%.

Majority of analysts rate KUKA shares "Buy" or "Hold"

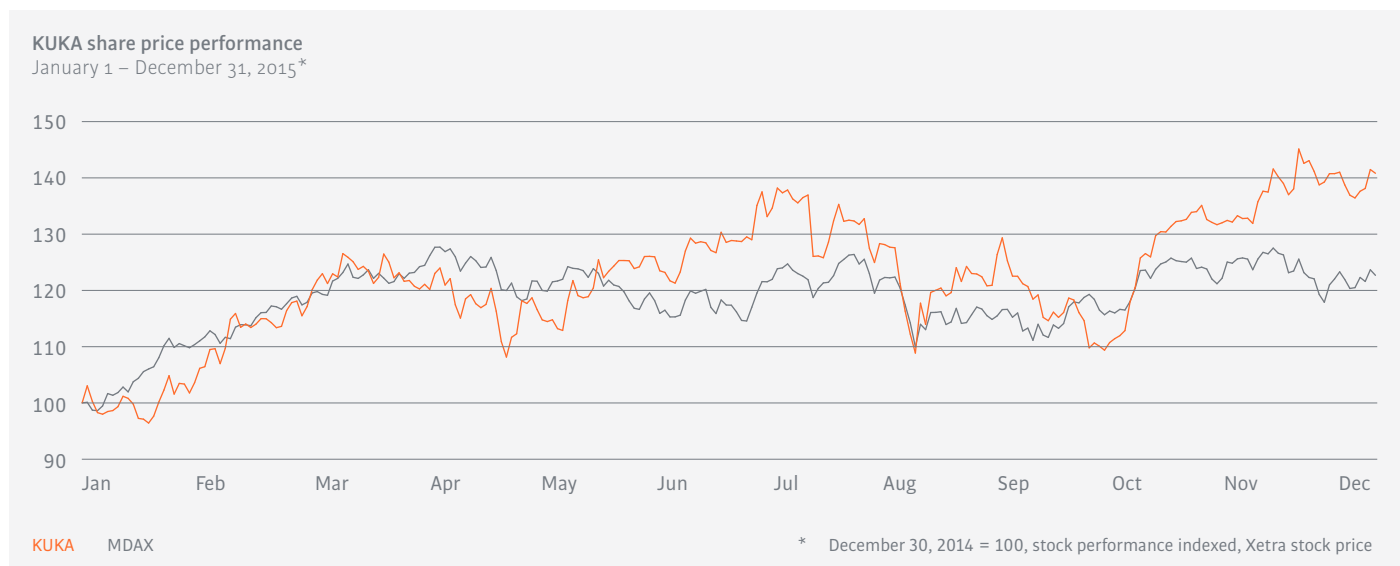
Many investors and banks focused on robot-based automation again in 2015. The KUKA share was assessed by a total of 24 banks and brokerage houses. As was the case in the previous year, most bank analysts rated the share as a buy or a hold: at the end of 2015, four were recommending a "buy" for the stock (2014: seven). Nine recommended investors to "hold" (2014: eleven) and eleven said "sell" (2014: seven). The average target price for the share was €69.83 as of December 31, 2015 (December 31, 2014: €46.52). For further details, please go to www.kuka-ag.de/en/investor_relations.

Syndicated loan refinanced and extended

KUKA Aktiengesellschaft refinanced its syndicated loan in April 2015. The volume of the new loan was increased to €230 million. The loan concluded in 2013 was thus prematurely refinanced. Due to the good business development, it was possible to negotiate more favorable terms for the refinancing. The interest expenditure will therefore decline over the next few years.

The convertible bond (ISIN: DE000A1R09V9) with a volume of €150 million and a term lasting up to February 2018 performed extremely well up to the end of 2015 and closed at a price of well over €200. KUKA is exercising its right to repay the convertible bond early and has canceled the convertible bond with effect from March 24, 2016.

The rating agencies rated KUKA AG as follows: Standard & Poor's gave KUKA AG a rating of "BB+ (outlook: stable)" and Moody's rated the company at "Ba2 (outlook: positive)".



Consolidated Financial Report

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Group basis

Group structure and business activities

In the year under review, KUKA Group consisted of KUKA Aktiengesellschaft and the Robotics, Systems and Swisslog divisions. KUKA Aktiengesellschaft headquartered in Augsburg is the Group's holding company and is responsible for managing corporate activities within the group of companies. The management of the individual divisions coordinates the operational business activities in the respective segments. The divisions operate globally and are supported by their regional subsidiaries in both their sales efforts and their assembly and field service work.

KUKA is one of the world's leading specialists in automation. As an internationally operating technology corporation, KUKA offers its customers everything they need from a single source: from the core component – the robot – to cells and turnkey systems. KUKA contributes with its advanced automation solutions to increased efficiency and improved product quality. Industrie 4.0 is bringing the smart, digital factory and flexible manufacturing concepts to the fore.

The Robotics division develops, manufactures and distributes the core component for automation – the robot. In addition to the manufacture of industrial and service robots, it also focuses on robot control and software. Robotics additionally offers its customers a wide range of services.

The core competence of the Systems division lies in customized solutions for the automation of manufacturing processes. Systems plans and implements automated systems for its customers, and upgrades existing systems to increase sustainability and efficiency. It focuses on large-scale automotive and aerospace projects. By acquiring Reis Group, KUKA has strengthened its cell business and growth in general industry. It bundles this expertise within the KUKA Industries business unit, which forms part of the Systems division.

The company Swisslog was acquired at the end of 2014 and integrated as a division of KUKA Group during the reporting period. The Healthcare Solutions unit provides automation solutions for forward-looking hospitals in order to increase efficiency in a sustained manner and improve patient care. In the logistics segment the Warehouse & Distribution Solutions unit supplies automated intralogistics systems, covering the spectrum from planning to implementation and service.

Robotics division

The core component for automating manufacturing processes is provided by the Robotics division: it produces industrial robots together with controllers and software. The broad product portfolio covers payload ranges from 5 to 1,300 kg. This enables KUKA to meet the various requirements of its customers optimally. All robot models are developed and assembled in Augsburg. The control cabinets are produced in two Hungarian plants, in Taksony and Füzesgyarmat. For the Asian market, KUKA also produces robots and control cabinets at its Chinese plant in Shanghai. The KUKA Colleges provide technical training courses for customers at more than 30 sites worldwide.

KUKA Robotics is continuously expanding its 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 and development has an important role to play here. KUKA's new products and technologies open up additional markets and create new applications for robot-based automation.

KUKA has smoothed the way for human-robot collaboration with the development of the sensitive lightweight robot LBR iiwa. Intelligent safety technologies enable robots to assist human workers in their immediate vicinity. The controller has modular and open interfaces so that robots can easily be integrated into existing, networked production systems. Mobile robots are another means of increasing the flexibility and efficiency of production. The KUKA KMR iiwa, launched in the year under review, consists of an autonomously navigating platform on which an LBR iiwa is mounted. The mobile assistant navigates safely through the production facility and optimizes logistics procedures.

Systems division

The Systems division offers its customers tailored complete solutions for automating manufacturing processes; it plans, designs and builds automated production systems. The range covers the entire value-creation chain of a system: from individual system components, tools and fixtures to automated production cells and even complete turnkey systems. The division's expertise lies in automating individual production processes such as welding and joining, processing various materials and integrating different production stages to form a fully automatic system.

The Systems division supplies large-scale automated lines principally to the automotive industry for body-in-white production as well as assembling engines and transmissions. Markets in Germany and elsewhere in Europe are served from Augsburg, while the Greater Detroit area in the USA is responsible for the North/South America region and Shanghai in China handles the Asian market. Automated assembly lines and test rigs for engines and transmissions are designed at and supplied from the Systems sites in Bremen, Greater Detroit/USA and Shanghai/China. Systems also operates a production plant for the entire body of Chrysler's Jeep Wrangler (KTPO) in Toledo/USA.

As well as the automotive industry, more and more other sectors are coming to rely on the expertise that KUKA Systems has acquired over many years in the automation business. A notable example is aircraft construction, which offers significant potential for automation in production. As a result of the acquisition of Alema Automation, KUKA Systems can now operate as an all-round supplier for aerospace customers.

By acquiring Reis Group, KUKA has strengthened its cell business and growth in general industry. KUKA is bundling its cell expertise and in-depth process know-how in the resultant new business unit, KUKA Industries, for customers from general industry. As part of the Systems division, KUKA Industries offers its customers innovative joining and machining technologies, laser welding and special welding processes, as well as all process steps for the foundry sector and for photovoltaic and battery production.

Swisslog division

With its Swisslog division, KUKA is opening up the growth markets of e-commerce/retail, warehouse logistics and healthcare. Based in Buchs, Aarau/Switzerland, Swisslog employs a workforce of 2,500 worldwide and serves customers in over 50 countries. From planning and design, through to implementation and service over the whole life cycle of the solutions, Swisslog provides integrated systems and services from a single source.

The Healthcare Solutions unit provides automation solutions for forward-looking hospitals in order to increase efficiency in a sustained manner and improve patient care. The solutions optimize work procedures in the areas of material transport and medication management. This allows hospital staff more time for looking after their patients. At the same time the probability of errors in medication is reduced to a minimum.

The Warehouse & Distribution Solutions unit implements automation solutions for forward-looking warehouses and distribution centers. With automated intralogistics solutions, Swisslog optimizes warehouse logistics and assists companies to achieve maximum throughput at minimum cost, to handle a large number of Stock Keeping Units efficiently and to fulfill supply requirements with a high level of accuracy.

Markets and competitive positions

The automotive industry continues to represent an important pillar in KUKA Group's success. Automotive accounted for about 50% of total sales revenues during the year under review. This is the market in which KUKA has grown over the past 40 years and become established as a specialist for robot-based automation solutions. For several years the Group has been working successfully to expand its business in sectors outside the automotive industry (general industry) so as to achieve a greater degree of differentiation in its sales revenues. General industry and the automotive industry contributed about equally to overall sales revenues during the year under review. In China, the growth market for automation, KUKA is broadening its presence energetically in order to come still closer to its customers. The robots are shipped to the Asian market from the Shanghai production location.

Through intensive research and development, KUKA Robotics brings out technologies and products which create new possibilities for the use of robots. Ever more sectors are benefiting from the automation solutions, for example the consumer goods and electronics industries. KUKA Robotics is one of the leading robot manufacturers in the world, and is regarded as the market leader for industrial robotics in Europe.

KUKA Systems is a top supplier for body-in-white construction activities in the automotive industry and is market leader in North America. Systems is also expanding into sectors outside the automotive industry, particularly that of aircraft construction. The cell business of KUKA Industries in the Systems division focuses predominantly on the energy sector, consumer goods industry, agricultural machinery sector and rail vehicle construction.

Swisslog Healthcare Solutions is the world's market leader in the area of automated material transport in hospitals (pneumatic tube solutions, automated guided vehicles) and an innovative niche supplier in the automated management of medication (storage, packaging and administration of drugs). Swisslog Warehouse & Distribution Solutions is active on a global scale and is one of the few intralogistics suppliers that plan, implement and operate complete turnkey solutions for their customers as a general contractor.

Corporate strategy

KUKA moves in a highly dynamic, innovation-driven market environment, which is being continuously redefined. Robot-based automation is a global trend.

Increasing digitization in conjunction with Industrie 4.0 is creating new possibilities for the factory of the future. This development also means, however, that the company has to face up to a new, tougher competitive environment.

In order to guarantee the company's sustained success and to expand its leading global position in automation, KUKA is focusing on profitable high-growth markets. With the slogan "KUKA 2020", Group-wide measures have been initiated that will provide the company with a strong stimulus for development at many levels.

Global leadership principles enhance cohesion and unity, for instance. Furthermore, various aspects of the corporate culture, such as KUKA-wide collaboration and the assurance of innovative capabilities are included. This also involves consideration of the knowledge and wide range of abilities of the employees. In addition, structures and processes are being harmonized throughout the Group.

In order to benefit from global trends and to make optimum use of in-house expertise, the Group is concentrating on expanding its leadership in innovation and technology.

1. Expanding the leadership in technology and innovation and setting the course for Industrie 4.0

The KUKA brand stands for innovation in automation and is a driver of Industrie 4.0. With a new generation of robots that are sensitive and can work hand-in-hand with humans, KUKA is setting new trends in robotics. Technological innovations such as improved safety, vision and sensor systems enable humans and machines to collaborate. The LBR iiwa, developed by KUKA, is equipped with precisely these properties. Enhanced with mobility and autonomous navigation, robots are being transformed into flexible production assistants. The trend is towards robots that are mobile, easy to program and flexible to deploy. KUKA is gearing itself to these trends and is further expanding its own technological expertise in the focus sectors.

KUKA sees itself as a driver of Industrie 4.0 and is developing technologies for the intelligent factory of the future. Industrie 4.0 will bring about production that increasingly organizes itself with decentralized networked systems. This necessitates high-speed data lines and technologies such as cloud computing and software processes for data analysis and information processing.

Here the company is working on entirely new business models that will transform not only production in the future, but the value creation process as a whole. Aspects affecting labor and training markets are taken into consideration. Furthermore, KUKA is active in various committees and discussion forums working for greater cooperation between the worlds of politics, business and science. Digitization will have a major influence not only on technological progress, but also on society in general.

KUKA is concentrating on increasing its own innovative strength and also on complementing this with targeted acquisitions. By acquiring Reis Group back in 2014, KUKA strengthened its cell business and growth in general industry. In the year under review, KUKA bundled this expertise in the KUKA Industries business unit, which is part of the KUKA Systems division.

Acquisition of the Swiss company Swisslog gave KUKA access to the growth markets of warehouse logistics and healthcare. Swisslog's specific strengths are in the field of software solutions for materials flows. The combination of logistics technologies with the technologies, products and know-how of the other divisions in KUKA Group is opening up new possibilities in automation.

2. Diversification of business operations in new markets and regions

KUKA is a market leader in the automotive industry. There are also many opportunities, however, for growth in markets outside this sector, in general industry.

The focus markets addressed by KUKA are especially important because their growth and profit potential is high. The degree of automation in these sectors is still relatively low. Customers from general industry are primarily interested in automation to make their production processes more efficient, raise their production quantities and, of course, improve overall quality.

KUKA has improved its own market position here with various acquisitions. As a result of the takeover of Alema, KUKA Systems can now operate as an all-round supplier for aerospace customers and has thereby facilitated its access to the market. Through the investment in Reis Group, KUKA was able to gain access to new sectors such as the foundry industry and solar energy and battery production.

Through Swisslog, on the other hand, KUKA can access particularly attractive growth markets such as warehouse logistics and the health-care sector, and is therefore able to diversify into other customer segments. KUKA has also achieved market presence in the warehouse logistics sector, particularly in the USA.

In 2015, KUKA geared its business even more towards market segments. A total of eight focus markets were defined for strategic further development:

› Automotive

Automotive customers have always been of great importance for KUKA. For a long time, they were the main customers. Automotive remains an important mainstay and currently accounts for about 50% of sales. The German premium brands rely heavily on KUKA and are important motors of technology and innovation. KUKA will continue to grow globally in the automotive segment in the coming years.

› Aerospace

KUKA is an all-round supplier for the aerospace sector and covers the entire manufacturing process for customers, for example the riveting of components. One important aerospace customer is Boeing in the USA. The goal now is to utilize our expertise in Europe and Asia too in order to grow further in these regions.

› Electronics

The 3C market is one of the most important markets of the future. This is because the level of automation in this area is still very low. Products for the electronics market are currently manufactured predominantly manually in Asia. What is required here are customer-specific solutions for the manufacture of high-tech products. At the same time, quality requirements and wage costs in Asia are increasing sharply.

› **Consumer Goods**

Robots have been processing, picking, packing, stacking, labeling and palletizing successfully and efficiently for many years in the production of so-called Fast Moving Consumer Goods (FMCG), i.e. everyday products. Nowadays, they are used along the process chain from primary packaging through to palletizing and depalletizing, particularly in the food and drinks industry, but also in shoe and textile production as well as in the manufacture of cosmetics or pharmaceuticals. At the start of the chain, robot-based automation is used predominantly due to extremely short cycle times of generally half a second, whereas at the end of the chain they are primarily used for handling heavy loads.

The next robot generation will gradually open up new fields of application along the process chain where both human-robot collaboration (HRC) and mobility are in demand. Today's consumers already want to compile and configure their products themselves on the Internet. This personalization requires production and IT to be networked and will permanently change production processes. As the most flexible production element, the robot already collects data in the production system and supplies the data to the IT system. It serves as the arm of IT in the production system; it provides the link. In the future, IT systems will process the data and return them to the production system via the robot, thereby providing the production system with a basis for successively optimizing itself. No other component in the production process is currently capable of accomplishing this supporting role as effectively as modern industrial robots.

› **Metal Industry**

KUKA has a vast wealth of experience in the metalworking industry. Examples include arc welding and laser welding, but customers from the foundry industry and many other fields also benefit from KUKA's expertise.

› **Energy**

KUKA Industries supplies standard products and individual solutions for many different tasks in the production of photovoltaic systems. The company offers its customers the right solution for every step in the manufacturing process for photovoltaic modules – from brick sawing, cell handling and cross-soldering to the framing and packaging of the modules.

› **Healthcare**

Healthcare is currently facing a major challenge. Demographic changes and a shortfall in healthcare personnel are making modern technologies indispensable. Automation solutions can provide greater efficiency in hospitals and improve work procedures. The workload on nursing staff is thus reduced, enabling them to concentrate more on patient care in the future.

Solutions from Swisslog help modern hospitals and healthcare facilities to optimize work procedures and costs, for example in the areas of efficient material transport and management of medicines, thereby increasing patient wellbeing. KUKA also has a long history of products for the medical sector. Mobile and sensitive robots open up entirely new possibilities for assisting patients in the field of healthcare.

› **e-commerce**

Electronic commerce results in large quantities of varied goods being sent to consumers via goods distribution centers. In the long term, the volumes involved can only be managed with automation. This creates a market for rack feeders, high-bay warehouses and storage systems, such as those supplied by Swisslog, but also for robotics.

KUKA has a strong position in the European market, which it aims to secure. The company sees growth potential in the expansion of global sites with a key focus on high-growth regions in Asia and North America. The primary focus here is on the potential of the Chinese market. According to forecasts of the International Federation of Robotics (IFR), the Chinese market is expected to undergo very strong growth in the coming years. Worldwide average annual growth of around 12% is expected.

KUKA has been represented for many years by several subsidiaries in Asia and has greatly expanded its presence on the Chinese market in recent years. The headquarters for the Asian business is Shanghai, where a hub bundling various functions was established in 2016.

3. Continuous establishment of sustainable and efficient cost structures

In order to support profitable growth and thereby secure long-term competitiveness, various measures are being implemented in the field of operational excellence.

The "Power ON" program launched by the Executive Board represents a key initiative which, over the coming years, will optimize and harmonize further procedures, the organizational structure and IT systems and tools throughout the Group. The objective of Power ON is to make KUKA fit for successful implementation of the KUKA 2020 strategy. In the context of this program, standardized Group-wide ERP control (Enterprise Resource Planning) is also being introduced. The program covers KUKA's worldwide operations and encompasses all divisions and core functions. Initial milestones were achieved in the year under review.

According to the holistic business model, a new organizational management model is being drafted for the strategic realignment of the Group in the future. Furthermore, a business process management organization is being introduced to draw up global definitions of core processes, such as product portfolio development and procurement. For this purpose, process managers have been appointed at the global level for the relevant areas. Local adaptations will follow in the course of the project. A worldwide hub concept has also been developed to bundle the administrative functions of the individual companies in shared service centers. There will be a shared service center in Augsburg for the Europe region and others in China and the USA. This will make it possible to modernize processes and increase efficiency by pooling activities of the same kind.

Financial control system and objectives

The Group's strategy is aimed at sustainably increasing the enterprise value. Various key financial performance indicators are used as part of Group management and to monitor the business performance and position of the Group. KUKA Group's financial targets are key performance indicators (KPIs) that track the enterprise value of the company. The most important KPIs for KUKA Group are revenues, EBIT, ROCE and free cash flow. The development of these variables is presented in the "Business performance" section starting on page 33 and under "Financial position and performance" from page 36 on. Earnings before interest and taxes (EBIT) are compared to sales revenues to determine return on sales, which results in the EBIT margin. EBIT is compared to average capital employed to determine the return on capital employed, or ROCE. EBIT and ROCE are determined for KUKA Group and the divisions. Free cash flow – cash flow from operating and investment activities less capital spending – shows whether the investments can be funded from cash flow, and how much cash is available to pay a dividend and service debt. These key indicators are components of the target and remuneration system in place at KUKA Group and are published. This ensures that all employees share the same goals. See the glossary that begins on page 128 for definitions of key performance indicators.

Medium term, i.e. between three and five years, the EBIT target margin is at least 12% for the Robotics division and at least 6% for Systems. Currently, the largest share of revenues of over 50% is generated in Europe. KUKA plans to further expand activities in Asia and expects about 30% of revenues to be generated here in the medium term. The ability to reach these targets is largely dependent on the expertise and dedication of our employees. This is another reason why it is essential for KUKA to be an attractive employer globally.

An important early indicator of business performance for mechanical and systems engineering companies is orders received. Order backlog for a certain period is determined by subtracting sales revenues from orders received during that time. Order backlog is a key 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	2011	2012	2013	2014	2015
Revenue	1,435.6	1,739.2	1,774.5	2,095.7	2,965.9*
EBIT	72.6	109.8	120.4	141.8	135.6
ROCE (in %)	21.8	32.3	36.9	28.9	20.0
Free cash flow	6.5	77.1	95.4	-172.2	95.7

* including €620.8 million from Swisslog

Achievement of targets

In the year under review, 2015, KUKA Group reached its financial targets and continued its profitable growth. In its outlook in the 2014 annual report and at the annual results press conference on March 25, 2015, the Executive Board predicted sales revenues for 2015 of around €2.8 billion and an EBIT margin of approximately 5.5% before PPA (purchase price allocation) for Swisslog. The target value for the EBIT margin took into consideration the integration and restructuring costs for Swisslog. Furthermore, investment for growth in new industries, in the Chinese market and in global process and IT structures was expected to have a negative impact on the EBIT margin.

Revenue development at Group level was anticipated to profit from the first-time consolidation of Swisslog. In addition, it was forecast that both customer segments – general industry and automotive – and from a regional viewpoint, China and North America, would make a positive contribution to sales development.

When reporting the first-half results for 2015, the Executive Board raised the targets to around €2.9 billion for sales revenues and 6.5 to 7.0% for the EBIT margin before purchase price allocation for Swisslog. The reason for this adjustment was the positive business development and positive effects from the sale of the Tools and Dies business unit and HLS Engineering Group.

The following statements were made regarding targets during the year:

2015 target values	Sales revenues	EBIT margin
First quarter 2015	~€2.8 billion	~5.5%*
Second quarter 2015	~€2.9 billion	6.5 – 7.0%*
Third quarter 2015	~€2.9 billion	6.5 – 7.0%*

* before PPA (purchase price allocation) for Swisslog

In the year under review, the target value forecast for sales revenues was met. The Group achieved sales revenues of €2,965.9 million. Adjusted for the effects of the purchase price allocation for Swisslog, the EBIT margin was 6.6%.

The Robotics division's EBIT margin of 11.0% was slightly above that of 2014 (10.7%). The stable automotive business and strong growth in general industry and service, as well as regionally in China, contributed to the positive development of profitability.

At Systems, the EBIT margin rose by 1.6 percentage points to 7.8% (2014: 6.2%). This increase is primarily attributable to the further improvement in process structures, systematic focusing on the cost structure and high capacity utilization due to strong demand, particularly from North America. However, the profit from the sale of the Tools and Dies business unit and HLS Engineering Group also had a positive effect on the division's overall margin.

KUKA achieved a net profit of €86.3 million (2014: €68.1 million) in the year under review.

Investments totaled €107.0 million, exceeding the €94.3 million expenditure in 2014, as planned. This was due primarily to investment in R&D and on tangible assets as well as on building the new Development and Technology Center in Augsburg.

A free cash flow in the mid-double-digit million range, excluding financial investments, was forecast for the 2015 financial year. The actual result was a positive free cash flow of €95.7 million. In the previous year, particularly as a result of the acquisition of Swisslog Group, the free cash flow was significantly negative at €-172.2 million.

For detailed information, please refer to the chapter “Financial position and performance” from page 36 onwards.

Research and development

The area of research and development (R&D) is of strategic importance for KUKA. It ensures the innovative and technological strength of the Group. In the year under review, the company invested heavily in this area. Research and development expenditure amounted to €105.4 million in 2015, substantially higher than the value for the previous year (2014: €78.2 million). This includes Swisslog, which has been fully consolidated since December 31, 2015.

KUKA was quick to gear its activities towards Industrie 4.0 and is investing accordingly. Furthermore, development activities are becoming more international. An IT facility has been founded in Austin, Texas/USA, for example, to concentrate on the further development of software applications as well as data analysis. KUKA has also continued to exploit opportunities for external growth by taking stakes in companies that can strengthen the market position with regard to Industrie 4.0.

R&D expenditure is attributable predominantly to the Robotics division, which applied for a total of 168 patents in the year under review; of these, 117 were granted. Systems conducts most of its research and development in conjunction with customer projects. A total of 100 patent applications were filed in 2015, of which 62 were granted.

In the year under review, KUKA focused on expanding and improving the existing product portfolio and developing applications for Industrie 4.0. This also includes key technologies, such as human-robot collaboration, mobility and smart platforms. KUKA presented these focal topics in the factory of the future at Hannover Messe under the banner of “Hello Industrie 4.0”.

Robotics division

In November 2015, KUKA Robotics presented the new KR CYBERTECH nano series in China, the world’s largest and fastest growing robot market. These new handling and welding robots are redefining the performance parameters of the low payload category and supplementing the robot portfolio with payload capacities of six, eight and ten kilograms. Under the slogan “Performance. Reinvented.” KUKA unveiled the new robots at the “Robotics Show” held during the China International Industrial Fair (CIIF) in Shanghai.

With the KMR iiwa (KMR standing for “KUKA Mobile Robot”), KUKA combines the strengths of the sensitive lightweight robot LBR iiwa with an autonomously navigating platform on which the LBR iiwa is mounted. The robot thus becomes a mobile, highly flexible production assistant – an important prerequisite for production of the future. The integrated KUKA Navigation Solution, combined with safety laser scanners, enables it to detect obstacles early on and thus to share common paths with people and logistics trains.

Shorter assembly times and effective deployment of the workforce in the manufacture of satellites are the goals of the “Tomorrow’s factory” project being implemented jointly with the French company Thales Alenia Space. An LBR iiwa collects component parts from various storage bins to make up a parts kit in preparation for the next operation. The KMR iiwa brings the finished kit of parts to the satellite assembly station. Also planned is use of the KMP omniMove transport platform (KMP standing for “KUKA Mobile Platforms”) for autonomous transportation of the finished satellites within the production shop.

The KR AGILUS HM (Hygienic Machine), a hygienic robot for the food and pharmaceuticals industries, rounds off the portfolio of the KR AGILUS small robot series.

The KR 120 R2100 nano F exclusive was unveiled at the foundry trade fair GIFA 2015. It is optimized for the extreme working conditions in cleaning systems and medium or large-sized washing cells and is a new compact addition to the KR QUANTEC range of special robots for foundries.

For applications requiring utmost precision, KUKA has developed the extremely accurate KR 300 R2500 ultra SE. It is characterized by a positioning accuracy of less than 0.3 millimeters. The robot was presented at EMO 2015 in Milan, the international flagship show for machine tools and metal working.

Also in 2015, the new generation of the KUKA Coaster – an amusement ride based on a KUKA industrial robot – was presented at the IAAPA entertainment trade fair in Orlando, Florida/USA. The new generation enables simple boarding at ground level and is operated using a control panel with a touch screen.

Systems division

The flexFELLOW is a mobile robot unit on which an LBR iiwa is installed. It can be manually moved to its place of use and put into operation there extremely quickly. This allows an entirely new degree of flexibility when planning systems as well as fluid variation in terms of the degree of automation. The combinability of manual and automated tasks means that production can be optimally adapted to the required capacity utilization. This enables humans and robots to work together safely.

Energy efficiency in systems engineering

Following the development of a software tool for the energy-efficient design of manufacturing systems in the previous year, 2015 saw the measures being investigated for effectiveness, impact on production systems and possible additional costs. The systems developed by KUKA Systems are intended not only to save resources in theory, but also to contribute to sustainable production in practice. For this, consumption must be checked continuously. The solutions from KUKA Systems enable energy consumption to be recorded both during planning and then during subsequent operation. In combination with the visualization standard, the performance curve can be displayed and archived if required. A “traffic light” system on the control panel indicates to the operator whether the current energy consumption corresponds to the specifications. This enables a quick response and countermeasures.

Research for the body-in-white production of the future

In the year under review, KUKA Systems worked intensively on concepts for the next generation of body-in-white production. Increasingly, the challenge in this sector is to produce a growing number of different vehicle models with ever smaller batch sizes. Since the start of 2014, KUKA Systems has been involved in the research factory for body-in-white production, and since the end of 2014 has been a member of the ARENA 2036 research association.

The “Matrix bodyshop” concept has been developed for versatile body-in-white production in which the individual process steps are performed in standardized cells. The concept ensures versatile, networked manufacturing and thus a decisive competitive edge in modern industrial production. The basic cells are served by AGVs (Automated Guided Vehicles) which deliver the required production and clamping tools so that various different types and derivatives can be manufactured on a single line. The AGVs also perform the component logistics activities. This makes it possible to manufacture small series while retaining the economical advantages of a large series. The concept is suitable not only for the automotive industry, but also for small series with large numbers of variants, as the cycle times are very short.

KUKA Industries

In 2015, the Reis SEP range of presses for trimming stamped parts was expanded to include additional sizes. This new range is characterized by systematic modularization, offering the customer a wide spectrum of different variants, without sacrificing the concept of standardization. In conjunction with the Dialog IV control system, the SEP range offers the customer new functions, a user-friendly, intuitive operator interface and powerful interfaces for control and data transfer in an Industrie 4.0 environment.

KRC ROBOTstar is the new robot controller from KUKA Industries. The ROBOTstar-VI robot controller from Reis has been seamlessly integrated into the control platform of the KUKA KR C4. Operation and programming are performed using the reisPAD touch control panel. The KRC ROBOTstar is an open system for digital communication with other network devices and thus forms the ideal basis for future Industrie 4.0 applications.

At GIFA 2015, KUKA Industries presented complete solutions for permanent mold and die-casting automation. Here, KUKA Industries combines automation expertise with process know-how.

Swisslog division

KUKA exhibited the automated “CarryPick” goods-to-person system at Hannover Messe, as the first joint application with Swisslog. “CarryPick” consists of mobile racks, AGVs (Automated Guided Vehicles), multifunctional “ProPick” workstations and Swisslog’s WM6 warehouse management system. Within a defined warehouse area, AGVs drive underneath mobile racks stocked with goods, lift them and transport them to picking workstations. There, the sensitive LBR iiwa lightweight robot assists the human operator. It too receives orders from a system. With the aid of a 2D vision system, it selects the ordered goods from passing containers and picks them up using suction grippers.

Together with a long-standing customer, KUKA developed an automatic palletizing station. One of the central tasks in intralogistics is the automatic loading of mixed pallets. Depending on the packaging form and sequencing criteria, the requirements on the system can be extremely high.

Awards for KUKA products and technologies

In March 2015, the KUKA LBR iiwa lightweight robot won the German Business Innovation Award in the “Large Company” category. This prize recognizes the most significant scientific, technical, entrepreneurial and intellectual innovations in German business.

In the first quarter of 2015, KUKA also received the prestigious euRobotics Technology Transfer Award. KUKA was awarded this prize jointly with the Albert Ludwig University of Freiburg for a successful technology transfer project entitled “Flexible Autonomous Navigation for the Industrial Shop Floor”. The technology transfer project included various processes for autonomous navigation, enabling the implementation of new production and logistics concepts in the aerospace and general industry sectors using heavy-duty KUKA omniMove platforms.

The KUKA Genius friction welding machine won the Red Dot Design Award in the “Product Design” category. It scored highly for its attractive design, high functionality and simple ergonomic operation. KUKA Genius can be installed easily, is space-saving and can be configured for individual welding tasks.

KUKA won the International Design Excellence Award (IDEA) for the design of the KR AGILUS small robot series at the 50th anniversary international conference of the Industrial Designers Society of America. The design conveys the technical properties of the KR AGILUS – dynamic performance, high speed, exact precision and maximum flexibility. The robot is designed to save on materials with the aim of maximizing its agility.

Procurement

After the takeover of Swisslog, the prices and delivery conditions for joint suppliers of KUKA companies were optimized. Particularly with regard to indirect purchasing, the savings potential in the mid-single-digit million euro range targeted in the previous year by the Robotics and Systems divisions in a Group-wide project was achieved to the full. The focus here was on fine-tuning the interfaces between purchasing and the consumers. Furthermore, new negotiation tools are being used throughout.

In respect of purchasing production parts, Swisslog is investigating the manufacturing locations of KUKA Romania and REIS Czech Republic for make-or-buy considerations.

For the processing of indirect materials, Swisslog launched a project together with the other KUKA companies in July 2015 with the objective of facilitating close cooperation in the future procurement of these materials and services. Further savings will be achieved in 2016 and 2017 by bundling volumes and suppliers. Moreover, material group management at Robotics, Systems and Swisslog has been more closely coordinated.

Procurement at Robotics

Overall, the favorable raw material prices enabled Robotics to achieve purchasing savings in the double-digit million euro range. Furthermore, it was also possible to significantly increase localization in China and considerably expand the supplier base.

Procurement at Systems

The purchasing interfaces and processes were analyzed and fine-tuned in an optimization project. Preconditions for applying purchasing leverage more effectively have been established and mapped to the interface partners and purchasers, and new reporting structures have been set up. The purchasing organization has also been realigned in order to be able to steer contracting strategies and preconditions better in the future. This will enable more proactive purchasing, further strengthening front-loading and increasing savings substantially.

For KUKA Industries in Obernburg, purchasing processes, methods and tools have also been improved by means of an optimization project. An important feature here is involvement of the Purchasing department at an earlier stage in all procurements. Material group management and steering indicators have also been implemented using Qlik View. In the second part of the project, measures for additional savings potential were identified for further implementation in 2016.

Procurement at Swisslog

The switch to direct reporting lines from local purchasing managers to the strategic purchasing manager in the Warehouse & Distribution Solutions division has further harmonized purchasing processes and tools. Expansion of strategic procurement has led to closer coordination of material group management with KUKA Robotics and KUKA Systems. The savings targets for project business were exceeded.

SAP has been introduced at further Swisslog locations. The rollout process will be completed in 2017. This will harmonize procurement processes and enable improved transparency of procurement data.

Economic report

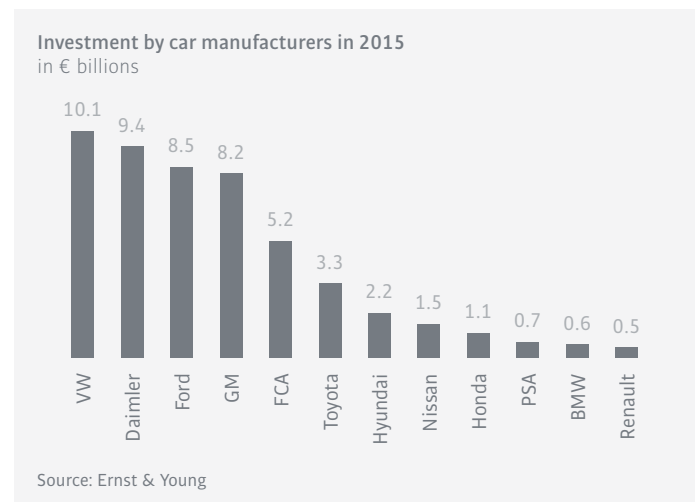
Macroeconomic and industry conditions

IMF – global economy set to grow by 3.1% in 2016 despite difficult general conditions

The International Monetary Fund (IMF) presented its outlook for the world economy in 2016 and 2017 at the start of the current year. It forecasts global economic growth of 3.1% in the current year and 3.4% in the following year. This is a 0.2 percentage point decline from each of its forecasts in autumn 2015. One of the main drivers of these revisions is the lower oil price, which is likely to have a significantly negative impact on economic growth in countries with high rates of oil production. The experts also foresee risks in developing and emerging markets which in past years accounted for the largest share of worldwide economic growth. These countries in particular have based their borrowing primarily on the US dollar. The Federal Reserve's revised interest policy, which may lead to an appreciation of the US dollar, will increase the burdens on these countries' budgets and thus heighten the risk of default. For China in particular, the IMF still expects substantial growth, but at a slower pace compared with the high growth rates of previous years. In real terms, the experts are anticipating 6.3% growth in China in 2016 and 6.0% in 2017. The IMF expects the countries of the eurozone to undergo positive development even in face of the continuing pressure from low rates of inflation. Growth rates of 1.7% are expected for the eurozone in 2016 and 2017. Germany is predicted to grow at the same pace. For Germany, the IMF has raised its forecast for this year by 0.1 points and even by 0.2 points for the coming year. It is difficult to calculate the economic and financial impact of the refugee crisis. The countries affected are likely to face additional expenses and will also have to address challenges on their employment markets. The IMF experts anticipate strongly positive performance in the USA with, however, slightly reduced expectations for 2016. Weak productivity figures, amongst other factors, indicate a lack of investment, which may in the long term be associated with risks. In addition, the altered interest policy involves risks for consumer behavior and companies' willingness to invest. The IMF has therefore slightly reduced its growth forecasts for the USA to 2.6% for both this and next year.

Record investments by car manufacturers in 2015

According to a survey by the Ernst & Young consultancy, the 16 largest auto manufacturers invested about €52 billion in expanding and renewing their factories in 2015. Compared with the previous year, this represents an increase of over 45%. The reasons for the high level of investment include the good sales figures of the manufacturers, which set new records in the USA and China for instance. To a certain extent, there was also a shift of production to countries offering lower manufacturing costs. The USA occupied the top position with an investment volume of €13.5 billion, followed by Germany (€12 billion), Mexico (€4.9 billion), China (€4.5 billion) and Spain (€4.2 billion).



Car markets in USA and China take the lead – growth in Western Europe

According to the German Association of the Automotive Industry (VDA), 5.7 million new cars were manufactured in Germany during the year under review. Compared to production in 2014, this represents an increase of more than 2%. There was a rise in domestic orders received (+7%) and those from abroad (+3%). In 2015, car sales records were set in the USA and China, whilst Western Europe also increased its sales to reach the highest level of the past five years.

The VDA sees the United States as a dynamic engine for growth and an important market for German car manufacturers. New registrations of light vehicles (passenger cars and light trucks) rose by 6% to 17.4 million units with light trucks in particular driving growth. German manufacturers saw their US sales rise by 2%, setting a fresh record. Overall, their market share was about 8%. The value of exports rose to a peak level of over €24 billion in 2015. To German manufacturers the USA is not just a valuable sales market but also a production location. According to the VDA, German companies increased their production output at US sites by 13% to 810,000 cars in 2014. German car manufacturers also increased their sales of electric vehicles in the United States. Every fifth electric car sold in the USA during 2015 came from a German maker.

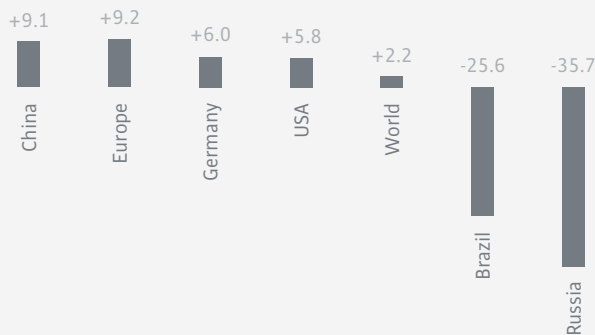
Besides the USA, the VDA also reports growth in Western Europe and China. The Western European market saw the number of new registrations rise by 9% to 13.2 million cars. In total, the recovery covered a broad front: Germany grew 6%, Spain 21%, Italy 16% and France 7%. Sales in China increased by almost 9% to 20.0 million units. Trends on the Russian (-36%) and Brazilian (-26%) markets were negative.

Pioneering robots open up new areas of application

The worldwide trend to robot-based automation of manufacturing processes continued unabated in 2015. Research and development is placing pioneering technologies and products on the market, leading to new fields of application. Ever more process stages can now be automated where until recently it was hard to imagine robots being used at all, and if so with great difficulty. The topic of automation is attracting broader interest and enables enterprises in a variety of sectors and sizes to structure their production so as to be more efficient. This trend is driven by topics such as Industrie 4.0, safe human-robot collaboration and mobile robotics.

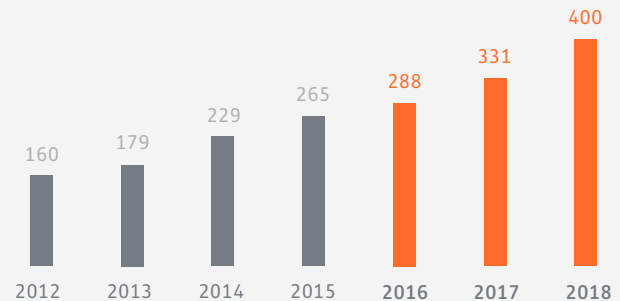
As well as the safety factor, intuitive operation and increased use of software are playing an important role. Particularly the increased use of software applications and the utilization of data generated during production are enabling new growth potential to be tapped and form the basis of Industrie 4.0. China also offers enormous sales potential for robots, systems and logistics solutions. The reasons for this are the rising wage costs, growing demands for quality and the key issue of raising efficiency. The International Federation of Robotics (IFR) predicted for the past year worldwide sales of 264,000 industrial robots, with 75,000 of these in China. This corresponds to a global increase of 15% compared with the 229,000 industrial robots sold in 2014. For 2016 to 2017 the IFR forecasts annual average growth worldwide of 12%, and even 26% in China. At the end of 2018 about 2.3 million industrial robots are expected to be deployed in factories throughout the world, with an estimated 610,000 in China – primarily in the automotive and electronics sectors.

2015 car sales by region/country
change year-on-year in %



Source: VDA and LMC Automotive

Global sales of industrial robots
in thousands of units



Source: IFR study 2015

Business performance

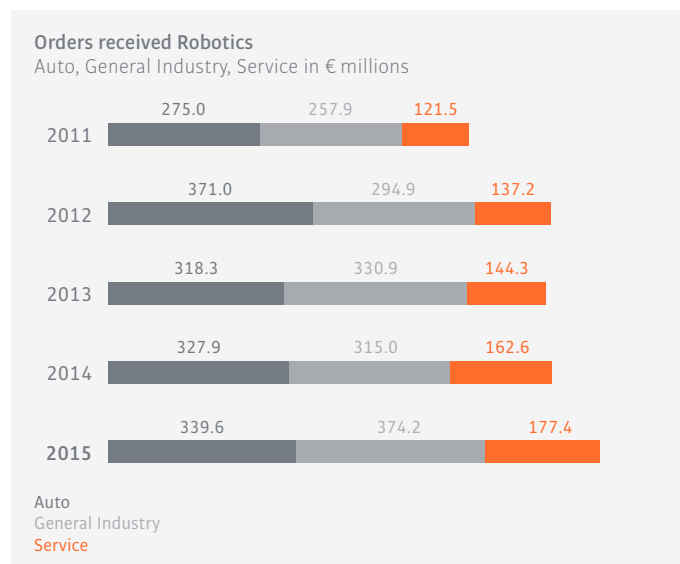
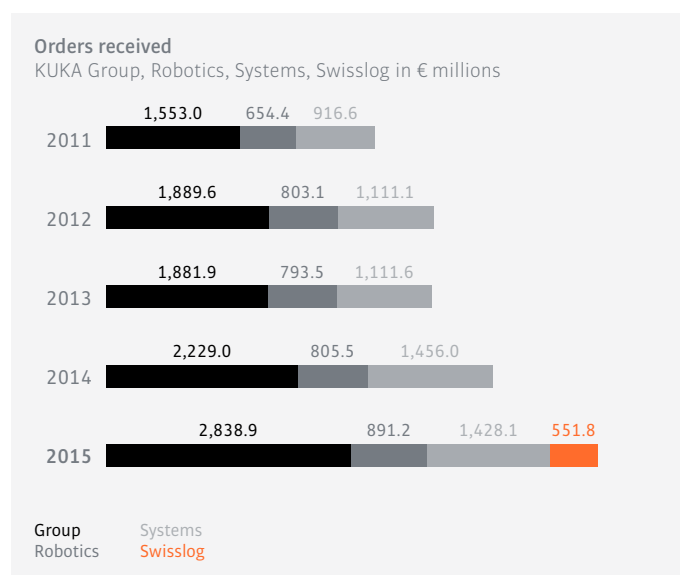
Orders received

KUKA Group posted orders received amounting to €2,838.9 million in the year under review – a significant increase over the previous year’s level (2014: €2,229.0 million). Following initial consolidation at the end of 2014, Swisslog Group contributed €551.8 million to this result. This meant that KUKA was also able to significantly top the previous year’s record value on an organic basis in 2015 with a result of €2,287.1 million. The increase of 10.6% in the Robotics division to €891.2 million was a particularly welcome aspect. In the Systems division too, an excellent result of €1,428.1 million was achieved which was only 1.9% lower than in the record year of 2014.

KUKA Robotics again raised the record level of orders received in 2014 of €805.5 million to €891.2 million in 2015. The systematic orientation of sales in the previous year to the divisions (Automotive, General Industry with Consumer Goods, Electronics, Machine Automation and Metal & Arc Welding) also contributed to this. The anticipated success is already evident. All three segments (Automotive, General Industry and Service) recorded an increase in orders received. Additional measures have been taken to enhance market penetration – for example, reducing delivery times and developing new products specifically for selected customer and market segments. The orders from the automotive industry totaled €339.6 million in 2015 (2014: €327.9 million), representing an increase of 3.6%. Orders received in general industry were well above the previous year (€315.0 million) at €374.2 million, an increase of 18.8%. These were mainly smaller orders which tended to offer higher margins and came from different sectors. Further expansion of business in general industry has therefore been one of the main strategic objectives of the Robotics division for some time. The service business registered further growth compared to the previous year mainly due to the higher number of robots installed, achieving a total of €177.4 million, which represents another increase of 9.1% on the value of €162.6 million recorded in 2014.

KUKA Systems was able to maintain its order situation at about the same high level of the previous year with orders received amounting to €1,428.1 million (2014: €1,456.0 million). This is all the more remarkable in view of the fact that HLS Group and the Tools and Dies business unit were divested in the course of 2015, resulting in a decline of around €28 million in orders received compared with the previous year. This was overcompensated particularly by the excellent performance of the Body Structure segment where, owing mainly to the positive development on the US automotive market, new orders were posted with a value of €729.1 million, 12.0% up on the previous year. However, other segments of Systems, for example Assembly & Test, Pay on Production and KUKA Industries, also contributed to the positive trend. In the Aerospace division, however, KUKA was not quite able to reach the outstanding level of the previous year, which was significantly influenced by a single major contract. Here orders valued at €124.0 million were received.

Swisslog won orders totaling €551.8 million during the past financial year. These orders received are distributed over the Warehouse & Distribution Solutions division (warehouse logistics) with €339.4 million and the Healthcare Solutions division (hospital logistics) with €213.0 million, before taking consolidation effects into account. Whilst Healthcare Solutions does most of its business in North America with 59.7% of orders received, Warehouse & Distribution Solutions historically has a strong base in Europe, obtaining 80.8% of its orders there during the financial year. Moreover, to broaden the geographical basis of the warehouse logistics business, Forte Industrial Equipment Systems Inc., Mason, Ohio, USA was acquired in 2015. The new subsidiary already contributed €16.2 million to orders received in this division during 2015.



Sales revenues

The sales revenues of KUKA Group benefited from the high levels of orders received in the previous quarters. Sales revenues increased to a total of €2,965.9 million, thus almost reaching the three billion mark after only just passing the two billion mark in the previous year with €2,095.7 million. The acquisition of Swisslog Group at the end of 2014 contributed €620.8 million to revenues, which means that sales also reached an all-time high at €2,345.1 million in organic terms, and the previous year's benchmark was again surpassed with a two-digit percentage increase (+11.9%; 2014: +18.1%). Both Robotics and Systems contributed to this development with fresh record figures.

KUKA Robotics was again able to increase its sales revenues to the current level of €909.6 million. Compared to the previous year, revenues rose by 9.0% (2014: €834.6 million). This meant that KUKA Robotics reported an increase in revenues for the sixth year in succession. The average annual growth rate since 2011 has been 8.1%. Growth was even stronger in Asia, particularly in China. KUKA's focus on the Asian market with its own production facility in Shanghai also laid the foundation for sales in China to grow again in 2015 by €92.7 million to currently €316.3 million. Production in China is running at such a high level that KUKA's management is already considering a possible expansion of manufacturing capacities there.

KUKA Systems posted sales revenues exceeding €300 million in each quarter of 2015 for the second year in succession. For the full year, the division registered total sales revenues of €1,471.7 million, representing a significant increase of 14.5% on the previous year (2014: €1,285.6 million). Systems achieved the largest single sale of the year with a North American aircraft construction company. However, the automotive segment also won significant individual sales contracts.

The **Swisslog** division reported revenues totaling €620.8 million, with about two thirds in warehouse logistics and one third in hospital logistics.

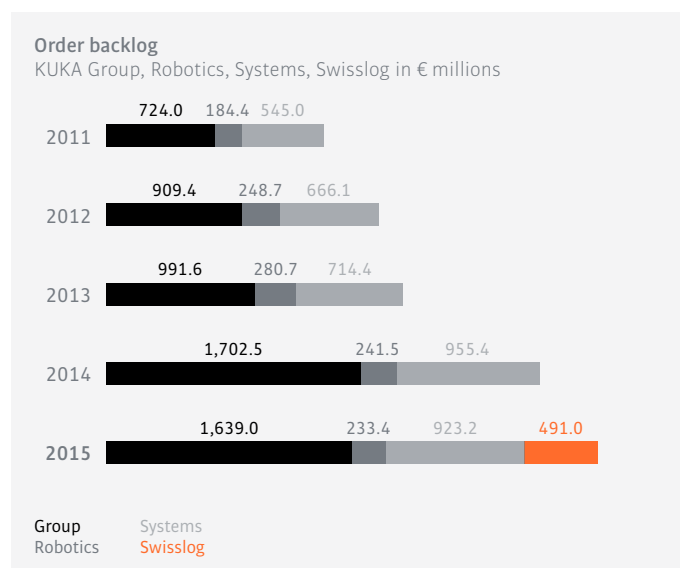
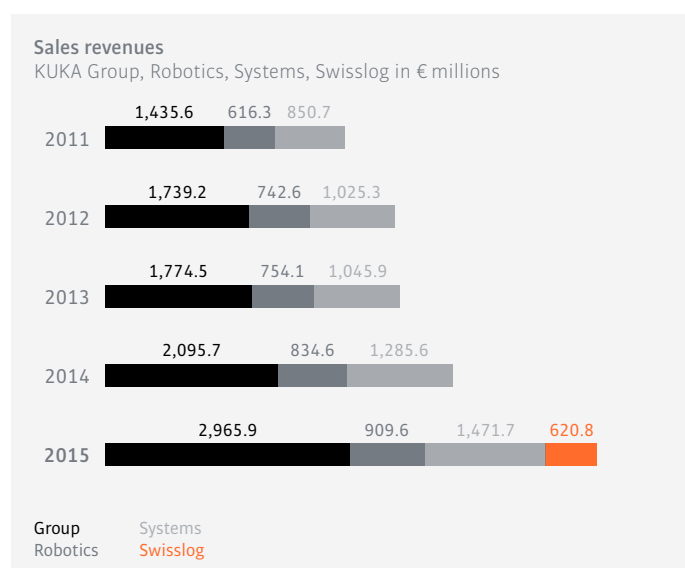
Book-to-bill ratio and order backlog

The book-to-bill ratio, in other words the ratio of orders received to sales revenues, came in at 0.96 at Group level (2014: 1.06). Values of about 1 represent good capacity utilization and values above 1 signify an increased volume of business. The ratio in the Robotics division at 0.98 was similar to the previous year (0.97). The Systems division has a book-to-bill ratio of 0.97 (2014: 1.13), this being primarily attributable to the delay in placing orders for some larger batches during the final quarter of 2015. Swisslog is currently still reporting a low book-to-bill ratio of 0.89 for the year. However, there is a clear improvement of this ratio in the individual quarters, rising from 0.75 in the first quarter to 1.26 in the final quarter of 2015.

	Orders received	Sales revenues	Book-to-bill ratio	Orders received	Sales revenues	Book-to-bill ratio
in € millions	2014	2014	2014	2015	2015	2015
Group	2,229.0	2,095.7	1.06	2,838.9	2,965.9	0.96
Group excl. Swisslog	2,229.0	2,095.7	1.06	2,287.1	2,345.1	0.98
Robotics	805.5	834.6	0.97	891.2	909.6	0.98
Systems	1,456.0	1,285.6	1.13	1,428.1	1,471.7	0.97
Swisslog	-	-	-	551.8	620.8	0.89

KUKA Group's order backlog amounted to €1,639.0 million at year-end 2015. Compared to the value on the reporting date of the previous year, the order backlog decreased by 3.7% (2014: €1,702.5 million). The persistent high order backlog represents over 50% of annual sales revenue and thus ensures a high degree of capacity utilization during fiscal 2016 and to some extent also for 2017 thanks to long-term orders.

KUKA Robotics had an order backlog (without taking framework agreements from the automotive industry into account) of €233.4 million at the end of the year (2014: €241.5 million).



The order backlog at **KUKA Systems** reached a year-end level of €923.2 million, a slight decline from the corresponding figure of €955.4 million in the previous year. The order backlogs will not be reflected in sales revenues until 2016 and to some extent 2017 due to the customary time lapse in project business between receiving orders and generating revenues.

Swisslog recorded an order backlog of €491.0 million at the end of the year (2014: €517.2 million).

EBIT and EBITDA

Earnings before interest and taxes (EBIT) of KUKA Group were €135.6 million and, as expected, €6.2 million lower than the previous year's value of €141.8 million. The consolidation of Swisslog Group had an adverse effect on EBIT. Swisslog's EBIT is still significantly negative at €-45.9 million, particularly as a result of the write-downs amounting to €58.7 million on intangible assets capitalized in the context of purchase price allocation. Without these effects, KUKA's EBIT is €181.5 million – a record high once again. The EBIT margin came in at 4.6% (2014: 6.8%). Excluding Swisslog, the EBIT margin of 7.7% was significantly higher than in the previous year. Eliminating only the effects of purchase price allocation, KUKA Group achieved an EBIT margin of 6.6%. This gratifying rise is attributable to economies of scale as well as to the measures taken to increase efficiency over a sustained period of time not only in production but also in sales and risk management. If KUKA Group's profit from the sale of the Tools and Dies business unit and HLS Group is also excluded, an EBIT margin of 4.1% is obtained.

EBITDA, in other words earnings before interest, taxes, depreciation and amortization, totaled €259.1 million, after €185.3 million in the previous year excluding Swisslog. Excluding Swisslog EBITDA amounts to €234.6 million. The EBITDA margin in 2015 is thus 8.7% (2014: 8.9%), or excluding Swisslog 10.0%. After adjustment for the capital gains on the disposal of the Tools and Dies business unit and HLS Group, the EBITDA margin of KUKA Group amounts to 8.3%.

With an EBIT of €100.2 million, **KUKA Robotics** surpassed the €100 million mark for the first time. This is an increase of €11.3 million on the previous year (2014: €88.9 million). The EBIT margin of 11.0% is also slightly higher than the previous year's figure (2014: 10.7%). The EBITDA of Robotics increased in line with the development of EBIT from €112.0 million in 2014 to the new record high of €126.1 million in the period under review. The EBITDA margin of 13.9% is well above the previous year's figure of 13.4%.

KUKA Systems performed very positively and also generated an EBIT in excess of €100 million for the first time. In fiscal 2015, it amounted to €114.7 million and was therefore considerably above the previous year's value of €80.2 million. This applies even if the proceeds from the sale of HLS Group and the Tools and Dies business unit are excluded. The EBIT margin reached 7.8% – an increase of 1.6 percentage points on the previous year (6.2%). This is primarily attributable to the further improvement in processes, systematic focusing on the cost structure and high capacity utilization due to strong demand. However, the sale of the Tools and Dies business unit and HLS Group, which both tended to have lower margins, also had a positive effect on the overall margin of the division. The EBITDA of Systems increased in parallel with the

development of EBIT from €97.4 million in 2014 to the new record figure of €135.6 million in the period under review. The EBITDA margin of this division increased from 7.6% in 2014 to 9.2% in 2015.

As anticipated, **Swisslog** registered a negative EBIT for the year (€-45.9 million). This was predominantly due to depreciation in connection with the purchase price allocation (€58.7 million) as described above. Swisslog was also burdened by special expenses of €8.1 million for optimizing the business structure and integrating into KUKA Group. This concerns such costs as those for external consultancy, relocation of sites, and adjustment of staff and management structures. Elimination of both these expense items totaling €66.8 million results in a positive EBIT of €20.9 million and an EBIT margin of 3.4%. This is actually higher than the comparable EBIT margin of 2.2% for Swisslog Group, an entity which was still independent in 2014. EBITDA amounts to €24.5 million and the EBITDA margin is 3.9% or, when adjusted for special expenses, 5.3%.

EBIT and EBITDA (Group, Robotics, Systems, Swisslog)

EBIT					
in € millions	2011	2012	2013	2014	2015
Group	72.6	109.8	120.4	141.8	135.6
in % of sales revenues	5.1	6.3	6.8	6.8	4.6
Group excl. Swisslog	72.6	109.8	120.4	141.8	181.5
in % of sales revenues	5.1	6.3	6.8	6.8	7.7
Robotics	51.0	80.2	77.1	88.9	100.2
in % of sales revenues	8.3	10.8	10.2	10.7	11.0
Systems	33.7	47.7	60.8	80.2	114.7
in % of sales revenues	4.0	4.7	5.8	6.2	7.8
Swisslog	-	-	-	-	-45.9
in % of sales revenues	-	-	-	-	-7.4

EBITDA					
in € millions	2011	2012	2013	2014	2015
Group	98.7	138.5	158.4	185.3	259.1
in % of sales revenues	6.9	8.0	8.9	8.9	8.7
Group excl. Swisslog	98.7	138.5	158.4	185.3	234.6
in % of sales revenues	6.9	8.0	8.9	8.9	10.0
Robotics	64.5	95.9	101.9	112.0	126.1
in % of sales revenues	10.5	12.9	13.5	13.4	13.9
Systems	43.0	57.8	71.0	97.4	135.6
in % of sales revenues	5.1	5.6	6.8	7.6	9.2
Swisslog	-	-	-	-	24.5
in % of sales revenues	-	-	-	-	3.9

Financial position and performance

Summary

2015 was another highly successful year for KUKA. In terms of major performance indicators, the company also achieved impressive results without including the respective contributions of Swisslog Group, which was acquired at the end of 2014. The Systems and Robotics divisions achieved new record figures for sales revenues alongside a sustained high level of orders received. Earnings before interest and taxes (EBIT) were at an all-time peak level, and exceeded €100 million for the first time in both divisions. Swisslog is also developing altogether positively, so that fiscal 2015 as a whole can be rated as unreservedly positive for KUKA Group.

Presentation of the financial statements

In the reporting process for KUKA Group, minor changes have been made to the presentation of the income statement and the cash flow statement compared to the previous year. These are intended to further increase the informational value of the financial statements. The information for the previous year has been adapted accordingly to provide a correct basis for comparison. Further details can be found in the notes to the changes in accounting policies and reporting.

In order to allow a comparison of Group figures with those of the previous year, the effects of the acquisition of Swisslog Group (initially consolidated in December 2014) have been shown separately.

Earnings

KUKA Group posted orders received amounting to €2,838.9 million in the year under review – a significant increase over the previous year's level (2014: €2,229.0 million). Swisslog contributed €551.8 million to this result. This meant that with a corresponding amount of €2,287.1 million in 2015 KUKA was able to exceed the previous year's record value even excluding Swisslog.

Record sales revenues

Revenues increased to a total of €2,965.9 million. This not only topped the figure of €2,095.7 million for 2014, but also means that the issued guidance of about €2.9 billion was fulfilled. Swisslog generated revenues of €620.8 million. This means that a new all-time high of €2,345.1 million was also attained for revenues excluding Swisslog. The comparable value for the previous year was exceeded by €870.2 million overall (excluding Swisslog: €249.4 million) or 41.5% (excluding Swisslog: 11.9%).

Key figures KUKA Group

	2011	2012	2013	2014	Group 2015	Swisslog 2015	Organic 2015
in € millions							
Orders received	1,553.0	1,889.6	1,881.9	2,229.0	2,838.9	551.8	2,287.1
Order backlog	724.0	909.4	991.6	1,702.5	1,639.0	491.0	–*
Sales revenues	1,435.6	1,739.2	1,774.5	2,095.7	2,965.9	620.8	2,345.1
EBIT	72.6	109.8	120.4	141.8	135.6	-45.9	181.5
in % of revenues	5.1	6.3	6.8	6.8	4.6	-7.4	7.7
in % of capital employed (ROCE)	21.8	32.3	36.9	28.8	20.0	-14.5	50.3
EBITDA	98.7	138.5	158.4	185.3	259.1	24.5	234.6
in % of revenues	6.9	8.0	8.9	8.9	8.7	3.9	10.0
(Average) capital employed	332.9	339.8	326.2	492.0	676.8	315.9	360.9
Employees (Dec. 31)**	6,589	7,264	7,990	12,102	12,300	2,555	9,745

* The order backlog of the previous year already included a sum of €517.2 million for Swisslog; in this respect there is thus no organic change in 2015.

** Figures for employees are based on the full-time equivalent throughout the annual report.

Since 2009, the Robotics division has reported annual increases in sales revenues – this trend continued in 2015. It was possible to achieve a further 9.0% increase on the very high level of the previous year from €834.6 million to €909.6 million. KUKA fosters this trend by, for instance, systematically orienting sales to particular market segments (Automotive and General Industry) and increasing the focus on its service business. Measures such as the development of products specially designed for particular geographical markets or customer groups have been implemented or initiated. This means that the orders received have increased in all three divisions compared with the previous year and now total €891.2 million (2014: €805.5 million). This is also evident in the sales revenues, which in the Automotive division stayed at about the same high level as the previous year (2015: €337.5 million; 2014: €345.3 million), whereas General Industry (2015: €396.2 million; 2014: €334.3 million) and Service (2015: €175.9 million; 2014: €155.0 million) recorded substantial increases of 18.5% and 13.5% respectively.

The Systems division also achieved a record high in revenues once again. The division generated sales revenues of €1,471.7 million, representing a further significant increase of 14.5% on the previous year (2014: €1,285.6 million). The strong economic development in North America in particular was a major contributory factor. This is also reflected in the regional breakdown of sales revenues – whereas in 2014 under 40% of segment revenues were generated in North America, this figure was already well over 50% in 2015. The order situation in this division – with orders received amounting to €1,428.1 million (2014: €1,456.0 million) – is still as positive as before. The order backlog at the end of the year totaled €923.2 million (2014: €955.4 million). The order backlog is thus theoretically equivalent to about 62.7% (2014: about 74.3%) of annual revenues and allows a high level of capacity utilization to be anticipated for 2016 as well.

The Swisslog division achieved revenues amounting to €620.8 million, with about two thirds in Warehouse & Distribution Solutions and one third in Healthcare Solutions.

Compared to the already significant increase in revenues excluding Swisslog (+11.9%) KUKA Group's gross profit, i.e. revenues less cost of sales, rose disproportionately from €520.2 million (2014) to €600.3 million (2015) excluding Swisslog – representing growth of 15.4%. With the inclusion of Swisslog, the gross profit rose by 34.2% to €698.0 million.

The Group gross margin, i.e. gross profit in relation to revenues, is therefore 23.5% (2014: 24.8%), or 25.6% excluding Swisslog. Both Robotics and Systems contributed to the rise in the gross margin excluding Swisslog.

The Robotics division generated gross profit of €345.8 million and thus recorded an increase of €42.6 million over the previous year (2014: €303.2 million). At the same time the gross margin increased again year-on-year to 38.0% (2014: 36.3%). The improvement was due to material usage being about 2.5 percentage points lower than the previous year; among other things this can be attributed to the increase in production efficiency (focal topic: Production Excellence), advantages of regional production (focal topic: China) and a higher proportion of sales for the Service division. The share of personnel expenditure in production costs measured in relation to revenues was at approximately the same level as the previous year.

Key figures KUKA Robotics

in € millions	2011	2012	2013	2014	2015
Orders received	654.4	803.1	793.5	805.5	891.2
Order backlog	184.4	248.7	280.7	241.5	233.4
Sales revenues	616.3	742.6	754.1	834.6	909.6
EBIT	51.0	80.2	77.1	88.9	100.2
in % of revenues	8.3	10.8	10.2	10.7	11.0
in % of capital employed (ROCE)	38.3	57.2	49.6	53.1	56.6
EBITDA	64.5	95.9	101.9	112.0	126.1
in % of revenues	10.5	12.9	13.5	13.4	13.9
Capital employed	133.2	140.2	155.6	167.3	177.1
Employees (Dec. 31)	2,753	3,180	3,416	3,644	4,232

The Systems division generated an increase in gross profit of €39.9 million, or 18.7%, year-on-year from €213.8 million to €253.7 million. With economies of scale and a reduction in the proportionate personnel costs in the production costs, Systems was able to more than compensate for the cost of materials, which had risen by about two percentage points. As a result, the gross margin improved again compared with the previous year and is now 17.2% (2014: 16.6%).

Key figures KUKA Systems

in € millions	2011	2012	2013	2014	2015
Orders received	916.6	1,115.1	1,111.6	1,456.0	1,428.1
Order backlog	545.0	666.1	714.4	955.4	923.2
Sales revenues	850.7	1,025.3	1,045.9	1,285.6	1,471.7
EBIT	33.7	47.7	60.8	80.2	114.7
in % of revenues	4.0	4.7	5.8	6.2	7.8
in % of capital employed (ROCE)	16.1	23.8	43.0	67.9	87.9
EBITDA	43.0	57.8	71.0	97.4	135.6
in % of revenues	5.1	5.6	6.8	7.6	9.2
Capital employed	209.6	200.5	141.5	118.1	130.5
Employees (Dec. 31)	3,643	3,902	4,362	5,810	5,146

Swisslog also contributed €97.7 million to the gross profit of KUKA Group. In fiscal 2015, the gross margin from Healthcare Solutions was about 10% higher than the gross margin from Warehouse & Distribution Solutions, as in the long-term average. Overall, the gross margin for Swisslog was 15.7%.

Key figures Swisslog

in € millions	2014*	2015
Orders received	-	551.8
Order backlog	517.2	491.0
Sales revenues	-	620.8
EBIT	-	-45.9
in % of revenues	-	-7.4
in % of capital employed (ROCE)	-	-14.5
EBITDA	-	24.5
in % of revenues	-	3.9
Capital employed	154.6	315.9
Employees (Dec. 31)	2,369	2,555

* Swisslog was consolidated for the first time as of December 31, 2014

KUKA Group's functional costs – the costs of administration and sales as well as research and development – rose year-on-year from €372.7 million (2014) to €569.7 million (2015). Functional costs are thus equivalent to 19.2% (2014: 17.8%) of revenues. The operating costs in organic terms amount to €428.1 million, or 18.3% of the cost of sales. The increase in selling expenses in both absolute terms (2014: €161.0 million; 2015: €251.2 million) and relative terms (2014: 7.7%; 2015: 8.5%) is partly attributable to the strengthening of the sales team. KUKA had 1,394 employees in sales as at December 31, 2015, 13.2% more than at the previous year-end, when the number was 1,231. Swisslog also contributed disproportionately to the rise in selling expenses. Swisslog's selling expenses ratio amounts to 10.0%.

The research and development costs realized in the income statement rose to €105.4 million in 2015, up €27.2 million from the prior year's figure of €78.2 million. Swisslog contributed €6.1 million to this amount. Based on the cross-divisional strategy that has been developed and the Group's sustained focus on technology, investments are being actively promoted in ongoing developments and in new and future technologies. Development is always concentrated in the division with the greatest relevant expertise for the topic concerned, but the consistent goal is to develop products and solutions of maximum benefit for the Group as a whole. During the financial year, KUKA pursued a number of different innovations and in particular the following key topics:

Robotics:

- › KR CYBERTECH nano series – new handling and welding robots for low payloads
- › Combination of LBR iiwa with mobile platforms

Systems:

- › flexFELLOW – a solution for integrating mobile robot units into the planning of systems

Swisslog:

- › CarryPick – an automatic goods-to-person system
- › Continued development of solutions in the field of automated palletizing

Please refer to the "Research and development" section of this management report for further information.

Activities to promote project diversity and develop marketable products in good time have included an increase in the number of staff involved in research and development to 729 employees as of December 31, 2015 (December 31, 2014: 549). The additional 180 employees are evidence that KUKA is perceived as an attractive, technologically leading employer and is thus able to attract skilled workers even in this narrow and highly specialized employment segment.

Development expenditure of €18.9 million was capitalized in the financial year (2014: €6.8 million). Swisslog contributed an amount of €11.0 million, so the increase in capitalization excluding Swisslog comes to €1.1 million. Depreciation included in the research and development expenses totaled €16.6 million and is therefore €7.0 million higher than the figure for the previous year (2014: €9.6 million). In addition to its own development work, KUKA is intensifying its collaboration with other companies. Following its participation in KBee AG, Munich, in 2014, KUKA took a stake of 25.1% in RoboCeption GmbH, Munich, and of 30.0% in Barrett Technology, LLC, Newton, Massachusetts/USA during fiscal 2015. RoboCeption specializes in the development, manufacture and distribution of software and hardware products for environmental perception, navigation and action planning for robotic and mobile systems. Barrett Technology focuses on robot-based rehabilitation measures for the upper body. The applications are already undergoing initial medical studies.

The administrative expenses amounted to €213.1 million and therefore equate to 7.2% (2014: 6.4%) of revenues. The significant increase is particularly due to Swisslog, which structurally still has a higher administration expense ratio. Optimization measures have been initiated and are already recognized in the financial year with a total of €8.1 million, of which €4.8 million represents administrative expenses. Excluding Swisslog, the administrative expenses at €139.9 million were maintained almost at the level of the previous year (€133.5 million); the administrative expense ratio excluding Swisslog is 6.0%.

Other expenses and income amounted to a balance of €8.2 million (2014: €-6.3 million). They include expenses for other taxes (2015: €5.9 million; 2014: €4.8 million), income from subsidies (2015: €2.0 million; 2014: €1.1 million) and the proceeds from the sale of HLS Group and the Tools and Dies business unit.

EBIT margin in line with guidance

The (organic) development described above, especially the higher gross profit of KUKA Group, is reflected directly in earnings before interest and taxes (EBIT). EBIT amounted to €135.6 million and, as expected, was therefore €6.2 million lower than the previous year's value of €141.8 million. Without the earnings contribution of Swisslog (€-45.9 million), which was impacted particularly by the scheduled depreciation from the purchase price allocation of €58.7 million and by special expenses of €8.1 million, the EBIT at €181.5 million was 28.0%, or €39.7 million, above the previous year's figure. Taking account of the purchase price allocation for Swisslog results in a Group EBIT of €194.3 million and an EBIT margin of 6.6%.

In the latest guidance for fiscal 2015, KUKA's Executive Board forecast sales revenues of about €2.9 billion and an EBIT margin of 6.5–7.0% before purchase price allocation for Swisslog and including the positive effects of the sale of HLS Group and the Tools and Dies business unit. With revenues of €2,965.9 and an EBIT margin of 6.6% (before purchase price allocation and including the sales effects) KUKA has thus remained true to its forecast.

The Robotics division achieved an EBIT of €100.2 million in 2015, exceeding the previous year's level of €88.9 million by 12.7% and topping the €100 million mark for the first time. The EBIT margin was 11.0% in every quarter of 2015 and therefore also higher than each of the previous year's quarterly values (Q1/14: 10.0%; Q2/14: 10.4%; Q3/14: 10.8%; Q4/14: 10.7%).

With an EBIT of €114.7 million (2014: €80.2 million) Systems also surpassed the €100 million mark for the first time. The EBIT margin of this division increased from 6.2% in 2014 to 7.8% in 2015. After adjustment for the capital gains on the disposal of the Tools and Dies business unit and HLS Group, the EBIT margin amounts to 6.9%.

Swisslog still has a negative EBIT of €-45.9 million owing to the impact of the purchase price allocation and the integration expenses. If adjustments are made for these effects, EBIT then rises to €20.9 million. This corresponds to an EBIT margin of 3.4%.

In keeping with the development of EBIT, Group EBITDA (earnings before interest, taxes, depreciation and amortization) also increased to €259.1 million (2014: €185.3 million) and has therefore also reached a new record high. Write-downs totaling €123.5 million were posted in the period under review (2014: €43.5 million). €25.9 million of this (2014: €23.1 million) was attributable to Robotics, €21.0 million (2014: €17.1 million) to Systems, €70.4 million (of which €58.7 million from purchase price allocation) to Swisslog and €6.2 million (2014: €3.3 million) to other areas. There was therefore a considerable increase in EBITDA for both the Robotics division with €126.1 million (2014: €112.0 million) and the Systems division with €135.6 million (2014: €97.4 million) compared to the previous year. The Group EBITDA margin amounted to 8.7% (2014: 8.9%), or 10.0% excluding Swisslog. The EBITDA margin for Robotics was 13.9% (2014: 13.4%), for Systems 9.2% (2014: 7.6%) and for Swisslog 3.9%. After adjustment for the capital gains on the disposal of the Tools and Dies business unit and HLS Group, the EBITDA margin of KUKA Group amounts to 8.3% and the EBITDA margin of Systems to 8.4%.

Current financial result optimized further

The current financial result improved compared to the previous year from €-7.2 million in 2014 to €-4.2 million in 2015.

in € millions	2014	2015
Interest income from finance lease	6.2	6.9
Remaining interest and similar income	2.5	1.4
Other interest and similar income	8.7	8.3
Interest component for allocations to pension provisions	2.7	2.5
Guarantee commissions	0.7	0.7
Interest expense for the convertible bond	6.8	6.2
Interest expense for the promissory note loan	–	0.8
Interest expense for the corporate bond	5.6	–
Financing costs reclassified to operating results and capitalized	-3.5	-2.9
Foreign currency gains and losses	0.4	0.3
Remaining interest and similar expenses	3.2	4.9
Other interest and similar expenses	15.9	12.5
Current financial result	-7.2	-4.2
One-off charge on Syndicated Senior Facilities Agreement	0.4	1.3
Interest hedge for the promissory note loan	–	1.9
Interest expense from the repurchase of corporate bond shares	17.7	–
Financial result	-25.3	-7.4

Net interest income amounted to €8.3 million (2014: €8.7 million) and mainly included income from bank deposits, income from short-term liquid assets invested in commercial papers and income from finance leases.

Optimization of the long-term financing structure of KUKA had a positive effect on the current financial result in 2015, as had been expected. In 2014, current interest expenses of €12.4 million were posted for the convertible and corporate bonds; in 2015, the comparable figure for the convertible bond and promissory note loan only amounted to €7.0 million. The previous year was burdened with the early repurchase of the corporate bond in May 2014 with a one-off interest expense of €17.7 million. A non-recurrent expense of €1.9 million for the interest rate hedge of the promissory note loan was incurred in fiscal 2015. Further details on this can be found in the following notes on the financial position.

A total of €0.7 million was attributable to guarantee commissions in 2015, as in the previous year. Due to accounting regulations, finance charges amounting to €2.9 million (2014: €3.5 million) had to be reclassified from net interest income to operating profit and recognized under internally generated intangible assets. The net interest expenses for pensions amounted to €2.5 million (2014: €2.7 million). Foreign currency effects from financial assets and liabilities are reported in the net interest income from this financial year onwards. A total expense of €0.3 million is incurred here; the previous year's value was €0.4 million.

Earnings before taxes (EBT) were €125.6 million (2014: €113.3 million). The tax expense of KUKA Group totaled €39.3 million in 2015 (2014: €45.2 million). The tax rate amounted to 31.3% and was thus well below the previous year (2014: 39.9%). The decrease in the tax rate was due to several one-off effects in the year under review such as the tax-exempt sale of HLS Group, foreign tax income relating to other periods and subsidies for R&D work in the USA. A much higher tax rate is expected for the coming year since, also on account of the successful business in the USA with a nominal tax rate of about 38%, the high share of the US companies in the overall result of the Group will have a substantial impact on the tax rate.

Dividend increased to €0.50 per share

Earnings after taxes were positive for the fifth year in a row and once again rose by 26.7% to €86.3 million (2014: €68.1 million). This result is particularly remarkable – also from the aspect of the effects of the purchase of Swisslog Group, which in 2015 still had a strong negative impact. Earnings per share increased accordingly from €1.99 (2014) to €2.39 (2015). This is a further rise of 20.1%, after an increase of 15.7% in 2014 compared with 2013. As a result of the conversions effected during the final quarter of 2015, 2.8 million new shares were created. This increased the weighted average number of shares outstanding during the financial year from about 34.2 million to 36.1 million. Correspondingly the earnings per share decreased by €0.14. The share price was higher than the conversion price of the convertible bond on the balance sheet date as well, with the effect that a further 1.3 million contingent shares exist. This resulted in diluted earnings per share of €2.35 (2014: €1.90).

Due to this positive development, the Executive Board is proposing to the Annual General Meeting that a dividend of €0.50 per share be paid for fiscal 2015. KUKA paid a dividend of €0.40 per share for 2014.

Financial position

Principles and goals of financial management

KUKA Aktiengesellschaft is responsible for the central financial management of all KUKA Group companies. Acquired companies are successively included in the Group's financial management. The integration of the Swisslog Group companies was the focal point of the year. Group financing and interest rate and currency risk management are controlled centrally via KUKA Aktiengesellschaft. The financing and investment needs of Group companies and hedges as part of interest rate and currency management are bundled by KUKA Aktiengesellschaft, which concludes the necessary internal and external financial transactions with Group companies and banks. KUKA Aktiengesellschaft performs these tasks on the basis of a uniform planning and reporting system in which risks related to credit, liquidity, interest rates and exchange rates are recorded. The objective of interest rate and currency management is to minimize the risks involved. Only standard derivative financial instruments are used to hedge risk. The hedging transactions are concluded exclusively on the basis of the hedged item or expected transactions. KUKA has issued a standard set of guidelines for all Group companies for the purpose of managing financing risk. As in previous years, the guidelines were continuously reviewed and optimized during the financial year to ensure that they remained up to date and also transferred to the acquired companies.

Group financing and cash pooling

The Group's financing policy is aimed at securing not only sufficient liquidity reserves in the form of liquid assets and non-utilized, committed long-term credit lines but also sufficient guarantee facilities at all times to be able to ensure the operating and strategic financing requirements of the Group companies and also to have sufficient reserves as a buffer against unforeseen events. The financing requirements of the Group companies are calculated on the basis of the multi-year budget and financial projections and monthly rolling liquidity forecasts over twelve months, each of which includes all the relevant companies consolidated in the Group accounts.

Consolidated income statement (condensed)

	2011	2012	2013	2014	Group 2015	Swisslog 2015	Excl. Swisslog 2015
in € millions							
Sales revenues	1,435.6	1,739.2	1,774.5	2,095.7	2,965.9	620.8	2,345.1
EBIT	72.6	109.8	120.4	141.8	135.6	-45.9	181.5
EBITDA	98.7	138.5	158.4	185.3	259.1	24.5	234.6
Financial result	-18.2	-12.8	-20.0	-25.3	-7.4	-2.9	-4.5
Taxes on income	-16.1	-34.1	-35.4	-45.2	-39.3	12.0	-51.3
Earnings after taxes	29.9	55.6	58.3	68.1	86.3	-36.8	123.1

Payments received on the basis of operating activities of Group companies represent the Group's most important source of liquidity. KUKA Aktiengesellschaft's cash management uses the liquidity surpluses of individual Group companies to meet the liquidity requirements of other Group companies. This central, intra-Group cash pooling optimizes the Group's liquidity position and has a positive impact on net interest income.

Additional enhancements to the financing structure

KUKA Group took additional steps in the financial year to successfully optimize the financing structure.

Promissory note loan successfully issued

KUKA Aktiengesellschaft issued an unsecured promissory note loan with a total volume of €250.0 million on October 9, 2015. The originally planned volume of €150.0 million was increased because the issue was heavily oversubscribed. The additional funds are being used to finance the increasing working capital requirements and to support the growth strategy of KUKA Group.

The total volume of the loan was placed in two separate tranches. Tranche 1 has a volume of €142.5 million with a term to maturity of five years; tranche 2 has a volume of €107.5 million and a term to maturity of seven years. The issue price was 100.0% with a denomination per unit of at least €0.5 million or a multiple thereof. Repayment shall occur at 100.0%, payable in one sum on maturity of each fixed-term tranche. The promissory note loan carries interest coupons of 1.15% for tranche 1 and 1.61% for tranche 2.

Syndicated loan for KUKA Aktiengesellschaft

In April, the new syndicated loan agreement took effect with a term ending on March 30, 2020. The term can be extended twice by one year at a time on the basis of extension options. This allowed KUKA to prematurely refinance the syndicated loan agreement concluded in December 2013 and at the same time to take account of the altered structures and requirements due to growth and the integration of Swisslog. In this context, it was possible, amongst other things, to redeem the existing syndicated senior facilities agreement of Swisslog Holding AG. The new contract provides for a surety and guarantee line in the amount of €140.0 million and a working capital line, which can also be used for sureties and guarantees, in the amount of €90.0 million. This results in a volume €70.0 million higher than with KUKA's previous contract.

The new syndicated loan agreement is unsecured and contains only the customary equal treatment clauses and negative pledges. Moreover, it was possible to benefit from the improved market situation to obtain significantly improved terms.

Convertible bond

The convertible bond issued in two tranches in 2013 also benefited from the excellent business development and credit rating of KUKA Group in 2015. The market price of 216.05% at year-end (December 31, 2014: 164.34%) significantly exceeded the issue price.

Numerous bondholders made use of their conversion rights during the fourth quarter. A total nominal volume of €102.8 million was converted into 2.8 million new KUKA shares. A nominal volume of €47.2 million was thus outstanding as at December 31, 2015.

The new shares are already entitled to a dividend in 2016. As a result of the conversions, KUKA's equity capital increased by €96.1 million.

In addition to the guaranteed credit line from the syndicated loan, the Group still had additional guarantee facilities in 2015 via bilateral agreements with various surety companies for the purpose of supporting operating activities. Overall, KUKA has access to external guarantee facilities totaling €319.0 million as of December 31, 2015 (2014: €199.0 million, excluding Swisslog). These have been utilized in the amount of €148.0 million (2014: €90.4 million).

KUKA Group's financing requirements are primarily covered by the following available elements:

- 1) The €230.0 million syndicated loan agreement signed in April 2015 with a term extending to March 2020. Cash advances up to a volume of €90.0 million are possible with this agreement.
- 2) Bilateral guarantee facility agreements with banks and surety companies in the amount of €89.0 million (as of December 31, 2015).
- 3) The €250.0 million face-value promissory note loan issued in 2015 with terms extending to October 2020 and October 2022.
- 4) The €150.0 million convertible bond issued in 2013; following the conversions which took place during the final quarter of 2015, there is an outstanding nominal volume of €47.2 million.

From the perspective of the Executive Board, the measures taken ensure that KUKA Group has appropriate long-term financing and the necessary leeway to quickly implement important strategic decisions.

Further improved assessment by rating agencies

The stable financial situation is also reflected in the fact that the two rating agencies Moody's and Standard & Poor's have raised the credit rating once again. Having already raised the rating three times in 2013 and 2014, Moody's gave its Ba2 rating a positive outlook in June 2015. In acknowledgement of the further improvement in key financial indicators, and in particular also the notable diversification in market development leading to a greater share in general industry (logistics, aerospace, healthcare) as a consequence of the integration of acquisitions in 2015, Standard & Poor's raised its rating from BB to BB+ while retaining the stable outlook.

Consolidated cash flow statement (condensed)

in € millions	2011	2012	2013	2014	2015
Cash earnings	65.9	92.4	115.3	181.3	260.8
Cash flow from current business operations	36.4	117.9	221.0	184.7	169.2
Cash flow from investment activities	-29.9	-40.8	-125.6	-356.9	-73.5
Free cash flow	6.5	77.1	95.4	-172.2	95.7

Cash earnings up significantly again

The cash earnings, consisting of earnings after taxes adjusted for income taxes and net interest as well as for cash-neutral depreciation and write-downs of property, plant and equipment, and amortization and write-downs of intangible assets as well as other non-cash expenses and income, again improved significantly. The positive value of €181.3 million reported in 2014 was increased substantially by 43.8% to €260.8 million during the financial year. This effect is mainly attributable to the increase in earnings after taxes (2015: €86.3 million; 2014: €68.1 million) and the sharp rise in amortization of intangible assets, mainly due to write-downs connected with the purchase price allocation for Swisslog Group.

Cash flow from current business operations of KUKA Group declined slightly to €169.2 million (2014: €184.7 million). Higher tax payments and also the result from the disposal of fixed assets contributed to this. The trade working capital decreased by about €20 million compared with the previous year and was as follows at the end of the reporting period:

Trade Working Capital

in € millions	2011	2012	2013	2014	2015
Inventories less advance payments	128.3	126.9	133.9	194.1	225.3
Trade receivables and receivables from construction contracts	339.8	340.6	348.6	612.9	658.3
Trade payables and liabilities from construction contracts	260.6	231.7	304.4	522.2	619.0
Trade working capital	207.5	235.8	178.1	284.8	264.6

Overall, trade working capital declined by €20.2 million to €264.6 million. Inventories less advance payments received were higher year-on-year (+€31.2 million). This is partly attributable to the Robotics division's advance production for shipments due in early 2016 in addition to the higher inventories required for the current volume of business. Trade receivables and receivables from construction contracts increased by €45.4 million to €658.3 million, while trade payables and liabilities from construction contracts rose by €96.8 million to €619.0 million.

High level of investment continues

During the 2015 financial year, KUKA again made high investments in the future. In total, the volume of investment amounted to €107.0 million (2014: €94.3 million). This included major capital expenditure in the research and development sector and increased investment in tangible assets. The carrying amount of the company's own development work and internally generated intangible assets totaled €38.1 million (2014: €30.3 million). (For information on the development focuses, see the "Research and development" section, page 28 et seq.)

Investments in intangible assets and property, plant and equipment

in € millions	2011	2012	2013	2014	2015
Group	30.3	42.8	74.7	94.3	107.0
of which Robotics	20.1	30.1	30.8	30.4	39.4
of which Systems	8.2	9.6	15.2	28.7	23.5
of which Swisslog	–	–	–	–	22.2
of which other*	2.0	3.1	28.7	35.2	21.9

* incl. consolidations

Investments in tangible assets amounted to €76.3 million in the year under review (2014: €78.4 million) and were attributable to technical equipment and machinery (2015: €19.1 million, 2014: €12.2 million), other assets/operating and office equipment (2015: €30.1 million, 2014: €13.4 million) and advances paid and construction in progress (2015: €15.9 million; 2014: €41.3 million).

Broken down by division, capital expenditure was as follows in 2015: in the Robotics division, the corresponding figure was €39.4 million (2014: €30.4 million). In addition to the capitalized development work, most of the investments were made in technical equipment and machinery, particularly for the optimization of production, but also for operating and office equipment. The Systems division registered additions of €23.5 million (2014: €28.7 million). These additions related to such items as production machinery and extensions to buildings in the USA and France. Swisslog mainly invested in IT structures designed to improve the internal processes and to connect customers, and in customer applications. The capital expenditure of KUKA Aktiengesellschaft (after consolidations) amounted to €21.9 million (2014: €35.2 million) and consisted mainly of the Development and Technology Center (DTC) completed in Augsburg in 2015, including the necessary fixtures and fittings. At year-end the carrying amount for the DTC was €63.8 million.

Payments for the acquisition of consolidated companies and other business units totaled €44.4 million (2014: €284.6 million) and are primarily attributable to the acquisition of the outstanding shares in Swisslog Group.

in € millions	2014	2015
Company acquisitions		
Swisslog Holding AG, Buchs (AG)/Switzerland	265.8	17.5
Forte Industrial Equipment Systems Inc., Mason, Ohio/USA	–	11.4
UTICA Enterprises, Shelby Township, Michigan/USA	1.4	6.7
Alema Automation SAS, Bordeaux/France	11.4	–
Other	0.2	3.1
Total	278.8	38.7
Investments accounted for at equity		
Barrett Technology, LLC, Newton, Massachusetts/USA	–	2.7
KBee AG, Munich	3.3	3.0
Yawei Reis Robot Manufacturing (Jiangsu) Co., Ltd./China	2.5	–
Total	5.8	5.7
Total payments	284.6	44.4

The sale of business units in the context of optimizing the investment structure brought KUKA total funds of €47.2 million.

Positive free cash flow

Cash flow from investment activities (2015: €-73.5 million; 2014: €-356.9 million) along with cash flow from current business operations resulted in a positive value for free cash flow of €95.7 million. In the previous year, free cash flow was still clearly negative, at €-172.2 million; this was particularly due to the acquisition of Swisslog Group.

High cash flow from financing activities

At year-end KUKA shows a positive cash flow from financing activities amounting to €204.1 million. In the previous year, it was still clearly negative with a figure of €-140.3 million. This is attributable to several one-off effects. On the one hand, KUKA repaid its high-interest bond in 2014. This caused cash outflows of €173.0 million and high one-off interest payments amounting to €30.4 million. In 2015, KUKA placed a promissory note loan of nominally €250.0 million at effective interest rates of 1.24% (5-year tranche) and 1.67% (7-year tranche). Through the improvement in the financing structure, the interest payments were reduced by €20.3 million to €10.1 million.

Consolidated net liquidity

in € millions	2014	2015
Cash and cash equivalents	192.1	496.2
Current financial liabilities	22.5	2.1
Non-current financial liabilities	137.0	294.2
Consolidated net liquidity	32.6	199.9
Cash and guarantee facilities from Syndicated Senior Facilities Agreement	268.1	230.0
Guarantee facility from banks and surety companies	89.0	89.0
ABS program line	25.0	25.0

Due to the positive business development and reduction of the convertible bond through conversion to shares, KUKA posted a net liquidity (the balance of liquid assets and current and non-current financial liabilities) at the end of the financial year amounting to €199.9 million (2014: net liquidity of €32.6 million). The cash and cash equivalents available to KUKA Group as of December 31, 2015 totaled €496.2 million (December 31, 2014: €192.1 million).

Net worth

On the assets side, non-current assets rose to €823.3 million as of December 31, 2014 (December 31, 2014: €798.0 million). This increase is mainly due to the investments made during the financial year (please refer to notes on the financial position). In contrast, there was amortization of €58.7 million on intangible assets taken over during the acquisition of Swisslog, particularly know-how and technology. A value of €254.9 million was recorded for goodwill (2014: €225.9 million). The increase of €29.0 million stems not just from initial recognition of goodwill of €8.8 million resulting from the purchase of Forte Industrial Equipment Systems Inc., Mason, Ohio/USA but mainly from exchange rate effects. The increase in tangible assets amounted to €25.2 million. The majority of this amount is attributable to the construction of the Development and Technology Center in Augsburg which was completed on schedule in 2015, and to investments in technical equipment and machinery. The rise in financial investment is the result of KUKA's investment in several start-up companies and the issuance of a vendor loan in connection with the divestment of HLS Group. The reported figure for investments

accounted for at equity (2015: €6.6 million; 2014: €5.6 million) relates to KBee AG, Munich, the joint venture Yawei Reis Robot Manufacturing Co., Ltd., Jiangsu, China and the stake in Barrett Technology, LLC, Newton, Massachusetts, USA acquired in December 2015. Deferred tax assets amounted to €49.2 million (2014: €48.2 million), with €11.2 million being attributable to losses carried forward (2014: €11.1 million).

Group net worth

in € millions	2011	2012	2013	2014	2015
Balance sheet total	1,078.0	1,137.4	1,377.1	1,979.5	2,381.7
Equity	252.4	297.5	379.1	541.1	732.5
in % of balance sheet total	23.4	26.2	27.5	27.3	30.8
Net liquidity/debt	-32.6	42.8	146.5	32.6	199.9

Asset-side trade working capital, which is the sum of inventories, trade receivables and receivables from construction contracts, increased by €70.8 million. The value of the current assets as of December 31, 2015 was €1,558.4 million, a considerable increase from the previous year's figure of €1,181.5 million. In addition to the rise in asset-side trade working capital resulting from business activities, the increase in cash and cash equivalents (+€304.1 million) as a consequence of the positive development of business and the placement of the promissory note loan are particularly noteworthy. The items "Assets available for sale" and "Liabilities from assets held for sale" related to HLS Group in the previous year.

The balance sheet total of KUKA Group rose by €402.2 million from €1,979.5 million as of December 31, 2014 to €2,381.7 million as of December 31, 2015.

Marked increase in equity ratio to over 30%

Despite the 20.3% growth of the balance sheet total, KUKA achieved an increase in the equity ratio from 27.3% in the previous year to 30.8%. As well as the high net income figure of €86.3 million (2014: €68.1 million), the conversion of units in the convertible bond into 2.8 million new KUKA shares also contributed to this development. The conversions resulted in an increase in equity of €96.1 million. Differences due to currency translation, particularly from the Swiss franc, US dollar and Chinese renminbi, have also had a positive effect of €43.3 million on equity. Actuarial gains from pension accounting totaled €2.0 million. Payment of the 2014 dividend to the shareholders of KUKA Aktiengesellschaft reduced equity by €14.3 million. Minority interests were reduced by €16.8 million to €-0.5 million primarily due to the purchase of the remaining shares in Swisslog. Overall, equity rose by €191.4 million or 35.4% to €732.5 million as of December 31, 2015.

Non-current financial liabilities mainly relate to the promissory note loan of nominally €250.0 million placed in October 2015 and the outstanding units of the convertible bond amounting to nominally €47.2 million (2014: nominally €150.0 million). The figure for the previous year also contained a share in the corporate bond which was redeemed in May 2015. Current financial liabilities included the utilization of cash lines on the part of a foreign subsidiary and interest accruals for the convertible bond and promissory note loan (in the previous year an avilment by Swisslog under its syndicated senior facilities agreement was additionally recorded here).

Current liabilities increased from €1,096.2 million as of December 31, 2014 to €1,160.6 million as of December 31, 2015. The change in the liability-side trade working capital referred to above (+€91.0 million) was the main reason for this. The other provisions (€-7.1 million) and the other liabilities and accruals (€-0.2 million) are at approximately the same level as the previous year. The other liabilities include liabilities in the personnel sector of €134.6 million (2014: €135.0 million) and the contingent purchase price liabilities for Reis Group inter alia amounting to €58.5 million (2014: €59.0 million).

Increase in working capital and capital employed due to business performance

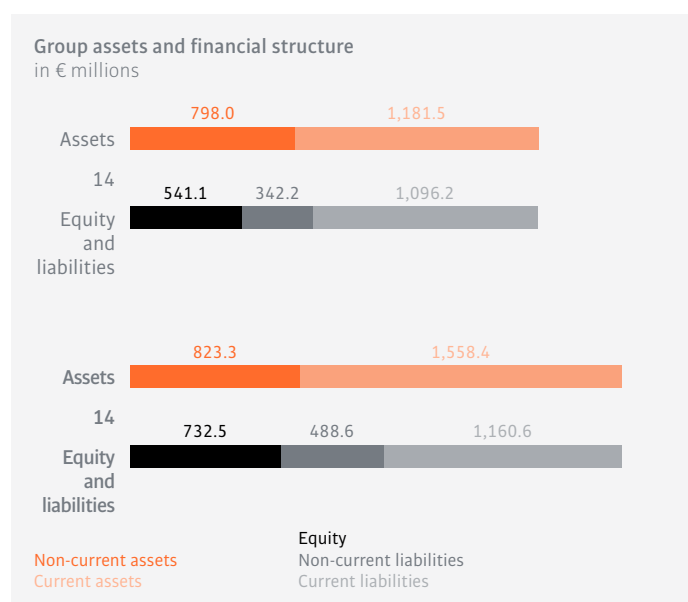
During fiscal 2015 the focus of KUKA Group was again on active management of the working capital and further optimization of supplier-side payment terms. However, the successes attained were insufficient to compensate for the decrease in negative working capital as a result of business development, with the effect that the working capital rose by €5.8 million overall to €-63.6 million (2014: €-69.4 million). This meant that in the financial year under review the current business operations could again largely be financed from customer prepayments and supplier liabilities. In terms of the individual divisions, as also in previous years, working capital was negative or balanced at Systems and Swisslog (2015: €-124.5 million and €+5.3 million, 2014: €-139.8 million and €-7.8 million) and positive at Robotics (2015: €86.9 million; 2014: €97.8 million).

An important key figure of KUKA Group is the return on capital employed (ROCE). The capital employed is calculated as the average of capital employed at the beginning and end of the financial year. On average, KUKA Group's capital employed in 2015 and 2014 amounted to €676.8 million and €492.0 million respectively. This significant increase is mainly the result of the addition of Swisslog Group. On account of the date of initial consolidation at the end of the 2014 financial year, the average value for the previous year is distorted. Conversely, with regard to the single-period capital employed at the respective year-end, there is only an increase of €13.5 million to currently €683.6 million from 2014 to 2015. Swisslog Group also did not make any earnings contribution in the previous year due to the initial consolidation date. Consequently there is also a distortion in the return on capital employed (ROCE) compared with the previous year. The ROCE declined from 28.8% in 2014 to 20.0% in 2015.

Of more relevance in a year-on-year comparison is the ROCE for the respective divisions. With average capital employed of €177.1 million (2014: €167.3 million), the Robotics division generated a ROCE of 56.6%, thus improving on the previous year's figure of 53.1%. The Systems division was able to report a significant improvement in ROCE to 87.9% (2014: 67.9%) with average capital employed of €130.5 million (2014: €118.1 million). After adjustment for the capital gains on the disposal of the Tools and Dies business unit and HLS Group, the rate of return amounts to 78.2%. The ROCE in the Swisslog division remained negative in 2015 owing to the high amortization of the purchase price allocation (-14.5%). If this is excluded, Swisslog had a positive ROCE of 4.1%.

Group assets and financial structure

in € millions	2014	2015
Current assets	1,181.5	1,558.4
Non-current assets	798.0	823.3
Assets	1,979.5	2,381.7
Current liabilities	1,096.2	1,160.6
Non-current liabilities	342.2	488.6
Equity	541.1	732.5
Liabilities	1,979.5	2,381.7



Notes to the financial statements of KUKA Aktiengesellschaft

KUKA Aktiengesellschaft acts as the Group's management holding company with central management responsibilities such as accounting and controlling, financing, human resources, legal and financial communications. Its financial position is determined primarily by the activities of its subsidiaries, as illustrated by the direct allocation of the management companies of the Robotics division (KUKA Roboter GmbH), Systems division (KUKA Systems GmbH) and Swisslog division (Swisslog Holding AG).

KUKA Aktiengesellschaft prepares its annual financial statements 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 are also available on the company's website www.kuka.com.

Income statement of KUKA Aktiengesellschaft (HGB)

in € millions	2014	2015
Other company-produced and capitalized assets	0.1	1.2
Other operating income	55.1	108.9
Personnel expense	-32.7	-38.8
Depreciation and amortization of tangible and intangible assets	-3.3	-6.3
Other operating expenses	-44.2	-86.8
Income from participations	137.0	149.7
Income from other securities	0.9	0.0
Other interest and similar income	8.3	5.2
Depreciation and amortization of financial assets and short-term securities	-15.8	0.0
Interest and similar expenses	-24.7	-9.1
Income from ordinary activities	80.7	124.0
Taxes on income	-15.0	-8.2
Net profit	65.7	115.8
Profit carry-forward from the previous year	24.4	43.0
Transfer to retained earnings	-32.8	-57.9
Balance sheet profit	57.3	100.9

KUKA Aktiengesellschaft balance sheet (HGB)

	2014	2015
Assets in € millions		
Fixed assets		
Intangible assets	2.2	2.1
Tangible assets	72.9	88.4
Financial investments	435.0	469.3
	510.1	559.8
Current assets		
Inventories	0.0	0.0
Receivables from affiliated companies	225.4	233.8
Other receivables and assets	5.8	5.6
Securities	10.0	–
	241.2	239.4
Cash and cash equivalents	71.6	330.2
	312.8	569.6
Prepaid expenses	0.5	0.6
	823.4	1,130.0
Liabilities in € millions		
Equity		
Subscribed capital	92.8	100.1
Capital reserve	166.7	262.2
Other retained earnings	90.3	148.2
Balance sheet profit	57.3	100.9
	407.1	611.4
Provisions		
Pension provisions	11.6	11.7
Provision for taxes	12.6	15.0
Other provisions	29.9	31.2
	54.1	57.9
Liabilities		
Bonds	150.0	47.2
Liabilities due to banks	1.1	251.1
Trade payables	7.7	11.1
Accounts payable to affiliated companies	199.8	147.4
Liabilities to provident funds	2.6	2.6
Other liabilities	1.0	1.3
	362.2	460.7
	823.4	1,130.0

Results of operations of KUKA Aktiengesellschaft

The earnings of KUKA Aktiengesellschaft are determined primarily by the earnings of its subsidiaries, its financing activities and the expenses and income relating to the company's holding function. Income from ordinary business activities amounted to €124.0 million and was therefore considerably above the previous year's result (2014: €80.7 million).

Other operating income mainly related to cost allocations (2015: €40.1 million; 2014: €28.9 million), direct costs passed on, for example from facility management (2015: €13.0 million; 2014: €12.8 million), and income from the rental of buildings to KUKA Group companies (2015: €5.5 million; 2014: €4.6 million). Currency translation gains, primarily from USD, CHF and BRL, amounting to €34.7 million (2014: €7.1 million) were accounted for. Additionally an impairment loss of €13.7 million applied to an equity investment in the previous year was reversed in full. The rise in other operating expenses was driven by various factors including expenses not eligible for capitalization in relation to the construction of the new Development and Technology Center in Augsburg and in particular the currency translation losses which amounted to €34.2 million (2014: €6.3 million).

The increase in personnel expenditure from €32.7 million to €38.8 million is attributable not only to the increase in the number of employees but also to higher expenses for variable remuneration components, partly as a result of the increase in the share price. The company had 352 employees on the balance sheet date (2014: 279 employees).

Income from participations amounted to €149.7 million (2014: €137.0 million) and was again above the previous year's value. This is in particular due to the higher dividend payment of the US subsidiary in the year under review (2015: €40.6 million; 2014: €24.4 million). Earnings contributions from the German companies allocated to KUKA Aktiengesellschaft via the profit and loss transfer agreements are €109.1 million (2014: €112.6 million).

The net interest result was €-3.9 million, which was well below the previous year's level (€-16.4 million). In the previous year the net interest result was impacted by the one-off effects of repurchasing the corporate bond. Due to the decrease in market interest rates, finance charges credited or charged by KUKA Aktiengesellschaft to subsidiaries were significantly lower compared to the previous year. In the previous year KUKA Aktiengesellschaft and its associated companies posted net interest income of €7.1 million – the value this financial year was €4.5 million.

The amortization of financial assets primarily relates to the valuation of Swisslog shares at the stock exchange price on the last trading day of 2014 amounting to CHF 1.31. During the reporting period, the corresponding amount is included in other operating income as a write-up.

KUKA Aktiengesellschaft as the controlling company of the German consolidated tax group recognizes the income taxes of the tax group on the income statement as €8.2 million (2014: €15.0 million).

Overall, net income of KUKA Aktiengesellschaft amounted to €115.8 million (2014: €65.7 million). Deducting the transfer to revenue reserves and offsetting against the profit carried forward results in a balance sheet profit of €100.9 million for fiscal 2015 (2014: €57.3 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. KUKA Aktiengesellschaft obtained external financing by placing a €150.0 million convertible bond on the capital market in February and July 2013. In the fourth quarter of 2015, bondholders took advantage of the conversion option and converted a nominal amount of €102.8 million into 2.8 million new KUKA shares. This increased the subscribed capital by €7.3 million and the capital reserve by €95.5 million. The liability resulting from the convertible bond was correspondingly reduced to €47.2 million.

A further element in its external financing was KUKA Aktiengesellschaft's placement of a €250.0 million promissory note loan in October. The total volume is divided into two tranches, the first of which is for €142.5 million with a term of five years and the second is for €107.5 million with a term of seven years. The promissory note loan is reported in liabilities due to banks.

In addition, KUKA Aktiengesellschaft prematurely refinanced the syndicated loan in April 2015 that it had concluded in December 2013, and at the same time redeemed the existing Swisslog Holding AG syndicated senior facilities agreement. The new contract provides for a surety and guarantee line in the amount of €140.0 million and a working capital line, which can also be used for sureties and guarantees, in the amount of €90.0 million. (For further details, see "KUKA Group financial position" and the notes (26)).

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. The balance of these receivables and liabilities was net receivables of €86.4 million (2014: €25.6 million). This increase in the subsidiaries' liquidity requirements was mainly the result of profit transfers during the financial year and the incorporation of Swisslog Group. This development was offset by the continued good active management of the working capital of the subsidiaries involved in cash pooling.

Overall, the liquid assets of KUKA Aktiengesellschaft increased from €71.6 million to €330.2 million and the financial liabilities from €151.1 million to €298.3 million as a result of the measures described.

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. For information on receivables from and liabilities to affiliated companies and financial items, please refer to the information on KUKA Aktiengesellschaft's financial position.

Capital expenditure for intangible and tangible fixed assets amounting to €22.6 million (2014: €35.4 million) was offset by depreciation, amortization and write-downs amounting to €6.5 million (2014: €3.4 million). Capital expenditure in the financial year notably included the Development and Technology Center in Augsburg, which has now been completed. KUKA Aktiengesellschaft's direct equity investments in its subsidiaries are reported under financial assets. The additions during the financial year primarily relate to the purchase of outstanding shares in Swisslog Holding AG, Buchs, Switzerland, and further milestone-based payments to KBee AG, Munich.

Short-term securities in the previous year (€10.0 million) related to freely available funds invested as part of corporate liquidity management with a term of four months.

Earnings for the financial year are reflected in the changes in equity as well as the convertible bond conversion described above. Dividend payments totaling €14.3 million for the 2014 financial year had the effect of reducing equity. The equity ratio of KUKA Aktiengesellschaft amounted to 54.1% as of December 31, 2015 (2014: 49.4%).

The net impact of these changes on the total assets of KUKA Aktiengesellschaft was an increase of €306.6 million to €1,130.0 million compared to the reporting date of the previous year.

Non-financial key performance indicators

Sustainability

Sustainability – a continuous process

At KUKA, sustainability is synonymous with responsible business practices combined with protection of the environment and resources. In order to face up to its responsibility towards employees, customers, investors, society and the environment, it is important for the company to develop continuously and remain successful worldwide. In the year under review, the company pursued a number of projects.

A good working environment is good for health

Employee health is of great importance for KUKA. The increase in competitive pressure and high requirements in terms of quality and speed lead to rising demands on staff. It is thus important for KUKA to create a work environment that encourages flexibility and promotes health. As a technology group which is experiencing growth on a global scale, KUKA is reliant on a qualified, committed and efficient workforce.

KUKA offers a human resources policy adapted to accommodate the stage of life reached by its employees and to make it easier to combine work and family life. Maximum flexibility is important in this context. KUKA strives to achieve this by implementing a variety of measures, including flexitime work, telecommuting, the daycare center at its Augsburg site, sponsored by the non-profit association Orange Care e.V., a kid's holiday club and other benefits such as a laundry service.

Each year, KUKA's health management program for employees is devoted to particular topics concerning occupational healthcare. The main elements are chosen especially to counteract the main causes of various failings of modern society, such as physical inactivity, poor nutrition, excess weight and stress. In the year under review, the focus was on nutrition. Presentations were held, for example, on the subject of nutrition and how it can affect health. A KUKA health day was also organized at which employees could inform themselves on the topics of nutrition, drinking water and movement as well as trying out various sports and relaxation methods. The central focus of the health day was on colon cancer prevention. Skin screening was also offered.

Key social figures

	2014	2015
Number of employees (Dec. 31)	12,102	12,300
of which apprentices	372	348
Average length of service (years)	8.8	7.6
Sick leave ratio in %	3.0	3.2
Fluctuation in %	11.2	9.6
Accidents per 1,000 employees (Germany)	10.2	9.8*

* Not including Obernburg

In the year under review, the Group-wide absenteeism rate due to sick leave remained at a low level of 3.2% compared to other companies in the same sector. The average length of service in 2015 was 7.6 years. This represents a slight drop on the previous year and is similar to that found in other companies.

At 9.6%, staff turnover (fluctuation) is down on the previous year's figure of 11.2%. This rate appears to be relatively high for industry standards. However, this figure includes not only those leaving the company for other employment but also all internal transfers among the companies of KUKA Group.

Even though the workload at KUKA is high in comparison with other companies in the sector, the number of accidents reported is very low. In 2015, 9.8 accidents were recorded for every 1,000 employees. KUKA constantly endeavors to improve work safety so as to reduce the number of accidents further.

Details of the workforce and human resources policy can be found in the "Employees" section from page 51 on.

Orange Care e.V. – KUKA colleagues get involved

KUKA employees are quick to seize the initiative and become involved in social matters. Orange Care e.V., an association founded in 2012 by KUKA employees, has set itself the task of supporting people in need and in particular young people and families. KUKA employees supported Orange Care e.V. in the year under review with donations enabling the association to shoulder the costs of toys for the Orange Care daycare center. The association also got involved with refugees and supported two refugee hostels in Augsburg with material donations. Furthermore, the association was also able to help the family of a KUKA employee who was in a difficult situation.

Apprentices demonstrate social commitment

In the year under review, KUKA apprentices helped people affected by the tornado that left a trail of destruction in the Augsburg region. They organized a collection for the victims in a village near Augsburg to assist them financially with the rebuilding of their destroyed houses. The Christmas parcel campaign "Geschenk mit Herz" ("A gift from the heart") run by the charity Humedica e.V. was organized at the Augsburg site by the apprentices. Moreover, the KUKA training workshop has also offered internships for refugees. The internship provides insights into the world of everyday work and is a useful source of career guidance.

KUKA is a member of Blue Competence

Blue Competence is the sustainability initiative of the German engineering association VDMA (Verband Deutscher Maschinen- und Anlagenbau) and the European engineering platform for issues relating to sustainability. KUKA has committed itself to compliance with the Blue Competence codex. In the year under review, the initiative organized a competition for apprentices with the slogan "Sustainability is a business model". KUKA participated with a film.

KUKA is also a member of the Chamber of Industry and Commerce and the International Federation of Robotics (IFR). Both organizations have special working groups dealing with the topics of energy efficiency and sustainability.

Ergonomic and effective

The demographic shift and the changes in the working and living environment have an impact on employee performance; this calls for forward-looking and sustainable solutions that help maintain health. In the year under review, the work processes started in 2014 were further improved. This included the automation of non-ergonomic tasks with the aim of reducing the physical demands placed on employees in production. The handling and joining of heavy components (base frame, gear units, rotating column) were automated, as was the screw fastening of components – a task that required great physical exertion. Additional ergonomic workstations with lifting tables were set up. These enable production staff to adjust their workstations to their individual needs so that they can work in an upright position with less strain on the back and with less effort being required. Certain logistics tasks, such as screw logistics, have also been automated to relieve employees of simple and monotonous activities, allowing them to work more effectively on more challenging tasks. Production employees are supported by a KMR iiwa – an autonomously navigating platform on which an LBR iiwa is installed. KMR iiwa moves autonomously between the central warehouse and the target rack, which it loads with the corresponding boxes of screws.

Sustainable construction concepts at Augsburg

The Development and Technology Center (DTC) at the KUKA site in Augsburg was completed in 2015 and work was also stepped up on the conversion of the robot assembly line.

In all major building works in the year under review, KUKA undercut the legal requirements of the current standards laid down in the EEG & EnEV (Renewable Energies Act and Energy Saving Ordinance) by up to 30%, as is already evident in the insulation of the facade, windows and doors. Moreover, the choice of materials will make it possible to dismantle and recycle these building components later in an ecologically compatible manner.

KUKA already implements innovative environmental concepts for all new construction, expansion and modernization projects at the site in Augsburg. Rainwater falling on the roofs of these buildings runs off via culverts without affecting the groundwater and is not diverted into the sewer system. To enable the DTC to meet the latest energy supply standards, the temperature in the offices is automatically regulated via heating and cooling sails on the ceiling. In addition, the building and the computing center are cooled by means of well water or, at peak times, a compression chiller mounted on the roof. The production shops are heated using ceiling sails.

To reduce energy consumption and thus the CO₂ emissions harmful to the climate, KUKA uses the most eco-friendly energy supply solution available to it. That is why the entire Augsburg site has now been converted to district heating and the DTC has been connected to the site's local heating supply.

Promoting excellence in technology and sports

KUKA promotes top performance in technology and sports. This raises brand awareness for KUKA and is also a way for KUKA to take social responsibility. KUKA concentrates on local projects at its own sites. For instance, KUKA has supported the Bundesliga soccer team FC Augsburg and the first-division hockey team Augsburg Panthers for years.

Sustainable and energy-efficient – the MagnetArc 620A power source

In the further development of the MagnetArc welding technique aimed at improving the process and quality, the components for automation are also being continuously enhanced. KUKA is paying special attention to the core component, the power source, in order to expand the technology and so improve efficiency. Compared with the conventional MagnetArc power source, the new MagnetArc 620A uses up to 20% less energy. Furthermore, the new source is much smaller and 85% lighter, saving costs and production space. In the year under review, the new power source was already put into operation for energy-efficient production at the plants of three customers.

Research partnerships to promote sustainability

KUKA is a partner in EU-funded projects that promote research activities in the field of sustainable, innovative technologies:

AREUS, an EU-funded project

KUKA is a partner in the European combined research project "AREUS – Automation and Robotics for European Sustainable manufacturing". Together with research partners from industry and science, KUKA is advancing the development of energy-efficient robot-based solutions for

the factories of the future. Optimized processes for robot movement are being developed, affecting both the individual robot and groups formed of several robots. The power supply for the robot-based test installations is being converted to direct current as a prototype development in order to collect initial experience for future regenerative power supplies and to allow the energy requirement in a system to be distributed better and to recover braking energy. The new concepts are being tested in a real production scenario and will be presented, on completion of this project, at two trade fairs this year (ICRA and Automatica).

euRobotics AISBL

euRobotics AISBL (association internationale sans but lucratif), a European non-profit organization, entered into a public-private partnership (PPP) with the European Commission for "robotics in Europe", whose research and innovation program will receive over €700 million in funding over the next seven years and includes sustainability targets outlined in a joint road map. The development of sustainable industrial production methods is one of the objectives. See the "Research and development" section starting on page 28 for more information.

EFFRA

KUKA is also involved in a partnership with EFFRA (European Factories of the Future Research Association). Members make important contributions that influence the development of sustainable production and manufacturing processes, for example. KUKA's role is to advance key topics in robot-based automation.

KUKA showcases multi-functional cell at Augsburg Innovation Park

With reference to sustainability, lightweight construction is a key topic for the future of industrial manufacturing. Within the scope of a project at the Augsburg Innovation Park, experts from industry and the scientific community work together on the industrialization of carbon-reinforced components and on taking human-robot interaction to the next level.

In collaboration with the German Aerospace Center (DLR), KUKA has been involved for years in researching and developing innovative processes and automation solutions. Industrial-scale production processes with lightweight materials are developed at the new location for aerospace applications. KUKA and the DLR installed a multi-functional cell (MFC) together that is 32.5 m long and 16 m wide. The frame is made from a steel construction that weighs several tonnes. Due to its size and unique technology, the cell forms the heart of the center. It is equipped with KUKA robots of the QUANTEC generation in order to conduct industrial-scale research.

KUKA partners with MAI Carbon

KUKA is active in the leading-edge cluster MAI Carbon. The cluster in the Munich-Augsburg-Ingolstadt triangle is directing its efforts toward developing carbon fiber-reinforced plastics (CFRP) technology for a variety of sectors in Germany by the year 2020. One of the focus topics here is the representation of an integrated process chain and precise machining with industrial robots.

Green Carbody Technologies

In view of the challenges surrounding the growing world population and ever scarcer resources, one important focus of future systems lies in ensuring the efficient use of energy and resources in manufacturing.

The Green Carbody Technologies project (InnoCaT) set itself the target of developing systems that use energy and resources efficiently. A total of 60 companies are involved in the project that is being promoted by the Federal Ministry of Education and Research. As a member, KUKA Systems has contributed necessary know-how and tools with which the energy consumption of a system can be virtually measured, analyzed and optimized already at the planning stage. In this way, KUKA has helped its customers to implement sustainable production. The project was completed in 2014. The results were summarized at KUKA in a catalog of measures for energy-efficient production that has been used for new systems ever since. We have also managed to win a project in which our trained specialists are optimizing an existing system on the basis of this catalog of measures for the first time.

Energy efficiency in systems engineering

Following the development of a software tool for the energy-efficient design of manufacturing systems in the previous year, 2015 saw the measures being investigated for effectiveness, impact on production systems and possible additional costs. The systems developed by KUKA Systems are intended not only to save resources in theory, but also to contribute to sustainable production in practice. For this, consumption must be checked continuously. The solutions from KUKA Systems enable energy consumption to be recorded both during planning and then during subsequent operation. In combination with the visualization standard, the performance curve can be displayed and archived if required. A "traffic light" system on the control panel indicates to the operator whether the current energy consumption corresponds to the specifications. This enables a quick response and countermeasures.

Recycling and retooling

The recycling concept for KUKA robots comprises a number of different aspects including proper disposal and sustainable utilization. KUKA also focuses on recyclable materials as early as the parts selection phase.

KUKA offers customers refurbishing services for used robots, which can then be returned to customers for productive use (retooling). Ideas for replacing or optimizing components or giving robots a new coat of paint are discussed with the customer on a case-by-case basis. It is also possible to rent robots in order to test them or for short-term operation.

KUKA offers its customers a return program for robots that are no longer in use. The used robots are refurbished or retooled to meet new requirements. Then they are available again for purchase as used robots. KUKA uses environmentally compatible methods to disassemble and dispose of robots that can no longer be refurbished. All of KUKA's recycling partners must undergo a strict confirmation process.

KUKA has converted to district heating

In the year under review, CO₂ emissions dropped by around 18% compared with the previous year. This is due primarily to the conversion to district heating at the Augsburg site in September 2015. Absolute consumption of heating energy was 12,448 MWh, which only constituted a slight rise on the previous year (2014: 11,274 MWh). Following the changeover to district heating, consumption of heating energy is expected to fall in the future. Absolute electricity consumption remained virtually constant at 13,651 MWh (2014: 13,095 MWh). Water consumption is relatively low overall and plays a less important role here because water is only available for normal daily use, with production only requiring a fraction of all the water consumed. Despite the construction of the new Development and Technology Center at the Augsburg site, water consumption remained virtually unchanged at 26,698 m³ in the year under review (2014: 26,368 m³).

In switching over to district heating at the Augsburg site, the stage has been set for an energy-efficient, environmentally friendly and future-proof energy supply. As the plant was only converted in September 2015, the savings in heating energy and the reductions in CO₂ emissions will only be noticeable in the future. In addition to the significant decline in CO₂ consumption, the primary energy factor will be decreased from 1.1 to 0.32. This means that the environmental impact of the increased use of the site is being steadily reduced and the requirements of the latest version of the Energy Saving Ordinance (EnEV) for energy efficiency in the case of new and existing structures have been fulfilled.

Key ecology figures

	2014	2015
Number of locations worldwide	53	66
of which ISO 9001 certified	24	39
of which ISO 14011 certified	11	13
Consumption (Augsburg only)		
Electric power (MWh)	13,095	13,651
Heat (MWh)	11,274	8,004*
Heat (MWh) – district heating from September 2015 onwards		4,444
Water (m ³)	26,368	26,698
CO ₂ (t)	9,736	7,966

* Until September 2015

KUKA is certified in accordance with VDA 6.4 at the relevant sites

As a supplier to the automotive industry, product reliability and safety are the number one priority. The VDA 6.4 certification documents that processes have been implemented in the company to ensure that customers can rely on the high quality of their machines, systems, tools or inspection equipment from KUKA. One important aspect here is the efficiency of processes. The certificate is a supplement to ISO 9001.

KUKA participates in Carbon Disclosure Project

KUKA Aktiengesellschaft has been part of the Carbon Disclosure Project since 2008. This organization publishes information on the life-cycle assessments of listed companies and on business prospects for sustainable products once a year. The Carbon Disclosure Project is supported by a number of investor groups (www.cdproject.net). In 2015, KUKA showed a trend to improvement in the overall result. KUKA also participated in various ratings on the subject of sustainability, one of them conducted by the Vigeo agency. Interested parties can request a copy of the results by sending an e-mail to contact@vigeo-belgium.com. Information is available on corporate governance, human resources and the environment.

Employees

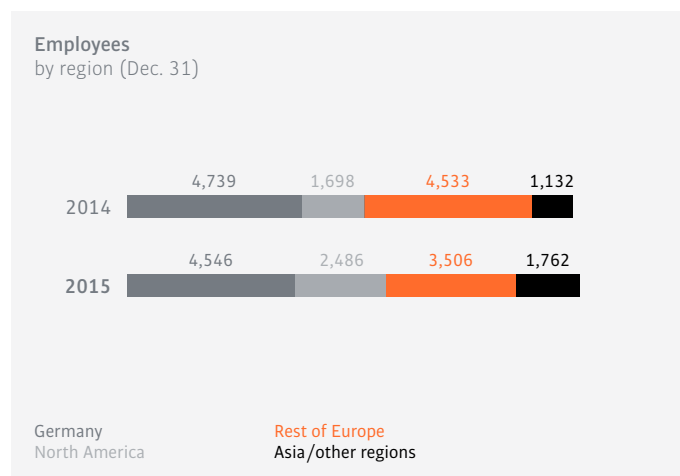
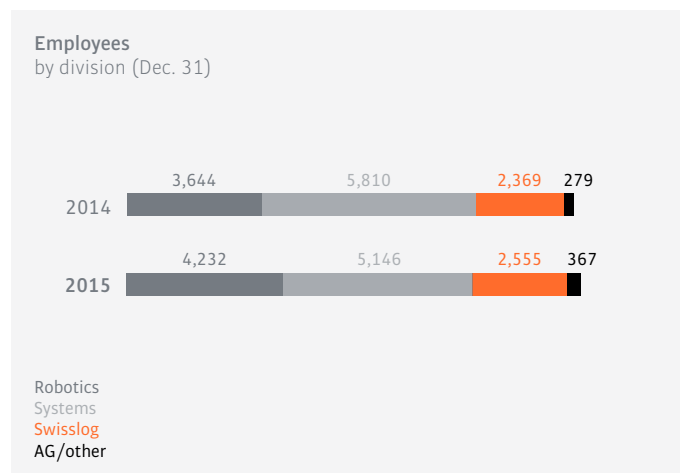
Internationalization within KUKA Group

KUKA continues to grow worldwide. The number of employees increased in the year under review, primarily due to growth in the strategically important regions of China and North America. Personnel was also stocked up in the area of research and development in order to extend technological leadership in the dynamic, international competitive environment characterized by Industrie 4.0. As the Group has seen strong international growth in recent years, measures have been taken to establish a uniform, Group-wide management culture. The aim is to introduce a common understanding of values and principles among all employees worldwide. For this reason, the leadership principles for the Group as a whole were rolled out internationally in the year under review. Additionally, the New Manager Program has been introduced to help young managers worldwide to develop their own leadership style, to provide them with a shared understanding of management and familiarize them with basic knowledge for successful management according to the leadership principles. KUKA is continuing to make itself more attractive as an employer by means of employer branding measures, as well as offering high-quality vocational training and a wide range of continuous professional development courses and cooperating with renowned universities. Work/life balance initiatives and the corporate health management scheme are also being enhanced.

Personnel growth in strategically important areas

In the year under review, KUKA continued to diversify into new industries and regions and to extend its presence in the Asian market. Personnel has been increased, particularly in the strategically important regions of China and North America and in the field of research and development. The Group's workforce has risen from a total of 12,102 at the end of 2014 to 12,300 at the end of 2015. The Robotics division recorded the greatest growth with a rise of 16.1% to 4,232 employees (2014: 3,644). The expansion here was carried out in all customer segments,

i.e. automotive, general industry, service, and research and development; in terms of regions it involved primarily Germany and China. The number of employees at Systems fell in the year under review by 11.4% from 5,810 to 5,146. This was attributable to the sale of the Tools and Dies business unit and HLS Engineering Group. Swisslog increased its workforce by 186 from 2,369 (2014) to 2,555 (2015).



Stable age structure

At 40.7 years, the average employee age throughout the Group was around the level of the previous year (2014: 40.8 years). 71 employees were honored for 25 years of service during the year under review, while three employees celebrated their 40th anniversary.

Vocational training at a high level

At the end of December 2015, KUKA Group was employing a total of 348 apprentices (FTE) (2014: 372). The decline is due to the sale of the Tools and Dies business unit. The process of centralizing apprentice training at KUKA Aktiengesellschaft, which was carried out in 2013, has proven to be a success. This ensures that apprentices are given more opportunities for their own development and teaches them to think and act globally on a Group-wide scale. KUKA attaches great importance to familiarizing apprentices with the internationalization strategy of the Group at an early stage. Apprentices gain experience abroad at other KUKA locations each year such as, for example, company sites in China and the USA. KUKA continues to maintain a high standard in the quality of training and the level of performance. This is repeatedly demonstrated by KUKA graduates finishing best in their year in their respective training occupation. In the year under review, the Swabian Chamber of Industry and Commerce honored Markus Hörmann as the best in his year for the trade of electronics technician for automation technology. Christoph Berthold not only completed his apprenticeship with flying colors, but also passed his high school diploma with the highest possible grade of 1.0. Ten apprentices completed their examinations prematurely in summer 2015 – with an average grade of 1.55.

Wide range of training and further education options

KUKA Group offers a variety of training programs covering both technical and commercial occupations:

- › Industrial mechanic and lathe/milling machine operator
- › Mechatronics technician
- › Electronics technician for automation technology
- › Industrial clerk
- › IT specialist
- › Technical product designer
- › Warehouse logistics specialist
- › Specialist for forwarding and logistics services

The share of female apprentices in technical professions has remained constant over the last few years at around 20%. This percentage is expected to increase, in particular thanks to the company's participation in the annual Girls' Day program, the offer of introductory apprenticeships for girls and cooperative partnerships with girls' schools. During the year under review, the company also intensified its contacts with schools in the region. Students at all forms of secondary schools can now learn more about work life at KUKA in a week-long work experience placement. Around 130 students took advantage of this opportunity at the company's site in Augsburg in 2015. Students were also given the chance to learn more about the company's training center on tours of the plant and during many other regional activity days.

In addition to the traditional apprenticeships, KUKA offers a dual, training-integrated degree course at the University of Augsburg with the aim of gaining 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 and business information systems are also available to choose from.

KUKA places great importance on the continuous professional development of its employees with internal training measures. A major element of this is the KUKA Academy at the company's site in Augsburg. Courses on offer include computer and language courses, specific professional courses from the fields of sales, purchasing, business administration and project management, as well as seminars for soft skills, and are in great demand from employees. In 2015, 1,798 employees took part in a total of 103 seminars and 50 language groups (English and Spanish) at the Augsburg location. In order to make courses more accessible to employees and make the administration more efficient, intensive work was carried out in the year under review on implementing a modern, user-friendly learning management system. The system is available to employees with effect from the start of 2016.

Cooperative partnerships with universities around the world

KUKA has partnerships with universities from around the world, including Tongji University in Shanghai and TU Munich, and works together with renowned universities on a number of international research and development projects. The company also has close contacts in the region with the universities in Augsburg and Kempten. During the year under review, KUKA attended numerous university contact fairs and was the principal sponsor of the "Pyramid" fair in Augsburg. "Pyramid" is designed to establish contacts between companies and young professionals. KUKA also took part in Academia's "Career Day" in Augsburg.

Leadership principles and New Manager Program

As the Group is undergoing strong international growth, measures have been taken to establish a uniform, Group-wide management culture. The aim is to nurture a common understanding of values and principles among all employees worldwide. In 2014, with international cooperation, a set of leadership principles was drafted. Rollout in the companies and regions commenced in the year under review.

The year under review also saw the creation and introduction of the Group-wide New Manager Program. It helps young managers worldwide to develop their own leadership style, familiarizes them with basic knowledge for successful management, and provides them with a shared understanding in accordance with the leadership principles. Regular workshops are held at the Augsburg, Detroit and Shanghai locations, in combination with individual practical phases in everyday work, for optimal development of those taking part. During a Leadership Meeting, work was also carried out with Senior Management on the implementation of the corporate strategy.

Promoting diversity

KUKA employees introduced a diversity initiative during the year under review. Targets and measures were developed in workshops under the patronage of Jurate Keblyte, CFO at KUKA Robotics GmbH, to promote diversity within the Group. The initiative gave rise to the orangeWIN network (where "WIN" stands for "Women In Network"). All female KUKA employees can join this network, which has the objective of supporting women, particularly in the MINT professions, and helping them to acquire qualifications, for example in management roles. The first activities of the initiative include a special mentoring program, continuous professional development measures and network meetings.

Strong employer brand

The large-scale employer branding campaign introduced in 2013 for different target groups will continue to be pursued in order to enhance the public perception of KUKA as an attractive employer. The appeal of the work environment at KUKA is reflected in external reviews. In the 2015 trendence Graduate Barometer, which is based on a survey conducted among pupils, students and young professionals about their preferred employer, KUKA was ranked 32nd in the Engineering Edition and 53rd in the IT Edition. In the Universum study of the top employers for young professionals, KUKA rose to 26th place. The number of applications for advertised positions increased from around 12,000 in 2014 to over 17,000 in 2015. In addition, KUKA supported the “Fair Company” initiative in the year under review, which promotes fair internships and real opportunities for university graduates. This means, for example, that KUKA primarily offers internships geared towards providing career orientation and does not propose internships as alternatives to graduates seeking permanent employment.

Employee share program

KUKA employees identify with the company's success and show great interest in the employee share program. 414 employees participated in the program during the year under review. 69,105 shares were transferred to employees.

Events after the balance sheet date

Cancelation of the convertible bond

In an announcement on February 18, 2016 KUKA Aktiengesellschaft irrevocably canceled the 2013 convertible bonds as of March 24, 2016. Unless the holders of the convertible bonds convert their units into shares in KUKA Aktiengesellschaft by this date, the units still existing at this date will be repaid to the holders at a rate of 100%. Since repayment at 100% is not financially attractive to the investors, it may be assumed that the vast majority of the units still existing will be converted into shares before the redemption date. Even before this announcement, further conversions had already taken place in fiscal 2016.

Apart from this there have been no events subject to reporting requirements that had an impact on the financial position and performance of the company since the balance sheet reporting date.

Forecast, opportunities and risk report

Opportunities 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 risks, especially technical ones. 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 divisions and subsidiaries are exposed.

Group management regularly assesses the likelihood that identified risks will occur and their potential impact on expected earnings (EBIT). Risks are categorized according to worst, medium and best case scenarios including the expected impact of the occurrence of an event. 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. The information that has been 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 divisions, 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 divisions. 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. These plenums also assess the plausibility of the reported risks and determine how to avoid similar risks in future. The risk report is also reviewed during Executive and Supervisory Board meetings, especially by the Audit Committee.

The managers of the divisions and subsidiaries are directly responsible for the early identification, control and communication of risks. 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 in line with the size of the company. Internal ad hoc announcements are mandatory whenever risks exceed the Group's defined reporting thresholds. The standard risk management procedures applied throughout the Group are efficient and effective. The head of risk management coordinates the risk management system. He compiles, communicates and monitors the individual risks identified and determines the aforementioned top 10 risk overviews or risk exposure overviews. The head of risk management resides within KUKA Aktiengesellschaft's Group controlling department, which reports directly to KUKA Aktiengesellschaft's CFO. This ensures that risk management is an integral component of KUKA Group's overall planning, control and reporting process.

The Group's risk management system enables the Executive Board to identify material risks at an early stage, initiates appropriate steps to counter these risks and monitor implementation of the steps. The internal audit department regularly monitors compliance with the risk management guideline 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 control system (see management report, "Internal control and risk management system" section, page 62 et seq.) 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.

Strategic risks and opportunities

KUKA's business divisions 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. The risk of developing non-marketable products and systems is reduced through application-oriented development, partnerships with system integrators and alliances and cooperative research projects with, for example, the German Aerospace Center (DLR) in Wessling near Munich, the RWTH technical college in Aachen and several institutes of the Fraunhofer Society. Strategic risks and opportunities are not quantified.

Operational risks and opportunities

KUKA Group

KUKA Group's opportunities 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 total aggregated maximum risk (worst case) and expected risk value, which are calculated on the basis of the various weighted scenarios and their respective likelihood of occurrence.

Opportunities are evaluated by the individual divisions and are not further aggregated. For this reason, the opportunities are dealt with in greater detail in the following sections on the divisions (Robotics, Systems, Swisslog).

Group risk exposure

in € millions	Worst case		Expected risk value	
	2014	2015	2014	2015
Legal risks	15.2	6.5	2.9	0.4
Economic risks	16.8	51.2	1.7	2.8
Total for the Group	32.0	57.7	4.6	3.2

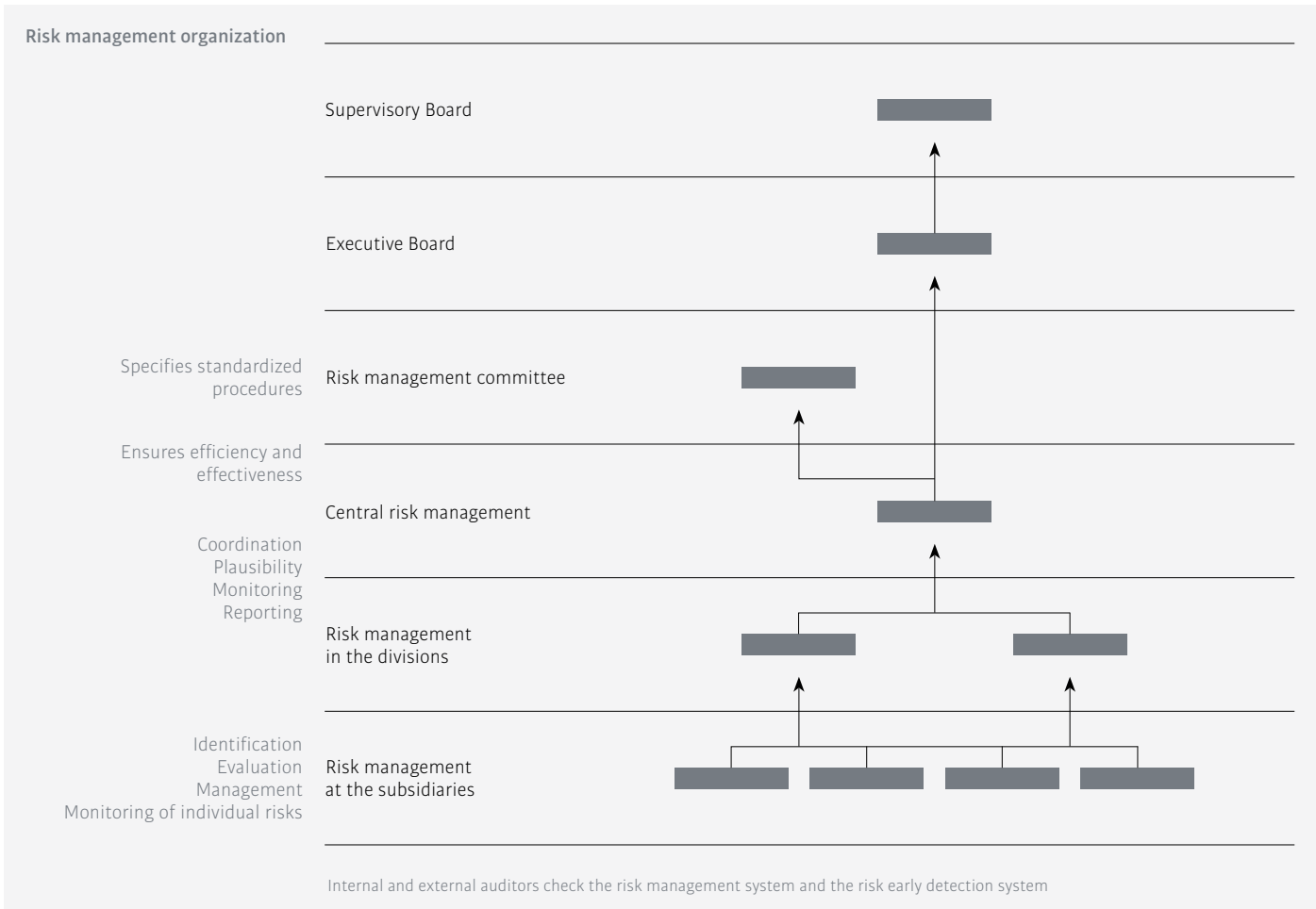
Legal and economic risks occur primarily as a result of the activities of the Robotics, Systems and Swisslog divisions. The changes on the previous year can be explained in part by the acquisition of Swisslog Group and also by the expansion of the business activities of the existing divisions (Robotics, Systems).

More detailed explanations of legal and economic risks can be found in this section with regard to cross-division risks that are managed at Group level or in the following sections with regard to the individual divisions (Robotics, Systems, Swisslog). We also evaluate the potential worst-case damage that could be caused by the individual risks and the likelihood that they will occur, categorized as follows:

	Maximum loss	Likelihood of occurrence
Low	to €5 million	to 10%
Medium	€5 to 10million	10 to 25%
High	€10 to 20million	25 to 40%
Very high	over €20 million	over 40%

Please refer to the notes, starting on page 76, for details regarding the precautionary balance sheet measures for the identified risks.

Cross-division opportunities and risks such as financing, personnel and IT are analyzed and managed at Group level, not by the individual divisions, which is why said risks are only addressed from the Group perspective in the opportunity and risk report.



Legal and economic risks KUKA AG/Holding

Since KUKA conducts business around the world, it is obliged to comply with many international and country-specific laws and regulations issued by, for example, 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. At the present time, 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 legal risks. 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 addition, Group-wide Directors' and Officers' (D&O) liability insurance policies are in place that cover the managing bodies (Executive Board and managing directors) and supervisory bodies (Supervisory Board, administrative and advisory boards) of the German and foreign subsidiaries. Existing insurance policies are reviewed annually in order to weigh the relationship between the insurance protection and deductible amount versus the risk premium.

Risk exposure KUKA AG/Holding

in € millions	Worst case	Expected risk value
Legal risks	0.7	0.4
Economic risks	0.0	0.0
Total for KUKA AG/Holding	0.7	0.4

The assessed potential damage associated with all individual risks is low (to €5.0 million) and the likelihood of occurrence is low to high (to 40.0%).

Operational risks and opportunities in the divisions

KUKA is exposed to the cyclic investment behavior of its customers in the various market subsectors. A major portion of the Systems, Robotics and Swisslog divisions' business volume is in the automotive sector where oligopolitical structures and constant price pressure are ongoing concerns. Fluctuations in the industry's capital spending plans are also considered in the respective strategic and operative 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.

KUKA benefited from significant investment activities in both the automotive industry and the aircraft industry and general machinery and systems engineering sector throughout 2015. Additional opportunities arose because KUKA Group's key automotive customers enjoy an excellent competitive position in their markets. In comparison to its own competitors, KUKA Group sees business growth opportunities due to its customer portfolio, particularly with respect to the growth of its customers' market shares. Further opportunities arise due to the general trend toward greater automation in non-industrial sectors, such as the long-term prospects associated with assisting an aging society. The acquisition of Swisslog Group in December 2014 reduced dependency on the cyclical automotive industry, as Swisslog implements automation solutions for hospitals, warehouses and distribution centers.

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. Generally, KUKA sources product components from several suppliers in order to minimize the risk of sharp price rises 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.

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 sub-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 manage such risks or avoid them altogether.

KUKA sees an opportunity to continuously expand its customer base in general industry. One of the corporation's key strategic thrusts is to penetrate new, non-automotive markets. The aim is to penetrate the healthcare sector and other consumer-related markets in which human-machine collaboration will in future be essential. Systems used for human-machine collaboration can operate without protective barriers or similar safety measures. One of the division's sections, Advanced Robotics, focuses on developing and implementing the technology for such innovative products and applications. The company's profitability will become less and less dependent on exchange-rate fluctuations as it increasingly spreads its value added across different local currencies.

Robotics risk exposure

in € millions	Worst case	Expected risk value
Legal risks	0.0	0.0
Economic risks	20.0	0.0
Total for Robotics	20.0	0.0

The assessed potential damage associated with all individual risks is low (to €5.0 million) and the likelihood of occurrence is low to very high (over 40.0%).

KUKA Systems

This division's sales 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 while already processing the orders, 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 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 associated with the project business arise mainly when parts can be purchased at a lower cost than originally estimated and by invoicing the customer for any change orders received over the course of the project.

Major automakers throughout the world are currently feverishly expanding their global manufacturing capacities. KUKA increasingly works together with internal partners, whereby several of the division's regional subsidiaries collaborate on a project, especially in South America and Asia. In these situations, risks involve information exchange, the value-added process and the IT-based master project management system. There are also organizational risks associated with extraordinarily rapid and strong growth in business volume, particularly in emerging markets. KUKA mitigates these risks by harmonizing its global IT systems and deploying experienced internal and contract employees when establishing and expanding the local organizations.

The increasing variety of models offered by the automotive industry has 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 soon have to invest in new production lines or upgrade their existing assembly lines.

Pay-on-production contracts such as KTPO's (KUKA Toledo Production Operations) offer additional opportunities, but also risks. The Jeep Wrangler brand continues to promise above-average growth prospects compared to other American car models. KUKA participated in this growth again in 2015. Here risks involve greater dependence on the volumes produced for the American car market.

Thorough market analyses have shown that KUKA Systems also has long-term business opportunities outside the automotive industry; namely, in general industry. Current examples are to be found in the aerospace industry, from which new orders were again received in 2015. Although this represents an opportunity to penetrate new markets, it also entails risk, above all in relation 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 mitigating risks.

Systems risk exposure		
in € millions	Worst case	Expected risk value
Legal risks	4.6	0.0
Economic risks	19.2	-0.3
Total for Systems	23.8	-0.3

The assessed potential damage associated with all individual risks is low to medium (to €10.0 million) and the likelihood of occurrence is low to medium (to 25%).

Swisslog

The division is subject to long-term investment cycles spread over various industries, such as hospitals, pharmaceuticals, food and e-commerce. The competition and the associated pressure on prices vary from one region to another. High investments in its own products to expand its range of solutions serve to strengthen the company's competitive position considerably. In addition to synergy effects, integration into KUKA enables expansion of the range of solutions by making it possible to offer customers integrated automation and robotics solutions.

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 checked, 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.

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.

Swisslog risk exposure		
in € millions	Worst case	Expected risk value
Legal risks	1.2	0.0
Economic risks	12.0	3.1
Total for Swisslog	13.2	3.1

The assessed potential damage associated with all individual risks is low (to €5.0 million) and the likelihood of occurrence is low to high (to 40.0 %).

Financial risks

One of KUKA Aktiengesellschaft's primary tasks is to coordinate and control the Group's financing requirements and to ensure that KUKA remains financially independent. With this goal in mind, the holding company optimizes the Group's financing and limits its financial risk via the Group's standard treasury reporting system. In addition, liquidity risk is reduced for the Group as a whole by closely monitoring the Group's companies and their management of payment flows.

Over the course of the past few years, several measures have been implemented to strengthen KUKA Group's solvency. One of these was to restructure the company's debt with respect to time to maturity and the type of financing instruments used. In 2015, these include the conclusion of an extended syndicated loan, initial conversions of the convertible bond and the new issue of a promissory note loan in two tranches. Please refer to the "Explanation of items in the financial statements", "Financing", page 107, for further details.

The syndicated senior facilities agreement, which runs until 2020, contains the usual covenants. A fundamental risk associated with this type of covenant-based financing exists when business performance is significantly below plan and the resulting earnings and financial situation precludes adherence to the defined limits. KUKA monitors adherence to these covenants monthly. The company complied with all covenants during the course of fiscal 2015. As of December 31, 2015, all ratios regulated by covenants were well within the contractually defined limits. Please refer to the "Explanation of items in the financial statements", "Financing", page 108, for comprehensive details about the syndicated loan and the extent to which the agreed credit lines have been utilized.

One risk that will also impact business performance after 2015 is the increasing fluctuation in currency exchange rates, especially in the case of the Japanese yen, the US dollar, the Chinese yuan, the Hungarian forint and the Swiss franc; for example, the evident devaluation of the yen in relation to the euro gives Japanese competitors an advantage. Transaction-related currency exchange risks are hedged using forward foreign exchange contracts. Details on the central currency management process are provided under “Financial risk management and financial derivatives” starting on page 109 in the Group notes. Currency translation risks, i.e. measurement risks associated with balance sheet items whose value has been converted from a foreign currency, 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). Internal guidelines govern the use of derivatives, which are subject to continuous internal risk monitoring.

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. Improvements in both business and economic prospects enable the company to strengthen the loyalty of its core personnel, train new, highly skilled employees and entice new recruits to join the Group. This applies to the traditional markets in Europe and the United States, but especially to recruiting employees in growth markets, where the need for skilled employees is growing steadily. Last but not least, in-house continuing education programs such as those offered by KUKA Academy or employee suggestion programs generate opportunities resulting from the improved motivation and qualification of the workforce.

IT risks and opportunities

IT risks have risen over the past number of years, not least because of the importance of IT to business processes. These risks relate to both the frequency of viruses 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 digitization of business processes.

Compliance risks

Compliance violations may lead to fines, sanctions, judicial orders regarding future conduct, forfeiture of profits, exclusion from certain transactions, loss of trade licenses or other restrictions. Furthermore, involvement in potential corruption proceedings could harm the overall reputation of KUKA Group and could have a negative impact on efforts to compete for business in both the public and private sectors. Such proceedings could also have a negative impact on the relationship KUKA Group has with business partners upon which it depends as well as its ability to find new business partners. They could furthermore negatively impact the company's ability to pursue strategic projects and transactions of potential importance for the business, such as joint ventures or other forms of cooperation. Ongoing or future proceedings could lead to the suspension of some existing contracts, and third parties, including competitors, could initiate legal proceedings against KUKA Group for substantial sums of money.

KUKA therefore rolled out a Corporate Compliance Program in early 2008 to make such risks transparent and controllable. The Compliance Committee established through this program meets at regular intervals and ad hoc and reports to KUKA Aktiengesellschaft's CEO, who in turn reports directly to the Supervisory Board's Audit Committee. The CEO is ultimately responsible for the Corporate Compliance Program, which is regularly updated and subject to strict internal controls. The program did not uncover any substantial risks in 2015 due to the active countermeasures taken to mitigate risk at an early stage and to eliminate risk sources, e.g. by realigning business processes.

Other risks

KUKA Group continuously monitors other risks and mitigates these to the greatest extent possible. There is no evidence of environmental risks from operational activities, since the company does not use hazardous materials. The Group makes use of buildings and properties for its business operations, some of which it owns. 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.

Please refer to page 68 for information about material agreements subject to conditions related to a change of control. The shareholder structure is periodically analyzed to assess the possibility of a takeover of the company.

Summary

Overall, KUKA Group's named risks relate to the business performance of the divisions and financial risks associated with currency exchange rate fluctuations and corporate financing. 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 recent years, development among the major global economies has been only moderate, and in some cases has even declined. According to the International Monetary Fund (IMF) the world economy grew 3.1% in 2015. Compared with growth in 2014 this represents a slightly weaker trend (2014: 3.4%). The IMF sees the reasons for this decline mainly in the development of China, which is now concentrating more on consumption and services rather than growth driven through investment and production. In addition, the lower oil prices and initiation of a more rigid monetary policy in the USA have slowed down global growth. As in previous years, it is mainly the emerging and developing economies which have been the drivers of growth. The IMF expects the world economy to expand again more rapidly in 2016 and has forecast economic growth of 3.4%. Compared with earlier forecasts, this figure has been cut slightly by 0.2 percentage points.

The overall economy of Europe could probably benefit from the improved development of various countries once they have implemented measures to combat the financial crisis successfully. Also, the relatively low oil price in Europe and the expansive monetary policy of the European Central Bank should have a positive impact. Accordingly, experts anticipate stronger growth in 2016 than in 2015. For Germany, the most important single market for KUKA Group, the IMF is predicting a slightly higher growth rate of 1.7% for the current year. VDMA, the German Engineering Association, has also published a forecast for 2016 and expects zero growth of new orders in the engineering sector overall. The robotics and automation segment is forecast by VDMA to develop much better with a rise of 5%. For the USA, the IMF has slightly reduced its growth forecast for 2015. It is in particular the low oil price and altered monetary policy with the expected strengthening of the US dollar that are likely to affect general growth. In actual figures, the IMF is forecasting US growth of 2.6% for 2016. The North American market is the second largest sales market worldwide for KUKA Group. Among the larger economic markets, the IMF still regards China as likely to exhibit the highest rate of growth during 2016. However, in comparison to the year before, the pace of growth is anticipated to diminish further. The reasons lie in lower investment and the transition from an export-driven economy to demand supported to a greater extent by the domestic market. The IMF forecasts growth of 6.3% for China in 2016. China is KUKA's third largest single market worldwide.

IMF expectations for the most significant global markets from KUKA's viewpoint:

Economic growth			
in %	2014	2015	2016
Germany	1.6	1.5	1.7
Eurozone	0.9	1.5	1.7
USA	2.4	2.5	2.6
China	7.3	6.9	6.3
Developing/emerging economies	4.6	4.0	4.3
World	3.4	3.1	3.4

Source: IMF (January 2016)

Global drivers of growth in robot-based automation

Investment in automation continues at a high level. In its most recent study, the International Federation of Robotics (IFR) forecast corresponding expansion of the global robot market. Efficiency increases, improved product quality, higher unit quantities, greater product diversity and flexibility in particular are decisive factors for manufacturing companies continuing to raise the level of automation.

Growth opportunities for KUKA

1) General Industry

Compared with the automotive industry, the robot density (number of robots per 10,000 employees) in general industry is still relatively low (see graphic on page 61). On average, the automotive industry's robot density is roughly eight times that found in general industry. Above all, it is high cost pressure, rapidly changing markets and customers' requirements as well as growing demands for quality which necessitate production that is flexible and efficient for companies to remain competitive. This is why the sales potential of the automation sector is very high. For the electrical (3C), consumer goods, logistics, metal, machine tool and aircraft construction industries in particular we are expecting a significant increase in investment in automation solutions and robots in the coming years. KUKA is pursuing the strategy of expanding its market share in general industry overall and pushing expansion specifically in the sectors referred to above. With this in mind, the following customer segments are being specifically targeted for investment:

- 1) new products that satisfy specific customer needs,
- 2) building up manpower with specific expertise in the focal markets in general industry,
- 3) developing a sales structure supporting expansion in general industry, and
- 4) partnerships and cooperation agreements to strengthen our market position. The KR AGILUS family of robots is steadily being expanded in terms of reach, weight classes and capabilities so that these products can now also be offered to new customers from general industry and to existing customers for use in an extended range of applications. In the future, KUKA is for example planning to introduce new automation solutions and robot technologies in the logistics sector in order to help customers orient their logistics departments even better to the challenges posed by e-commerce.

2) Automotive

The international automotive industry has a decisive impact on robot sales development, as it accounts for around 35 to 40% of the articulated robots sold annually for industrial use. In the mature manufacturing regions such as Europe, the United States and Japan, growth potential is driven mainly by the need to modernize or upgrade existing production systems. Increasingly, however, production operations and processing stages are changing where at present there are relatively low numbers of robots being employed. Car manufacturing and sales volumes will continue to rise worldwide. According to estimates released in January 2016 by IHS Automotive, the number of cars manufactured across the globe will rise to 89.8 million vehicles in 2016 and to over 100 million vehicles per year by the end of the decade. KUKA is not directly dependent on the number of vehicles built, yet the range of models of the manufacturers is increasing with car sales. The manufacturers must accordingly invest in new production systems and in the flexibility of existing facilities in order to allow this growth to be generated in the most efficient way possible. KUKA is therefore expecting, as predicted by the IFR, that the investments of the carmakers in automation will rise further, but accompanied by lower growth rates than in general industry. In addition to the continuing increase in model diversity, the drivers of this trend are the decrease in product life cycles of existing vehicle types and an increase in model platforms without the risk of forfeiting efficiency. Moreover, local car manufacturers from emerging and developing economies are increasingly investing in automation in order to raise the quality of their vehicles and so further their exports to the industrialized countries.

3) Industrie 4.0

Industrie 4.0 is the next stage of industrialization, in which automated production technologies, mechanical engineering and intelligent IT systems are networked. This networking will lead to a smart factory, characterized by versatility, resource efficiency, ergonomic design and the integration of customers and business partners in business and value creation processes. As an automation company, KUKA is playing a central role in the practical implementation of Industrie 4.0. It is all about the interoperability of systems, one of KUKA's strengths: hardware and software all from one source. This is an important competitive advantage for our customers since production sequences can be better coordinated by networking.

KUKA recognizes Industrie 4.0 as a trend development that will see smart automation concepts for the future come into being – the smart factory. The robot is to serve as the link between IT and production and between humans and technology. Humans are at the heart of the factory of the future. The robot will assist them and take over the monotonous work, while the humans will perform the higher-value tasks.

KUKA geared its activities early on to Industrie 4.0 and invested accordingly. One particular focus of this is the investment in KUKA Sunrise, its new software platform, which provides the basis for new applications. Moreover, a new IT site was established in Austin, Texas/USA, which is to focus on the further development of our software applications, data analysis and Industrie 4.0. We are continuing to analyze the possibilities for external growth through acquisition of or participation in companies that are capable of strengthening our market position in Industrie 4.0.

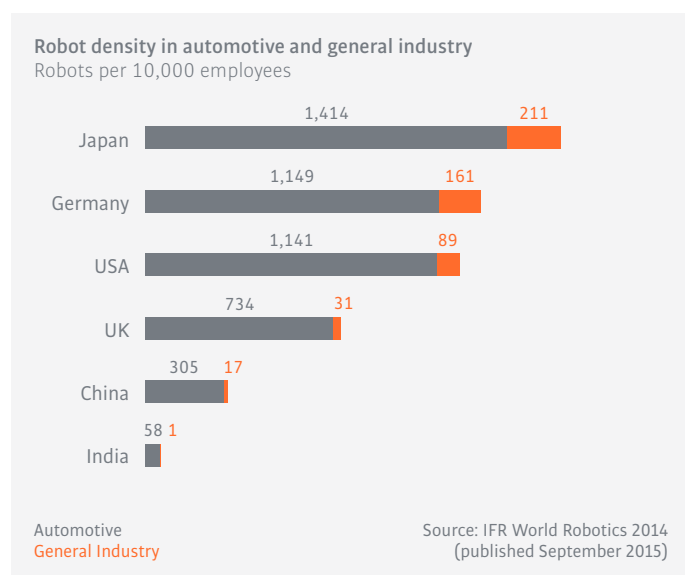
4) Developing and emerging economies

Robot density, and thus the degree of automation, is much higher in industrial countries than in the developing and emerging economies. The growth potentials in the developing and emerging markets affect the automotive sector as well as the various segments of general industry. The international automotive industry is investing predominantly in these countries in order to profit from lower wage costs, but also in order to be able to react flexibly to local customer requirements. Robot-based automation is an important element in this context because for decades it has been the standard for some production stages – body-in-white manufacture, for example. Local car manufacturers in the developing and emerging markets are also investing in automation in order to match up to the rising quality requirements and to enable them to export more of their vehicles in the medium-term future. At the same time, wages and salaries are rising in some instances at a double-digit rate each year in the developing and emerging countries, which poses great challenges to companies that manufacture locally. Automation solutions can assist in cushioning against this rise in costs. The growth of automation in general industry benefits from the same factors as the automotive industry: increasing cost pressure with simultaneously rising product quality requirements.

In recent years the Chinese robot market grew disproportionately and is now already the world's largest sales market. According to the current study by the IFR, the number of robots sold per year has risen from just under 8,000 in 2008 to approximately 75,000 in 2015. The robots installed in China are made almost exclusively by non-Chinese manufacturers. But according to the IFR, Chinese robot suppliers will become increasingly important and will increase their sales output in the coming years. The new market players are also supported by government programs.

KUKA sees the Chinese robot and automation market as a core element of its future growth strategy and has therefore expanded its market presence in China. At the end of 2013, a robot assembly plant was opened in the Greater Shanghai area, with production there already meeting a large proportion of local demand in 2015. In addition, KUKA Group's workforce in China rose from 696 employees (December 31, 2014) to over 1,000 (December 31, 2015). This has afforded KUKA greater local presence, increasing its proximity to the customer and allowing it to act with greater flexibility. The customers profit from much shorter delivery times and faster response times. KUKA will also focus on investments in China in the coming years through the expansion and equipment of its local sites with the appropriate resources.

Automotive customers have already significantly increased investments over the past few years. Demand in 2016 should therefore develop relatively stably altogether, with positive development in China and the USA. There is a detailed report on the currency influences in the notes, starting on page 76. In the case of Systems, a higher US dollar/euro exchange rate has a positive impact on the financial results because the North American sales market is very important for this business segment. For Robotics, the development of the yen/euro exchange rate is particularly important. A weaker yen/euro exchange rate has overall a negative effect on Robotics because the main competitors predominantly manufacture in Japan. For Swisslog, the appreciation of the Swiss franc will have a slightly adverse effect on operations, because the cost share of this division in Switzerland is slightly higher than the revenue share.



Company-specific factors

Summary

Given the current economic forecasts and general conditions, KUKA expects good demand in the 2016 financial year, particularly from the North America and Asia regions, and here especially from China. Demand in Europe is expected to remain relatively stable overall. From a sector perspective, general industry growth is expected to be positive. This is due in part to the low penetration rate of robot-based automation in some areas and in part to new robot types and technologies enabling the efficiency of production stages previously characterized by a low degree of automation to be improved.

Anticipated business development at KUKA

Summary	2015 result	2016 outlook
Sales revenues	€2,965.9 million	> €3.0 billion
EBITDA margin	8.7%	declining
EBIT margin	6.6%*/6.1%***	> 5.5%*
Net income for the year	€86.3 million	rising
Investments**	€107.0 million	rising
Free cash flow	€95.7 million	mid-double-digit million range
Dividend per share	€0.50	constant to rising

* Before purchase price allocation for Swisslog

** Excluding financial investments

*** Before purchase price allocation for Swisslog and excluding book profits from the sale of HLS and the Tools and Dies business unit

Definitions:

rising slightly/declining slightly: absolute change compared to prior year <10%
declining/rising: absolute change compared to prior year >10%

Sales and EBIT margin

On the basis of the current general conditions and exchange rates, KUKA is expecting sales revenues of more than €3.0 billion in 2016. Both customer segments – general industry and automotive – and from a regional viewpoint, China and North America, should make a positive contribution to sales development. Given the current economic environment and anticipated sales development, KUKA Group expects to achieve an EBIT margin of more than 5.5% before PPA (purchase price allocation) for Swisslog. Compared with the EBIT margin before PPA for Swisslog in 2015 (6.6%), at present no book profits are scheduled from divestments, which in 2015 contributed about 50 basis points to the development of the margin. In 2016, the EBIT margin is likely to be affected by growth investment in the Group-wide development of solutions for Industrie 4.0, in general industry and in China. We are additionally expecting higher costs related to the development and launch of new products. The introduction of project lifecycle management software at Systems and ERP software to be used throughout the Group will result in similar costs in 2016 to those during 2015, but in subsequent years these will help make a considerable improvement in efficiency. The expenditure for PPA at Swisslog should amount to about €10 million in 2016 and thus be significantly lower than in the previous year.

Net income

In the 2015 fiscal year, KUKA Group generated net income for the year of €86.3 million. In 2016, the rise in sales and lower PPA expenditure should have a positive effect on net income. KUKA is therefore expecting an increase in net income for 2016. Adjusted for the PPA effect, KUKA also anticipates a rise in net income compared with the previous year. KUKA Aktiengesellschaft's result depends primarily on the profit transfers of the German subsidiaries and on dividends from subsidiaries. Altogether we are expecting KUKA Aktiengesellschaft to achieve a result at approximately the same level as the previous year.

Research and development/investments

The total expenditure on research and development can be attributed mainly to the Robotics division, since Systems conducts its R&D activities primarily in conjunction with customer projects. The high demand for KUKA robots and solutions is principally based on their competitive advantages in terms of innovation and quality. To safeguard and expand these competitive advantages sustainably, the spending on research and development will rise in 2016. Overall, KUKA plans to strengthen the R&D segment regionally. Correspondingly, new sites are being opened and existing sites expanded (e.g. Austin/USA and Budapest/Hungary). Spending by the Robotics division will mainly focus on Industrie 4.0, expanding the product portfolio, developing applications, new software solutions and measures to boost the efficiency of existing products. Overall, KUKA Group is budgeting for around €120 million (2015: €105.4 million) to be spent on research and development in 2016. Around 20 – 25% is to be capitalized and written down to schedule over three to five years. The capitalization ratio depends on the content of the R&D projects and may vary accordingly. While research projects are not permitted to be capitalized, projects with the main focus on development – if certain conditions arise – are to be capitalized in accordance with the applicable accounting rules. At the same time, Systems is planning to invest increasing amounts in solutions and technologies in order for the division to make a key contribution to defining the standards of future production technologies. In 2016, Swisslog will focus on developing its own products and press on with its collaboration with the rest of KUKA Group. KUKA Group is planning to increase overall investment in 2016. This will largely concern investments for the preservation of existing assets, the building of new facilities for promoting growth in general industry and the expansion of capacity.

Free cash flow

KUKA Group's free cash flow is primarily generated from operating profits and the development of working capital in the Robotics, Systems and Swisslog divisions. Based on the current general conditions and the budgeted sales growth, KUKA Group expects a free cash flow excluding financial investments in the mid-double-digit million range in 2016.

Dividend

The Executive and Supervisory Boards will recommend to shareholders at the Annual General Meeting on May 27, 2016 that a dividend of €0.50 per share be paid for 2015. KUKA's dividend policy is to pay out between 25 and 30% of net income to shareholders provided business performance is good and general conditions are stable. For fiscal 2016, KUKA plans to maintain its dividend and possibly increase it slightly, allowing for the general conditions at the time.

Internal control and risk management system

Principles

Pursuant to section 289 para. 5 and section 315 para. 2 no. 5 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 "Opportunities and risk report" on page 53 et seq.). 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 internal control system focuses on organizational implementation of management decisions made to ensure the effectiveness and efficiency of business operations (including the safeguarding of assets, which includes preventing and detection asset misappropriation), adherence to generally accepted accounting principles and the reliability of internal and external accounting and compliance with the legal provisions relevant to the company.

The objective of the ICS is to obtain sufficient assurance using the implemented controls and to be able to monitor and manage risks to ensure 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 compliance 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 financial statement 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.

For the Group's German companies, the Shared Service Center of KUKA Aktiengesellschaft is responsible at a central level for accounting and human resource operations.

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 combined management report. At KUKA Group, these include, in particular:

- › Identifying the main areas of risk (see the "Opportunities and risk report" on page 53 et seq.) 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 combined 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. Each material business transaction must be signed or otherwise authorized 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;
- › Definition and monitoring of the implementation of the ICS control requirements is conducted by the process-independent central ICS Group department. 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 design and operational 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 compliance 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 representation letter 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 mid-year and year-end (see page 126), by which they confirm that they have adhered to the prescribed accounting standards of KUKA Group and that their figures give a true and fair view of the Group's financial performance, financial position and cash flows.

The elements of the ICS relevant for financial reporting are evaluated by an auditor to determine their effectiveness as part of a risk-oriented audit approach.

In its meetings, the Audit Committee of the Supervisory Board regularly reviews the effectiveness of the financial statement-related internal control system. The Supervisory Board therefore continuously obtains an appropriate view of the Group's risk situation and monitors ICS effectiveness. 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 financial statement 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 289 para. 4 and section 315 para. 4 of the German Commercial Code (HGB) including accompanying explanations

The disclosures in accordance with takeover law required by sections 289 para. 4 and 315 para. 4 of the German Commercial Code (HGB) are presented as of December 31, 2015 and explained in the following.

Composition of subscribed capital

As of December 31, 2015, the total share capital of KUKA Aktiengesellschaft amounted to €100,103,273.40 and consisted of 38,501,259 no-par-value bearer shares with pro rata share capital of €2.60 per share. The share capital is fully paid up. All these 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

KUKA Aktiengesellschaft regularly grants the company's Executive Board members and other selected executives from Group companies the right to participate in so-called "phantom share programs", i.e. virtual share programs, as per the terms of their individual contracts. The phantom share programs are part of the performance-based compensation system for executives and are aimed at sustainably increasing the enterprise value. Each of the programs has a term of three years. The payout at the end of the term depends on the development of the share price and on the change in enterprise value during the term of the program. The phantom share programs stipulate that at the end of the term of the respective program, the executives entitled to participate must apply 25% of the gross sum paid out from the phantom share program toward the purchase of KUKA shares until a predetermined holding volume is reached. For the programs established to date, the holding volume amounts to 50% of the fixed annual remuneration of the executive in question. Shares acquired outside the phantom share program also count towards the holding target. The holding obligation does not end until the participant leaves KUKA Group.

Again in 2015, KUKA Aktiengesellschaft set up an employee share program (MAP 2015). Under the terms of MAP 2015, employees were entitled to buy KUKA shares and, in addition to the shares purchased, to receive bonus shares at a predetermined ratio as defined by MAP 2015. Employees are subject to a restriction on selling KUKA shares purchased or bonus shares allocated until December 31, 2016.

The Executive Board is not aware of any other restrictions that would affect voting rights or the 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 21 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).

The most recent notifications were made to KUKA Aktiengesellschaft by the following persons and companies, which reported the following shareholdings of more than 10% of the voting rights as follows:

a) Swoctem GmbH – Notifications dated August 5, 2014

1.	Swoctem GmbH, Haiger/Germany	10.018%	held directly
2.	Friedhelm Loh/Germany	10.018%	allocated pursuant to section 22 para. 1 sentence 1 no. 1 of the WpHG

b) J.M. Voith GmbH & Co. Beteiligungen KG – Notifications dated March 31, 2015 and April 1, 2015*

1.	J.M. Voith GmbH & Co. Beteiligungen KG, Heidenheim an der Brenz/Germany	25.10%	held directly
2.	J.M. Voith Verwaltungs GmbH, Heidenheim an der Brenz/Germany	25.10%	allocated pursuant to section 22 para. 1 sentence 1 no. 1 of the WpHG
3.	Voith GmbH, Heidenheim an der Brenz/Germany	25.10%	allocated pursuant to section 22 para. 1 sentence 1 no. 1 of the WpHG
4.	JMV GmbH & Co. KG Heidenheim an der Brenz/Germany	25.10%	allocated pursuant to section 22 para. 1 sentence 1 no. 1 of the WpHG
5.	JMV Verwaltungs GmbH, Heidenheim an der Brenz/Germany	25.10%	allocated pursuant to section 22 para. 1 sentence 1 no. 1 of the WpHG
6.	Voith Familien Verwaltung GmbH, Mannheim/Germany	25.10%	allocated pursuant to section 22 para. 1 sentence 1 no. 1 of the WpHG
7.	Familiengesellschaft J.M. Voith GbR, Mannheim/Germany	25.10%	allocated pursuant to section 22 para. 1 sentence 1 no. 1 of the WpHG

* Pursuant to the notifications of December 3, 2014 and December 12, 2014, the entire voting rights of J.M. Voith GmbH & Co. Beteiligungen KG already consisted of voting rights in accordance with sections 21, 22 WpHG (24.91%) and section 25a WpHG (0.19%) on these dates. Pursuant to the notifications of March 31, 2015 and April 1, 2015, the entire voting rights of J.M. Voith GmbH & Co. Beteiligungen KG consisted solely of voting rights in accordance with sections 21, 22 WpHG from that time on.

c) Midea Group – Notification dated February 3, 2016

1.	MECCA International (BVI) Limited	10.22%	held directly
2.	Midea International Corporation Company Limited	10.22%	allocated pursuant to section 22 of the WpHG
3.	Midea Group Co., Ltd. Foshan/China	10.22%	allocated pursuant to section 22 of the WpHG

Other than this, KUKA Aktiengesellschaft has no knowledge of any persons or companies whose direct or indirect shareholdings in the company exceed 10% of the voting rights.

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 289 para. 4 no. 5 and section 315 para. 4 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 in 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 June 10, 2015 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 after Authorized Capital 2015 has been used and, if Authorized Capital 2015 has not been fully used by June 9, 2020, following expiration of the authorization.

With regard to the changes in the Authorized Capital and Conditional Capital 2010 and in the Conditional Capital 2013, the Supervisory Board was/is authorized by resolutions of the Annual General Meetings held on June 5, 2013 and May 28, 2014 to amend the wording of section 4 para. 1, 6 and 7 of the Articles of Association as per the respective issue of subscription shares and all other associated amendments to the Articles of Association that only affect the wording.

Furthermore, the Supervisory Board was authorized by resolution of the Annual General Meeting of May 28, 2014 to amend the wording of section 4 para. 1 and 8 of the Articles of Association after (fully or partially) increasing the share capital after utilizing Conditional Capital 2014 and, in the event this has not been (fully) utilized by May 25, 2016 or June 4, 2018, after expiry of the respective authorizations or deadlines for exercising conversion rights.

Executive Board authorization to issue and buy back shares

Authorized capital

As per the resolution of the Annual General Meeting on June 10, 2015 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 June 9, 2020 by up to €46,420,808.20 through the issue of new shares in exchange for contributions in cash or in kind on one or more occasions (Authorized Capital 2015). 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, 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 2015 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 28, 2014 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 28, 2014 in accordance with the appropriate application of section 186 para. 3 sentence 4 AktG.

The Executive Board, subject to approval by the Supervisory Board, is only permitted to use the aforementioned authorization to exclude shareholder subscription rights to the extent that the pro rata amount of the total shares issued under exclusion of subscription rights does not exceed 20% of the share capital at the time the authorization becomes effective or of the existing share capital at the time this authorization is exercised, should this amount be less. 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

In partial exercise of the authorization of the Annual General Meeting of April 29, 2010, KUKA Aktiengesellschaft issued a convertible bond with a nominal total value of €58,800,000 by way of a private placement on February 12, 2013. Additionally, in partial exercise of the authorization of the Annual General Meeting of June 5, 2013, KUKA Aktiengesellschaft issued a (further) convertible bond with a nominal total value of €91,200,000 by way of a private placement on July 26, 2013. The convertible bond issued on July 26, 2013 constituted an increase in the convertible bond issued on February 12, 2013, resulting in a single convertible bond with a nominal total value of €150,000,000.

To service the convertible bond of February 12, 2013, section 4 para. 6 of the Articles of Association stipulated a conditional increase in the company's share capital by up to €4,156,513.40, divided into up to 1,598,659 no-par-value bearer shares (Conditional Capital 2010). To service the convertible bond of July 26, 2013, section 4 para. 7 of the company's Articles of Association stipulated a conditional increase in the company's share capital by up to €6,446,837.80, divided into up to 2,479,533 no-par-value bearer shares (Conditional Capital 2013).

Holder of the convertible bonds exercised their conversion rights in accordance with the bond terms during the period October 1, 2015 to December 31, 2015. To service the conversion rights, the company issued a total of 2,792,944 new shares by December 31, 2015, amounting to pro rata share capital of €2.60 per share. This caused the share capital of KUKA Aktiengesellschaft to rise from €92,841,619.00 as of December 31, 2015 to €100,103,273.40, an increase of €7,261,654.40. Conditional Capital 2010 (section 4 para. 6 of the Articles of Association) and Conditional Capital 2013 (section 4 para. 7 of the Articles of Association) decreased correspondingly.

Section 4 para. 8 of the Articles of Association stipulates a conditional increase in the company's share capital by up to €33,486,707.80, divided into up to 12,879,503 no-par-value bearer shares (Conditional Capital 2014). The conditional capital increase will only be carried out to the extent that holders or creditors of option or conversion rights or conversion or option obligations exercise their option or conversion rights in exchange for cash for options and or convertible bonds, participation rights or participating bonds (or a combination of these instruments), issued or guaranteed by KUKA Aktiengesellschaft or a dependent Group company of KUKA Aktiengesellschaft up to May 27, 2019 as a result of the authorization granted to the Executive Board by shareholders at the Annual General Meeting of May 28, 2014, or, to the extent they were obliged to exercise their conversion or option rights, fulfill their conversion or option obligations, or to the extent that KUKA Aktiengesellschaft exercises its option to wholly or partially grant shares of KUKA Aktiengesellschaft instead of paying the monies due, provided no cash settlement or treasury shares or shares of another listed company are used to service the bonds. The new shares will be issued at the option or conversion price to be determined in accordance with the aforementioned authorization resolution. The new shares will participate in the profits as of the beginning of the fiscal year in which they are created. The Executive Board is authorized, subject to approval by 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 28, 2014, the company is authorized, until May 27, 2019, 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 this Annual General Meeting 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 this Annual General Meeting, 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 cancellation. Cancellation leads to reduction of the share capital. However, the cancellation 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 cancellation of such shares, may be used once or several times, in whole or in part. Moreover, subject to approval by the Supervisory Board, the Executive Board is authorized to withdraw or resell the treasury shares acquired. Both the purchase and disposal authorization may be exercised in part on one or more occasions.

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

Employment contracts of Executive Board members

The employment contracts of the Executive Board members contain “change-of-control” clauses. 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)), the Executive Board members are entitled to terminate the employment contract within three months of the change in control occurring, subject to a notice period of three months. In the event of a termination, the Executive Board members will be entitled to a severance payment, which is measured against the compensation due for the remainder of their contract, but is restricted to twice the annual compensation at most.

Syndicated bank loan

On March 30, 2015, KUKA Aktiengesellschaft and its associated companies signed a new syndicated loan agreement with a banking syndicate led by Commerzbank AG, Deutsche Bank AG Deutschlandgeschäft branch, Deutsche Bank Luxembourg S.A., UniCredit Bank AG, Landesbank Baden-Württemberg, BNP Paribas S.A. German branch and Credit Suisse AG, under the terms of which the lenders provide an amount of up to €230,000,000. The facility covers the main credit 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 control the operating policies of the company.

2013 convertible bond

The terms and conditions of convertible bonds (“terms and conditions of issue”) include a customary change-of-control clause, pursuant to which KUKA Aktiengesellschaft must publish any change of control immediately upon acquiring knowledge thereof in accordance with the terms and conditions of issue and must announce the effective date of the change of control. Accordingly, each bondholder has the right to demand repayment of one or all bonds held at the principal amount plus accrued interest from the bond issuer on the effective date of the change of control. Otherwise, the conversion ratio will be adjusted as required by the terms and conditions of issue. A “change of control” within the meaning of the terms and conditions of issue exists when a person or persons acting in concert (i) acquire(s) – directly or indirectly (within the meaning of section 22 of the WpHG) – legal or beneficial ownership totaling more than 50% of the voting rights of the bondholder or the ability to control the management of the bondholder in another manner within the meaning of section 17 of the AktG or (ii) [participate(s) in] a takeover bid for shares of the bondholder and (A) the shares already controlled by the bidder and the shares for which the offer has already been accepted grant a total of more than 50% of the voting rights of the bondholder at any time during the takeover bid and (B) the offer is

or becomes unconditional (without prejudice to any regulatory approvals, particularly antitrust approvals that will not be obtained until after the end of the acceptance period in accordance with section 16 para. 1 of the German Securities Acquisition and Takeover Act (WpÜG)), or (iii) acquire(s) all or significantly all of the assets of the bondholder from the bondholder by sale or by transfer.

Promissory note 2015

KUKA Aktiengesellschaft issued a promissory note for €250,000,000 on October 9, 2015 led by Landesbank Baden-Württemberg and UniCredit Bank AG.

The terms and conditions of the promissory note contain a standard clause referring to a “change-of-control” provision. Accordingly, immediately it learns of a change of control, KUKA Aktiengesellschaft must disclose this in accordance with the terms and conditions of the loan. 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.

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 clauses in the employment contracts of the Executive Board members do not constitute compensation clauses as defined in sections 289 para. 4 sentence 1 no. 9 and 315 para. 4 sentence 1 no. 9 of the German Commercial Code (HGB).

Disclaimer

This management report contains forward-looking statements regarding expected developments. These statements are based on current estimates and are naturally exposed to risks and uncertainties. Actual results may differ from the statements contained herein.

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Financial Statements

Group income statement

of KUKA Aktiengesellschaft for the period January 1 – December 31, 2015

in € millions	Notes	2014	2015
Sales revenues	(1)	2,095.7	2,965.9
Cost of sales	(2)	-1,575.5	-2,267.9
Gross income		520.2	698.0
Selling expenses	(2)	-161.0	-251.2
Research and development costs	(2)	-78.2	-105.4
General and administrative expenses	(2)	-133.5	-213.1
Other operating income	(3)	9.8	23.0
Other operating expenses	(3)	-16.1	-14.8
Loss from companies consolidated at equity		-2.6	-3.5
Earnings from operating activities		138.6	133.0
Reconciliation to earnings before interest and taxes (EBIT)			
Financing costs included in operating results		3.2	2.6
Earnings before interest and taxes (EBIT)		141.8	135.6
Depreciation and amortization		43.5	123.5
Earnings before interest, tax and amortization (EBITDA)		185.3	259.1
Interest income	(4)	8.7	8.3
Interest expense	(4)	-34.0	-15.7
Financial results		-25.3	-7.4
Earnings before tax		113.3	125.6
Taxes on income	(5)	-45.2	-39.3
Earnings after taxes		68.1	86.3
of which: attributable to minority interests		0.0	-0.5
of which: attributable to shareholders of KUKA AG		68.1	86.8
Earnings per share (undiluted) in €	(6)	1.99	2.39
Earnings per share (diluted) in €	(6)	1.90	2.35

Statement of comprehensive income

of KUKA Aktiengesellschaft for the period January 1 – December 31, 2015

in € millions	Notes	2014	2015
Earnings after taxes		68.1	86.3
Items that may potentially be reclassified to profit or loss			
Translation adjustments		11.9	43.3
Items that are not reclassified to profit or loss			
Changes of actuarial gains and losses	(23)	-16.1	5.8
Deferred taxes on changes of actuarial gains and losses		3.8	-3.8
Changes recognized directly in equity		-0.4	45.3
Comprehensive income		67.7	131.6
of which: attributable to minority interests		0.0	-0.5
of which: attributable to shareholders of KUKA AG		67.7	132.1

Cash flow statement*

of KUKA Aktiengesellschaft for the financial year 2015

in € millions	2014	2015
Net income after taxes	68.1	86.3
Income taxes	51.8	61.2
Net interest income	24.9	7.4
Depreciation of intangible assets	18.4	87.8
Depreciation of tangible assets	25.1	35.7
Other non-payment related income	-16.2	-28.5
Other non-payment related expenses	9.2	10.9
Cash earnings	181.3	260.8
Result on the disposal of assets	0.4	-11.6
Changes in provisions	34.8	-8.8
Changes in current assets and liabilities		
Changes in inventories	-27.7	-18.4
Changes in receivables and deferred charges	-35.4	-53.5
Changes in liabilities and deferred income (excl. financial debt)	67.6	56.7
Income taxes paid	-32.2	-51.9
Investments/financing matters affecting cash flow	-4.1	-4.1
Cash flow from operating activities	184.7	169.2
Payments from disposals of fixed assets	0.7	9.9
Payments for capital expenditures on intangible assets	-15.9	-31.0
Payments for capital expenditures on tangible assets	-78.4	-76.3
Payments for investment in financial investments	-	-1.6
Payments received from financial assets in the course of short-term funds management	12.7	14.5
Payments received from the sale of consolidated companies and other business units	-	47.2
Payments for the acquisition of consolidated companies and other business units	-284.6	-44.4
Interest received	8.6	8.2
Cash flow from investing activities	-356.9	-73.5
Free cash flow	-172.2	95.7
Payments from capital increase	86.6	-
Dividend payments	-10.2	-16.9
Proceeds/payments from the issuance/repayment of bonds and liabilities similar to bonds	-173.0	-
Proceeds from/payments for the acceptance/repayment of bank loans	-17.4	227.0
Payments from grants received	4.1	4.1
Interest paid	-30.4	-10.1
Cash flow from financing activities	-140.3	204.1
Payment-related changes in cash and cash equivalents	-312.5	299.8
Changes due to acquisitions of companies	56.8	0.2
Exchange rate-related and other changes in cash and cash equivalents	6.7	4.1
Changes in cash and cash equivalents	-249.0	304.1
(of which net increase/decrease in restricted cash)	(-3.7)	(0.8)
Cash and cash equivalents at the beginning of the period	441.1	192.1
(of which net increase/decrease in restricted cash)	(6.1)	(2.4)
Cash and cash equivalents at the end of the period	192.1	496.2
(Restricted cash)	(2.4)	(3.2)

* See note 30 for further information on the cash flow statement

Group balance sheet of KUKA Aktiengesellschaft as of December 31, 2015

ASSETS in € millions	Notes	Dec. 31, 2014	Dec. 31, 2015
Non-current assets			
Intangible assets	(7)	430.4	423.0
Property, plant and equipment	(8)	233.8	259.0
Financial investments	(9)	0.6	3.9
Investments accounted for at equity	(10)	5.6	6.6
		670.4	692.5
Finance lease receivables	(11)	66.1	65.2
Income tax receivables		3.4	1.6
Other long-term receivables and other assets	(15)	9.9	14.8
Deferred taxes	(5)	48.2	49.2
		798.0	823.3
Current assets			
Inventories	(12)	272.4	297.8
Receivables and other assets			
Trade receivables	(13)	273.8	310.6
Receivables from construction contracts	(14)	339.1	347.7
Finance lease receivables	(11)	6.9	8.5
Income tax receivables		9.7	10.5
Other assets, prepaid expenses and deferred charges	(15)	71.0	87.1
		700.5	764.4
Cash and cash equivalents	(16)	192.1	496.2
Assets held for disposal	(28)	16.5	–
		1,181.5	1,558.4
		1,979.5	2,381.7

EQUITY AND LIABILITIES in € millions	Notes	Dec. 31, 2014	Dec. 31, 2015
Equity	(17)		
Subscribed capital	(18)	92.8	100.1
Capital reserve	(19)	176.5	265.3
Revenue reserves	(20)	255.0	367.6
Minority interests	(21)	16.8	-0.5
		541.1	732.5
Non-current liabilities, provisions and accruals			
Financial liabilities	(25+26)	137.0	294.2
Other liabilities	(27)	18.2	24.0
Pensions and similar obligations	(23)	121.7	114.0
Deferred taxes	(5)	65.3	56.4
		342.2	488.6
Current liabilities			
Financial liabilities	(25+26)	22.5	2.1
Trade payables		274.6	402.0
Advances received		78.3	72.5
Liabilities from construction contracts	(14)	247.6	217.0
Accounts payable to affiliated companies		0.1	0.0
Income tax liabilities		24.9	33.4
Other liabilities and deferred income	(27)	290.8	290.6
Other provisions	(24)	150.1	143.0
		1,088.9	1,160.6
Liabilities from assets held for disposal	(28)	7.3	-
		1,096.2	1,160.6
		1,979.5	2,381.7

Development of Group equity of KUKA Aktiengesellschaft for the financial year 2015

Notes	(18)	(18)	(19)
	Number of shares outstanding	Subscribed capital in € millions	Capital reserve in € millions
Jan. 1, 2014	33,915,431	88.2	94.5
Result after taxes	-	-	-
Other income	-	-	-
Comprehensive income	-	-	-
Capital increase	1,792,884	4.6	82.0
Dividend of KUKA AG	-	-	-
Change in scope of consolidation/Other changes	-	-	-
Jan. 1, 2015	35,708,315	92.8	176.5
Result after taxes	-	-	-
Other income	-	-	-
Comprehensive income	-	-	-
Capital increase from conversions	2,792,944	7.3	88.8
Dividend of KUKA AG	-	-	-
Change in scope of consolidation/Other changes	-	-	-
Dec. 31, 2015	38,501,259	100.1	265.3

	(20)			(21)		
	Revenue reserves					
	Translation gains/losses in € millions	Actuarial gains and losses in € millions	Annual net profit and other revenue reserves in € millions	Equity to shareholders in € millions	Minority interests in € millions	Total in € millions
	-2.2	-4.9	202.2	377.8	1.3	379.1
	-	-	68.1	68.1	-	68.1
	11.9	-12.3	-	-0.4	-	-0.4
	11.9	-12.3	68.1	67.7	-	67.7
	-	-	-	86.6	-	86.6
	-	-	-10.2	-10.2	-	-10.2
	-	-	2.4	2.4	15.5	17.9
	9.7	-17.2	262.5	524.3	16.8	541.1
	-	-	86.8	86.8	-0.5	86.3
	43.3	2.0	-	45.3	-	45.3
	43.3	2.0	86.8	132.1	-0.5	131.6
	-	-	-	96.1	-	96.1
	-	-	-14.3	-14.3	-	-14.3
	-	-	-5.2	-5.2	-16.8	-22.0
	53.0	-15.2	329.8	733.0	-0.5	732.5

Group notes

Group segment reporting* of KUKA Aktiengesellschaft for the financial year 2015

	Robotics		Systems	
	2014	2015	2014	2015
Orders received	805.5	891.2	1,456.0	1,428.1
Order backlog	241.5	233.4	955.4	923.2
Group external sales revenues	814.0	881.8	1,281.7	1,463.3
as a % of Group sales revenues	38.8	29.7	61.2	49.4
Intra-Group sales	20.6	27.8	3.9	8.4
Sales revenues by division	834.6	909.6	1,285.6	1,471.7
Operating profit/loss	303.2	345.8	213.8	253.7
as a % of sales revenues of the division	36.3	38.0	16.6	17.2
EBIT	88.9	100.2	80.2	114.7
as a % of sales revenues of the division	10.7	11.0	6.2	7.8
as a % of average capital employed (ROCE)	53.1	56.6	67.9	87.9
EBITDA	112.0	126.1	97.4	135.6
as a % of sales revenues of the division	13.4	13.9	7.6	9.2
Capital employed (annual average)**	167.3	177.1	118.1	130.5
Capital employed (end of financial year)	176.3	178.0	136.6	124.6
Assets	394.9	430.4	725.5	723.0
Liabilities	227.8	261.6	611.0	619.4
Investments accounted for at equity	3.2	1.6	2.4	2.3
Earnings of investments accounted for at equity	-2.6	-3.4	0.0	-0.1
Capital expenditure	30.4	39.4	28.7	23.5
Depreciation/amortization of intangible and tangible assets	22.5	24.4	17.1	18.2
Impairment losses on intangible and tangible assets	-	1.0	-	2.7
Depreciation/amortization of interest capitalized under intangible assets	0.6	0.5	-	0.1
Employees (Dec. 31)	3,644	4,232	5,810	5,146

* See note 30 for more information on Group segment reporting

** For acquisitions during the year, the annual average is taken into account with half the capital employed as of the end of the year.

Swisslog		KUKA AG and other companies		Reconciliation and consolidation		Group	
2014	2015	2014	2015	2014	2015	2014	2015
-	551.8	-	-	-32.5	-32.2	2,229.0	2,838.9
517.2	491.0	-	-	-11.6	-8.6	1,702.5	1,639.0
-	620.8	-	-	-	-	2,095.7	2,965.9
-	20.9	-	-	-	-	100.0	100.0
-	0.0	-	-	-24.5	-36.2	-	-
-	620.8	-	-	-24.5	-36.2	2,095.7	2,965.9
-	97.7	-	-	2.6	0.8	520.2	698.0
-	15.7	-	-	-	-	24.8	23.5
-	-45.9	-27.4	-33.1	0.1	-0.3	141.8	135.6
-	-7.4	-	-	-	-	6.8	4.6
-	-14.5	-	-	-	-	28.8	20.0
-	24.5	-24.1	-26.8	0.0	-0.3	185.3	259.1
-	3.9	-	-	-	-	8.9	8.7
154.6	315.9	52.4	54.0	-0.4	-0.7	492.0	676.8
309.3	322.5	48.7	59.3	-0.8	-0.8	670.1	683.6
537.6	578.7	494.6	545.4	-416.8	-442.8	1,735.8	1,834.7
261.2	292.2	90.9	90.3	-9.6	-8.9	1,181.3	1,254.6
-	-	-	2.7	-	-	5.6	6.6
-	-	-	0.0	-	-	-2.6	-3.5
-	22.2	35.2	22.5	0.0	-0.6	94.3	107.0
-	70.4	3.3	6.3	-	-0.1	42.9	119.2
-	-	-	-	-	-	-	3.7
-	-	-	-	-	-	0.6	0.6
2,369	2,555	279	367	-	-	12,102	12,300

General comments

Accounting principles

KUKA Aktiengesellschaft, headquartered in Augsburg, has prepared its consolidated financial statements for the period ending December 31, 2015 according to the International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB) applicable and endorsed by the European Union as at the balance sheet date. The term IFRS also includes all valid international accounting standards (IAS). The interpretations of the Standing Interpretations Committee (SIC) and the International Financial Reporting Standards Interpretations Committee (IFRS IC) – supplemented by the guidelines stipulated in section 315a para. 1 of the German Commercial Code (HGB) – were also taken into consideration.

The accounting policies used conform to the methods applied in the previous year. Exceptions from this are the standards and interpretations for which application is mandatory for the first time in the 2015 financial year and the other reporting methods described under “Changes in accounting policies”. The consolidated financial statements comply with German law. The currency reported in the consolidated financial statements is the euro. Unless otherwise noted, all amounts in the notes to the accounts are stated in millions of euros (€ million).

With the exception of specific financial instruments reported in fair values, the Group’s consolidated financial statements are prepared based on historical costs. In this case, fair value is defined under IFRS 13 as the price that would be paid by independent market participants in an arm’s length transaction on the measurement date if an asset were sold or a liability transferred.

KUKA Group does not carry any assets with an undefined useful life with the exception of goodwill.

The Group’s consolidated income statement is prepared using the cost of sales method. The consolidated financial statements comply with the classification requirements of IAS 1. The presentation in the Group’s consolidated balance sheet distinguishes between current and non-current assets and liabilities.

The identically worded declarations of compliance with the German Corporate Governance Code pursuant to section 161 of the German Stock Corporation Act (AktG) made by the Executive Board on January 18, 2016 and the Supervisory Board on February 8, 2016 can be accessed on the Internet through the company’s website (www.kuka-ag.de). The Executive Board prepared the consolidated financial statements on February 29, 2016.

Scope of consolidation

In comparison to year-end 2014 the scope of consolidation has changed due to the acquisition, foundation and sale of companies and also due to mergers.

The table below shows the development of the scope of consolidation since January 1, 2015:

Number of fully consolidated companies

Number	Robotics	Systems	Swisslog	Other	Total
As of Jan 1, 2015	24	46	30	3	103
Additions	–	–	4	–	4
Disposals	–	-3	-1	–	-4
Mergers and changes of segment	-1	-3	-1	–	-5
As of Dec. 31, 2015	23	40	32	3	98
of which, Germany	1	11	5	2	19
of which, abroad	22	29	27	1	79

Number of associated companies

Number	Robotics	Systems	Swisslog	Other	Total
As of Dec 31, 2015	1	1	–	1	3

Additions

The additions relate to the acquisition or foundation of:

- › Forte Industrial Equipment Systems Inc., Mason, Ohio/USA
- › Swisslog Automation GmbH, Karlsruhe
- › Swisslog Middle East LLC, Dubai/United Arab Emirates
- › KUKA Beteiligungen (Switzerland) AG, Buchs (AG)/Switzerland

Swisslog Automation GmbH, Karlsruhe was founded in the second quarter of 2015 (further details can be found under “Company acquisitions”).

Swisslog AG, Buchs/Switzerland, 100% subsidiary of Swisslog Holding AG, Buchs/Switzerland, founded Swisslog Middle East LLC, Dubai/United Arab Emirates, together with Al Tayer Group. In accordance with the articles of association, Swisslog holds 49.0% (corresponding to <€0.1 million) of the share capital. However, Swisslog has an interest of 51.0% in the income and nominates the majority of members on the administrative board, with the effect that the company is fully incorporated into KUKA Group. In total the business operations in 2015 are still of minor significance.

In the second quarter, to compensate the remaining shareholders of Swisslog Holding AG, Buchs/Switzerland, KUKA Beteiligungen (Switzerland) AG, Buchs/Switzerland was founded. After cash compensation to remaining shareholders and the merger execution in the third quarter, the company name was changed to Swisslog Holding AG, Buchs/Switzerland.

Disposals

In addition to the liquidation of Translogic Electric Corp., New York/USA, the disposals relate to the sale in the second quarter of HLS Engineering Group, headquartered in Augsburg, to two financial investors.

HLS Group employs around 250 people and is active in the field of systems and mechanical engineering services. KUKA will continue to work with HLS Group, but following the sale will concentrate more strongly on its core business. The following companies are owned by HLS Group:

- › HLS Ingenieurbüro GmbH, Augsburg
- › HLS Czech s.r.o., Mlada Boleslav/Czech Republic
- › HLS Vietnam CO., LTD. Ho Chi Minh City/Vietnam.

In the third quarter, the Tools and Dies business unit was sold to Porsche AG. The transaction took the form of an asset deal, meaning that there were no effects on the number of companies incorporated in KUKA Group. The Tools and Dies business unit, with sites in Schwarzenberg and in Dubnica/Slovakia, had around 600 employees and was part of the Systems segment. The sale enables KUKA to focus even more strongly on its core business of robot-based automation solutions.

Mergers and changes of segment

In the first quarter of 2015, KUKA Laboratories GmbH, Augsburg/Germany was merged into KUKA Roboter GmbH, Augsburg/Germany, and Reis Holding Corp. USA, Elgin, Illinois/USA was merged into Reis Robotics USA Inc., Elgin, Illinois/USA. As part of the merger compensation to remaining Swisslog shareholders, Swisslog Holding AG, Buchs/Switzerland, was merged into KUKA Beteiligungen (Switzerland) AG in the third quarter (see also page 78 under "Additions").

In the fourth quarter, the Czech company Reis Robotics CR. Spol s.r.o, Chomutov/Czech Republic was merged into Reis Robotics CR. – strojirenstvi spol. s.r.o., Chomutov/Czech Republic.

At the end of the year, due to business volume and to further optimize the corporate structure, Reis France EURL, Pontault-Combeau/France was merged into KUKA Automatisme + Robotique S.A.S., Villebon-sur-Yvette/France.

The previous shell company KUKA Industries GmbH, Augsburg started operations in 2015. In this context, the company was removed from the Other segment and allocated to Systems.

Over the course of the financial year, the corporate purpose of Systems U.S. Holdings Company LLC., Shelby Township, Michigan/USA changed. Previously, the enterprise had served as a holding company for the North American Systems companies. It is now taking on more and more cross-segment activities. The company was therefore reclassified from the Systems segment into the Other segment in the fourth quarter.

The mergers and segment changes undertaken are of minor significance in themselves and for the relevant segment overall and thus do not affect comparability with the previous year.

Company acquisitions

Forte Industrial Equipment Systems Inc., Mason, Ohio/USA ("FORTE")

In April 2015, 100.0% of the shares in FORTE, a renowned system integrator for the automation of warehouses, headquartered in Mason, Ohio/USA, were acquired. The company specializes in services in the fields of solutions design, system integration and software technology for distribution centers. FORTE plans, designs and implements intralogistics systems using its own warehouse execution software.

The acquisition strengthens the strategy of the Swisslog segment in the North American market by adding a complementary spectrum of products and services, and increases the range of market coverage especially in the segments of e-commerce and pharmaceuticals.

€11.4 million of the €12.9 million purchase price was paid immediately in cash. The remaining purchase price is due within 18 months and is covered by specific contractual guarantees. Cash and cash equivalents of €1.4 million were transferred. No shares in previously fully consolidated companies of KUKA Group were acquired.

In the financial year, revenues of €17.1 million were attributable to the acquisition with a result of €0.2 million. If the company had already been taken over at the beginning of 2015, this would have created additional revenues of around €3.6 million and a net loss for the year of €-0.1 million.

The following table shows the carrying amounts assumed as a result of the purchase of the divisions immediately prior to the acquisition as well as the opening balance sheet in fair values (provisional).

in € millions	Carrying amounts assumed	Opening balance sheet in fair values
Intangible assets	0.0	3.9
Tangible assets	0.2	0.2
Inventories	0.3	0.3
Receivables and other assets	2.9	2.9
Liabilities and provisions	4.4	4.4

The acquired intangible assets consist to a large extent of rights to names, technology and orders on hand. Receivables and inventories primarily concern orders in house at the time of the acquisition. Contingent liabilities were not transferred. No deferred taxes arising from the takeover have to be taken into account. The transaction thus led to goodwill of €8.8 million. The goodwill reflects first and foremost the future synergies described above.

Swisslog Automation GmbH, Karlsruhe

In April 2015 KUKA also acquired a range of technologies and personnel from Grenzebach Automation GmbH in Karlsruhe, Germany, in order to further strengthen its competence in the fields of automated guided vehicles (AGVs) and logistics robots. Swisslog Automation GmbH, Karlsruhe was initially founded in the course of the takeover.

The acquisition consistently follows the strategy of positioning Swisslog more strongly in the e-commerce and multi-channel segments and expanding the production logistics area. The purchase price amounted to a total of €1.1 million, which was paid in cash.

Swisslog Group

At the end of 2014, 94.5% of the shares in Swisslog Group, Buchs/Switzerland were acquired and included in KUKA Group's consolidated financial statements on the basis of preliminary figures, particularly in relation to tax assets.

In the course of the preliminary allocation of the purchase price, deferred tax liabilities of €42.9 million were recognized. These were increased by €2.0 million in the current financial year on account of additional findings. This resulted in newly established goodwill of €150.2 million arising through the transaction, based on the full goodwill method.

Due to the squeeze-out merger carried out in the current financial year, KUKA now holds 100.0% of the shares. The total purchase price amounted to CHF 337.9 million or €283.3 million.

All other information related to the acquisition is unchanged compared to last year's report. In this respect, please refer to the 2014 annual report.

Faude Automatisierungstechnik GmbH, Gärtringen was also acquired and first consolidated at the end of 2014. For further details please refer to the 2014 annual report. The purchase price allocation has been finally taken into account in the current financial statements and was not subject to any further changes.

Investments in associates

On December 9, 2015 KUKA Group invested USD 3.0 million in a 30% stake in Barrett Technology, LCC, Newton, Massachusetts/USA. The company develops medical robotics products, particularly in the rehabilitation sector. Initial tests in medical applications were completed successfully in 2015. This investment enables KUKA to expand its medical portfolio and increase the attractiveness of its medical products. The investment is accounted for by the equity method in accordance with IAS 28. The carrying amount of the investment is entered at the level of the pro rata equity capital. The share of the company's current gains or losses for KUKA is recognized directly in the income statement in the earnings before interest and taxes (EDIT) under the item "Earnings from companies valued at equity" and was significantly below €0.1 million in the financial year. This means that on the balance sheet date, the carrying amount remained almost unchanged compared to the date of investment.

Consolidation principles

Subsidiaries directly or indirectly controlled by KUKA Aktiengesellschaft ("control concept" according to IFRS 10) are consolidated in the Group financial statements according to the rules of full consolidation. Control prevails if there is a right to the variable returns and the possibility for the company to use the control so that thereby the level of returns from the company can be influenced. To determine the point at which the company is included in consolidation or is finally consolidated, the date is crucial on which control is effectively gained or lost.

The consolidated financial statements are based on the financial statements of KUKA Aktiengesellschaft and those of the consolidated subsidiaries and were prepared according to the uniform accounting policies for the Group. Capital consolidation takes place by offsetting the carrying amounts of the investment against the pro rata newly measured equity capital of the subsidiaries at the time of acquisition. In line with IFRS 3, any positive differences are capitalized as goodwill under intangible assets. Any negative differences are recognized in the income statement.

Intra-Group sales, expenses, earnings and receivables and payables are offset, and inter-company profits and losses are eliminated. The deferred tax entries required in connection with the consolidation processes have been recorded.

Guarantees and warranties that KUKA Aktiengesellschaft issues on behalf of consolidated subsidiaries are eliminated provided they do not have an external effect.

Currency translation

Receivables and payables denominated in foreign currency are translated as of the balance sheet date using the average rate of the year. Any associated translation gains or losses are recognized in the income statement. Where the translation gains or losses are the result of foreign currency transactions in respect of supplies and services, these are reported under the cost of sales; translation gains or losses on financial transactions, such as intra-Group loan transactions, are reported in the net interest income.

The annual financial statements of the consolidated foreign subsidiaries are translated from their functional currency (IAS 21) into euros. With the exception of KUKA Robotics Hungária Ipari Kft., Taksony, Hungary, whose functional currency is the euro, this is the respective local currency, since the foreign subsidiaries operate predominantly within their currency area. The Group treats newly resulting derivative goodwill from the acquisition of foreign subsidiaries as assets of the economically

independent subsidiary and translates this goodwill at the closing rate, if necessary (IAS 21.47). The resulting exchange differences are recognized in the foreign currency translation reserve. Unrealized price differences from the translation of equity-replacing loans to foreign subsidiaries in foreign currency are reported directly in the aggregate income/loss and so recognized directly in equity. On loss of control these effects are released through profit or loss.

Assets and liabilities are translated at the rate effective on the balance sheet date. Derivative goodwill and equity recognized prior to January 1, 2005 are translated using historical rates. Income and expenses are translated using average rates for the year. Differences arising from the translation of assets and liabilities denominated in foreign currencies compared to the prior year as well as translation differences between the income statement and the balance sheet are recognized in the revenue reserves. In the event of the departure of Group entities, existing exchange differences are then recognized in profit or loss. The following table shows the currency values compared to the previous year:

Country	Currency	Balance sheet date		Average rate	
		Dec. 31, 2014	Dec. 31, 2015	2014	2015
United Arab Emirates	AED	4.4622	3.9876	4.8580	4.0428
Australia	AUD	1.4829	1.4897	1.4724	1.4765
Brazil	BRL	3.2207	4.3117	3.1228	3.6916
Canada	CAD	1.4063	1.5116	1.4669	1.4176
China	CNY	7.5358	7.0608	8.1883	6.9730
China, Hongkong	HKD	9.4170	8.4376	10.3052	8.6023
Czech Republic	CZK	27.7350	27.0230	27.5358	27.2850
Hungary	HUF	315.5400	315.9800	308.7067	309.8975
India	INR	76.7190	72.0215	81.0689	71.1752
Japan	JPY	145.2300	131.0700	140.3783	134.2875
Korea	KRW	1,324.8000	1,280.7800	1,399.0300	1,255.7417
Malaysia	MYR	4.2473	4.6959	4.3472	4.3315
Mexico	MXN	17.8679	18.9145	17.6621	17.5995
Norway	NOK	9.0420	9.6030	8.3551	8.9417
Romania	RON	4.4821	4.5245	4.4443	4.4452
Russia	RUB	72.3370	80.6736	51.0113	68.0068
Sweden	SEK	9.3930	9.1895	9.0969	9.3545
Switzerland	CHF	1.2024	1.0835	1.2146	1.0676
Singapore	SGD	1.6058	1.5417	1.6830	1.5251
Taiwan	TWD	38.2507	35.7632	40.1498	35.1982
Thailand	THB	39.9100	39.2480	43.1628	38.0008
United Kingdom	GBP	0.7789	0.7340	0.8064	0.7260
USA	USD	1.2141	1.0887	1.3288	1.1096

Accounting and valuation

Orders received

An order is recognized as an incoming order on receipt of a binding purchase order. Framework agreements are not reported here. However, legally binding order releases for volumes from framework agreements are recognized as orders received.

Order backlog

If a binding customer order has not yet been invoiced or not yet realized as a sale in the case of long-term contract production, an order is recorded as an order backlog.

Revenue recognition

Sales revenues are recognized upon the performance of services or transfer of risk to the customer. Thus, sales revenues are recognized when the products or goods have been delivered or the services performed, the material risks and rewards associated with ownership have been transferred to the purchaser, the amount derived from the sale can be measured reliably, the inflow of economic benefits resulting from the transaction is probable, and the costs associated with the transaction can be measured reliably.

Revenues for long-term construction contracts that meet the criteria of IAS 11 are recognized according to the percentage of completion (POC) method. As a rule, the percentage of completion to be recognized by contract is determined by the cost of work to date as a percentage of the estimated total costs (cost-to-cost method). The profit from the contract is recognized on the basis of the percentage of completion thus determined. To the extent that services performed to date exceed advances received, the contracts are recorded as receivables from construction contracts. If there is a negative balance after deduction of advances, this is recognized as liabilities from construction contracts. Borrowing costs are considered for construction contracts in accordance with IAS 23. If necessary, provisions or asset-side impairment losses are recognized for impending losses.

Cost of sales

The cost of sales comprises the cost of production of the goods sold as well as the acquisition cost of any merchandise sold. In addition to the cost of attributable direct materials and labor, this also comprises indirect costs, including the depreciation and amortization of production plants and intangible assets, write-downs of inventories and the recognized borrowing costs. KUKA Group accounts for provisions for product warranties as part of the cost of sales at the time of revenue recognition. Impending losses from contracts are recognized in the reporting period in which the current estimate for total costs arising from the respective contract exceeds the expected contract revenue.

Business combinations

Business combinations are accounted for using the acquisition method. As the acquirer, KUKA and the acquired company may have already had a relationship that existed before the business combination was intended. If the business combination does in fact lead to a settlement of this pre-existing relationship, KUKA recognizes the resulting gain or loss as the acquirer. The cost of acquisition is measured at the fair value of the assets given up and the liabilities incurred or assumed at the acquisition date. An agreed contingent consideration from KUKA as the acquirer is recognized at fair value at the acquisition date. The identifiable assets acquired and the liabilities (including contingent liabilities) assumed in a business combination are initially measured at their fair values at the acquisition date, irrespective of the extent of any non-controlling interests. Uniform accounting policies are used here. After initial recognition, gains and losses are attributed without limit in proportion to the interest held; a negative balance with respect to non-controlling interests can arise as a result. The non-controlling interests are involved in profit sharing during the reporting period.

Investments in associates and joint ventures

Investments in associates are reported at cost in the first instance. A difference between the cash contribution and pro rata equity capital is recognized directly in equity. Subsequent measurement takes place using the equity method as described in IAS 28. The result of associates is recognized in a separate item of the income statement.

Goodwill

Goodwill is tested for impairment at least annually. To this end, impairment tests are performed in which the carrying amount of goodwill allocated to the defined cash generating units (CGUs) is compared to the recoverable amount. If the carrying amount exceeds the recoverable amount of the cash generating unit, an impairment loss is recognized for the goodwill allocated to this cash generating unit. The recoverable amount is the higher of the cash generating unit's fair value less costs to sell and its value in use. KUKA uses a cash generating unit's value in use to determine its recoverable amount. The data from the detail planning phase from the business plan for the next three years were used as the underlying data to determine the value in use, assuming in subsequent years that the annual cash flows will generally equal those in year three. For the sake of simplification, the perpetuity calculation further assumes that investments equal depreciation/amortization expense and the working capital remains unchanged.

With respect to the segment-specific discount rates as well as the further parameters and their derivation, and also for the identification of the principal items of goodwill, please refer to the discussions under note 7.

Self-developed software and other development costs

Development costs for newly developed products or internally generated intangible assets (e.g. software) are capitalized provided that the technical feasibility and commercialization of the newly developed products are assured, and that this will result in an inflow of economic benefits to the Group (see IAS 38.57 for further requirements). In this context, the costs of production encompass the costs directly and indirectly attributable to the cost of development.

Depreciation commences when the asset is put into use and is recognized over an expected useful life of, as a rule, three to five years, using the straight-line method. Moreover, the value recognized for capitalized costs of development projects not yet completed is subject to annual impairment tests.

Research and development costs that are not eligible for recognition as an asset are recognized as expenses when they are incurred.

Other intangible assets

Purchased intangible assets, predominantly software, patents and trademarks, are recognized at their acquisition cost and are amortized over their expected useful life of usually three to five years using the straight-line method.

Property, plant and equipment

Property, plant and equipment are recognized at acquisition or production costs. Depreciation is generally applied using the straight-line method. The selected depreciation method is continuously reviewed.

Depreciation is based predominantly on the following periods of useful life:

	Years
Buildings	25 – 50
Property facilities	2 – 15
Technical plant and equipment	2 – 15
Other equipment	2 – 15
Factory and office equipment	2 – 15

Impairment losses on intangible and tangible assets are recorded in accordance with IAS 36 if the recoverable amount of the asset is less than its carrying amount. In addition to changes in individual parameters that affect computation such as a significant increase in market yields, a particular focus is placed on changes with an adverse effect on the company in the technological, market, economic or legal environment in which it operates. By means of these indicators KUKA regularly observes whether a triggering event is present that would necessitate an impairment test in accordance with IAS 36. In this context, the recoverable amount is the higher of the fair value less costs to sell and the value in use of the asset in question. If the reasons for an impairment recorded in prior years no longer apply, the impairment is reversed.

Borrowing costs and qualifying assets

Under the provisions of IAS 23, finance costs must be accrued for qualifying assets. Provided they are material, borrowing costs are capitalized for these qualifying assets. Those assets are defined as qualifying assets within KUKA Group for which a period longer than 12 months is required to make them ready for their intended use or sale (IAS 23.5). Examples here within KUKA Group in particular are manufacturing plants, internally-generated intangible assets and long-term construction contracts.

Due to the way the corporation is internally managed and to increase transparency, finance costs included in operating results are eliminated in the reconciliation for the earnings before interest and taxes (EBIT).

Government grants

In accordance with IAS 20, government grants are recognized only if there is reasonable assurance that the conditions attaching to them will be complied with and that the grants will be received. Government grants related to assets (e.g. investment subsidies and allowances) are deducted from the acquisition or production costs of the relevant asset. Grants related to income are recognized immediately in the income statement.

Finance and operating leases

In the vast majority of cases, KUKA Group acts as the lessee. In connection with finance leases, ownership is attributed to the lessee in cases in which the lessee assumes substantially all the risks and rewards incidental to ownership (IAS 17). In such cases, leases are capitalized as of the date of the lease agreement at their fair value or at the lower present value of the minimum lease payments. Depreciation is recognized by the straight-line method over the useful life or over the lease term if it is shorter. The discounted value of payment commitments in connection with the lease payments is disclosed under other liabilities.

Finance lease agreements for which KUKA Group is the lessor are recognized as a sales and financing transaction. A receivable is valued at the amount of the net investment in the lease and the interest income is recognized in the income statement.

To the extent that KUKA Group has entered into operating leases (as a lessee) according to IAS 17, lease or rent payments are directly recognized as an expense in the income statement and distributed using the straight-line method over the term of the leasing agreement, unless a different systematic basis more closely corresponds with the utilization period. Relevant total future costs are reported in note 30.

Financial instruments

KUKA Group holds both primary financial instruments (e.g. trade receivables or trade payables) and derivative financial instruments (e.g. transactions to hedge the risks of changes in fair value).

Derivative financial instruments are financial contracts whose value is derived from the price of an underlying asset (e.g. stocks, bonds, money market instruments or commodities) or a reference rate (such as currencies, indices or interest rates). They require little or no initial investment and are settled at a future date. Examples of derivative financial instruments include options, forward contracts and interest rate swap transactions. KUKA Group only uses derivative financial instruments to hedge foreign currency risk.

Under IAS 39 the following categories of financial instrument are relevant to KUKA Group (see note 29):

- › Loans and receivables
- › Financial instruments held to maturity
- › Financial assets and financial liabilities held for trading with measurement at fair value through profit or loss
- › Available-for-sale financial assets
- › Other financial liabilities (financial liabilities measured at amortized cost)

As a general rule, financial instruments are initially recognized when the asset is delivered to or by KUKA (settlement date accounting). Subsequent measurement takes place either at fair value or at amortized cost, depending on the measurement category (see also note 29).

- › Measurement of loans and receivables, financial instruments held to maturity and other financial liabilities takes place at amortized cost after initial recognition.
- › Subsequent measurement of financial assets or financial liabilities held for trading takes place at fair value through profit or loss.
- › Available-for-sale financial assets are subsequently measured at fair value but are not recognized in profit or loss.

Derivatives

KUKA Group recognizes all derivatives at fair value as of the settlement date. The fair value is determined with the aid of standard financial mathematical techniques, using current market parameters such as exchange rates and counterparty credit ratings (mark-to-market method) or quoted prices. Middle rates are used for this calculation.

Derivatives are used to hedge currency fluctuations.

Derivatives with a positive fair value are recognized under other assets. If the fair value of derivatives is negative, this results in recognition under other liabilities.

Investments in non-consolidated companies and financial investments

In KUKA Group, investments in continuing business units that are not material to the net assets, financial position and performance of the Group are reported under available-for-sale financial assets. They are recognized at cost of purchase. Current market values are not available, since no shares are traded in an active market.

Receivables and other assets

Receivables and other assets are recognized at amortized cost, applying the effective interest method with appropriate discounts for all identified individual risks. General credit risk, if detectable, is also accounted for by appropriate valuation allowances. For this purpose, these financial assets are grouped in accordance with similar default risk characteristics and are collectively tested for impairment, and written down if necessary. When calculating any such impairment losses, the empirical default history is taken into account in addition to contractually stipulated payment flows.

The carrying amount of the assets is lowered using separate allowance accounts for impairment losses. Actual defaults result in a write-off of the receivables in question. The maximum theoretically possible default risk corresponds to the carrying amounts. The carrying amounts largely correspond to the market values.

Cash and cash equivalents

Cash and cash equivalents are measured at cost and include all cash funds recognized on the balance sheet, i.e. cash on hand, checks and cash balances at financial institutions with a remaining term of three months or less. Securities with an original remaining term of more than three months are not recognized in this item but under other assets.

Liabilities

Liabilities are recognized on the balance sheet at amortized cost. Payables arising from finance leases are recognized at the present value of future lease payments.

Long-term liabilities with a term of more than one year are discounted to the balance sheet date on the basis of appropriate interest rates where the interest effect is material.

On initial recognition, financial liabilities are carried at fair value less transaction costs. They are measured at amortized cost in subsequent periods; any difference between the amount paid out (less transaction costs) and the settlement value is recognized in the interest result for the term of the loan using the effective interest method. Fees incurred when setting up credit lines are capitalized as credit transaction costs and are recognized as interest expense over the term of the corresponding loan commitment.

Trade payables also include payments due on outstanding supplier invoices. KUKA Group has launched a supplier finance program for the purpose of managing trade payables. A separate agreement is made for each supplier based on a framework agreement with banks in which the supplier can discount authorized receivables at the bank at any time (i.e. those that have been approved by KUKA). KUKA Group pays the liability to the bank on the due date, irrespective of the supplier's discounting date. This gives both suppliers and KUKA added flexibility and security.

Inventories

According to IAS 2, inventories are valued at average cost of acquisition or production. In addition to the direct unit costs, production costs also include appropriate costs for indirect materials and production overheads according to IAS 2. Write-downs to lower net realizable value have been taken to the extent required. In addition to valuation allowing disposal at no net loss, these write-downs also cover all other inventory risk. If the reasons that led to a devaluation of inventories in the past no longer exist, impairment losses are reversed.

Current and deferred taxes

Tax receivables and liabilities are assessed using the expected amount of the reimbursement from or payment to the tax authorities.

Deferred tax assets and liabilities are recorded according to IAS 12 for all temporary differences between the carrying amounts of assets and liabilities on the Group balance sheet and their recognized value for tax purposes (liability method) as well as for tax loss carryforwards. Deferred tax assets for accounting and valuation differences as well as for tax loss carryforwards are only recognized to the extent that there is a sufficiently probable expectation that the corresponding benefit will be realized in the future. Deferred tax assets and liabilities are not discounted. Deferred tax assets are netted against deferred tax liabilities if the tax creditor is the same.

Pension provisions and similar obligations

The measurement of pension provisions and similar obligations is performed according to IAS 19. Pensions and similar obligations comprise obligations of KUKA Group to pay benefits under defined benefit plans. Company obligations from defined benefit plans are determined separately for each defined benefit plan according to actuarial principles. First the retirement benefits are estimated that employees have earned in return for their service in the current period and prior periods. Then these benefits are discounted using the projected unit credit method. In addition to known pensions and vested benefits as of the balance sheet date, this method also takes expected future increases in salaries and pensions into account. The calculation is based on actuarial reports that must be prepared annually based on biometric data. Actuarial gains and losses are recognized in other comprehensive income in the period during which they arise. The company determines the net interest expense (net interest income) by multiplying the net liability (net asset value) at the beginning of the period with the underlying interest rate of the discount of the gross defined benefit pension obligation at the beginning of the period. Past service cost due to changes to the plan is recognized directly in the period in which the change occurs. The standard return on plan assets is recognized in the amount of the discount rate applied to pension obligations. Administrative expenses for plan assets are recognized as part of the revaluation component in other comprehensive income, whereas other administrative costs are allocated to operating profit at the time the costs are incurred. Insurers hold reinsurance coverage for excess obligations from pre-retirement schemes (Altersteilzeit) based on the "block model". This is recognized using the same interest rate as the corresponding liability. The amount added for obligations from pre-retirement schemes is proportional to the amounts in the applicable collective bargaining agreements.

Other provisions

Other provisions are recognized in the event that there is a current obligation to third parties arising from a past event. It must be possible to estimate the amount reliably, which must then more likely than not lead to an outflow of future resources. Provisions are only recognized for legal and constructive obligations to third parties.

Provisions are recognized for costs of restructuring to the extent that a detailed, formal restructuring plan has been created and communicated to the parties affected by it and it is highly probable that the company can no longer withdraw from these obligations.

No provisions are recognized for future expenses, since these do not represent an external obligation.

Liabilities in the personnel area such as vacation pay, flex-time credits and the statutory German pre-retirement scheme (Altersteilzeit) are recognized under other liabilities.

Liabilities for outstanding vendor invoices are recognized under trade payables.

Provisions are classified as current when it is expected they will be used within the normal business cycle. This may extend for longer than a year in individual cases. Long-term provisions with a term of more than one year are discounted to the balance sheet date on the basis of appropriate interest rates where the interest effect is material.

Assets and liabilities held for sale

A non-current asset (or disposal group) is classified as held for sale if the associated carrying amount is mainly realized by a sales transaction or a distribution to shareholders and not by continued use. For this to be the case, the asset (or disposal group) in its current state under conditions that are established practice and common for the sale/distribution of such assets (or disposal groups) must be immediately available for sale/distribution and such sale/distribution must be highly probable. Non-current assets and disposal groups held for sale are measured at the lower of carrying amount and fair value, less disposal costs, unless the items presented in the disposal group do not fall within the measurement rules of IFRS 5.

Share-based compensation

Also in the 2015 financial year KUKA employees of German companies had the opportunity to purchase KUKA shares as part of an employee share program. Arranged according to a holding period (vesting period) of one, three and five years, employees receive an additional share as a bonus share for every ten KUKA shares acquired. Rights to additional shares are forfeited if the employment relationship of the beneficiary is terminated before the end of the vesting period. A 50% incentive in the form of extra shares was granted in addition to the subscribed shares. The total number of incentive shares was limited to 75,000 as in the previous year. KUKA employees acquired a total of 46,070 shares; 23,035 incentive shares were credited. The KUKA share price at the time the shares were granted was €76.45 (2014: €43.80). This results in an expense of €1.8 million (2014: €1.4 million) for the 2015 financial year, which was recognized as other operating expenses.

In addition to the employee share program, KUKA also has an annual phantom share program for the executive management team, which was introduced in 2012. The phantom share program for the years 2015 to 2017 is measured as a cash-settled, equity-linked remuneration instrument using the fair value at each respective balance sheet date. The measurement parameters correspond to the phantom share program of KUKA Aktiengesellschaft's Executive Board. The entitlements are paid out at the end of the contractually agreed period. Early payment is possible only under certain conditions when leaving the Group. An amount of €10.6 million (2014: €15.6 million) was set aside at December 31, 2015 for future claims arising from the phantom share program for the executive management team. See the compensation report for further details about the structure of the phantom share program.

Assumptions and estimates

KUKA prepares its consolidated financial statements in compliance with the IFRS standards mandatory in the EU. In certain cases it is necessary for management to make assumptions and estimates. This is common practice in the preparation of the Group's consolidated financial statements. These assumptions and estimates may change over time and differ from the actual amounts determined at a later time. Moreover, management could have made different assumptions and estimates in the same reporting period for similarly justifiable reasons. In the application of accounting policies, the company has made the following discretionary decisions, which in some cases have a significant effect on the amounts in the annual financial statements. These do not include those decisions that represent estimates.

It is necessary to make assumptions and estimates, in particular when addressing the following accounting items:

- › Definition of the scope of consolidation
- › Calculation of fair value
- › Development costs
- › Goodwill impairments
- › Deferred tax assets on loss carryforwards
- › Trade receivables
- › Receivables and liabilities from construction contracts
- › Pensions and other post-employment benefits
- › Provisions

Definition of the scope of consolidation

Subsidiaries are those companies over which KUKA Aktiengesellschaft has existing rights enabling it currently to direct their significant operations. Significant operations are business operations which have a material impact on the profitability of a company. Control is therefore only present if KUKA Aktiengesellschaft is exposed to variable returns as a result of its relationship with a company and has the possibility to influence these returns through its power to control the significant operations. As a rule, the possibility of exercising control is based on KUKA Aktiengesellschaft having direct or indirect majority voting rights. However, since further parameters are required for the assumption of control over a subsidiary (such as, for example, additional contractual agreements), a judgment must always be made on the overall construct and on this basis an assessment concerning the type of consolidation to be applied. Joint ventures have their basis in joint agreements. A joint agreement is present if KUKA Group shares the management of activities conducted with a third party on the basis of a contractual agreement. Joint management is only present if decisions on significant activities require unanimous agreement from the parties involved. In the case of joint ventures the parties exercising the joint management hold rights to the net assets of the agreement. Joint ventures are accounted for according to the equity method. Associates are also measured by the equity method for which as a rule KUKA Aktiengesellschaft exercises significant influence based on a shareholding of between 20% and 50%. In both cases all the parameters of the particular relationship are examined for the type of consolidation and the assessment made concerning the type of consolidation.

Calculation of fair value

IFRS 13 defines how to determine fair market value and expands on disclosures related to the fair market value. The standard does not include any requirements regarding the cases for which fair value is to be used. Here, fair value is defined as the price that would be paid by independent market participants in an arm's length transaction at the evaluation date if an asset were sold or a liability transferred. In accordance with IFRS 13, assets and liabilities evaluated at market values are to be attributed to the three levels of the fair value hierarchy. The three levels of the fair value hierarchy are defined as follows:

Level 1

Quoted prices in active markets for identical assets or liabilities

Level 2

Inputs other than quoted prices that are observable either directly or indirectly

Level 3

Inputs for assets and liabilities that are not based on observable market data.

Development costs

Development costs are recognized as assets in accordance with the methods described under accounting policies. For the purpose of testing the potential impairment of the amounts recognized as assets, management must make assumptions concerning the expected future cash flows from assets, the applicable discount rates and the timing of the inflow of expected future cash flows. Moreover, assumptions must be made regarding costs yet to be incurred and the period until completion for projects that are still in the development stage.

Goodwill

Assets recognized as goodwill are tested at least once a year for impairment in KUKA Group. This requires an estimate to be made of the value in use for each cash generating unit to which the goodwill has been attributed. To determine the value in use, management must estimate the future cash flows of the respective cash generating units and select an appropriate discount rate for calculating the present value of these cash flows. The selected discount rate, for example, is influenced by volatility in capital markets and interest rate trends. The expected cash flows are also influenced by fluctuations in exchange rates and the expected economic developments. Furthermore, continuous review is necessary to determine whether there is any indication of impairment. In addition to changes in individual parameters that affect computation such as a significant increase in market yields, a particular focus is placed on changes with an adverse effect on the company in the technological, market, economic or legal environment in which it operates. By means of these indicators KUKA regularly observes whether a triggering event is present that would necessitate an impairment test in accordance with IAS 36 for goodwill, but also for other non-current assets. For details about the carrying amounts of the assets recognized as goodwill and the performance of the impairment tests please refer to the discussion under note 7.

Deferred tax assets on loss carryforwards

Deferred tax assets for loss carryforwards are recognized to the extent that it is probable that taxable income will be available such that the loss carryforwards can actually be used. The determination of the amount of deferred tax assets requires an estimate on the part of management of the expected timing and amount of anticipated future taxable earnings as well as future tax planning strategies. For details please refer to the discussion under note 5.

Trade receivables

Impairment of doubtful receivables involves making significant estimates and assessments regarding individual receivables based on the creditworthiness of the respective customer, the current economic trends and the analysis of historical bad debts on a portfolio basis. As far as the company derives the impairment on a portfolio basis using historical default rates, a decrease in the volume of receivables reduces such provisions accordingly and vice versa.

Receivables and liabilities from construction contracts

Long-term construction contracts are recognized using the percentage of completion method. A significant share of business in the Systems and Swisslog segments in particular is related to long-term construction contracts. Revenues are reported based on the percentage of completion. A careful estimate of the progress toward completion is essential here. Depending on the method used to determine the percentage of completion, the most important estimates include the total order costs, the costs yet to be incurred until completion, the total project revenues and risks as well as other assessments. The management team responsible for the respective project continuously monitors all estimates on a monthly basis and adjusts these as needed.

Pensions and other post-employment benefits

Expenditures under defined-benefit plans and other post-employment benefits are determined on the basis of actuarial calculations. The actuarial calculations are prepared on the basis of assumptions with respect to discount rates, future increases in wages and salaries, mortality rates and future pension increases. In line with the long-term orientation of these plans, such estimates are subject to significant uncertainties. Please see note 23 for further details.

Provisions

To a large degree, the designation and measurement of provisions for impending losses from contracts, of provisions for warranty obligations and of litigation provisions involve making estimates.

Long-term construction contracts in particular are awarded based on invitations to tender. KUKA recognizes a provision for impending losses when the current estimated total costs arising from the respective contract exceed the expected total revenue. These estimates may change due to new knowledge as the project progresses. Deficit orders are identified based on continuous project costing. This requires an assessment of the performance standards and warranty costs.

KUKA Group is confronted with litigation in different areas. These proceedings can lead to criminal or civil sanctions or fines. A provision is always recognized when it is likely an obligation will result that will lead to future cash outflows and the amount of which can be reliably assessed. The underlying issues are often complex and associated with great uncertainties. Judgment whether a present obligation arising from a past event is to be recognized on the balance sheet date, whether future cash outflows are probable and the obligation can be reliably assessed is therefore largely at the discretion of management. The company, with the assistance of external legal professionals, regularly assesses the respective stage of the proceeding. New findings can change the assessment and it may be necessary to adjust the provision accordingly. For further details please refer to note 24.

Changes in accounting policies

KUKA Group did not apply any standards or interpretations for the first time in the 2015 financial year that have a material effect on the Group's net assets, financial position or performance. The following revised standard and interpretation were applied for the first time in the consolidated financial statements in the 2015 financial year:

- › IFRIC 21, Levies
- › Annual Improvements 2011 – 2013

The amendments are explained once again in more detail below:

IFRIC 21 – Levies

IFRIC 21 is an interpretation of IAS 37 – Provisions, Contingent Liabilities and Contingent Assets. It provides clarification in particular on when a present obligation due to levies imposed by governments is to be recognized and when a provision or liability is to be reported. The new interpretation has no material impact on KUKA Group's consolidated financial statements.

Annual Improvements 2011 – 2013

Changes were made to four standards in the context of Annual Improvements 2011 – 2013. The amended wordings in individual IFRS standards provide clarification on existing regulations. The affected standards are IFRS 1, IFRS 3, IFRS 13 and IAS 40.

The changes have no material impact on the present financial statements.

Altogether, the following standards, standard adjustments and interpretations were approved by the balance sheet date and have in part already been adopted into EU law:

Standard/Interpretation	Effective date	Planned application by KUKA AG
Amendments to IFRS 11 – Accounting for Acquisitions of Interests in Joint Operations	Jan. 1, 2016	Financial 2016
Amendments to IAS 1 – Notes	Jan. 1, 2016	Financial 2016
Amendments to IAS 16 and IAS 38 – Clarification of Acceptable Methods of Depreciation and Amortization	Jan. 1, 2016	Financial 2016
Amendments to IAS 16 and IAS 41 – Agriculture: Bearer Plants	Jan. 1, 2016	Financial 2016
Amendments to IAS 19 – Defined-Benefit Plans: Employee Contributions	Feb. 1, 2015	Financial 2016
Amendments to IAS 27 – Equity Method in Separate Financial Statements	Jan. 1, 2016	Financial 2016
Annual Improvements 2010 – 2012	Feb. 1, 2015	Financial 2016
Annual Improvements 2012 – 2014	Jan. 1, 2016	Financial 2016
Amendments to IAS 7 – Statement of Cash Flows	Jan. 1, 2017	Financial 2017
Amendments to IAS 12 – Income Taxes	Jan. 1, 2017	Financial 2017
IFRS 9 – Financial Instruments	Jan. 1, 2018	Financial 2018*
IFRS 15 – Revenue from Contracts with Customers	Jan. 1, 2018	Financial 2018*
Amendments to IFRS 10 and IAS 28 – Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	n.a.**	n.a.
Amendments to IFRS 10, IFRS 12 and IAS 28 – Investment Entities: Applying the Consolidation Exception	Jan. 1, 2016	Financial 2016*
IFRS 16 – Leases	Jan. 1, 2019	Financial 2019

* Pending adoption (endorsement) by the European Union.

** Initial application by the IASB has been postponed indefinitely

Reporting changes

In respect of acquisitions made during the preceding year, KUKA Group has further optimized its internal reporting and also attained an accurate presentation of the net assets, financial position and performance. This has resulted in minor changes to the presentation of external reports in respect of the income statement and the cash flow statement. The previous year's figures have been adapted accordingly to allow comparison.

In particular the following changes of presentation which affect the income statement have been made:

- › As well as the reconciliation of the operating profit to the EBIT (earnings before interest and taxes), the EBIT will from now on be additionally reconciled to the EBITDA (earnings before interest, taxes, depreciation and amortization). As a result of this, amortization of capitalized borrowing costs for intangible assets was also reclassified from the reconciliation of the operating profit to EBIT to the reconciliation of EBIT to EBITDA.

- › Since the start of the 2015 financial year, currency translation gains and losses from the operating areas (for instance receivables or liabilities for goods and services in foreign currency) have been reported within the cost of sales. The effects of currency exchange rates arising from financial activities, on the other hand, are reported as a balance within other interest charges and similar income and expenses. This change in reporting has led in the previous year's comparative figures to reclassification of €42.0 million from other operating income and €47.7 million from other operating expenses to the cost of sales (€5.3 million) and to other interest and similar expenses (€0.4 million). Whilst the earnings after taxes remain unaffected, the reclassification results in a lower EBIT (€-0.2 million) together with a financial result reduced by this amount.

The following changes in presentation were made in the cash flow statement:

- › From 2015 onwards, dividends received will be shown within the investment cash flow instead of within the operating cash flow.
- › Based on DRS 21, interest paid and grants received will no longer be shown within the operating cash flow but instead within the financing cash flow. Implementation of this change for 2014 results in an increase of €17.7 million in operating cash flow and an increase of €8.6 million in investment cash flow. This results in a free cash flow figure €26.3 million higher and a financing cash flow figure €26.3 million lower.

Explanation of items in the financial statements

Notes to the Group income statement

1. Sales revenues

Sales revenues include fees and charges billed to customers for goods and services less any sales deductions. Sales revenues primarily include delivered products and downstream services. Services account for €175.9 million (19.3%) in sales revenues in the Robotics division as compared to €155.2 million (18.6%) reported last year. At Swisslog, services account for €251.3 million (40.5%) in sales revenues. Services play a less significant role in the Systems division. The breakdown of sales revenues by business division and region is shown in Group segment reporting.

In connection with construction contracts, sales revenues in the amount of €1,687.0 million were recognized in the reporting year (compared to €1,043.1 million the previous year) according to the percentage of completion method.

2. Cost of sales, selling expenses, research & development expenses and general and administrative expenses

The following is a breakdown of the cost of sales, selling expenses, research and development expenses and general and administrative expenses:

in € millions	Cost of sales		Selling expenses		Research and development expenses		General and administrative expenses		Total	
	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
Cost of materials	1,043.8	1,503.0	1.2	6.8	13.5	11.2	0.2	5.0	1,058.7	1,526.0
Personnel expense	404.2	596.4	83.0	129.1	41.5	61.4	91.6	141.3	620.3	928.2
Amortization	19.8	77.6	2.1	10.9	11.0	13.1	10.0	18.7	42.9	120.3
Other expenses and income	107.7	90.9	74.7	104.4	12.2	19.7	31.7	48.1	226.3	263.1
Total	1,575.5	2,267.9	161.0	251.2	78.2	105.4	133.5	213.1	1,948.2	2,837.6

Generally, the individual functional costs can be observed to include a rise in expenditure due to both the organic growth of KUKA Group and acquisitions, notably of Swisslog Group, which were not yet recognized in the 2014 income statement. Foreign currency gains and losses from operational foreign currency transactions totaling €4.6 million (2014: €5.3 million) were recognized in other expenses and income under the cost of sales.

The cost of sales comprised under other expenses includes finance costs for receivables from construction contracts amounting to €2.6 million compared to €3.2 million the previous year. This was calculated on the basis of the Group capitalization rate of 3.3% (2014: 5.5%). The research & development expenses include €0.6 million amortization of borrowing costs capitalized in prior years (2014: €0.6 million).

Personnel costs are directly allocated to the functional areas. The following figures result:

in € millions	2014	2015
Wages and salaries	520.8	760.6
Social security payments and contributions for retirement benefits and provident funds	99.5	167.6
(of that for retirement benefits)	(6.8)	(26.2)
Personnel costs	620.3	928.2

Annual average employees and employees at the balance sheet date in KUKA Group:

Employees by functional areas	Annual average		Balance sheet date			
	2014	2015	Total 2014	Total 2015	of which, Germany	of which, abroad
Manufacturing	8,654	9,138	8,770	8,665	2,689	5,976
Sales	1,190	1,367	1,231	1,394	531	863
Administration	1,153	1,191	1,180	1,164	470	694
Research and development	507	659	549	729	602	127
	11,504	12,355	11,730	11,952	4,292	7,660
Apprentices	343	353	372	348	254	94
Total	11,847	12,708	12,102	12,300	4,546	7,754

3. Other operating income and expenses

The line items under other operating income and expenses capture income and expenses that are not allocated to the functional categories cost of sales, selling expenses, research & development expenses, general and administrative expenses or otherwise reported separately.

The income from the disposals of HLS Group and the Tools and Dies business unit is included under other operating income (2015: €23.0 million; 2014: €9.8 million).

Other operating expenses (2015: €14.8 million; 2014: €16.1 million) include other taxes amounting to €5.9 million compared to €4.8 million the previous year. The previous year's figure also included consultancy costs of €5.2 million in connection with the purchase of Swisslog Group.

4. Financial result

Based on the scope of transaction-related non-recurring items, the financial result in the following table is broken down into the current result and the result from non-recurring items.

in € millions	2014	2015
Interest income from finance lease	6.2	6.9
Remaining interest and similar income	2.5	1.4
Other interest and similar income	8.7	8.3
Interest component for allocations to pension provisions	2.7	2.5
Guarantee commissions	0.7	0.7
Interest expense for the convertible bond	6.8	6.2
Interest expense for the promissory note loan	-	0.8
Interest expense for the corporate bond	5.6	-
Financing costs reclassified to operating results and capitalized	-3.5	-2.9
Foreign currency gains and losses	0.4	0.3
Remaining interest and similar expenses	3.2	4.9
Other interest and similar expenses	15.9	12.5
Current financial result	-7.2	-4.2
One-off charge on Syndicated Senior Facilities Agreement	0.4	1.3
Interest hedge for the promissory note loan	-	1.9
Interest expense from the repurchase of corporate bond shares	17.7	-
Financial result	-25.3	-7.4

Remaining interest and similar income comes from short-term deposits of cash at banks and investments in commercial papers. Financing costs reclassified to operating results and capitalized concern finance costs to be accrued according to IAS 23. The interest component for allocations to pension provisions amounted to €2.5 million (2014: €2.7 million). Remaining interest and expenses also include ongoing expenses for accessing the cash line from the syndicated loan and the ABS program.

The KUKA Aktiengesellschaft bond issued in November 2010 (original nominal amount: €202.0 million) was repaid in line with the market on May 15, 2014 at a rate of 108.33%. This resulted in a non-recurrent interest expense of €17.7 million.

5. Taxes on income/deferred taxes

Tax expense

Income tax expense breaks down by origin as follows:

in € millions	2014	2015
Current taxes	51.8	61.2
(of that relating to other periods)	(0.2)	(-6.7)
Deferred taxes	-6.6	-21.9
from temporary differences	(-14.0)	(-19.2)
from loss carryforwards	(7.4)	(-2.7)
Tax expense	45.2	39.3

Of the current expenses for tax on earnings, €11.1 million is attributable to domestic expenditure compared to €16.3 million in 2014, whereas €50.1 million is attributable to foreign expenditure compared to €35.5 million in 2014.

Deferred tax expenses of €-4.3 million are attributable to domestic operations and €-17.6 million to foreign. This compares with €1.9 million and €-8.5 million respectively in 2014.

The expected tax expense based on earnings before taxes and the applicable tax rate for the KUKA companies in Germany of 30.0% (2014: 30.0%) leads to the following actual tax expense:

in € millions	2014	2015
Earnings before tax expense	113.3	125.6
Expected tax expense	34.0	37.7
Tax rate-related differences	5.9	4.8
Tax reductions due to tax-exempt income	-4.5	-9.8
Tax increases due to non-deductible expenses	3.4	6.8
Tax arrears (+)/tax credits (-) for prior years	1.0	-9.4
Changes to allowance on deferred taxes	3.8	6.2
First-time recognition of previously unrecognized deferred tax assets on tax loss carryforwards	-0.6	-2.6
Change in deferred taxes on permanent differences	1.2	3.1
Tax impact of investments accounted for by the equity method	0.8	1.0
Other differences	0.2	1.5
Taxes on income (actual tax expense)	45.2	39.3

The applicable tax rate in Germany comprises corporate income tax (Körperschaftsteuer) of 15.0%, earned income tax (Gewerbsteuer) based on a uniform tax rate of 14.2% and the reunification tax (Solidaritätszuschlag) of 5.5%.

In principle, deferred taxes were recognized on the basis of the applicable tax rate for each company in question.

In addition to an existing corporate income tax credit, an amount equal to €1.6 million results after discounting as a non-current tax receivable effective December 31, 2015 (2014: €3.2 million), and an amount of €1.8 million (2014: €1.8 million) as a current tax receivable.

There are no tax credits for which deferred taxes would need to be accounted.

Current tax expenses in other accounting periods totaling €6.7 million (2014: tax income €-0.2 million) resulted from German and foreign operations.

In the current financial year, there were tax-free capital gains on operations in Germany. Current tax income of €4.6 million in the USA attributable to other accounting periods was recorded. For the external audits conducted mainly on German operations for the years 2005 to 2008, back payments in connection with balance sheet provisioning are expected.

Deferred taxes

The value of deferred tax assets and liabilities due to temporary differences and tax loss carryforwards in the Group is associated with the following items:

in € millions	Deferred tax assets		Deferred tax liabilities	
	Total		Total	
	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015
Non-current assets	10.9	10.8	100.1	89.3
Current assets	93.9	69.1	73.0	53.7
Provisions	38.1	43.5	3.3	5.1
Liabilities	50.7	30.1	34.4	15.5
Subtotal	193.6	153.5	210.8	163.6
Balancing item	-145.5	-107.2	-145.5	-107.2
Valuation allowance	-11.0	-8.3	-	-
Subtotal	37.1	38.0	65.3	56.4
Deferred taxes on temporary differences	37.1	38.0	65.3	56.4
Deferred taxes on tax loss carryforwards	11.1	11.2	-	-
Total	48.2	49.2	65.3	56.4
of that, from items recognized in equity	8.1	2.6	-	-

Valuation allowances to the carrying amount of deferred tax assets are recognized if the realization of the expected benefit of the deferred taxes is not sufficiently probable. The estimates made are subject to change over time, which may result in the reversal of the valuation allowance in subsequent periods.

The recognized values on the balance sheet are written off in the event that the tax benefits that they represent were no longer expected to be realized.

In the loss carryforwards of €292.5 million (2014: €279.6 million), amounts totaling €240.4 million (2014: €227.0 million) are not considered in the accounting of deferred taxes.

Loss carryforwards amounting to €63.4 million (2014: €46.2 million) are available with a time limit and the remaining €229.1 million (2014: €233.4 million) is not subject to a time limit.

The loss carryforwards for which deferred taxes were capitalized relate to the total loss carryforwards as follows:

in € millions	Loss carryforwards for which deferred taxes were capitalized		Total existing loss carryforwards	
	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015
Swisslog (Deutschland) GmbH	6.0	0.0	6.0	0.0
Reis GmbH & Co. KG Maschinenfabrik	10.1	0.0	34.3	46.8
KUKA Aktiengesellschaft	15.4	28.5	69.3	82.3
Other	21.1	23.6	170.0	163.4
Total	52.6	52.1	279.6	292.5

Deferred tax income in the amount of €2.6 million (2014: €0.6 million) results from the recognition of deferred tax receivables on loss carryforwards from earlier periods which until now had not been included in or written down from the tax accrual/deferral. Deferred tax assets previously recognized but not recognized in the current year in the amount of €6.2 million (2014: €3.8 million) were not reported. In accordance with IAS 12, deferred tax items must be recognized for the difference between the proportionate equity of a subsidiary recognized on the Group balance sheet and the investment carrying amount of this subsidiary on the tax balance sheet of the parent company (so-called “outside basis differences”) if it is likely that this difference will be realized. Since both KUKA Aktiengesellschaft and the subsidiaries in question are corporations, these differences are predominantly tax-exempt under section 8b of the Corporation Tax Law (KStG) upon realization and thus are permanent in nature. According to IAS 12.39, no deferred tax liability should be recognized even for temporary differences (e.g. those resulting from the 5% flat-rate allocation under section 8b KStG) if it is not likely, given control by the parent company, that these differences will reverse in the foreseeable future. Since no such reversal is expected, no deferred tax items had to be recognized on the balance sheet for this purpose. There are outside basis differences in the amount of €8.9 million (2014: €42.1 million).

Overall, the change to deferred tax assets and liabilities of €-9.9 million (2014: €18.2 million) came from amounts affecting net income totaling €-21.9 million (2014: €-6.6 million) as well as, for the most part, amounts not affecting net income due to changes in pension obligations amounting to €5.5 million and currency effects amounting to €4.7 million as well as to corporate additions amounting to €1.8 million.

Where loss carryforwards have not been written off, it is expected in the five-year planning period that this tax-reducing potential will be utilized via taxable income, which is likely based on the expectations of Group companies.

6. Earnings per share

Undiluted/diluted earnings per share break down as follows:

	2014	2015
Net income/loss for the year after minority interests (in € millions)	68.1	86.3
Weighted average number of shares outstanding (No. of shares)	34,169,423	36,138,486
Undiluted earnings per share (in €)	1.99	2.39
Diluted earnings per share (in €)	1.90	2.35

Undiluted earnings per share due to shareholders of KUKA Aktiengesellschaft were calculated in accordance with IAS 33 and the weighted average number of shares outstanding for the year. There were 33,915,431 shares outstanding at the beginning of 2014. The capital increase effected in November 2014 increased the number of shares by 1,792,884. The resulting weighted average for shares outstanding as of December 31, 2014 is 34,169,423.

From the 2013 convertible bond issue, 2,792,944 shares with a nominal value of €102.8 million were converted in the fourth quarter of 2015. This led to the weighted average number of shares in circulation rising to 36,138,486 as of December 31, 2015.

Of the remaining volume of convertible bonds amounting to €47.2 million, some stock dilution could arise in the future due to the conditional increase of capital. In the 2015 financial year the average price on the stock market due to excellent share price performance was higher than the conversion price of €36.8067 on all trading days. As of the reporting date too, the closing share price in Xetra trading on the Frankfurt Stock Exchange was €82.42 and thus higher than the conversion price. Therefore more units could potentially have been converted as of the reporting date. IAS 33.32 requires that all the potentially convertible shares (1,282,400) are taken into account when calculating the diluted earnings per share.

Notes to the Group balance sheet: Assets

7. Intangible assets

Schedule of changes in intangible fixed assets in 2015

The breakdown of the intangible fixed asset items and their development through the reporting period are shown in the following table.

in € millions	Acquisition/manufacturing costs						Status as of Dec. 31, 2015
	Status as of Jan. 1, 2015	Exchange rate differences	Additions	Disposals	Change due to business combinations/others	Reclassifications	
1. Rights and similar assets	224.1	15.8	11.7	0.4	2.9	0.6	254.7
2. Self-developed software and other development costs	49.2	1.9	18.9	29.8	5.1	-0.2	45.1
3. Goodwill	232.9	17.1	–	–	11.9	0.0	261.9
4. Advances paid	4.5	–	0.0	–	-4.1	-0.4	0.0
	510.7	34.8	30.6	30.2	15.8	0.0	561.7

The column showing business combinations/others includes values from a disposal group pursuant to IFRS 5 (see note 28).

Schedule of changes in intangible fixed assets in 2014

in € millions	Acquisition/manufacturing costs						Status as of Dec. 31, 2014
	Status as of Jan. 1, 2014	Exchange rate differences	Additions	Disposals	Change due to business combinations/others	Reclassifications	
1. Rights and similar assets	61.1	1.6	9.1	0.3	152.6	–	224.1
2. Self-developed software and other development costs	31.5	0.0	6.8	4.1	15.0	–	49.2
3. Goodwill	66.4	1.0	–	–	165.5	–	232.9
4. Advances paid	0.8	–	0.0	0.6	4.3	–	4.5
	159.8	2.6	15.9	5.0	337.4	–	510.7

Goodwill

Recognized goodwill amounts to €254.9 million (2014: €225.9 million). It is distributed across the cash generating units listed below. The table also shows the discount rates applied before taxes (weighted average cost of capital (WACC)).

Profit Center	Dec. 31, 2014		Dec. 31, 2015	
	Goodwill	WACC (%)	Goodwill	WACC (%)
in € millions				
Aerospace	9.6	12.0	9.6	13.3
Assembly & Test	4.7	11.9	4.7	13.2
Body Structure	44.3	12.4	45.3	13.6
Reis Group	13.5	13.2	13.5	13.4
Robotics Automotive	3.8	13.1	3.8	13.7
Swisslog	148.2	–	176.2	8.0
Other	1.8	12.9	1.8	13.1
Total	225.9		254.9	

As in previous years, the customer service business in the Robotics division is proportionately allocated to the profit centers “Automotive” and “General Industry”.

The Body Structure CGU and the Swisslog CGU were subject to the following changes in the financial year: The changes in the Swisslog CGU are due to the adjustment of goodwill from initial consolidation, the acquisition of Forte and Swisslog Karlsruhe, and currency effects. Most of the changes in the Body Structure CGU resulted from currency effects.

The impairment test is based on a three-year detailed planning period and increased steadiness in the last year of the detailed planning, i.e. on a steady return on sales, investments and depreciation. As in the previous year, a moderate perpetual growth rate of 0.5% is applied. The discount rates applied in the financial year before taxes (weighted average cost of capital (WACC)) may be noted from the above table.

Accumulated depreciation and impairment losses							Net carrying amount
Status as of Jan. 1, 2015	Exchange rate differences	Additions	Disposals	Change due to business combinations/ others	Status as of Dec. 31, 2015	Status as of Dec. 31, 2015	
54.4	–	71.2	–	-0.9	124.7	130.0	
18.9	-0.1	16.6	28.4	–	7.0	38.1	
7.0	–	0.0	–	–	7.0	254.9	
–	–	–	–	–	–	0.0	
80.3	-0.1	87.8	28.4	-0.9	138.7	423.0	

Accumulated depreciation and impairment losses							Net carrying amount
Status as of Jan. 1, 2014	Exchange rate differences	Additions	Disposals	Change due to business combinations/ others	Status as of Dec. 31, 2014	Status as of Dec. 31, 2014	
46.9	1.0	8.8	0.3	-2.0	54.4	169.7	
13.4	–	9.6	4.1	–	18.9	30.3	
7.0	–	–	–	–	7.0	225.9	
–	–	–	–	–	–	4.5	
67.3	1.0	18.4	4.4	-2.0	80.3	430.4	

The cost of equity capital and borrowing costs were determined on the basis of segment-specific peer groups. The peer group is made up of KUKA's most important national and international competitors and thus includes companies with similar activity and product portfolios.

A key component used in determining WACC is the market risk premium of 6.95% for Swisslog; the market risk premium for all other CGUs is 7.00% (2014: 6.25%). The beta factor was determined as a three-year average of the respective peer group; it was 1.134 for Robotics Automotive (2014: 1.165), 1.139 for Aerospace, Assembly & Test, Body Structure (2014: 1.062), 1.134 for Reis Group (2014: 1.167) and 0.857 for Swisslog.

The ratios for the cost of equity capital and the cost of borrowed capital were determined by CGU based on the average leverage ratios of the respective peer group for the last three years. As in the previous year, the tax rate used was 30.0% with the exception of Swisslog (18.5%).

A 1% higher WACC would only marginally influence the impairment of goodwill – as marginally as a reduction in sales revenues over the entire planning period by 10% with a correspondingly lower cash flow.

Self-developed software and other product development costs

Total expenditures for research and development for the reporting period were €105.4 million compared to €78.2 million in 2014.

According to IAS 38, self-developed software and other product development costs must be capitalized. For the purpose of such capitalization, KUKA Group uses the costs of production which include directly attributable costs as well as an appropriate allocation for overheads and depreciation. Borrowing costs are included in the production costs for qualifying assets based on the Group capitalization rate of 3.3% (2014: 5.5%).

In KUKA Group, development costs are recognized as assets mainly at KUKA Roboter GmbH and KUKA Systems GmbH and in Swisslog Group. The companies are working on several projects involving mechanical systems and power and control software for robots as well as new applications in the area of medical technology and automation solutions. Borrowing costs of €0.1 million (2014: €0.3 million) were accounted for.

In line with IAS 38, development costs with a carrying amount of €38.1 million (2014: €30.3 million) are capitalized. Additions in the 2015 financial year totaled €18.9 million compared to €6.8 million the previous year. The items mainly concern self-produced control software for robots, efficiency solutions for automation systems, ERP implementation expenses and self-generated automation expenses.

The amortization of intangible fixed assets results from the statement of changes in intangible fixed assets (see above). The rise in scheduled amortization of rights and similar assets (2015: €71.2 million, 2014: €8.8 million) mostly results from the subsequent measurement of the rights and assets acquired and recognized at fair value in the context of the takeover of Swisslog Group in 2014. Impairment losses totaling €3.7 million were applied in connection with the development of a special machine and a software application. No impairment losses were recorded in the previous year.

8. Tangible assets

Schedule of changes in KUKA Group's tangible assets in 2015

The breakdown of the tangible asset items and their development through the reporting period are shown in the following table. The investment focuses of the financial year are described in the management report.

Schedule of changes in KUKA Group's tangible assets in 2015

in € millions	Acquisition/manufacturing costs			
	Status as of Jan. 1, 2015	Exchange rate differences	Additions	Disposals
Land, similar rights and buildings including buildings on land owned by third parties	165.5	4.0	11.2	2.5
Technical plant and equipment	144.8	1.6	19.2	4.1
Other equipment, factory and office equipment	96.3	1.7	30.1	7.0
Advances paid and construction in progress	63.6	0.0	15.9	0.0
	470.2	7.3	76.4	13.6
The following amounts have been capitalized under "Technical plant and equipment" due to finance leases in which KUKA Group acts as the lessee:	4.4	0.0	0.1	0.0

Schedule of changes in KUKA Group's tangible assets in 2014

in € millions	Acquisition/manufacturing costs			
	Status as of Jan. 1, 2014	Exchange rate differences	Additions	Disposals
Land, similar rights and buildings including buildings on land owned by third parties	120.9	2.6	11.5	0.1
Technical plant and equipment	122.0	1.9	12.2	2.8
Other equipment, factory and office equipment	83.0	1.4	13.4	3.8
Advances paid and construction in progress	25.7	0.2	41.3	–
	351.6	6.1	78.4	6.7
The following amounts have been capitalized under "Technical plant and equipment" due to finance leases in which KUKA Group acts as the lessee:	4.7	-0.2	0.0	0.1

Acquisition/manufacturing costs			Accumulated depreciation and impairment losses							Net carrying amount
Change due to business combinations/ others	Reclassifications*	Status as of Dec. 31, 2015	Status as of Jan. 1, 2015	Exchange rate differences	Additions	Disposals	Change due to business combinations/ others	Reclassifications*	Status as of Dec. 31, 2015	Status as of Dec. 31, 2015
-21.0	57.0	214.2	79.0	0.4	6.6	0.3	-13.2	0.0	72.5	141.7
-42.7	1.9	120.7	90.1	0.6	12.9	3.0	-33.0	0.0	67.6	53.1
-3.9	4.5	121.7	67.3	1.1	16.2	6.9	-6.5	-0.1	71.1	50.6
-2.3	-63.6	13.6	-	-	-	-	-	-	0.0	13.6
-69.9	-0.2	470.2	236.4	2.1	35.7	10.2	-52.7	-0.1	211.2	259.0
-4.0	0.0	0.5	4.1	0.0	0.1	0.0	-4.0	0.0	0.2	0.3

Acquisition/manufacturing costs			Accumulated depreciation and impairment losses							Net carrying amount
Change due to business combinations/ others	Reclassifications*	Status as of Dec. 31, 2014	Status as of Jan. 1, 2014	Exchange rate differences	Additions	Disposals	Change due to business combinations/ others	Reclassifications*	Status as of Dec. 31, 2014	Status as of Dec. 31, 2014
28.6	2.0	165.5	73.0	0.8	5.4	0.1	-0.1	-	79.0	86.5
13.6	-2.1	144.8	83.6	1.2	9.3	2.5	0.0	-1.5	90.1	54.7
0.5	1.8	96.3	61.4	1.0	10.4	3.6	-1.9	-	67.3	29.0
1.5	-5.1	63.6	-	-	-	-	-	-	0.0	63.6
44.2	-3.4	470.2	218.0	3.0	25.1	6.2	-2.0	-1.5	236.4	233.8
0.0	0.0	4.4	3.9	0.1	0.1	0.0	0.0	0.0	4.1	0.3

* The balance of reclassifications relates to the transfer of assets held for sale to inventories.

The column showing business combinations/others includes values from a disposal group pursuant to IFRS 5 (see note 27).

The depreciation figures result from the schedule of changes shown above. There are no impairment losses in the year under review or the previous year.

Government grants

Grants and allowances of €0.1 million (2014: €0.2 million) were deducted from the acquisition or production costs of the tangible assets.

Government grants totaling €4.1 million (2014: €4.1 million) were received and recognized as directly income-relevant. There were no contingently repayable grants as of the balance sheet date.

9. Financial investments

Financial investments relate to equity investments where KUKA does not hold more than 10% of the voting rights.

10. Investments accounted for at equity

Taken individually or jointly, the three investments accounted for at equity are of minor significance for KUKA Group (2014: two at-equity investments). For this reason information in the notes pursuant to IFRS 12.B12 and B13 is omitted. The aggregate amount of the shares in the loss of the investments that has to be stated pursuant to IFRS 12.B16 is €3.5 million (2014: €2.6 million).

11. Finance leases

KUKA as a lessor

KUKA Toledo Production Operations LLC., Toledo, Ohio/USA (KTPO) manufactures Jeep Wrangler bodies under the terms of a pay-on-production contract with Chrysler. The contract is set up as a finance lease with KUKA Group acting as lessor.

Because of the existing agreement to supply car bodies to Chrysler, the acquisition of the production system assets was not included on the balance sheet as an asset acquisition, but instead categorized as a finance lease in accordance with IFRIC 4/IAS 17 guidelines and booked as a receivable from finance leases. A non-current lease receivable of €65.2 million (2014: €66.1 million) and a current lease receivable of €8.5 million (2014: €6.9 million) exist as of the balance sheet date. Sales revenues shown on KTPO's balance sheet will thus be reduced by the fictitious leasing rate. The interest component included in the fictitious leasing rate is booked under interest result, while the repayment component of this payment reduces the receivables as per schedule.

Due to the arrangement of the dealing as a full payout lease agreement, future minimum lease payments correspond to the gross investment. The following table shows the reconciliation to the present value of the outstanding minimum lease payments:

in € millions	2014	2015
Future minimum lease payments/Finance lease gross investments	98.9	95.4
of that not later than one year	13.3	14.8
of that later than one year and not later than five years	53.0	80.6
of that later than five years	32.6	–
Unrealized financial income	-25.9	-21.7
Present value of outstanding minimum lease payments	73.0	73.7
of that not later than one year	6.9	8.5
of that later than one year and not later than five years	34.9	65.2
of that later than five years	31.2	–

KUKA as a lessee

The finance leases for technical plant and equipment have interest rates between 1.89% and 10.56% p.a. Future payments due for finance lease agreements as well as the present values for future leasing payments (the corresponding amounts are recognized under other liabilities) amount to €0.3 million. In the previous year, both the minimum lease payments and the present values were €0.2 million.

For information on operating lease agreements please see note 30 “Contingent liabilities and other financial commitments”.

12. Inventories

in € millions	Dec. 31, 2014	Dec. 31, 2015
Raw materials and supplies	107.0	97.6
Work in process	104.5	127.9
Finished goods	41.4	53.4
Advances paid	19.5	18.9
Inventories	272.4	297.8

The carrying amount of inventories with adjusted valuation in the amount of €134.1 million compares with €155.3 million in 2014 and has been recognized at net realizable value. Write-downs, relative to gross value, amounted to €52.7 million versus €51.4 million in 2014.

13. Trade receivables

As of the balance sheet date, trade receivables amounted to €310.6 million (2014: €273.8 million) and have a term of less than one year.

The following table breaks down receivables by age and recoverability:

in € millions	Not impaired as of the balance sheet date but in arrears by					Total of past due, unimpaired receivables	Impaired receivables before recording of impairment losses	Impairment loss	Carrying amount of impaired receivables	Neither impaired nor past due as of the balance sheet date	Net carrying amount
	Less than 30 days	30 to 60 days	61 to 90 days	91 to 180 days	More than 180 days						
As of Dec. 31, 2014	53.5	21.9	8.6	11.6	5.3	100.9	10.6	-10.3	0.3	172.6	273.8
As of Dec. 31, 2015	47.7	18.5	7.4	14.0	9.0	96.6	14.3	-13.2	1.1	212.9	310.6

With respect to existing receivables that were neither impaired nor in arrears, there were no indications as of the balance sheet date that the obligors would not meet their payment obligations.

Receivables of KUKA Roboter GmbH are regularly sold as part of ABS programs. See note 26 for more details.

Bad debt allowances on trade receivables developed as follows:

in € millions	2014	2015
Impairment losses as of Jan. 1	5.9	10.3
Change in scope of consolidation	4.4	-0.2
Additions	2.2	6.3
Consumption	-1.0	-1.7
Reversals	-1.2	-1.5
Impairment losses as of Dec. 31	10.3	13.2

The total additions of €6.3 million (2014: €2.2 million) break down into additions for specific bad debt allowances of €5.7 million (2014: €1.8 million) and lump-sum bad debt allowances of €0.6 million (2014: €0.4 million).

14. Receivables from construction contracts

For receivables from construction contracts, advances received have been offset against costs incurred in connection with the contract, including contributions to earnings on a per contract basis. This results in the following values as of the balance sheet date:

in € millions	Dec. 31, 2014	Dec. 31, 2015
Contract costs and recognized profits	2,157.1	2,542.6
Advances received	1,818.0	2,194.9
Receivables from construction contracts	339.1	347.7
Liabilities from construction contracts	247.6	217.0

Receivables from construction contracts have no specific due date and are not impaired.

15. Other assets, prepaid expenses and deferred charges

in € millions	Dec. 31, 2014	Dec. 31, 2015
Non-current other assets		
Non-current other receivables	7.3	8.9
Other	2.6	5.9
Total	9.9	14.8
Current other assets		
Securities 3 to 12 months	22.3	9.2
Claims on revenue authorities	12.8	29.4
Other	35.9	48.5
Total	71.0	87.1
Other assets, prepaid expenses and deferred charges	80.9	101.9

Securities in the amount of €9.2 million (2014: €22.3 million) held at the balance sheet date are commercial papers with a remaining term of between three and twelve months.

The claims on revenue authorities reported here are predominantly sales tax receivables.

The following table shows the financial instruments recognized under other assets as outlined in IFRS 7 according to age and impairment:

in € millions	Impaired receivables before recording of impairment losses	Impairment loss	Carrying amount of impaired receivables	Neither impaired nor past due as of the balance sheet date	Net carrying amount
Dec. 31, 2014	2.3	-2.1	0.2	38.0	38.2
Dec. 31, 2015	2.1	-1.8	0.3	36.7	37.0

There are no other assets that are past due but not yet impaired as of December 31, 2015 or December 31, 2014.

Impairment losses on other assets developed as follows:

in € millions	2014	2015
Impairment losses as of Jan. 1	2.3	2.1
Additions	0.0	0.1
Reversals	-0.2	-0.4
Impairment losses as of Dec. 31	2.1	1.8

16. Cash and cash equivalents

Cash and cash equivalents include all cash funds recognized on the balance sheet, i.e. cash on hand, checks and cash balances with financial institutions with a remaining term of three months or less.

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

Cash and cash equivalents of €3.2 million (2014: €2.4 million) are subject to restrictions. These are still related to company acquisitions made in the preceding years and to a government-funded contract in Brazil.

in € millions	Dec. 31, 2014	Dec. 31, 2015
Cash on hand	0.4	0.2
Cash and bank balances	189.3	492.8
Cash with limited availability	2.4	3.2
Total	192.1	496.2

Notes to the Group balance sheet: Equity and Liabilities

17. Equity

Changes in equity including changes with no effect on profit or loss are presented in the consolidated statement of changes in equity and in the statement of comprehensive income.

For more information on equity see the notes in the management report under "Disclosures in accordance with section 315 para. 4 of the German Commercial Code (HGB) including accompanying explanations".

18. Subscribed capital

The company's share capital amounts to €100,103,273.40 (December 31, 2014: €92,841,619.00) and is subdivided into 38,501,259 shares (2014: 35,708,315 shares). Each share carries one vote.

Convertible bond

In the fourth quarter of 2015, creditors of the convertible bond issued in 2013 made use of their conversion right. Due to the conversion declaration, new shares were created in accordance with the bond terms. Through the issue of new shares, the total number of KUKA shares has risen by 2,792,944, from 35,708,315 to 38,501,259 shares.

The no-par-value bearer shares have a theoretical portion of the share capital amounting to €2.60.

Pursuant to section 200 of the German Stock Corporation Act (AktG), the issue of new shares caused the company's share capital to rise by €7,261,654.40, from €92,841,619.00 to €100,103,273.40.

Capital increase as of November 2014

In November 2014 a capital increase was made excluding subscription rights through partial utilization of the authorized capital. By means of a fast book-building process as part of a private placement to institutional investors, 1,792,884 new shares were issued. The placement price for the no-par-value bearer shares was €49.00, signifying a theoretical portion of the share capital of €2.60 per no-par-value share (issue price). The placement was made against a cash contribution. The difference between the placement price and the issue price is recognized in the capital reserve, taking account of commission and taxes. The company received the amount of €86.6 million after deduction of the direct transaction costs.

After this capital increase, the share capital of KUKA Aktiengesellschaft is €92,841,619.00, subclassified into 35,708,315 outstanding no-par-value bearer shares.

19. Capital reserve

The capital reserve applies to KUKA Aktiengesellschaft. The change compared to December 31, 2014 resulted from the conversion of units of the convertible bond referred to above. This saw recognized liabilities of €96.1 million exchanged for subscribed capital (€7.3 million) and capital reserve (€88.8 million).

The change in the previous year was due to the difference between the issue price less costs and the nominal value resulting from the capital increase in 2014 referred to above.

20. Revenue reserves

The revenue reserves include:

- › The accumulated retained earnings of KUKA Aktiengesellschaft and its consolidated subsidiaries
- › Consolidation and exchange rate effects
- › Actuarial gains and losses included in provisions for pensions and the associated deferred taxes
- › Components from the employee share program for KUKA employees

Deferred taxes totaling €2.6 million (2014: €8.1 million) from transactions not recognized in profit or loss are included in equity. These are primarily attributable to actuarial gains and losses from pensions.

Based on the resolution of the Annual General Meeting held in 2014, a dividend of €0.40 per share was distributed in the 2015 financial year.

21. Balancing items for minority interests

During the third quarter of 2015, KUKA Group took over all outstanding shares in Swisslog Holding AG. Mainly as a result of this and of the disposals of HLS Group and the Tools and Dies business unit, the carrying amount in equity arising from the minority holdings decreased from €16.8 million to €-0.5 million, taking into account the effects of exchange rate variations and pro rata minority earnings. The remaining item relates to minority holdings in Faude Automatisierungstechnik GmbH, Gärtringen and Swisslog Middle East LLC, Dubai, United Arab Emirates.

22. Management of capital

The primary goal of managing capital for KUKA Group is to support ongoing business operations by providing adequate financial resources and to increase shareholder value.

This requires sufficient equity (equity ratio), liquidity (net liquidity), and a sufficient return on capital employed (ROCE). Management and controlling of the business divisions therefore also takes place based on these key indicators.

		2014	2015
Equity	€ millions	541.1	732.5
/Total equity	€ millions	1,979.5	2,381.7
Equity ratio	%	27.3	30.8
EBIT	€ millions	141.8	135.6
/Capital employed	€ millions	670.1	683.6
ROCE	%	28.8	20.0
Cash and cash equivalents	€ millions	192.1	496.2
Non-current financial liabilities	€ millions	-137.0	-294.2
Current financial liabilities	€ millions	-22.5	-2.1
Net liquidity	€ millions	32.6	199.9

23. Pension provisions and similar obligations

Pension provisions include liabilities from vested benefits and from current benefits paid to vested and former employees of KUKA Group as well as their surviving dependents. Depending on the legal, economic and tax situation in each of the countries concerned, various retirement benefit systems are in place that are as a rule based on employees' length of service and compensation.

Company retirement benefit coverage in the Group is provided through both defined contribution and defined benefit plans.

Defined benefit plans

Defined benefit plans in KUKA Group primarily concern plans in Germany and the United States. With the acquisition of Swisslog Group, material plans were added in Switzerland, the United Kingdom, Sweden and the United States as of December 31, 2014. The country-specific characteristics and legal regulations relating to defined benefit plans are presented in the following.

Germany

Obligations in Germany arise from agreements on company pension schemes concluded with various insurance institutions. The prerequisites regarding the type and amount of the entitlement depend on the worker's age and number of years with the company. The benefits include the components old-age pension, disability pension, widow's pension, death benefits and emergency assistance.

USA

The Systems division makes pension payments to its employees after they retire. Employees who entered the worker's union before September 14, 2004 are eligible to participate in the pension plan. The benefits are calculated on the basis of the rate applicable on the date they retire. This rate is composed of the years of service credited to the employee. Eligible employees are also provided with medical care. Owing to their benefit character, the obligations for post-employment medical benefits are also disclosed in this item according to IAS 19. These post-employment benefit provisions represent €0.7 million (2014: €0.8 million) of the total provisions and accruals. The Employee Retirement Income Security Act (ERISA) in the United States provides the legal and regulatory framework for these plans.

The defined benefit plan of the Swisslog division exists for both the salaried workforce and the factory workers. Both plans are managed by an insurance company and are legally independent. Both are closed to new participants and are financed entirely by the employer. Swisslog Group is able to determine the distribution of the assets. The plans are designed to avoid the necessity to provision for the expenses of additional benefits. However, each individual savings basket bears a fixed percentage of interest (guaranteed minimum return).

Switzerland

The plan is affiliated to a larger collective pension fund which is legally independent and exceeds the statutory minimum requirements in Switzerland (Occupational Old Age, Survivors' and Invalidity Pension Provision, BVG). All employees in this are insured for the financial consequences of age, invalidity and death. Contributions to the collective pension fund are made by the employer and employees. Responsibility for investing the assets is borne by the board of the collective pension fund, whilst Swisslog Group is only able to define the investment style. In addition Swisslog Group sets the interest rate on the individual age tranches – subject to the statutory rules. In the event of a deficit for the Swisslog pension tranche within the collective pension fund, various measures can be taken such as a reduced interest rate or additional pension contributions. The level of cover pursuant to BVG exceeds 100% as of December 31, 2015. The Swiss pension plan is based on the BVG 2010 generation tables (mod without risk sharing).

United Kingdom

The British defined benefit plan is also independent and has been closed to new participants since 2001. The assets are invested in an insurance fund. The plan is financed by the employer with the employees. Based on the statutory requirements a valuation is undertaken by an actuary every three years. In the event a deficit is calculated, it is necessary to establish a restructuring plan which also sets the future amortization payments to make good the deficit.

Sweden

The Swedish defined benefit plan is legally mandatory and is based on a collective agreement (agreement between the trade union and the Swedish employers). The plan cannot be changed by the company. The plan is available to all employees born before 1979. It covers the financial consequences of age, invalidity and illness. There is a defined contribution plan for those employees born after 1979. The defined benefit plan is financed by the employer. The liability is covered by plan assets in a pension institution administered by an external insurance company.

Defined contribution plans

For the defined contribution plans, the company pays contributions to a public or private pension insurance carrier. Upon payment of the contributions, the company has no further obligations. Total payments for pensions under defined contribution plans in the amount of €48.0 million compared to €34.0 million in 2014 are disclosed as expenses for the particular year. This growth was primarily due to the contribution of Swisslog as of the 2015 financial year. Under defined benefit plans, the company incurs an obligation to provide the benefits promised by the plan to current and former employees.

Disclosures on actuarial assumptions

The amount of pension obligations (defined benefit obligation) was calculated by actuarial methods for which estimates are unavoidable. In addition to assumptions related to life expectancy, this involves assumptions detailed below, which are dependent on the economic environment for each country in question:

Dec. 31, 2014	Germany	Switzerland
Demographic assumptions	RT 2005 G	BVG-2010
Discount factor	1.90%	1.00%
Expected rate of return on assets	n/a	1.00%
Wage dynamics	0.00 – 2.50%	1.25%
Pension dynamics	1.75 – 2.50%	0.10%
Changes in cost of medical services	n/a	n/a
Dec. 31, 2015	Germany	Switzerland
Demographic assumptions	RT 2005G	BVG 2010 GT mod without risk sharing
Discount factor	2.20%	0.75%
Expected rate of return on assets	n/a	0.75%
Wage dynamics	0.00 – 2.50%	1.25%
Pension dynamics	1.00 – 2.50%	0.10%
Changes in cost of medical services	n/a	n/a

The discount factor is determined based on the returns from high-quality, fixed-rate corporate bonds.

Wage dynamics encompass future increases in wages and salaries that are estimated annually by reference to factors such as inflation and economic conditions, among others.

The expected returns are derived from consensus forecasts for the respective asset classes. The forecasts are based on experience, economic data, interest forecasts and stock market expectations.

For funded plans, the pension obligations are reduced by an amount equal to the fund assets. If the fund assets exceed the defined benefit obligation, an asset is recognized according to IAS 19 and disclosed under other assets. If the fund assets do not cover the commitment, the net obligation is recognized as a liability under pension provisions.

Increases or decreases in either the present value of the defined benefit obligation or the fair value of the plan assets may give rise to actuarial gains or losses. This may be caused by factors such as changes in actuarial parameters, changes to estimates for the risk profile of the pension obligations and differences between the actual and expected returns on the fund assets.

	UK	Sweden	USA	Other
	AMC 00/AFC 00 PCMA00/PCFA00	FFFS 2007:31	RP 2014	diverse
	3.70%	2.50%	3.80 – 3.95%	1.75 – 4.00%
	3.70%	2.50%	3.80 – 3.90%	1.75 – 4.00%
	4.20%	2.10%	n/a	0.00 – 3.30%
	3.20%	1.60%	n/a	0.00 – 3.25%
	n/a	n/a	5.00 – 7.00%	n/a
	UK	Sweden	USA	Other
	PMA08/PFA08	FFFS 2007:31	RP 2014 RP 2006 Blue Collar projected generational, scale MP 2015	diverse
	4.00%	2.90%	4.12 – 4.25%	2.20 – 4.25%
	4.00%	2.90%	4.12 – 4.25%	2.20 – 4.25%
	3.30%	2.20%	n/a	0.00 – 2.50%
	3.20%	1.70%	n/a	0.00 – 2.00%
	n/a	n/a	5.00 – 7.00%	n/a

The sensitivity analysis illustrates the extent to which changes in actuarial assumptions would impact defined benefit obligations recognized as of December 31, 2015:

Nature and degree of change in actuarial assumptions		Present value of the defined benefit obligation after change	Change*
in € millions			
Increase in the discount rate	+0.25%	276.7	-8.30
Decrease in the discount rate	-0.25%	293.9	8.90
Pension increase	+0.25%	290.9	5.90
Pension reduction	-0.25%	281.2	-3.80
Increase in life expectancy	+1 year	296.1	11.10
Decrease in life expectancy	-1 year	274.3	-10.70
Increase in wages and salaries	+0.25%	286.7	1.70
Decrease in wages and salaries	-0.25%	283.5	-1.50

* The changes in the actuarial assumptions have no linear impact on the calculation of the present value of the defined benefit obligation. Changing multiple assumptions simultaneously does not always correspond to the cumulative effect because there are interdependencies between factors. A new calculation of the defined benefit obligation must be made for each case.

Actuarial gains and losses are recognized directly in equity and offset against revenue reserves in the year in which they occur.

Funding status of defined benefit pension obligations

in € millions	Germany		Switzerland		UK		Sweden	
	2014	2015	2014	2015	2014	2015	2014	2015
Present value of pension benefits covered by provisions	83.8	75.9	–	–	–	–	–	–
Present value of pension benefits based on plan assets	–	–	118.9	139.5	17.8	17.0	16.4	16.7
Defined benefit obligation	83.8	75.9	118.9	139.5	17.8	17.0	16.4	16.7
Fair value of plan assets	–	–	106.1	120.3	10.6	12.8	13.5	14.1
Net obligation as of Dec. 31	83.8	75.9	12.8	19.2	7.2	4.2	2.9	2.6

Reconciliation/Development of the defined benefit obligation

The reconciliation of the obligation for key items from the beginning to the end of the financial year breaks down as follows:

in € millions	Germany		Switzerland		UK		Sweden	
	2014	2015	2014	2015	2014	2015	2014	2015
Jan. 1	70.8	83.8	–	118.9	–	17.8	–	16.4
Change in scope of consolidation and other changes	0.2	3.2	118.9	–	17.8	–	16.4	–
Current service costs	0.5	0.7	–	4.0	–	0.2	–	0.4
Interest income (+)/interest expense (–)	2.5	1.6	–	1.3	–	0.7	–	0.4
Actuarial gains (+)/losses (–)	14.7	-7.7	–	6.2	–	-2.7	–	-0.6
Plan curtailments and modifications	–	-0.5	–	-1.3	–	–	–	–
Payments made	-4.9	-5.2	–	-2.6	–	-0.1	–	-0.3
Translation gains/losses	–	–	–	13.0	–	1.1	–	0.4
Dec. 31	83.8	75.9	118.9	139.5	17.8	17.0	16.4	16.7
of that, funded by provisions	(83.8)	(75.9)	–	–	–	–	–	–
of that, based on plan assets	–	–	(118.9)	(139.5)	(17.8)	(17.0)	(16.4)	(16.7)

Current service costs and interest expenses totaling €11.1 million (2014: €3.4 million) compare to benefit payments of €10.1 million during the financial year (2014: €5.7 million). This rise was primarily due to the incorporation of Swisslog as of the 2015 financial year. In the 2015 financial year currency effects of €17.3 million (2014: €0.9 million), mainly due to the Swiss franc and the US dollar, led to a notable increase in the defined benefit obligation. The plan curtailments set out are mostly due to the departure of employees in Switzerland.

	USA		Other		Total	
	2014	2015	2014	2015	2014	2015
	-	-	2.0	5.9	86.6	81.8
	26.9	27.8	9.7	2.2	188.9	203.2
	26.9	27.8	11.7	8.1	275.5	285.0
	20.3	21.2	3.3	2.6	153.8	171.0
	6.6	6.6	8.4	5.5	121.7	114.0

	USA		Other		Total	
	2014	2015	2014	2015	2014	2015
	6.5	26.9	1.0	11.6	78.3	275.5
	18.8	-	10.3	-4.0	182.5	-0.8
	0.0	0.0	0.2	0.5	0.7	5.8
	0.2	1.1	-	0.2	2.7	5.3
	1.4	-1.4	-	0.1	16.1	-6.1
	-	-	-	-	-	-1.8
	-0.8	-1.7	0.0	-0.2	-5.7	-10.1
	0.8	2.9	0.1	-0.1	0.9	17.3
	26.9	27.8	11.6	8.1	275.5	285.0
	(0.8)	(0.0)	(2.0)	(5.9)	(86.6)	(81.8)
	(26.1)	(27.8)	(9.6)	(2.2)	(188.9)	(203.2)

Reconciliation/Development of plan assets

The reconciliation of plan assets and asset classes at the close of the financial year breaks down as follows:

in € millions	2014	2015
Jan. 1	4.9	153.8
Interest income (+)/interest expense (-)	0.2	2.8
Change in scope of consolidation and other changes	148.4	-0.1
Actuarial gains (+)/losses (-)	0.1	-0.3
Employer contributions	0.2	9.0
Payments	-0.5	-7.8
Translation gains/losses	0.5	13.6
Fair value of plan assets as of Dec. 31	153.8	171.0
Fixed-interest securities	1.6	0.8
Shares	38.8	46.6
Bonds	81.6	83.8
Real estate	16.2	17.6
Other	15.6	22.2
Total	153.8	171.0

Investment and risk strategy

The allocation of plan assets to the various asset classes is determined taking potential returns and risks into account. Ratings and forecasts are used as the basis for selecting high-quality stocks and bonds. An optimal portfolio is achieved by ensuring a good balance of risky and risk-free investments. A corresponding committee has been set up for this to monitor the results at least once every half-year and to make changes if necessary to the composition of the plan assets. The company has identified the deterioration of the funded status due to the unfavorable development of plan assets and/or defined benefit obligations as a risk. KUKA monitors its financial assets and defined benefit obligations to identify this risk. In the case of the Swisslog Group pension plans the plan assets are managed by an independent entity as a rule. It provides a regular report so that by this means risk management is possible.

Maturity profile of defined benefit obligations

The following table provides an overview of the expected benefit payments over the next ten years:

in € millions	2014	2015
Not later than one year	11.2	13.1
Later than one year and not later than five years	49.4	51.5
Later than five years and not later than ten years	57.9	64.4

24. Other provisions

in € millions	Status as of Jan. 1, 2015	Exchange rate differences	Change in scope of consolidation	Consumption	Reversals	Additions	Status as of Dec. 31, 2015
Warranty commitments and risks from pending transactions	83.9	1.2	0.4	29.4	11.7	24.6	69.0
Miscellaneous provisions	66.2	1.0	3.1	23.0	8.0	34.7	74.0
Other provisions	150.1	2.2	3.5	52.4	19.7	59.3	143.0

Other provisions for warranty commitments and risks from pending transactions include provisions for impending losses of €9.1 million (2014: €20.3 million) and warranty risks of €59.9 million (2014: €63.6 million).

Of the miscellaneous provisions, €25.7 million (2014: €21.1 million) relates among other items to costs still to be incurred for orders already invoiced and litigation risks of €5.7 million (2014: €3.7 million).

The expected remaining term of the other provisions is up to one year.

25. Liabilities

2015 in € millions	Remaining maturity			2014 in € millions	Remaining maturity		
	up to one year	more than one year	Dec. 31, 2015 Total		up to one year	more than one year	Dec. 31, 2014 Total
Liabilities due to banks	1.7	249.4	251.1	Liabilities due to banks	21.4	0.1	21.5
Convertible bond	0.4	44.8	45.2	Convertible bond	1.1	136.9	138.0
Financial liabilities	2.1	294.2	296.3	Financial liabilities	22.5	137.0	159.5
Trade payables	402.0	–	402.0	Trade payables	274.6	–	274.6
Advances received	72.5	–	72.5	Advances received	78.3	–	78.3
Liabilities from construction contracts	217.0	–	217.0	Liabilities from construction contracts	247.6	–	247.6
Income tax liabilities	33.4	–	33.4	Accounts payable to affiliated companies	0.1	–	0.1
Other liabilities and deferred income	290.6	24.0	314.6	Income tax liabilities	24.9	0.0	24.9
(of that for other taxes)	(47.4)	–	(47.4)	Other liabilities and deferred income	290.8	18.2	309.0
(of that for social security payments)	(12.0)	–	(12.0)	(of that for other taxes)	(29.1)	–	(29.1)
(of that liabilities relating to personnel)	(134.6)	(11.7)	(146.3)	(of that for social security payments)	(10.3)	–	(10.3)
(of that for leases)	(0.1)	(0.2)	(0.3)	(of that liabilities relating to personnel)	(135.0)	(10.1)	(145.1)
(of that for forward exchange transactions for currency hedging)	(3.8)	–	(3.8)	(of that for leases)	(0.1)	(0.1)	(0.2)
Total	1,017.6	318.2	1,335.8	(of that for forward exchange transactions for currency hedging)	(7.3)	–	(7.3)
				Total	938.8	155.2	1,094.0

26. Financial liabilities/financing

The existing financial liabilities are mainly the convertible bond issued in two tranches in 2013 and the promissory note loan issued in October 2015. In addition, financial liabilities of Swisslog Group were also subject to reporting in the previous year.

Fixed interest rate agreements

in € millions	Face value as of balance sheet date		Nominal interest rate	Original maturity	Net carrying amount		Fair value	
	Dec. 31, 2014	Dec. 31, 2015			2014	2015	2014	2015
Convertible bond	150.0	47.2	2.00% p. a.	2013 – 2018	138.0	45.2	246.5	102.0
Promissory note loan								
Tranche 1	–	142.5	1.15% p. a. (MS +80bps)	2020	–	141.9	–	–
Tranche 2	–	107.5	1.61% p. a. (MS +100bps)	2022	–	107.1	–	–
Total promissory note loan	–	250.0	approx. 1.35% p. a.	5 – 7 years	–	249.0	–	–

The market value of the convertible bond was determined using the closing price of Frankfurt Stock Exchange on the last trading day of the respective year. The reduction of face value compared with the previous year is due to the conversions that took place in the fourth quarter of 2015.

Variable interest rate liabilities to banks

Financial instrument in € millions	Net carrying amount		Avg. nominal interest rate	Year of latest maturity
Liabilities due to banks as of Dec. 31, 2015	0.3 €	0.3 €	6.10% p. a.	2016
	0.8 CHF	0.7 €	1.50% p. a.	2016
Liabilities due to banks as of Dec. 31, 2014	278.2 INR	3.6 €	11.25% p. a.	2015
Fixed advance from Swisslog syndicated loan agreement	20.0 CHF	16.6 €	0.60% p. a.	2015

The nominal interest rates correspond to those interest rates which were payable on outstanding amounts at year-end in the respective currency.

Promissory note loan

KUKA Aktiengesellschaft issued an unsecured promissory note loan with a total volume of €250.0 million on October 9, 2015. The originally planned volume of €150.0 million was increased because the issue was heavily oversubscribed. After deduction of the transaction costs, KUKA received a total of €248.9 million from this issue. The additional funds are being used to continue the growth strategy of KUKA Group.

The total volume of the loan was placed in two tranches. Tranche 1 has a volume of €142.5 million and a term of five years; tranche 2 has a volume of €107.5 million and a term of seven years. The issue price was 100.0% with a denomination per unit of at least €0.5 million or a multiple thereof. Repayment shall occur at 100.0%, payable in one sum on maturity of each fixed-term tranche. The promissory note loan carries interest coupons of 1.15% for tranche 1 and 1.61% for tranche 2. Interest payments are made at yearly intervals on October 9. Interest of €0.8 million was deferred as of the balance sheet date.

On initial recognition, the promissory note loan was carried on the balance sheet at fair value less transaction costs of €1.1 million. The difference between the amount paid out (less transaction costs) and the repayment amount is recognized in the interest result for the term of each tranche using the effective interest method. Taking account of the transaction costs, the effective interest rate rises to 1.24% for tranche 1 and 1.67% for tranche 2.

Convertible bond

In February 2013, KUKA Aktiengesellschaft issued a convertible bond with a nominal value of €58.8 million maturing in February 2018 (tranche 1) and increased the nominal volume by €91.2 million in July 2013 (tranche 2). The convertible bond thus had a total nominal value of €150.0 million. The bond was issued in denominations of €100,000. The initial conversion price is €36.8067 per share, which means the conversion ratio is 2,716.8967 shares per €100,000 unit. In total, the bond entitles holders to convert their holdings into up to 4,075,344 new bearer shares of KUKA Aktiengesellschaft (of which 1,597,535 are for the tranche in February 2013 and 2,477,809 for the tranche in July 2013). The conversion rights are valid for the entire term of the convertible bond. The bond carries an interest coupon of 2.0% p.a. Interest payments are made at six-monthly intervals on February 12 and August 12 every year.

The convertible bond is listed on the open market of the Frankfurt Stock Exchange (ISIN DE000A1R09V9/WKN A1R09V). The latest rate quoted for the convertible bond on the Frankfurt Stock Exchange in 2015 was 216.05%.

In the fourth quarter of 2015, a total of 2,792,944 convertible bond units with a nominal value of €102.8 million were converted into new shares. This means that as of December 31, 2015, a nominal volume of €47.2 million could theoretically still be converted into another 1,282,400 shares.

On the balance sheet, the convertible bond is broken down into an equity and a debt component. The market value of the debt component including issue costs is €131.7 million, of which €50.2 million applies to the first tranche and €81.5 million to the second. As a result of the attractive market interest rate from a risk perspective, the company also issued a fixed-interest bond with no conversion rights at the same time it issued each of the convertible instruments (5.03% for tranche 1 and 4.80% for tranche 2). The original resulting value of the equity component was €27.0 million (tranche 1: €7.5 million; tranche 2: €19.5 million including a premium of €10.5 million), which has been recognized as part of the capital reserve with allowance for deferred taxes and will not be changed until the due date or conversion.

Due to the conversions carried out in 2015, the convertible bond liability has been reduced by €96.1 million to currently €45.2 million. €7.3 million of the converted amount was transferred to subscribed capital and €88.8 million to the capital reserve. The conversions have resulted in a corresponding reduction of the initial equity capital component, taking the deferred taxes into account.

The interest expense recognized for the bond in 2015 was €6.2 million (2014: €6.8 million).

Syndicated loan for KUKA Aktiengesellschaft

KUKA Aktiengesellschaft prematurely refinanced the syndicated loan that it concluded in December 2013, and at the same time redeemed the existing Swisslog Holding AG syndicated senior facilities agreement. The new contract was signed on March 30, 2015 and came into force on April 2, 2015. It matures on March 30, 2020. It provides for a surety and guarantee line in the amount of €140.0 million and a working capital line, which can also be used for sureties and guarantees, in the amount of €90.0 million. This results in a volume €70.0 million higher than with the previous contract. In addition, structural adjustments have been made. Both measures are attributable to the integration of Swisslog Holding AG and its subsidiaries following the acquisition in December 2014.

The syndicated senior facilities agreement is unsecured and contains only the customary equal treatment clauses and negative pledges. Moreover, it was possible to benefit from the improved market situation to obtain significantly improved terms, so that for instance the gearing (ratio of net financial liabilities to equity) is no longer part of the financial covenant. Thus all that remains is a lower limit to the interest coverage ratio (ratio of earnings before interest, taxes, depreciation and amortization [EBITDA] to net interest expense) and an upper limit to the leverage (ratio of net financial liabilities to EBITDA). The headroom to the respective limit values was more than 50% for both covenants.

During the integration of Swisslog, the consortium of banks was expanded to include one of the consortium banks from the old contract with Swisslog Holding AG.

As of the reporting date the utilization of the guarantee facility and cash credit line from the syndicated senior facilities agreement of KUKA Aktiengesellschaft amounted to a total of €100.9 million (2014: €136.1 million, including the former syndicated senior facilities agreement of Swisslog Holding AG).

For further details about the redeemed syndicated senior facilities agreements please refer to the company's 2014 annual report.

Guarantee facilities from banks and surety companies

The guarantee facilities promised by banks and surety companies outside the SLA total €89.0 million (2014: €89.0 million) as of December 31, 2015, and can be utilized in full. At the end of the reporting year, the company had utilized €47.1 million versus €41.2 million the previous year.

Asset-backed securities program

KUKA Group launched an ABS (asset-backed securities) program in June 2011 with a volume of €25.0 million and maturing on June 30, 2018. Under this program, trade receivables of KUKA Roboter GmbH can be sold in regular tranches to a special purpose vehicle (SPV) of Landesbank Baden-Württemberg. Trade receivables of €16.4 million (2014: €3.1 million) were sold as at the balance sheet date. The SPV finances the purchase of the receivables by issuing securities on the capital market or through utilization of a corresponding credit line. Covenants for gearing, interest coverage ratio and leverage are in place for this financing program.

Default guarantees from credit insurers ensure adequate creditworthiness of the receivables sold. KUKA Roboter GmbH assumes the first 1.15% of credit risk from the sale of receivables. The retention for this credit risk (continuing involvement) amounted to €0.3 million as of December 31, 2015 (2014: €0.2 million) and was fully written off. KUKA Roboter GmbH manages and processes the receivables that are sold. As in the previous year, no claims to be recognized in the income statement resulted from this.

Financial instruments measured at fair value

The following table shows the breakdown of the financial assets and liabilities measured at fair value:

2015 in € millions	Level 1	Level 2	Level 3	Total
Financial assets	–	4.6	2.1	6.7
Financial liabilities	–	3.8	–	3.8

2014 in € millions	Level 1	Level 2	Level 3	Total
Financial assets	0.3	0.8	0.2	1.3
Financial liabilities	–	7.3	–	7.3

The financial assets of level 1 mainly related to mixed fund units in the previous year. These mixed fund units no longer exist this year. The assets in level 2 mainly relate to forward exchange transactions carried as assets or liabilities. The value is determined with the aid of standard financial mathematical techniques, using current market parameters such as exchange rates and counterparty credit ratings (mark-to-market method) or quoted prices. Middle rates are used for this calculation. In the previous year, the financial assets of level 3 were measured using the discounted future cash flows from the sale of a minority interest. In the current year, they include newly acquired units in investments not traded on the market.

27. Other current/non-current liabilities and prepaid expenses/deferred charges

The other liabilities for other taxes are primarily from sales, wage and church tax.

Other liabilities in the personnel area are mostly related to obligations from vacation entitlements (€20.0 million; 2014: €18.7 million), flex-time credits (€17.5 million; 2014: €17.4 million), variable compensation elements (€69.0 million; 2014: €82.4 million) and pre-retirement (“Altersteilzeit”) (€9.7 million; 2014: €8.3 million). Pre-retirement obligations were reduced by the fair value of the corresponding fund assets (€7.3 million; 2014: €7.1 million). The present value of entitlements from pre-retirement obligations (DBO) before offsetting was €17.0 million (2014: €15.4 million). Also reported under this item are, among other things, special payments, inventor’s compensation, long-service awards and trade association fees.

Liabilities arising from finance leases are recognized at the present value of future lease payments and disclosed as other liabilities.

28. Assets and liabilities held for sale

The items posted for assets and liabilities held for sale at the balance sheet date of the previous year related to the sale of HLS Group during the financial year.

As at December 31, 2015, there were no plans to divest business units or sub-units, meaning that there are no circumstances to report as defined in IFRS 5.

29. Financial risk management and financial derivatives

a) Principles of risk management

As part of its general business activities, KUKA Group is exposed to various financial risks, in particular from movements in exchange rates and interest rates as well as counterparty risk and liquidity risk. The purpose of financial risk management is to identify, assess and manage these risks. The aim is to limit the potential negative impact on the financial position.

Derivatives may be a part of financial risk management depending on the risk assessment. Derivatives are exclusively used as hedging instruments with reference to an underlying transaction and are thus not held for trading or other speculative purposes. To reduce the credit risk, hedging transactions are only concluded with financial institutions with an excellent credit rating.

The fundamentals of the Group’s financial policy are established by the Executive Board and implemented by Group Treasury in close cooperation with Group companies. Certain transactions require the approval of the CFO. The CFO is also informed on a regular basis of the current risk positions and safeguards.

b) Currency risk

Risks arising from fluctuations in exchange rates that may affect the Group’s cash flow – for example from investments, financing and already fixed or planned incoming and outgoing operational payments in foreign currencies – are hedged as they arise or become known through the use of derivative financial instruments with banks or by offsetting opposing cash flows. Hedging may also cover future planned transactions such as planned purchases in foreign currencies, where hedging is used to cover exchange rate fluctuations congruent with the respective maturities and amounts. Group Treasury is principally responsible for the conclusion of hedging transactions with banks.

Exchange rate risks that do not influence the Group's cash flows, e.g. risks resulting from translation of balance sheet and income statement items of foreign KUKA companies into the Group currency (translation risks), are generally not hedged.

All intra-Group loans denominated in foreign currencies were hedged accordingly. KUKA was not exposed to any significant exchange rate risk in the area of financing at the reporting date on account of these hedging activities.

The individual KUKA companies handle their operating activities mainly in the relevant functional currency. However, some KUKA companies are exposed to corresponding exchange rate risk in connection with planned payments outside their own functional currencies. Such risks are hedged according to the policy outlined above. KUKA was not exposed to any significant exchange rate risks from its operating activities at the reporting date on account of these hedging activities.

Currency risk as defined by IFRS 7 arises on account of financial instruments that are denominated in a currency other than the functional currency and are of a monetary nature. Differences resulting from the translation of financial statements into the Group's presentation currency are not taken into consideration. Relevant risk variables are generally all non-functional currencies in which KUKA has financial instruments.

For the presentation of market risks, IFRS 7 requires sensitivity analyses that show the effects of hypothetical changes of relevant risk variables (e.g. interest rates, exchange rates) on profit or loss and shareholders' equity. The periodic effects are determined by relating the hypothetical changes in the risk variables to the balance of financial instruments at the reporting date. It is assumed that the balance at the reporting date is representative for the year as a whole.

Currency sensitivity analyses are based on the following assumptions:

- › Major non-derivative monetary financial instruments (liquid assets, receivables, liabilities) are either directly denominated in the functional currency or are transferred as far as possible into the functional currency through the use of derivatives.
- › Major interest income and interest expense from financial instruments are also either recorded directly in the functional currency or transferred into the functional currency by using derivatives. For this reason, there can be no material effect on the variables considered in this connection.

The most important currency pairs for KUKA are considered when calculating currency sensitivities. This involves applying a hypothetical upward or downward revaluation of the national currency concerned against the relevant foreign currency.

in € millions	Dec. 31, 2014	Dec. 31, 2015
National currency: EUR		
EUR/USD		
EUR +10%	3.8	1.0
EUR -10%	-4.6	-1.2
EUR/JPY		
EUR +10%	-2.0	-2.6
EUR -10%	2.5	3.2
EUR/CNY		
EUR +10%	0.4	0.4
EUR -10%	-0.5	-0.4
EUR/HUF		
EUR +10%	-0.5	-0.6
EUR -10%	0.6	0.7
EUR/BRL		
EUR +10%	-0.1	-0.1
EUR -10%	0.1	0.1
EUR/CHF		
EUR +10%	n.a.	0.0
EUR -10%	n.a.	0.0
EUR/SEK		
EUR +10%	n.a.	-0.3
EUR -10%	n.a.	0.3
EUR/GBP		
EUR +10%	n.a.	0.3
EUR -10%	n.a.	-0.3
EUR/CZK		
EUR +10%	n.a.	-0.7
EUR -10%	n.a.	0.8
EUR/INR		
EUR +10%	n.a.	0.2
EUR -10%	n.a.	-0.2
EUR/NOK		
EUR +10%	n.a.	-0.4
EUR -10%	n.a.	0.5
National currency: CNY		
CNY/EUR		
CNY +10%	n.a.	0.0
CNY -10%	n.a.	0.0
CNY/JPY		
CNY +10%	n.a.	0.8
CNY -10%	n.a.	-0.9

in € millions	Dec. 31, 2014	Dec. 31, 2015
National currency: CHF		
CHF/NOK		
CHF +10%	n.a.	0.2
CHF -10%	n.a.	-0.3
CHF/SEK		
CHF +10%	n.a.	-1.1
CHF -10%	n.a.	1.3
CHF/USD		
CHF +10%	n.a.	-8.3
CHF -10%	n.a.	10.1
CHF/EUR		
CHF +10%	n.a.	-7.8
CHF -10%	n.a.	9.6
National currency: USD		
USD/NOK		
USD +10%	n.a.	-0.4
USD -10%	n.a.	0.4
USD/SEK		
USD +10%	n.a.	-0.2
USD -10%	n.a.	0.3
USD/EUR		
USD +10%	n.a.	0.1
USD -10%	n.a.	-0.1

Assumptions concerning the future cannot be derived from this presentation of currency effects.

c) Interest rate risk

Risks from interest rate changes at KUKA are essentially the result of short-term investments/borrowings in euros as well as the current securities (see note 25). These are not hedged at the reporting date.

Interest rate risk is presented by way of sensitivity analyses in accordance with IFRS 7. These show the effects of changes in market interest rates on interest payments, interest income and expense, other income components and shareholders' equity. Interest rate sensitivity analyses are based on the following assumptions:

- › Changes in the market interest rates of non-derivative financial instruments with fixed interest rates only affect income if these are measured at their fair value. As such, all financial instruments with fixed interest rates that are carried at amortized cost (e.g. the issued convertible bond and promissory note loan) are not subject to interest rate risk as defined in IFRS 7.
- › Changes in market interest rates affect the interest income or expense of non-derivative variable-interest financial instruments, the interest payments of which are not designated as hedged items of cash flow hedges against interest rate risks.

An increase in market interest rates by 100 basis points at December 31, 2015 would have a positive effect on results of €4.9 million (2014: €1.7 million). A decrease in market interest rates by 100 basis points would have a negative effect on results of €0.1 million (2014: €0.1 million). This hypothetical effect results solely from the financial investments and borrowings with variable interest rates totaling €495.7 million (financial investments) and €1.0 million (borrowings) at the balance sheet date (2014: €191.2 million and €20.3 million respectively).

d) Credit risk

KUKA Group is exposed to credit risk from its operating activities and certain financing activities. A default can occur if individual business partners do not meet their contractual obligations and KUKA Group thus suffers a financial loss. With regard to financing activities, important transactions are only concluded with counterparties that have at least an investment grade credit rating.

At the level of operations, the outstanding debts are continuously monitored in each area locally. There are regular business relations with major customers at multiple KUKA Group companies. The associated credit risks are subject to separate quarterly credit rating monitoring as part of the risk management system at the Group's Executive Board level for early detection of an accumulation of individual risks. Added to these measures are comprehensive routine checks implemented at segment level as early as the order initiation process (submission of offers and acceptance of orders) to verify the credit rating of potential business partners. Credit risk is accounted for accordingly through individual impairments.

The maximum exposure to credit risk is represented by the carrying amounts of the financial assets that are carried in the balance sheet (including derivatives with positive market values). No agreements reducing the maximum exposure to credit risk had been concluded as of the reporting date.

e) Liquidity risk

One of KUKA Aktiengesellschaft's primary tasks is to coordinate and control the Group's financing requirements and to ensure the financial independence of KUKA and its ability to pay on time. With this goal in mind, KUKA Group optimizes the Group's financing and limits its financial risks. The standardized, Group-wide treasury reporting system implemented in 2007 is enhanced on a regular basis for this purpose. New companies are included in consolidation concurrently. In addition, the Group's overall liquidity risk is reduced by closely monitoring Group companies and their control of payment flows. This entailed the successful introduction of a new Group-wide treasury management system in 2014.

As a first step to ensure the payment capability at all times and the financial flexibility of KUKA Group, a liquidity reserve is kept by KUKA Aktiengesellschaft in the form of credit lines and cash funds. Moreover, KUKA has issued a convertible bond, placed a promissory note loan, signed a syndicated loan agreement with a consortium of banks and arranged for banks and surety companies to commit guarantee lines. The funding and guarantee requirements for business operations are ensured to a large extent internally by transferring cash funds (inter-company loans) and providing guarantees from the banks and the Group itself. This ensures that Group-wide liquidity management takes place at the individual company level, thereby further optimizing the Group's financing on the whole.

The following figures show the commitments for undiscounted interest and redemption repayments for the financial instruments subsumed under IFRS 7:

Dec. 31, 2015 in € millions	Cash flows 2016	Cash flows 2017	Cash flows 2018 – 2020	Cash flows 2021 et seq.
Non-current financial liabilities	4.3	7.0	195.1	119.7
Current financial liabilities	1.0	–	–	–
Trade payables	402.0	–	–	–
Accounts payable to affiliated companies	0.0	–	–	–
Other non-current liabilities and provisions	–	0.1	0.1	–
(of that for leases)	–	(0.1)	(0.1)	–
Other current liabilities and provisions	133.0	–	–	–
(of that for leases)	(0.1)	–	–	–
Dec. 31, 2014 in € millions	Cash flows 2015	Cash flows 2016	Cash flows 2017 – 2019	Cash flows 2020 et seq.
Non-current financial liabilities	3.0	3.7	154.6	–
Current financial liabilities	21.6	–	–	–
Trade payables	276.6	–	–	–
Accounts payable to affiliated companies	0.1	–	–	–
Other non-current liabilities and provisions	–	0.1	–	–
(of that for leases)	–	(0.1)	–	–
Other current liabilities and provisions	159.6	–	–	–
(of that for leases)	(0.1)	–	–	–

All financial instruments are included which were held at the balance sheet dates and for which payments have already been contractually agreed. Foreign currency amounts are expressed at the spot rate on the key date. The variable interest payments from the financial instruments were determined on the basis of the interest rates last fixed prior to December 31, 2015. Financial liabilities repayable at any time are always allocated to the earliest period.

f) Hedges

Hedges are used by KUKA Group exclusively in the form of forward exchange transactions to secure existing balance sheet items as well as to hedge future payment flows. These are exclusively for the purpose of hedging currency risk.

Other disclosures on financial instruments

The following shows the carrying amounts of the financial instruments by measurement category according to IAS 39:

in € millions	Abbreviation	Dec. 31, 2014	Dec. 31, 2015
Available-for-Sale Financial Assets	AFS	0.5	2.1
Held-to-Maturity	HtM	22.3	9.2
Loans and Receivables	LaR	820.5	1,179.6
Financial Assets Held for Trading	FAHfT	0.8	4.6
Total financial instruments (assets)		844.1	1,195.5
Financial Liabilities Measured at Amortized Cost	FLAC	586.4	827.6
Financial Liabilities Held for Trading	FLHfT	7.3	3.8
Total financial instruments (liabilities)		593.7	831.3

Carrying amounts and fair values by measurement categories for 2015

The carrying amounts and the fair values are derived from the following table:

in € millions	IAS 39 measurement category	Net carrying amount/ Status as of Dec. 31, 2015	of that: other assets and liabilities not covered by IFRS 7	of that: other assets and liabilities covered by IAS 17	Net carrying amount of financial instruments/ Status as of Dec. 31, 2015	Fair value/ Status as of Dec. 31, 2015
Assets						
Financial investments		3.9	–	–	3.9	3.9
(of that loans)	LaR	(1.8)	(0.0)	–	(1.8)	(1.8)
(of that participations)	AFS	(2.1)	–	–	(2.1)	(2.1)
(of that participations at cost)	LaR	(0.0)	–	–	(0.0)	(0.0)
Investments accounted for by the equity method	n. a.	6.6	6.6	–	–	–
Long-term finance lease receivables	n. a.	65.2	–	65.2	–	–
Other long-term receivables and other assets		14.8	9.8	0.0	5.0	5.0
(of that from the category LaR)	LaR	(5.0)	–	–	(5.0)	(5.0)
(of that other)	n. a.	(9.8)	(9.8)	–	–	–
Trade receivables	LaR	310.6	–	–	310.6	310.6
Receivables from construction contracts	LaR	347.7	–	–	347.7	347.7
Current finance lease receivables	n. a.	8.5	–	8.5	–	–
Other assets, prepaid expenses and deferred charges		87.1	55.0	–	32.1	32.1
(of that derivatives without a hedging relationship)	FAHfT	(4.6)	–	–	(4.6)	(4.6)
(of that other from the category LaR)	LaR	(18.3)	–	–	(18.3)	(18.3)
(of that other from the category HtM)	HtM	(9.2)	–	–	(9.2)	(9.2)
(of that other)	n. a.	(55.0)	(55.0)	–	–	–
Cash and cash equivalents	LaR	496.2	–	–	496.2	496.2
Total financial instruments (assets)					1,195.5	1,195.5
Liabilities						
Non-current financial liabilities	FLAC	294.2	–	–	294.2	351.4
Other non-current liabilities and provisions		24.0	23.8	0.2	–	–
(of that for leases)	n. a.	(0.2)	–	(0.2)	–	–
(of that other)	n. a.	(23.8)	(23.8)	–	–	–
Current financial liabilities	FLAC	2.1	–	–	2.1	2.1
Trade payables	FLAC	402.0	–	–	402.0	402.0
Liabilities from construction contracts	n. a.	217.0	217.0	–	–	–
Accounts payable to affiliated companies	FLAC	0.0	–	–	0.0	0.0
Other current liabilities, prepaid expenses and deferred charges		290.6	157.5	0.1	133.0	133.0
(of that for leases)	n. a.	(0.1)	–	(0.1)	–	–
(of that derivatives without a hedging relationship)	FLHfT	(3.8)	–	–	(3.8)	(3.8)
(of that other from the category FLAC)	FLAC	(129.2)	–	–	(129.2)	(129.2)
(of that other)	n. a.	(157.5)	(157.5)	–	–	–
Total financial instruments (liabilities)					831.3	888.5

Carrying amounts and fair values by measurement categories
for 2014

in € millions	IAS 39 measurement category	Net carrying amount/ Status as of Dec. 31, 2014	of that: other assets and liabilities not covered by IFRS 7	of that: other assets and liabilities covered by IAS 17	Net carrying amount of finan- cial instruments/ Status as of Dec. 31, 2014	Fair value/ Status as of Dec. 31, 2014
Assets						
Financial investments		0.6	–	–	0.6	0.6
(of that loans)	LaR	(0.1)	0	–	(0.1)	(0.1)
(of that participations)	AFS	(0.3)	–	–	(0.3)	(0.3)
(of that participations at cost)	LaR	(0.2)	–	–	(0.2)	(0.2)
Investments accounted for by the equity method	n.a.	5.6	5.6	–	–	–
Long-term finance lease receivables	n.a.	66.1	–	66.1	–	–
Other long-term receivables and other assets		9.9	7.3	0	2.6	2.6
(of that from the category LaR)	LaR	(2.6)	–	–	(2.6)	(2.6)
(of that other)	n.a.	(7.3)	(7.3)	–	–	–
Trade receivables	LaR	273.8	–	–	273.8	273.8
Receivables from construction contracts	LaR	339.1	–	–	339.1	339.1
Current finance lease receivables	n.a.	6.9	–	6.9	–	–
Other assets, prepaid expenses and deferred charges		71.0	35.1	–	35.9	35.9
(of that derivatives without a hedging relationship)	FAHfT	(0.8)	–	–	(0.8)	(0.8)
(of that other from the category LaR)	LaR	(12.8)	–	–	(12.8)	(12.8)
(of that other from the category HtM)	HtM	(22.3)	–	–	(22.3)	(22.3)
(of that other)	n.a.	(35.1)	(35.1)	–	–	–
Cash and cash equivalents	LaR	192.1	–	–	192.1	192.1
Total financial instruments (assets)					844.1	844.1
Liabilities						
Non-current financial liabilities	FLAC	137.0	–	–	137.0	246.5
Other non-current liabilities and provisions		18.2	18.1	0.1	–	–
(of that for leases)	n.a.	(0.1)	–	(0.1)	–	–
(of that other)	n.a.	(18.1)	(18.1)	–	–	–
Current financial liabilities	FLAC	22.5	–	–	22.5	22.5
Trade payables	FLAC	274.6	–	–	274.6	274.6
Liabilities from construction contracts	n.a.	247.6	247.6	–	–	–
Accounts payable to affiliated companies	FLAC	0.1	–	–	0.1	0.1
Other current liabilities, prepaid expenses and deferred charges		290.8	131.2	0.1	159.5	159.5
(of that for leases)	n.a.	(0.1)	–	(0.1)	–	–
(of that derivatives without a hedging relationship)	FLHfT	(7.3)	–	–	(7.3)	(7.3)
(of that other from the category FLAC)	FLAC	(152.2)	–	–	(152.2)	(152.2)
(of that other)	n.a.	(131.2)	(131.2)	–	–	–
Total financial instruments (liabilities)					593.7	703.2

With the exception of financial investments and leasing claims, most assets have short terms to maturity. Their carrying amounts as of the financial reporting date therefore correspond approximately to the fair value. Long-term interest-bearing receivables including finance lease receivables are measured and, if necessary, impaired based on different parameters such as interest rates and customer-specific credit ratings. Thus, these carrying amounts also largely reflect the market values.

Liabilities – with the exception of long-term financial liabilities and the other non-current liabilities – have regular, short terms to maturity. The values shown on the balance sheet approximately represent the fair values. The market value of the convertible bond is based on the market prices quoted at the balance sheet date.

The derivative financial instruments recognized at the balance sheet date have to do with forward exchange transactions to hedge exchange exposure. Recognition in the balance sheet occurs at the market value determined using standardized financial mathematical methods, among other things, in relation to the foreign exchange rates.

Net results listed according to measurement categories are represented as follows:

Net profit/loss by IAS39 measurement categories for 2015

in € millions	Net gains/ losses	Total interest income/ expenses	Commission income/ expenses
Loans and Receivables (LaR)	-4.1	2.3	0.0
Available-for-Sale Financial Assets (AFS)	12.4	-	-
Held-to-Maturity (HtM)	-	0.1	-
Financial Instruments Held for Trading (FAHFT and FLHFT)	-6.3	-	-
Financial Liabilities Measured at Amortized Cost (FLAC)	9.7	-9.0	-0.7
Total	11.7	-6.6	-0.7

Net profit/loss by IAS39 measurement categories for 2014

in € millions	Net gains/ losses	Total interest income/ expenses	Commission income/ expenses
Loans and Receivables (LaR)	3.1	1.7	0.0
Available-for-Sale Financial Assets (AFS)	-0.2	-	-
Held-to-Maturity (HtM)	-	0.8	-
Financial Instruments Held for Trading (FAHFT and FLHFT)	-13.8	-	-
Financial Liabilities Measured at Amortized Cost (FLAC)	7.9	-33.8	-0.7
Total	-3.0	-31.3	-0.7

As in the previous year, net losses from the category Loans and Receivables also include exchange rate effects as well as results from additions and reversals of provisions for receivables and other assets. In addition to foreign currency effects, the net profits from Financial Liabilities Measured at Amortized Cost also include income from writing off liabilities.

Interest income for financial instruments from the category Loans and Receivables comes from the investment of cash and cash equivalents. The interest result from financial liabilities from the category Financial Liabilities Measured at Amortized Cost largely reflects interest expenses from the promissory note loan, the current interest expenses from the convertible bond as well as from financial liabilities due to banks. In addition, the interest income and interest expense also incorporate foreign currency gains and losses from financial assets and liabilities.

Commission expenses are recorded as the transaction costs for financial liabilities due to banks and fees for the provision of guarantees.

30. Contingent liabilities and other financial commitments

The following contingent liabilities and other financial commitments existed as of the balance sheet date:

Contingent liabilities

in € millions	2014	2015
Liabilities from guarantees	4.6	4.5
Liabilities from warranty agreements	0.6	0.2
Total	5.2	4.7

Other financial commitments

in € millions	2014	2015
Purchase commitments (discounted notes)	11.4	4.3
Rent/lease liabilities	98.6	124.6
Other financial commitments	8.6	7.4
Total	118.6	136.3

The further reduction in purchase order commitments relates mainly to the Development and Technology Center. Completion of the building during the financial year results in a corresponding reduction of the purchase order commitments. The rise in rental and leasing commitments is largely the result of new tenancies and foreign currency effects.

Commitments in connection with leases for passenger cars, office and factory buildings, technical office equipment and production facilities primarily include liabilities from leases and rental agreements in connection with operating leases. The lease payments and due dates are broken down as follows:

in € millions	Dec. 31, 2014	Dec. 31, 2015
Due within one year	23.8	28.8
Due between one and five years	52.5	67.6
Due after more than five years	22.3	28.3
Total	98.6	124.7

Total rental expenses for the fiscal year were €39.2 million compared to €23.4 million the previous year; rental income totaled €0.2 million compared to €0.6 million the previous year.

Notes to the Group cash flow statement

The cash flow statement reports cash flows separately for incoming and outgoing funds from operating, investing and financing activities in accordance with IAS 7. The calculation of cash flows is derived from the consolidated financial statements of KUKA Aktiengesellschaft by using the indirect method.

Cash and cash equivalents in the cash flow statement comprise all cash and cash equivalents disclosed on the balance sheet, i.e. cash on hand, checks and cash with banks provided they are available within three months. Cash and cash equivalents of €3.2 million (2014: €2.4 million) are subject to restrictions. These are still related to company acquisitions made in the preceding years and to a government-funded contract in Brazil.

Cash flow from operating activities is derived indirectly from the earnings after taxes.

Under the indirect method, the relevant changes to the balance sheet items associated with operating activities are adjusted for currency translation effects and changes to the scope of consolidation.

Notes to the Group segment reporting

The data for the individual annual financial statements have been segmented by business field and region. The structure follows internal reporting (management approach). The segmentation is intended to create transparency with regard to the earning power and the prospects, as well as the risks and rewards for the various business fields within the Group.

Segment reporting is designed to accommodate the structure of KUKA Group. KUKA Group was engaged in three major business segments in the reporting year and the previous year.

KUKA Robotics

This segment offers customers from the automotive sector and general industry – as well as those supported by comprehensive customer services – industrial robots, from small models to heavy-duty robots. Medical robotics activities are also bundled in this segment.

KUKA Systems

This segment provides customers in the fields of automotive, aerospace and general industry with innovative solutions and services for automated production. Applications range from welding, bonding, sealing, assembling and testing, to forming solutions tailored to meet the specific customer needs and production of castings and plastic components.

Swisslog

This segment produces leading automation solutions for future-oriented hospitals, warehouse and distribution centers with the focus on the segments of trading, including e-commerce, pharmaceuticals, and chilled and frozen foods.

KUKA Aktiengesellschaft and other companies

KUKA Aktiengesellschaft and other investments that are supplementary to the operating activities of KUKA Group are aggregated in a separate segment. Cross-divisional consolidation items are shown in a separate column. The allocation of Group companies to the individual business segments is shown in the schedule of shareholdings.

The breakdown of sales revenues by region is based on the customer's registered office/delivery location. Non-current assets (tangible and intangible assets) are calculated by company location.

in € millions	Revenues acc. to customer location		Non-current assets acc. to registered office of the company	
	2014	2015	2014	2015
Germany	647.2	618.2	195.7	210.8
Rest of Europe	459.6	738.4	366.0	336.3
North America	596.1	1,035.7	77.9	108.3
Other regions	392.8	573.6	24.6	26.6
Total	2,095.7	2,965.9	664.2	682.0

Since Swisslog Group was only incorporated in KUKA Group as of December 31, 2014, the revenue figures for 2014 do not include results for Swisslog Group.

In 2015, KUKA Group achieved more than 10% of total sales revenues from no (2014: two) customers.

The calculations for segment reporting rely on the following principles:

- › Group external sales revenues show the divisions' respective percentage of consolidated sales for the Group as presented in the Group income statement.
- › Intra-Group sales revenues are sales transacted between segments. In principle, transfer prices for intra-Group sales are determined based on the market.
- › Sales revenues for the segments include revenues from sales to third parties as well as sales to other Group segments.
- › EBIT reflects operating earnings, i.e. the earnings from ordinary activities before financial results and taxes.
- › Elimination of scheduled and unscheduled depreciation on tangible and intangible assets from EBIT produces EBITDA.
- › ROCE (return on capital employed) is the ratio of EBIT to average capital employed, which is largely non-interest bearing. To calculate ROCE the capital employed is based on an average value.

The reconciliation of capital employed to segment assets and segment liabilities is shown in the following table:

in € millions	2014	2015
Capital employed		
Intangible assets	430.4	423.0
+ Tangible assets	233.8	259.0
+ Non-current lease receivables	66.1	65.2
+ Assets held for sale	16.5	–
+ Asset-side working capital	982.9	1,077.0
Inventories	272.4	297.8
Receivables from construction contracts	339.1	347.7
Trade receivables	273.8	310.6
Other receivables and assets	97.6	120.9
= Asset items of capital employed	1,729.7	1,824.2
./. Other provisions	150.1	143.0
./. Liabilities from construction contracts	247.6	217.0
./. Advances received	78.3	72.5
./. Trade payables	274.6	402.0
Other liabilities except for liabilities similar to bonds (incl. deferred income)	301.7	306.1
= Liability-side working capital	1,052.3	1,140.6
./. Liabilities held for sale	7.3	–
= Liability items of capital employed	1,059.6	1,140.6
= Capital employed	670.1	683.6
Average capital employed	492.0	676.8
Segment assets		
Asset items of capital employed	1,729.7	1,824.2
+ Other participations	0.5	3.9
+ At equity participations	5.6	6.6
= Segment assets	1,735.8	1,834.7
Segment liabilities		
Liability items of capital employed	1,059.6	1,140.6
+ Pension provisions and similar obligations	121.7	114.0
= Segment liabilities	1,181.3	1,254.6
Working capital		
Asset-side working capital	982.9	1,077.0
Liability-side working capital	1,052.3	1,140.6
= Working capital	-69.4	-63.6

Additional elements of the segment reports are contained in the management report on the operating business divisions Robotics, Systems and Swisslog, as well as in the tables at the beginning of the Group notes.

Other notes

Related party disclosures

Persons or companies that may be influenced by or have influence on the reporting company must be disclosed in accordance with IAS 24, provided they have not already been included as consolidated companies in the financial statements.

Parties related to KUKA Group include mainly members of the Executive and Supervisory Boards as well as non-consolidated KUKA Group companies in which KUKA Aktiengesellschaft directly or indirectly holds a significant proportion of the voting rights or companies that hold a significant proportion of the voting rights in KUKA Aktiengesellschaft.

Compared to December 31, 2014, the list of related companies and persons has expanded to include the associated company Barrett Technology LLC, Newton, Massachusetts/USA. As in the previous year, KBee AG, Munich and Yawei Reis Robot Manufacturing (Jiangsu) Co., Ltd., China are classified as associated companies, Freadix FryTec GmbH, Augsburg, IWK Unterstützungseinrichtung GmbH, Karlsruhe and KUKA Unterstützungskasse GmbH, Augsburg as non-consolidated companies and the companies of Voith Group and Loh Group as related parties.

The contractually agreed, future capital contributions made to KBee AG are to take place by the end of 2016 as a factor of the achievement of certain milestones and will amount to €3.0 million.

Including option-bearing financial instruments, Voith Group has a holding of 25.10% in KUKA Aktiengesellschaft.

The following receivables from and liabilities to related parties existed as of the balance sheet date:

in € millions	Shares	Group receivables from related parties	
	in %	Dec. 31, 2014	Dec. 31, 2015
Voith Group	25.1	–	0.1
KBee AG, Munich	40.0	0.0	0.0
Yawei Reis Robot Manufacturing (Jiangsu) Co. Ltd./China	49.0	–	0.0
Others/less than €1 million		–	–
Total		0.0	0.1

Over the reporting year, the following services were provided to or purchased from related parties:

in € millions	Shares	Goods and services provided by the Group to related parties	
	in %	2014	2015
Voith Group	25.1	–	0.3
KBee AG, Munich	40.0	0.0	0.0
Yawei Reis Robot Manufacturing (Jiangsu) Co. Ltd./China	49.0	–	0.4
Others/less than €1 million		0.0	0.1
Total		0.0	0.8

Business with all related parties is transacted under the “dealing at arm’s length” principle at transfer prices that correspond to market conditions. 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.

Executive Board and Supervisory Board compensation

The Executive Board of KUKA Aktiengesellschaft received a total compensation of €7.9 million (2014: €3.7 million). Altogether over the financial year, the Executive Board received a fixed salary including payments in kind and other compensation of €1.2 million (2014: €1.0 million). Target achievement and performance-based compensation amounted to €6.7 million (2014: €2.7 million). €4.6 million (2014: €1.0 million) was paid out in compensation under the phantom share program.

	Group liabilities from related parties	
	Dec. 31, 2014	Dec. 31, 2015
	–	0.8
	–	–
	–	1.1
	0.1	0.1
	0.1	2.0

	Goods and services provided to the Group by related parties	
	2014	2015
	–	0.3
	–	–
	–	0.5
	0.0	0.8
	0.0	1.6

With a few exceptions, former Executive Board members have been granted benefits from the company pension scheme, which include old-age, vocational and employment disability, widow's and orphan's pensions. The amount of accruals included for this group of persons in 2015 for current pensions and vested pension benefits totals €10.0 million (HGB) compared to €9.8 million the previous year. The expense recognized in this connection totaled €0.8 million.

KUKA Aktiengesellschaft has no compensation agreements with the members of the Executive Board or with employees that would come into effect in the event of a takeover bid.

In the 2015 financial year the members of the Supervisory Board received a total of €0.8 million (2014: €0.9 million) for their activities as members of this body.

Please refer to the notes in the audited compensation report for further information and details about the compensation of individual Executive Board and Supervisory Board members. The compensation report is part of the corporate governance report and 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.

Audit fees

The fee for the auditor, KPMG AG, Wirtschaftsprüfungsgesellschaft, Munich, recognized as an expense in 2015 totals €1.6 million for services provided in Germany. €0.8 million was recognized for financial statement auditing services. €0.8 million was recognized as an expense for tax advisory services performed by the auditor.

€1.1 million was recognized as an expense for financial statement auditing services performed for foreign subsidiaries.

Events of material importance after the end of the reporting period

Cancelation of the convertible bond

In an announcement on February 18, 2016 KUKA Aktiengesellschaft irrevocably canceled the 2013 convertible bonds as of March 24, 2016. Unless the holders of the convertible bonds convert their units into shares in KUKA Aktiengesellschaft by this date, the units still existing at this date will be repaid to the holders at a rate of 100%. Since repayment at 100% is not financially attractive to the investors, it may be assumed that the vast majority of the units still existing will be converted into shares before the redemption date. Even before this announcement, further conversions had already taken place in fiscal 2016.

Apart from this there have been no events subject to reporting requirements that had an impact on the net assets, financial position and performance of the company since the balance sheet reporting date.

Augsburg, February 29, 2016
KUKA Aktiengesellschaft

The Executive Board

Dr. Till Reuter

Peter Mohnen

Corporate bodies

Supervisory Board

Bernd Minning

Kaisheim

Chairman of the Supervisory Board of KUKA Aktiengesellschaft

- › President and CEO of WM Technologies GmbH, Kaisheim
- › Board of Directors WM Technologies (Shanghai) Ltd., Shanghai/ China**

Michael Leppek***

Stadtbergen

Deputy Chairman of the Supervisory Board

- › 1st Authorized Representative of IG Metall trade union, Augsburg branch
- › MAN Diesel & Turbo SE*
- › SGL Carbon SE*
- › AIRBUS Helicopters Deutschland GmbH*
- › Fujitsu Technology Solutions GmbH Deutschland, Munich*

Prof. Dr. Dirk Abel

Aachen

- › Director of the Institute of Automatic Control at RWTH Aachen
- › ATC GmbH (Aldenhoven Testing Center of RWTH Aachen University), Aachen**

Dr. Walter Bickel (until March 26, 2015)

Grünwald

- › Owner of the individual enterprise WB Consult
- › Managing Partner of Bickel Jung Verwaltungs GmbH
- › Limited Partner of Bickel Jung & Company GmbH & Co. KG
- › Member of Board of Directors, Maillefer Group**

Wilfried Eberhardt***

Aichach

- › Executive Vice President Marketing & Associations KUKA Roboter GmbH, Augsburg
- › Authorized Signatory of KUKA Roboter GmbH, Augsburg

Siegfried Greulich***

Augsburg

- › Deputy Chairman of the Works Council of the KUKA Plants at Augsburg

Thomas Knabel***

Zwickau

- › 2nd Authorized Representative of IG Metall trade union, Zwickau branch

Armin Kolb***

Augsburg

- › Chairman of the Works Council of the KUKA Plants at Augsburg

Carola Leitmeir***

Großaitingen

- › Member of the Works Council of the KUKA Plants at Augsburg

Dr. Hubert Lienhard (from June 10, 2015)

Heidenheim

- › CEO of Voith GmbH
- › EnBW*
- › Heraeus Holding GmbH*
- › SGL Carbon SE*
- › SMS Holding GmbH*
- › Voith Turbo Beteiligungen GmbH (Chairman)*
- › Voith Hydro Holding GmbH & Co. KG (Chairman)**
- › Voith Industrial Services Holding GmbH & Co. KG (Chairman)**
- › Voith Paper Holding GmbH & Co. KG (Chairman)**
- › Voith Turbo GmbH & Co. KG (Chairman)**

Friedhelm Loh (from June 10, 2015)

Dietzhöhlzal

- › Owner and CEO of the Friedhelm Loh Group, Haiger
- › Senator of Fraunhofer Gesellschaft
- › Deutsche Messe AG*

Prof. Dr. Uwe Loos

Stuttgart

- › Dorma Holding GmbH +Co.KGaA, Ennepetal*
- › Bharat Forge Aluminiumtechnik, Brand-Erbisdorf**
- › Bharat Forge GmbH, Daun**
- › CDP Bharat Forge GmbH, Ennepetal**
- › Richard Fritz Holding GmbH, Besigheim**

Dr. Michael Proeller (until June 10, 2015)

Augsburg

- › Managing Partner of Erhardt + Leimer GmbH, Augsburg
- › Managing Director of Erhardt + Leimer Elektroanlagen GmbH, Augsburg
- › Managing Director of Erhardt + Leimer Steuerungstechnik GmbH, Augsburg
- › Managing Director of Erhardt + Leimer Corrugated GmbH, Bielefeld
- › Erhardt + Leimer Inc, Duncan (South Carolina)/USA**
- › Erhardt + Leimer, India Pvt. Ltd., Ahmedabad/India**
- › Erhardt + Leimer S.r.l., Bergamo/Italy**
- › Erhardt + Leimer do Brasil Ltda., Guarulhos São Paulo/Brazil**
- › Erhardt + Leimer Limited, Burlington (Ontario)/Canada**
- › Erhardt + Leimer Japan Ltd., Yokohama/Japan**
- › Erhardt + Leimer France SARL, Mulhouse/France**
- › Erhardt + Leimer (Hangzhou) Co., Ltd., Hangzhou/China**
- › Erhardt + Leimer Korea, Ltd., Seoul/South Korea**

Guy Wyser-Pratte (until June 10, 2015)

Bedford, New York/USA

- › President of Wyser-Pratte & Co., Inc. (FINRA Broker Dealer), New York, NY/USA
- › President of Wyser-Pratte Management Co., Inc. (RIA), New York, NY/USA

Hans Ziegler (from June 10, 2015)

Feusisberg/Switzerland

- › OC Oerlikon Corporation AG, Pfäffikon SZ/Switzerland**
- › Schmolz + Bickenbach Holding AG, Emmenbrücke/Switzerland**
- › Credor Holding AG, Wil SG/Switzerland**
- › think & act AG, Feusisberg SZ/Switzerland**

* Membership in other legally stipulated supervisory boards

** Membership in comparable German and foreign controlling bodies of commercial enterprises

*** Employee Representative on Supervisory Board

Executive Board

Dr. Till Reuter

Pfäffikon/Switzerland

Chief Executive Officer

- › Dr. Steiner Holding AG*, Berlin
- › Rinvest AG, Pfäffikon/Switzerland**
- › Swisslog Holding, Buchs/Switzerland**

Peter Mohnen

Munich

Chief Financial Officer

* Membership in other legally stipulated supervisory boards

** Membership in comparable German and foreign controlling bodies of commercial enterprises

Schedule of shareholdings of KUKA Aktiengesellschaft As at December 31, 2015

Name and registered office of the company	Currency	Share of equity in %	Method of consolidation
Germany			
1 Bopp & Reuther Anlagen-Verwaltungsgesellschaft mbH, Augsburg	EUR	100.00	k
2 Faude Automatisierungstechnik GmbH, Gärtringen	EUR	51.00	k
3 KUKA Industries GmbH, Augsburg*	EUR	100.00	k
4 KUKA Roboter GmbH, Augsburg*	EUR	100.00	k
5 KUKA Systems GmbH, Augsburg*	EUR	100.00	k
6 Reis Asia Pacific GmbH, Obernburg	EUR	100.00	k
7 Reis GmbH & Co. KG Maschinenfabrik, Obernburg*	EUR	100.00	k
8 Reis GmbH, Obernburg	EUR	100.00	k
9 Reis Group Holding GmbH & Co. KG, Obernburg*	EUR	51.00	k
10 Reis Holding GmbH, Obernburg	EUR	100.00	k
11 Swisslog (Deutschland) GmbH, Puchheim	EUR	100.00	k
12 Swisslog Augsburg GmbH, Augsburg	EUR	100.00	k
13 Swisslog Automation GmbH, Puchheim	EUR	100.00	k
14 Swisslog GmbH, Dortmund	EUR	100.00	k
15 Swisslog Healthcare GmbH, Westerstede	EUR	100.00	k
16 Verwaltungsgesellschaft Walter Reis GmbH, Obernburg	EUR	100.00	k
17 Walter Reis GmbH & Co KG, Obernburg*	EUR	100.00	k
18 WR Vermögensverwaltungs GmbH, Obernburg	EUR	100.00	k
19 KBee AG, Munich	EUR	40.00	at
20 RoboCeption GmbH, Munich	EUR	25.10	b
21 Freadix FryTec GmbH, Augsburg	EUR	100.00	nk
22 IWK Unterstützungseinrichtung GmbH, Karlsruhe	EUR	100.00	nk
23 KUKA Unterstützungskasse GmbH, Augsburg	EUR	100.00	nk
24 Schmidt Maschinentechnik GmbH i.L., Niederstotzingen	EUR	100.00	nk

Name and registered office of the company	Currency	Share of equity in %	Method of consolidation
Other Europe			
25 IRT S.A., Neuchatel/Switzerland	CHF	50.00	k
26 KUKA S-BASE s.r.o. (in Liquidation), Roznov p.R./Czech Republic	CZK	100.00	k
27 KUKA Automatisering + Robots N.V., Houthalen/Belgium	EUR	100.00	k
28 KUKA Automatisme + Robotique S.A.S., Villebon-sur-Yvette/France	EUR	100.00	k
29 KUKA Automotive N.V., Houthalen/Belgium	EUR	100.00	k
30 KUKA Enco Werkzeugbau spol. s.r.o., Dubnica nad Váhom/Slovakia	EUR	100.00	k
31 KUKA Nordic AB, Västra Frölunda/Sweden	SEK	100.00	k
32 KUKA Roboter CEE GmbH, Linz/Austria	EUR	100.00	k
33 KUKA Roboter Italia S.p.a., Rivoli/Italy	EUR	100.00	k
34 KUKA Roboter Switzerland AG, Dietikon/Switzerland	CHF	100.00	k
35 KUKA Robotics Hungária Ipari Kft., Taksony/Hungary	EUR	100.00	k
36 KUKA Robotics OOO, Moscow/Russia	RUB	100.00	k
37 KUKA Robotics UK LTD, Wednesbury/Great Britain	GBP	100.00	k
38 KUKA Robots IBÉRICA S.A., Vilanova i la Geltrú/Spain	EUR	100.00	k
39 KUKA Sistemy OOO, Togliatti/Russia	RUB	100.00	k
40 KUKA Systems Aerospace SAS, Bordeaux-Merignac/France	EUR	100.00	k
41 KUKA Systems France S.A., Montigny/France	EUR	100.00	k
42 KUKA Systems SRL, Sibiu/Romania	RON	100.00	k
43 KUKA Systems UK Ltd., Halesowen/Great Britain	GBP	100.00	k
44 Reis Espana S.L., Esplugues de Llobregat (Barcelona)/Spain	EUR	100.00	k
45 Reis France SCI, Pontault-Combeau/France	EUR	100.00	k
46 Reis Robotics CR. – strojirenstvi spol. s.r.o, Chomutov/Czech Republic	CZK	100.00	k
47 Reis Robotics Italia srl, Bellusco/Italy	EUR	100.00	k
48 Swisslog (UK) Ltd., Redditch/Great Britain	GBP	100.00	k
49 Swisslog AB, Partille/Sweden	SEK	100.00	k
50 Swisslog Accalon AB, Boxholm/Sweden	SEK	100.00	k
51 Swisslog AG, Buchs/Switzerland	CHF	100.00	k
52 Swisslog AS, Oslo/Norway	NOK	100.00	k
53 Swisslog B.V., Culemborg/Netherlands	EUR	100.00	k
54 Swisslog Ergotrans B.V., Apeldoorn/Netherlands	EUR	100.00	k
55 Swisslog Evomatic GmbH, Sipbachzell/Austria	EUR	100.00	k
56 Swisslog France SAS, Saint-Denis/France	EUR	100.00	k
57 Swisslog Holding AG, Buchs/Switzerland	CHF	100.00	k
58 Swisslog IP AG, Buchs/Switzerland	CHF	100.00	k
59 Swisslog Italia SpA, Mailand/Italy	EUR	100.00	k
60 Swisslog Luxembourg S.A., Eil/Luxembourg	EUR	100.00	k
61 Swisslog N.V., Wilrijk/Belgium	EUR	100.00	k
62 IRT Italia SRL, Cinisello Balsamo/Italy	EUR	50.00	b
63 Metaalwarenfabriek 's-Hertogenbosch B.V., 's-Hertogenbosch/Netherlands	EUR	100.00	nk

Name and registered office of the company	Currency	Share of equity in %	Method of consolidation
North America			
64 Forte Industrial Equipment Systems Inc., Mason/USA	USD	100.00	k
65 KUKA Assembly and Test Corp., Saginaw, Michigan/USA	USD	100.00	k
66 KUKA de Mexico S.de R.L.de C.V., Mexico City/Mexico	MXN	100.00	k
67 KUKA Recursos S. de R.L. de C.V., Mexico City/Mexico	MXN	100.00	k
68 KUKA Robotics Canada Ltd., Saint John NB/Canada	CAD	100.00	k
69 KUKA Robotics Corp., Sterling Heights, Michigan/USA	USD	100.00	k
70 KUKA Systems de Mexico S. de R.L. de C.V., Mexico City/Mexico	MXN	100.00	k
71 KUKA Systems North America LLC., Sterling Heights, Michigan/USA	USD	100.00	k
72 KUKA Toledo Production Operations LLC., Toledo, Ohio/USA**	USD	100.00	k
73 KUKA U.S. Holdings Company LLC., Shelby Township, Michigan/USA	USD	100.00	k
74 Reis Robotics USA Inc., Elgin, Illinois/USA	USD	100.00	k
75 Swisslog Logistics Inc., Newport News/USA	USD	100.00	k
76 Swisslog USA Inc., City of Dover/USA	USD	100.00	k
77 Translogic Corp., Denver/USA	USD	100.00	k
78 Translogic Ltd. (Canada), Mississauga/Canada	CAD	100.00	k
79 Barrett Technology LLC., Newton, Massachusetts/USA	USD	30.00	at
Latin America			
80 KUKA Roboter do Brasil Ltda., São Paulo/Brazil	BRL	100.00	k
81 KUKA Systems do Brasil Ltda., São Bernardo do Campo SP/Brazil	BRL	100.00	k
82 Reis Robotics do Brasil Ltda., São Paulo/Brazil	BRL	100.00	k
83 Reis Servicos de Automacao Ltda., São Paulo/Brazil	BRL	100.00	k

Name and registered office of the company	Currency	Share of equity in %	Method of consolidation
Asia and Australia			
84 KUKA Automation Equipment (Shanghai) Co., Ltd., Shanghai/China	CNY	100.00	k
85 KUKA Robot Automation Malaysia Sdn Bhd, Kuala Lumpur/Malaysia	MYR	100.00	k
86 KUKA Robot Automation Taiwan Co. Ltd., Chung-Li City/Taiwan	TWD	99.90	k
87 KUKA Robotics Thailand Ltd., Bangkok/Thailand	THB	100.00	k
88 KUKA Robotics (China) Co. Ltd., Shanghai/China	CNY	100.00	k
89 KUKA Robotics (India) Pvt. Ltd., Haryana/India	INR	100.00	k
90 KUKA Robotics Australia Pty. Ltd., Victoria/Australia	AUD	100.00	k
91 KUKA Robotics Japan K.K., Tokyo/Japan	JPY	100.00	k
92 KUKA Robotics Korea Co., Ltd., Kyunggi-Do/South Korea	KRW	100.00	k
93 KUKA Robotics Manufacturing China Co. LTD., Shanghai City/China	CNY	100.00	k
94 KUKA Systems (China) Co. Ltd., Shanghai/China	CNY	100.00	k
95 KUKA Systems (India) Pvt.Ltd., Pune/India	INR	100.00	k
96 Reis Robotics China Co. Ltd. (Kunshan), Kunshan/China	CNY	100.00	k
97 Reis Robotics China Co. Ltd. (Shanghai), Shanghai/China	CNY	100.00	k
98 Reis Robotics Singapore PTE Ltd., Singapore/Singapore	SGD	100.00	k
99 Swisslog (Kunshan) Co. Ltd., Kunshan/China	CNY	100.00	k
100 Swisslog Asia Ltd., Hongkong/China	HKD	100.00	k
101 Swisslog Australia Pty Ltd., Sydney/Australia	AUD	100.00	k
102 Swisslog Malaysia Sdn Bhd, Selangor Darul Ehsan/Malaysia	MYR	100.00	k
103 Swisslog Middle East LLC., Dubai/United Arab Emirates	AED	49.00	k
104 Swisslog Pte Ltd Singapore, Singapore/Singapore	SGD	100.00	k
105 Swisslog Shanghai Co. Ltd., Shanghai/China	CNY	100.00	k
106 Swisslog Singapore Pte Ltd., Singapore/Singapore	SGD	100.00	k
107 Yawei Reis Robot Manufacturing (Jiangsu) Co. Ltd., Yangzhou City/China	CNY	49.00	at

* Companies that have made use of the exemption pursuant to section 264 para. 3 or section 264 b of the German Commercial Code

** Principal place of business

Method of consolidation as of December 31, 2015

k Fully consolidated companies

nk Non-consolidated companies

at Financial asset accounted for by the equity method

b Participating interest

Responsibility statement

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

Augsburg, February 29, 2016

KUKA Aktiengesellschaft
The Executive Board

Dr. Till Reuter

Peter Mohnen

Audit opinion

We have audited the consolidated financial statements prepared by KUKA Aktiengesellschaft, Augsburg, comprising the income statement, statement of comprehensive income, cash flow statement, balance sheet, statement of changes in equity, and the notes to the consolidated financial statements, together with the Group management report for the business year from January 1 to December 31, 2015. The preparation of the consolidated financial statements and the Group management report in accordance with IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to section 315a para. 1 HGB are the responsibility of the parent company's Executive Board. Our responsibility is to express an opinion on the consolidated financial statements and on the Group management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with section 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW – "Institute of Public Auditors in Germany").

Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the Group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the Group management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of entities to be included in consolidation, the accounting and consolidation principles used and significant estimates made by the company's Executive Board, as well as evaluating the overall presentation of the consolidated financial statements and the Group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRS as adopted by the EU, the additional requirements of German commercial law pursuant to section 315a para. 1 HGB and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The Group management report is consistent with the consolidated financial statements and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Munich, February 29, 2016

KPMG AG
Wirtschaftsprüfungsgesellschaft

Karl Braun

Rainer Rupprecht

Glossary

ABS

Asset-backed securities. Asset-backed securities are bonds or notes that are collateralized with assets (usually receivables). Receivables of KUKA Roboter GmbH are purchased within the framework of an ABS program.

Capital employed

Capital employed includes working capital as well as intangible assets and tangible fixed assets. Capital employed therefore represents the difference between operating assets and non-interest-bearing outside capital.

Cash earnings

Cash earnings are a measurement for the inflow or outflow of cash from the operating profits (EBIT). They are the resulting balance from operating profits, interest, taxes, depreciation as well as other non-payment-related expenses and income.

Corporate compliance

Corporate compliance means that all employees conform to the company's legislative framework and internal guidelines and do not contravene any applicable laws. Proactive risk minimization is also part of a company's compliance management system.

Corporate governance

Common international term for responsible corporate management and control that aims at creating long-term value.

DAX

German stock index of blue chip companies. It includes the 30 largest German companies admitted to the Prime Standard in terms of market capitalization and volume of stocks traded.

Declaration of compliance

Declaration of the Executive Board and the Supervisory Board in accordance with section 161 of the German Corporation Act (AktG) regarding the implementation of the recommendations of the Government Commission in the German Corporate Governance Code.

Deferred taxes

Temporary differences between calculated taxes on the commercial and tax balance sheets designed to disclose the tax expense in line with the financial accounting income.

Derivatives

Financial instruments whose value is largely derived from a specified price and the price fluctuations/expectations of an underlying base value, e.g. exchange rates.

EBIT

Earnings before interest and taxes.

EBIT margin

EBIT in relation to sales revenues.

Employees

All figures for employees in the annual report are based on full time equivalent.

Equity ratio

Ratio of equity to total assets.

Earnings per share

Earnings per share are calculated on the basis of Group consolidated earnings after taxes and the average number of shares outstanding for the year.

Exposure

A key figure used to assess risk. This key figure includes all incoming payments in a 90-day period prior to the record date of the down payments, payments based on percentage of completion or compensation after acceptance of the work carried out. In addition, the key figure also comprises all customer payments made within 90 days and which have not yet been supplied with deliveries/services including the sum of unpaid invoices following delivery or service supplied to the customer, the POC receivables and any purchase commitments.

Free cash flow

Cash flow from operating activities plus cash flow from investing activities. Free cash flow shows the extent of the funds generated by the company in the business year.

Free float

Shares of a public company owned by diverse shareholders.

GCGC

German Corporate Governance Code: the German Government Commission's list of requirements for German companies (since 2002).

General industry

General industrial markets not including the automotive industry.

Gross margin

Gross margin is determined by dividing gross profit by sales, expressed as a percentage.

Gross profit

Gross profit on sales is defined as total sales minus cost of goods sold. Cost of goods sold includes all direct costs associated with sales revenues generated. Other costs, such as research and development, marketing and administration, are not included.

HGB

German Commercial Code.

IAS

International Accounting Standards.

IFRIC/SIC

International Financial Reporting Interpretation Committee – interpreter of the international financial reporting standards IAS and IFRS, formerly also SIC. IFRIC is the new name for the Standing Interpretations Committee adopted by the trustees of the IASC foundation in March 2002. SIC was created in 1997 to improve the application and worldwide comparability of financial reports prepared in accordance with International Accounting Standards (IAS). It outlines financial statement practices that may be subject to controversy.

IFRS

International Financial Reporting Standards: The IFRS ensure international comparability of consolidated financial statements and help guarantee a higher degree of transparency.

MAP

KUKA Aktiengesellschaft's employee share program.

Market capitalization

The market value of a company listed on the stock exchange. This is calculated by taking the share price and multiplying it by the number of shares outstanding.

MDAX

This stock index comprises the 50 largest German companies (after those of the DAX) according to market capitalization and volume of stocks traded.

Net liquidity/Net debt

Net liquidity/net debt is a financial control parameter consisting of cash, cash equivalents and securities minus current and non-current financial liabilities.

Percentage of completion method (POC)

Accounting method of sales and revenue recognition according to the stage of completion of an order. This method is used for customer-specific construction contracts.

R & D expenses

Expenditures related to research and development.

Rating

Assessment of a company's creditworthiness (solvency) determined by a rating agency based on analyses of the company. The individual rating agencies use different assessment levels.

Reis Group

Reis Group refers to Reis Group Holding GmbH & Co. KG and its subsidiaries.

ROCE

Return on capital employed (ROCE) is the ratio of the operating profit/loss (EBIT) to the capital employed (see Capital employed). To calculate ROCE the capital employed is based on an average value.

SDAX

This stock index comprises 50 smaller German companies that in terms of order book turnover and market capitalization rank directly below the MDAX shares.

Swisslog Group

Swisslog Group comprises Swisslog Holding AG and its subsidiaries.

Trade working capital

Trade working capital is defined as current assets minus current liabilities directly associated with everyday business operations; that is, inventories minus advance payments, trade receivables and receivables for manufacturing orders minus liabilities for trade receivables and manufacturing orders.

Volatility

Intensity of fluctuations in share prices and exchange rates or changes in prices for bulk goods compared to market developments.

Working capital

Working capital consists of the inventories, trade receivables, other receivables and assets, accrued items and the balance of receivables and payables from affiliated companies, as far as these are not allocated to financial transactions, minus other provisions, trade payables, other payables with the exception of liabilities similar to bonds and deferred income.

WPHG

German Securities Trading Act.

Financial calendar 2016

First quarter interim report	May 4, 2016
Annual general meeting, Augsburg	May 27, 2016
Interim report to mid-year	August 3, 2016
Interim report for the first nine months	November 9, 2016

This financial report was published on March 22, 2016 and is available in German and English from KUKA Aktiengesellschaft's public relations/investor relations department. In the event of doubt, the German version applies.

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