voith.com

VOITH

digital trans-forma-tion

Voith ×

digital transformation
Annual Report 2017

10,000 MW

Voith has installed 10,000 megawatts in hydropower plant capacity in Africa since 1940 (as of June 2017), thus making a significant contribution to the continent's development. Voith collaborates with its partner, China Three Gorges (CTG), in Africa.

90 COUNTRIES

People from 90 different countries work at Voith.

3.5 TB

The sensors of a hydropower plant produce 3.5 terabytes of data in one year.

4,000 PATENTS

Voith holds more than 4,000 active patents and more than 300 patents are filed annually worldwide. This makes Voith one of the top 40 German patent applicants.

5x

There are five times as many circuits in a paper machine as there are in a modern airplane.

1.4 per MILLION

1.4 accidents per million working hours is a figure making us a worldwide sector leader when it comes to work safety.

Magazine

digital trans-forma-tion

Financial Report

Group

Group Management Report

Consolidated Financial Statements

Voith at a Glance

in € millions	2015/16	2016/17
Orders received[1]	4,108	4,368
Sales[1]	4,252	4,223
Profit from operations[1] [2]	275	241
Profit from operations (core business)[1] [2]	295	304
Return on sales in %[1]	6.5	5.7
Return on sales in % (core business)[1]	7.0	7.3
Result before taxes[1]	140	682
Net result	29	596
Cash flow from operating activities	58	135
Total cash flow	203	-57
Investments[1]	121	96
Research and development[1]	208	224
in % of sales[1]	4.9	5.3
Equity	799	1,366
Equity ratio in %	14.9	27.3
Balance sheet total	5,359	4,998
Employees[1] [3]	19,098	19,045

1) Excluding the Group Division Voith Industrial Services which has been sold.
2) For more information, see section "Notes on segment reporting" in the notes to the financial statements.
3) Full-time equivalents; without apprentices; as at September 30.

Voith is a global technology group. With energy, oil & gas, paper, raw materials and transport & automotive, the broad portfolio with its plants, products, services and digital applications serves five essential markets in all regions of the world. Voith's operating business is bundled in four Group Divisions: Voith Hydro, Voith Paper, Voith Turbo and Voith Digital Solutions.

A large proportion of the world's paper production is manufactured on Voith paper machines. A quarter of the energy generated worldwide from hydropower is produced with turbines and generators from Voith Hydro. Voith's drive components are found in applications all over the world, both in industrial plants and in road and rail vehicles, as well as on the waters. And the applications provided by the Voith Digital Solutions Group Division make Voith one of the pacemakers for digital change in the key global industries.

Founded in 1867, Voith employs more than 19,000 people, generates €4.2 billion in sales, and operates in over 60 countries around the world.

Everyone is talking about digitalization, so much so that it has become a blanket term with an increasingly unspecific meaning. So what exactly do we mean when we say that Voith is becoming digital?

It means, for example, that we are uploading the world of Voith – right down to the tiniest component – to the cloud in the form of digital twins. It is on this basis that components and machines communicate not only with each other, but also with us human beings. We are working on artificial intelligence – technologies that learn independently, that collect, analyze and interpret data. We are connecting products in a network, soon to include entire systems, and one day they might even link up with the natural environment.

It's hard to say where the digitalization of the world will lead us overall. That makes it all the more important that we know where we want to go. As traditional mechanical engineers, we will help shape the digital transformation. Our know-how in the material world gives us an important competitive advantage because we have the necessary knowledge of processes and markets and we understand customers. Every day and together with our employees, customers and partners, we explore what digitalization could mean for us all. It's not just about technologies – we are experiencing a cultural transformation, are learning new skills and are shedding old certainties. The world is merging digitally – and Voith is right there in the thick of it.

digital trans-forma-tion

/ working 4.0 / revolution / scrum / trading platform / self-conception / compartmentalized thinking / recovered paper / artificial intelligence / smart systems / cultural transformation / merQbiz / sprints / transpar-ency / e-sustainability / Voith code clubs / papermaking 4.0 / Ray Sono / Naoto Kadowaki / leadership / winder / digital river / China / ...

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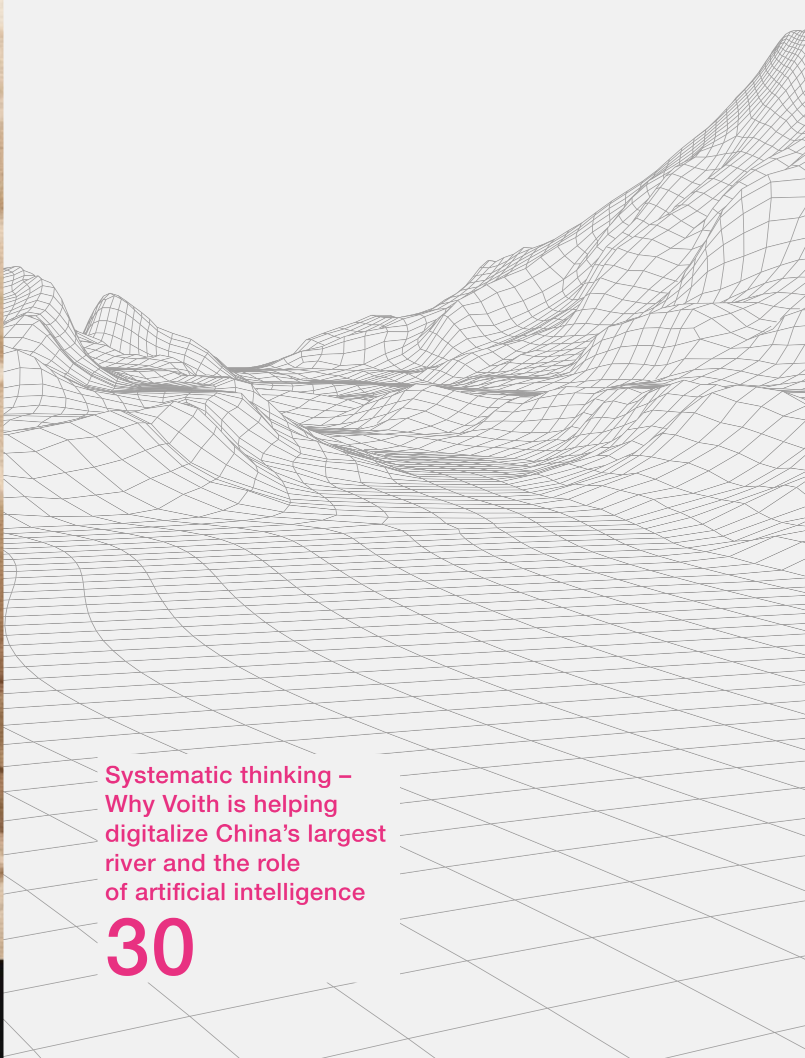

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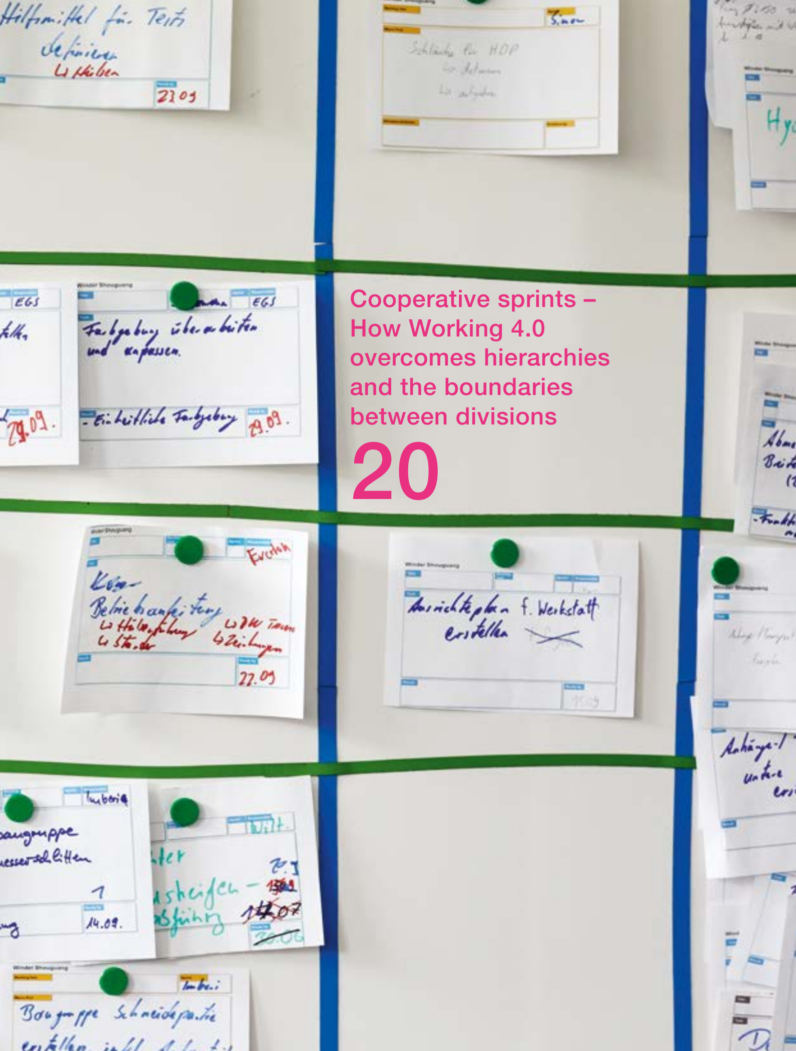

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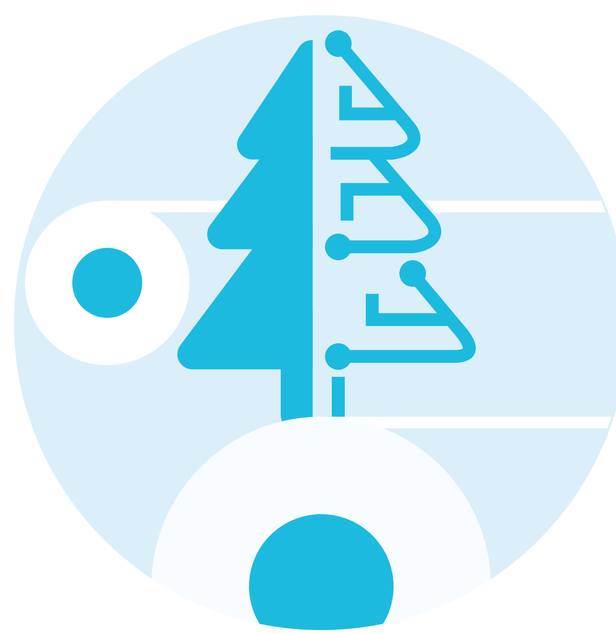

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Digital liaison

Digital liaison ✕

The mechanical engineering company Voith has acquired a 60% stake in the digital service provider Ray Sono. Thomas Helbing and Dr. Roland Münch talk about the background and perspectives of this alliance.

"We are united by our enthusiasm for digitalization. Ray Sono and Voith also share the same values, which is yet another decisive reason why we work well together."

Thomas Helbing

Thomas Helbing, Chief Executive Officer at Ray Sono

“We share many characteristics: speed, curiosity, strong commitment of the owners, a high degree of technical expertise and passion. We speak the same language.”

Dr. Roland Münch

Dr. Roland Münch, Member of the Corporate Board of Management and Chairman of the Board of Management of Voith Digital Solutions

One company has 150 years of tradition in mechanical engineering, while the other has 25 years of experience in the field of digital services. What can be expected of this alliance?

Thomas Helbing: Together with Voith, we can significantly advance the digitalization of the industry. As partners, we are on an equal footing and we retain our individual strengths. Ray Sono remains a self-reliant service provider for digitalization, with its own customers and sites in Munich and Berlin.

Roland Münch: The goal is, of course, to make both companies even more successful through long-term and close collaboration. At Voith, we think and work in two directions: firstly, digital support of existing products and services, and secondly, development of entirely new business models.

Service provider ✕

Ray Sono integrates strategy, concept, design and technology into its digital projects for customers such as Deutsche Bahn, Linde, Lufthansa Miles & More, McDonald's and MAN, translating ideas into concrete products and services for the digital ecosystem.

Munich ✕

The company's head office is in a backyard area of the lively "abattoir district." The office extends over four floors of a former cardboard box factory.

Ray Sono ✕

The digital service provider was founded in 1992.
218 employees work at its locations in Munich and Berlin.
Sales in 2016: €18.8 million.

“Approximately a dozen projects are currently underway involving Voith and Ray Sono engineers, IT specialists, Web experts, digital strategists and VR designers.”

Thomas Helbig

What exactly can a digital service provider like Ray Sono contribute to the traditional hardware business with turbines, paper machines and drives, for instance?

h As a forerunner and companion of the digital transformation, we have extensive experience in the B2B and B2C environment. In customer experience, we consistently think in a customer-focused manner, asking ourselves: “Are the user interfaces of our programs, business processes and apps really intuitive, user-friendly and efficient? Is the customer journey coherent? At which point do users abandon a process, and why?”

m The same thing is increasingly applicable to industrial applications. Voith is and will continue to be the leader in engineering products and services, but technology leadership in the digital age also requires the German mechanical engineering industry to lead the way in user-friendliness.

What does this mean from the customer’s perspective?

m In the case of large technical systems such as paper machines, several guidance, control and drive systems run in parallel. They produce masses of data by means of which operations can be controlled and optimized – the key word is big data. The data must not only be collected by service and IT staff, data specialists and system engineers, it must also be understood, visualized and analyzed. In other words, digitalization creates a new form of complexity that we need to reduce intelligently together with our customers in order to become more productive. In the paper business, we call this “Papermaking 4.0.”

And how can this reduction of complexity be achieved?

m The systems need to be easy to use if they are to be accepted by users. This means we need user interfaces that are designed for users’ tasks and that support these tasks specifically. In this way, we can minimize

“Digitalization is creating a new form of complexity, which we, together with our customers, need to intelligently reduce in order to become more productive.”

Dr. Roland Münch

sources of error and increase efficiency for the customer. In the development of these role-based interfaces, it has become abundantly clear just how valuable our partnership with Ray Sono truly is.

Nevertheless, the clichés are telling us that a cool digital agency has formed a business liaison with a very formal industrial group. Is the interactive chemistry OK?

h These write-ups we’re seeing are indeed clichés – we are united by our enthusiasm for digitalization. Ray Sono and Voith also share the same values, which is another decisive reason why we’re able to work well with each other and why this business liaison has come about. The employees of both companies love what they do, all the way from the Executive Board to our interns – and you can feel that in all their conversations, agreements and projects.

m Ray Sono and Voith – it feels like two close relatives who haven’t seen each other for a long time are now in regular contact again. We share many characteristics: speed, curiosity, strong commitment of the owners, a high degree of technical expertise and passion. We speak the same language.

How does this collaboration work in practice?

h More or less the same as it does with our many other customers. We work in mixed teams. We currently have around a dozen projects running, involving Voith and Ray Sono engineers, IT specialists, Web experts, digital strategists and VR designers. We meet in Munich and Heidenheim, for example, or on the premises of Voith customers. At the same time, we use various online and offline channels of modern project management to communicate intensively with one another.

m Our lines of communication are always direct and short. In Berlin, we’re currently setting up a Design Thinking laboratory, which is also available for other custom-

Voith ×

By 2018, Voith will invest around €100 million in the further development of digital products and services. The alpha or beta stages of numerous specific projects have been successfully achieved so far.

ers in the industry. There we'll be focusing on the development of digital prototypes, which will have to prove themselves faster than ever in real operation.

You said that Voith and Ray Sono not only want to optimize existing products and services, but also develop new business models. How is that progressing?

m One example is the online marketplace "merQbiz," which we recently launched in the USA. For the first time, we're bringing together buyers and sellers of recovered paper on a digital platform – transparently, rapidly and cost-effectively. Then there's our "HyGuard Acoustic" project, where we're working on a digital acoustic monitoring system in the field of hydroelectric power. Using microphones, we record the sound of the equipment, analyze unusual noises in the cloud and use software to identify signs of wear or failure of components at an early stage.

h Both of these examples aptly illustrate the direction in which the cooperation between Voith and Ray Sono will develop. We want to make the relatively unbroken ground of digitalization productive and exploit the technological and business opportunities it gives us, allowing new business ideas to grow in the fields of hydropower, paper manufacture, mobility and drives. We call this "up for digital" – the passion for digitalization.

merQbiz®
The digital marketplace for recovered paper

merQbiz ×

Voith's online trading platform revolutionizes the market for recovered paper.

Producers of recovered paper, such as a retailer, can offer any volume of raw materials on the platform anywhere in the country, accept offers and sell to buyers directly.

Intermediaries also buy or sell on the merQbiz platform.

US paper market

7.7 billion US $ — volume of sales in recovered paper in the USA in 2015

52 million tonnes — volume of recycled paper in the USA in 2016

76 % — share of paper mills in the USA which use recovered paper as raw material in production

merQbiz: how it works

The e-commerce platform creates a virtual marketplace where sellers and buyers of recovered paper can connect and transact directly. Currently, transactions are often conducted through numerous intermediaries. Business is consequently characterized by significant complexity, lack of transparency and inefficient processes. merQbiz offers an end-to-end trading solution that creates efficiencies through transparency. Additional services such as access to product quality data and an integrated logistics solution offer tangible value for buyers and sellers.

Direct contact with sellers creates transparency and simplifies trading. Buyers such as paper mills have visibility into the source of the materials as well as the sellers' shipping history.

Paper mill operators benefit from quality measurement mechanisms offered by merQbiz. Visibility into the quality of the materials can lead to significant savings in operational costs for the mills.

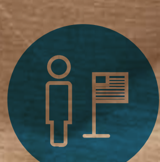
merQbiz chronology

01/2017
merQbiz launches pilot project in North America. Staff: 1

02/2017
The first transaction is handled via the platform

03/2017
Official launch and market entry of merQbiz®

08/2017
Volume of trade exceeds US $1 million. Staff: 40



> “Current processes in the hardware world present opportunities for digital innovation and transformation.”
>
> John Fox

John Fox, CEO of merQbiz, talks about how digital business models arise from hardware competence and what it feels like to suddenly find you are a pioneer.

John Fox

John Fox has worked for Voith for 16 years, most recently as CEO of Voith Paper in North America. In this function he was a member of a steering board charged with developing new ideas for future digital business models. This is also where the cornerstone was laid for merQbiz, a joint venture between Voith and BCG Digital Ventures.

So what is merQbiz all about?

John Fox: The easiest way to describe it is an e-commerce marketplace. We connect buyers and sellers of recovered paper. In this way the digital platform enables market participants who generate recovered paper to offer their materials on the marketplace directly and sell it to buyers all over the country.

Couldn’t they always do that?

merQbiz

The joint venture was officially founded in January 2017 by Voith and BCG Digital Ventures. The name comes from Mercury, the Roman god of commerce.

No, not at all. The recovered paper business is very complicated. Sometimes two or more middlemen operate between the generator of recovered paper and the buyer. Buyers do not know where the raw materials are from and sellers have no insight into where their materials will end up or at what price. Supply and logistics chains are inconsistent. This is where we can provide transparency that enables market participants to agree on prices with each other directly.

So how does it actually work?

Sellers list their available quantity of recovered paper on the merQbiz platform. Buyers, who may be paper factories, are then able to purchase directly from the seller. They can also compare their transportation costs with ours and choose the best option through the logistics offering on the platform. Both sellers and buyers have access to paper quality data that can help drive their transacting decisions.

Originally, you were the only member of staff – how did that feel?

It was an adventure. Feeling like a pioneer after so many years in the company was something really quite special. I was able to help shape the development of the entire project.

Customer journey

What route does a customer take before finally deciding to make a purchase? Nowadays companies try to offer their customers a special experience at each interaction point or touchpoint. A touchpoint is where a customer contacts a company in order to find out about products, sales representatives or a brand. Companies cannot always exert a direct influence on these events because third-party opinions also play a role. A customer's experience at a touchpoint not only influences purchasing decisions; it also determines whether the customer will recommend a company to others or prefer a certain brand.

Applications of the **customer journey**

Customer journey management

Voith analyzes customer expectations in all of its departments. The questions include how customers receive their services or products and how they respond. Individual touchpoints are categorized according to whether the customer is disappointed, satisfied or enthusiastic. In this way, new touchpoints can be identified and outdated ones eliminated. In a final step, touchpoints can be ranked according to their influence from the customer's point of view and optimized in order to improve customer service.

What was the decisive factor which made Voith decide to implement this project?

The market for recovered paper is quite large. In fact, more than US $30 billion worth of materials are sold worldwide. The market is characterized by significant complexity, lack of transparency and existing inefficiencies. The ability to improve the buying process through digital transformation and innovative solutions for our customers will allow Voith to remain an industry leader.

Recovered paper ×

An example would be a containerboard mill, which requires around 350,000 tons of recovered paper per year. This is equivalent to roughly 100 truckloads per day and approximately US $40 million annually.

What expertise can a traditional mechanical engineering firm like Voith bring to this business?

Voith began by building a number of machines for processing our customers' recovered paper. These relationships are a source of expertise about customer needs and pain points. We know the market, customers, processes and technologies – and that gives us enormous advantages over our competitors from a purely digital standpoint.

Paper quality ×

The lack of transparency in the market has made it difficult for paper mills to buy recovered paper of predictable quality. The raw material comes from many sources which makes purchasing a consistently high-quality product difficult. Through the merQbiz quality program, buyers have access to data that allows them to make more informed purchasing decisions that can lead to operational efficiencies.

What lies ahead?

Our goal is clear: we strive to revolutionize the recovered paper industry and create value for our customers through transparency, efficiency and ease of use.

Create value ×

Voith plans to invest around €50 millon in merQbiz by the end of the fiscal year 2020. merQbiz plans to expand into additional geographic regions in the future.

merQbiz operates like a start-up, although it is firmly anchored in the Group's structures. Is that a difficult balancing act?

We have a lot of freedom in our work, which is important in ensuring that processes are lean and swift. We are also able to tap into Voith's industry expertise and history of excellence for over 150 years.

What have you learned personally from setting up merQbiz?

The digital innovation process which led to merQbiz differs fundamentally from our usual hardware development work. Perhaps the most far-reaching insight I gained was that we can transfer problems from the hardware world to digital business models where digital innovation can be used as a form of problem-solving. This can only be successful with freedom in the implementation phase.

Trans-formation drivers

Transformation drivers ✕

Digitalization changes the way people work and communicate with one another. It requires a new culture within organizations, a new understanding of leadership and new qualifications. This has meant that human resources (HR) faces completely new challenges – and in the process, the HR division at Voith has even reimagined itself.

"We have a tremendous amount of cohesion and team spirit in the Company. This is an important asset that we will not give up lightly."

Ilonka Nussbaumer

Voith worldwide

Employees
19,045

Sites
155

Ilonka Nussbaumer,
Senior Vice President
Corporate HR

The Human Resources (HR) division is currently feeling the challenges of digitalization across all industries, but in a uniquely concentrated form. Not only that they have to digitalize their own processes and data and transform them into cloud-based applications, but the organization also has an urgent demand for the qualified personnel necessary for the new business models of the digital world – and this despite the fact that it is not even clear what those qualifications are exactly, let alone what the new business models of the future will be.

Ilonka Nussbaumer ✕

Ilonka Nussbaumer joined Voith in 2011 from automotive supplier Schaeffler. The topic of transformation was at the top of her agenda. "At first, we considered implementing the transformation in our area slowly and in several stages, but in the end we did it all at once; there's simply no time for baby steps nowadays."

At least one thing is certain: digital transformation calls much into question. And in the case of HR, that includes its own self-conception. Ilonka Nussbaumer, head of HR at Voith, has to go through this experience together with her team time and time again: "When it comes to whether algorithms and big data might make better recruitment decisions than you do yourself with all your experience and human intuition – that really does make you question your professional convictions."

Automated candidate selection for job postings is just one example of how digital transformation is changing the HR landscape. The opportunities and risks this change brings with it, but above all the question of how to meet the new needs of the entire organization in the future, are points on the agenda of the Group's international HR colleagues this year. The key topics are, first of all: digital technologies change the way employees communicate and collaborate with each other. This requires new forms of cooperation. Secondly, digitalization leads to a new transparency of knowledge and information within the organization. It even presupposes it, so the reduction of hierarchies becomes an important topic.

Ralf Clausen,
HR Information & Service Management

Ralf Clausen is responsible for information and service management in HR – when we are dealing with digital HR infrastructure, what does it all come down to?

Ralf Clausen: We sum it up with the acronym SMAC: social collaboration, mobile, analytics, cloud. We have uploaded all global master data to the cloud; the HR platform allows this data to be analyzed in a variety of ways for reporting or strategic decisions. More than 1,200 users access these services remotely using our mobile app as well. We will expand analytics and social collaboration even more.

What will be the focus?

We want to be more precise and user friendly. Who has the particular skills most suited for certain tasks? We need to be able to answer questions like these based on the global data and with just one or two mouse clicks. Social collaboration could enable employees to evaluate each other. The formula might be: "Our colleague X really helped me with problem Y." That would also make it easier to find the right partner to work together on something.

A lot of this is all about the data – what about people?

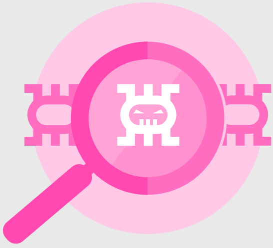
It's all about people – more so than ever. We want to bring the right people together to work on the projects that are a good match for them. And we want to look ahead so that we don't miss the coming trends. The human factor will always be our expertise – but now we are experts in hard data, too.

Data security

Digital applications are based on the analysis and linking of data. The digital economy depends on security of data, personal or otherwise. Sensitive information from the company must be protected against manipulation, loss and unauthorized disclosure.

IT security is part of this. It includes protection of electronically stored information and IT systems as well as operational security.

Applications
of
data security



Detection of anomalies

Voith uses artificial intelligence to detect viruses and Trojans that cannot be recognized by conventional means. Viruses are identified from their behavior before they can spread. The tests rely on the OWASP Testing Guide, a penetration testing framework provided by the German Federal Office for Information Security and based on ISO standards 27001 and 62443. Voith also offers external IT organizations help in preparing for certification according to ISO 27001. It goes without saying that the data center in Heidenheim is ISO-certified. The center ensures encrypted transmission of data from the sensor on the customer's premises to Voith's server.

Robert Wu
Voith Asia Pacific, China

“I’m sometimes surprised in Germany when I can only pay a taxi driver in cash. Most Chinese people don’t have a wallet anymore – we even use our smartphones to pay for a cup of coffee. Platforms like WeChat shape our everyday lives; we use it to communicate, cooperate and pay for things. In HR, we use it for job advertisements and applicant interviews. Executives use their smartphones to manage their projects, distribute information and provide direct feedback, while employees form groups for the implementation.”

Thirdly, the organization must respond to the changing needs and habits of the generation of digital natives. And fourthly, all this can be summed up into one major theme: leadership.

Homework done

Nussbaumer is convinced that digital transformation “will have a greater impact than we can ever imagine today.” However, HR made sure to do its own homework early on. The division introduced a globally uniform IT system many years ago and transferred all processes to the cloud. Today, the algorithms are mainly responsible for maintaining and managing employee accounts. Data and services are available for the divisions on the HR platform around the clock. Many technological changes have been made for which some things had to give way, including personal convictions.

For a long time, it was considered unthinkable that personnel decisions, for example, could be made by intelligent algorithms. “The scientific studies make clear, however, that big data is superior to gut feeling,” says Nussbaumer. Automated procedures are much more efficient and more accurate, especially for the preselection of a large number of applications. “So far, we’ve reserved the right to make the final decision ourselves, but I wouldn’t rule out the use of IT-supported systems in the future.”

The digital transformation of its own processes was strenuous for the HR team, sometimes even painful, “but in the end, it has also brought us together. Now we know what we’re capable of.” It was also about reducing anxiety. If computers hire and manage employees, are HR employees even necessary? Nussbaumer’s answer is clear: “Our employees should have time for the tasks that are really important to Voith.”

Studies ✕

In the “Recruiting Trends” study carried out by Monster.de, more than half of the top 1,000 German companies interviewed stated that IT-supported recruitment accelerated the process of candidate preselection. According to 43% of the study participants, the robot also facilitated the non-discriminatory preselection of applicants.

An analysis by the Harvard Business Review of 17 studies on the topic concluded that big data-based decisions are at least 25% better than those made by human beings. The effect was evident in all candidate groups, from the factory floor to top management.

Flavio Martins
Voith Brazil

“Our culture has always been very flexible; we’ll adapt to the digital changes very rapidly. Nowadays people are managing their everyday lives with their smartphones. However, in the case of professional arrangements, people are very formal – if we need to clarify anything, we call, and afterwards we write an e-mail. This is how our HR work functions – you have to talk to your people every day, not just once a year, because being close is the key to reaching the agreed targets.”

Voith South America

Employees
2,138

Sites
18

“DRIVE” ✕

A further education program for basic digital skills and soft skills in the era of Industry 4.0. Employees can also choose topics according to their interests and professional groups. You can share your own ideas with others in a Co-Ideation Lab. All participants will receive a certificate at the end of the course.

From administrator to designer

Nussbaumer also sees the new role of HR in giving strategic advice to divisions in the process of transformation. “We’re now more than just the administrative level of the organization; we’ve also taken on the role of active designers. Today, Nussbaumer’s colleagues are involved in a discussion with representatives of the Group Divisions and business units, tackling questions such as how their business will develop in the future, in which markets and with which products and services they will operate, what skills they will need in these markets and within which structures their employees can work most efficiently.

There are no longer any topics that do not involve HR in some way. This applies above all to management, because managers are facing a number of challenges created by the digital transformation. They don’t know which skills their employees will need tomorrow, and, at the same time, they themselves are facing new demands. Nowadays it’s all about communication and facilitation – not control. These topics are currently being discussed throughout the organization. The HR division will have to find some of the answers to these challenges in the future.

Managerial workshops have already been set up to prepare managers for their new roles in the Company. The division also advises on the development of new forms of collaboration. Voith provides digital natives with applications that enable them to carry out their professional tasks – including via the social media they already use privately. Voith is already very well-established in this respect, especially in China.

The digital driver’s license

One task that concerns the entire organization, and HR in particular, is the development of digital competence within the entire workforce, allied with the simultaneous establishment of a new culture in dealing with new technologies. This is the aim of the Group-wide program [“DRIVE”](), for instance. Nussbaumer speaks of a “digital driver’s license” for every Voithian. “We don’t want to exchange the old world for a new one; we aim to make all our employees fit for the change and to travel the route to the digital future together with them." A number of further training measures have been developed for this purpose, ranging from workshops to e-learning programs. Digital transformation begins with people. This has also become clear. They are the key – even if they may be selected by a machine one day.

"We use social media to maintain contact with potential applicants who have not yet found a suitable position with Voith. We also utilize these platforms for e-recruiting – through WeChat in China, for example, we were able to increase the number of job applications in that country."

Lena Ziegler

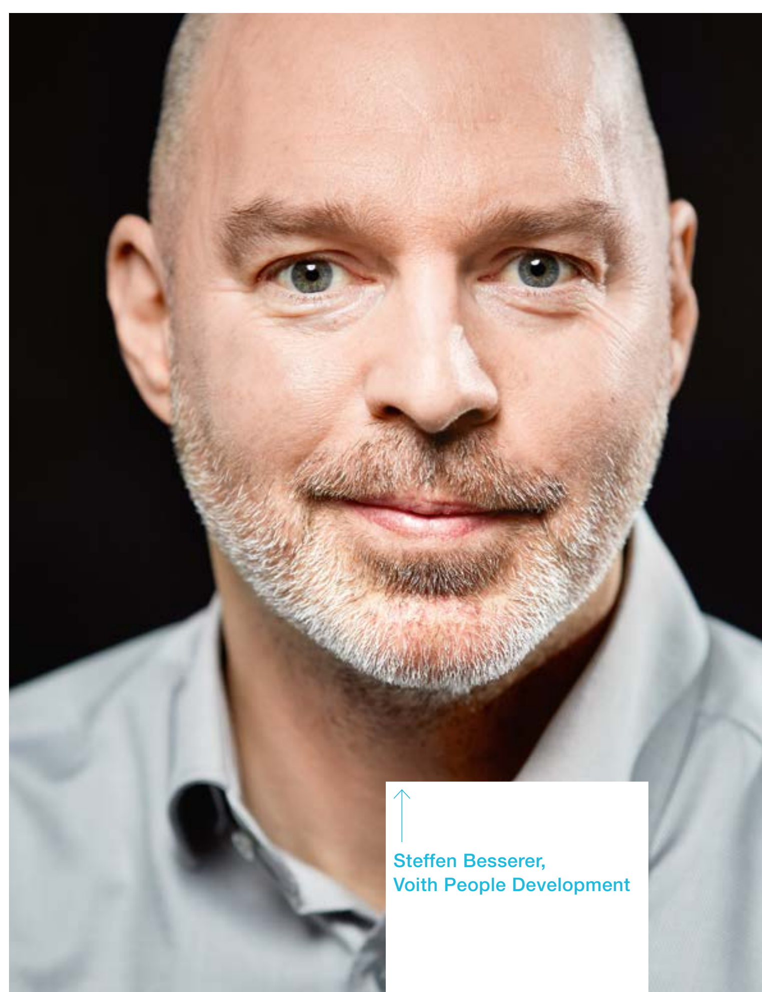
Steffen Besserer is responsible for People Development at Voith – what are your goals?

Steffen Besserer: We don't only consider the technical side of digitalization – the new products, processes and IT tools. The transformation also affects our way of working together and the way we organize our work. This has a lot to do with culture and consequently with ourselves as people. We are experiencing an increasingly complex working environment in which the existing organizational models are becoming less and less suitable. Agility, self-organization and networks are just three of the topics that will be front and center in the future.

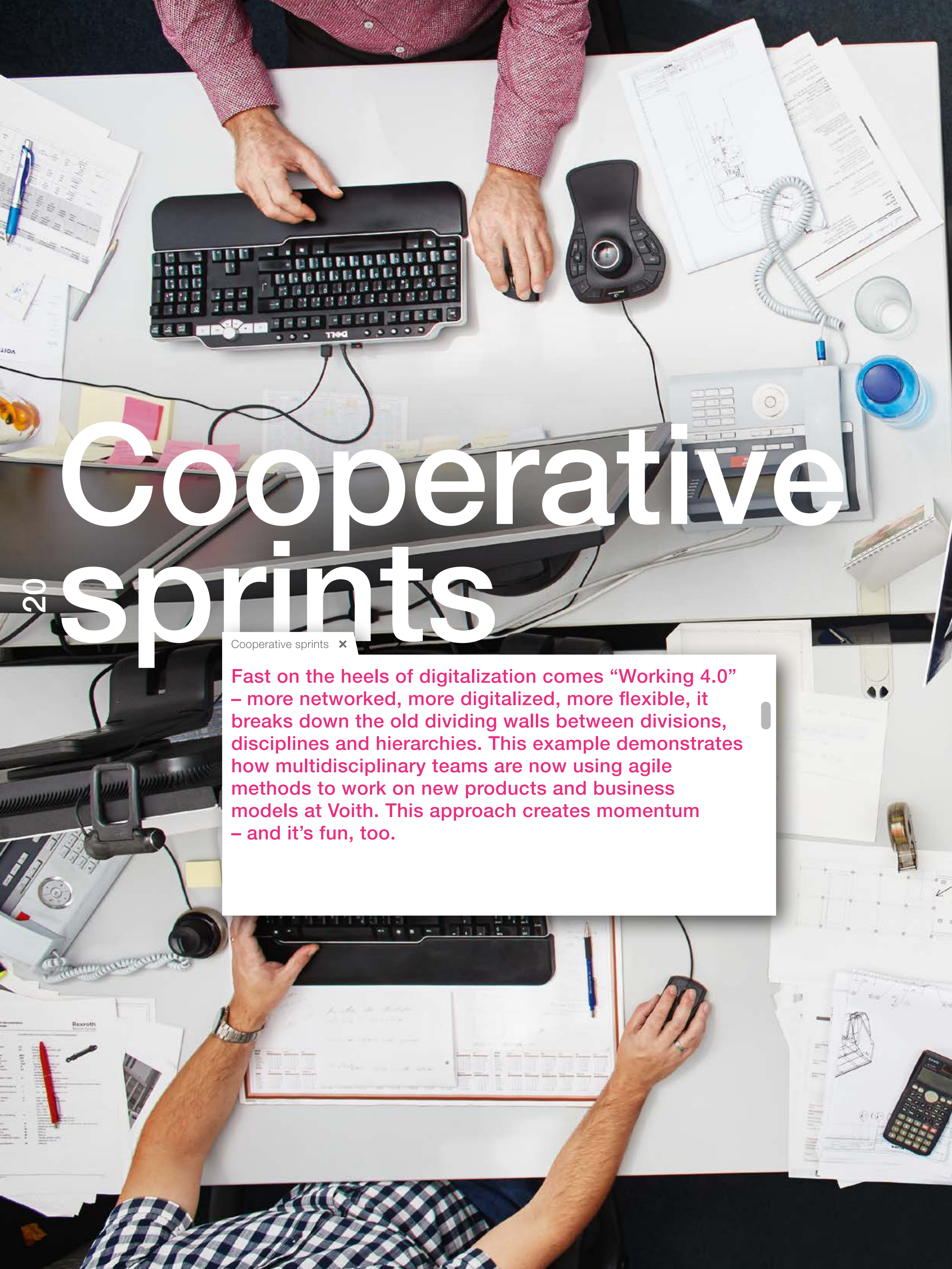
What does this mean for the work of HR?

In addition to our operational and administrative tasks, we'll also become change managers and organizational and cultural developers. We need to tackle the demands of the future more intensively. To achieve this, we are designing future scenarios here at HR and together with various divisions, and then we use these scenarios to derive the actions that are necessary. Our external approach to applicants or universities, for example, is also changing. We're creating much closer contacts there, otherwise we won't get the employees that we'll need in the future.

Lena Ziegler,
Voith Talent Acquisition



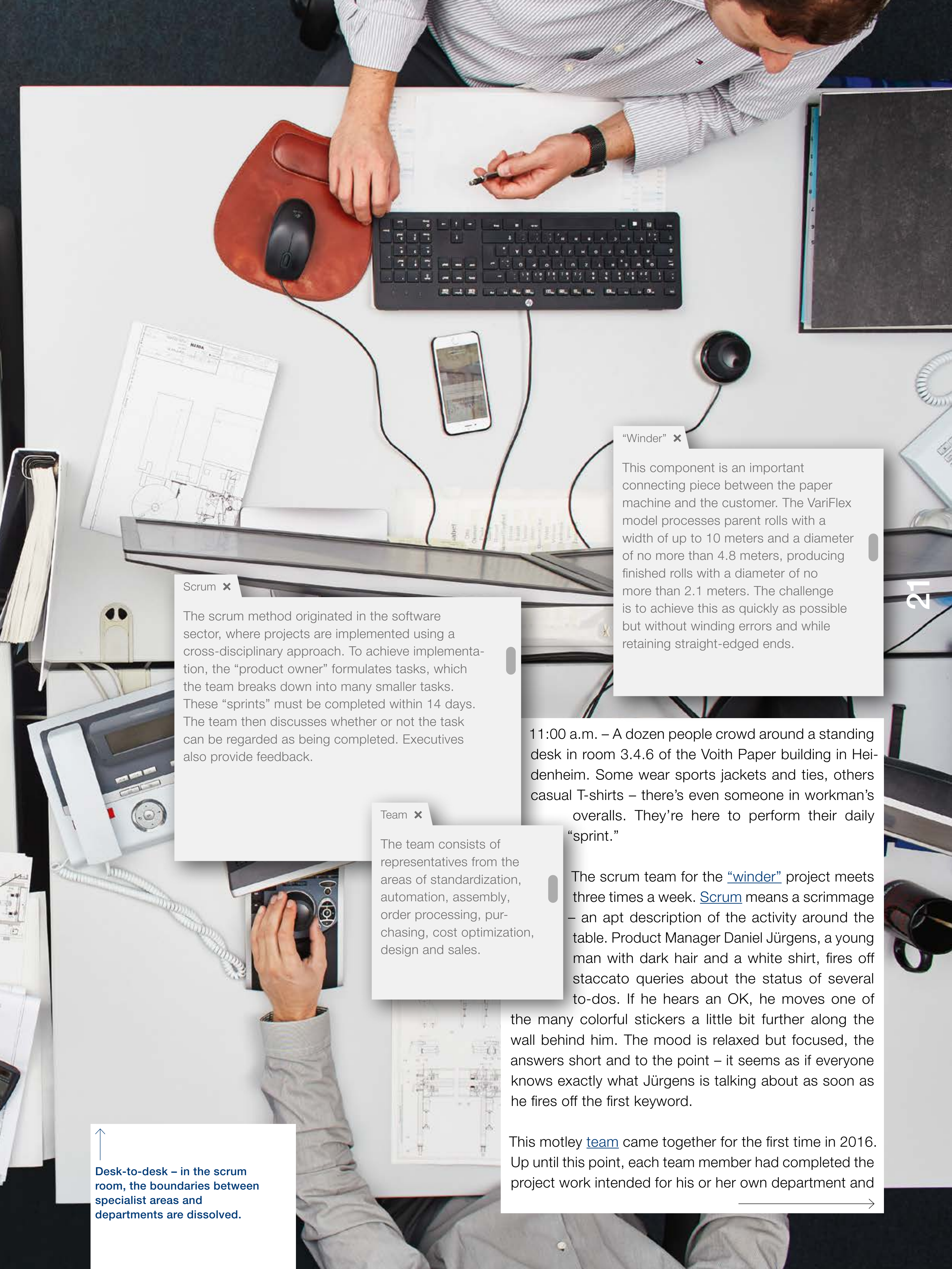
Steffen Besserer,
Voith People Development



Cooperative sprints

Cooperative sprints ✕

Fast on the heels of digitalization comes “Working 4.0” – more networked, more digitalized, more flexible, it breaks down the old dividing walls between divisions, disciplines and hierarchies. This example demonstrates how multidisciplinary teams are now using agile methods to work on new products and business models at Voith. This approach creates momentum – and it’s fun, too.



11:00 a.m. – A dozen people crowd around a standing desk in room 3.4.6 of the Voith Paper building in Heidenheim. Some wear sports jackets and ties, others casual T-shirts – there's even someone in workman's overalls. They're here to perform their daily "sprint."

The scrum team for the "winder" project meets three times a week. Scrum means a scrimmage – an apt description of the activity around the table. Product Manager Daniel Jürgens, a young man with dark hair and a white shirt, fires off staccato queries about the status of several to-dos. If he hears an OK, he moves one of the many colorful stickers a little bit further along the wall behind him. The mood is relaxed but focused, the answers short and to the point – it seems as if everyone knows exactly what Jürgens is talking about as soon as he fires off the first keyword.

This motley team came together for the first time in 2016. Up until this point, each team member had completed the project work intended for his or her own department and

"Winder"

This component is an important connecting piece between the paper machine and the customer. The VariFlex model processes parent rolls with a width of up to 10 meters and a diameter of no more than 4.8 meters, producing finished rolls with a diameter of no more than 2.1 meters. The challenge is to achieve this as quickly as possible but without winding errors and while retaining straight-edged ends.

Scrum

The scrum method originated in the software sector, where projects are implemented using a cross-disciplinary approach. To achieve implementation, the "product owner" formulates tasks, which the team breaks down into many smaller tasks. These "sprints" must be completed within 14 days. The team then discusses whether or not the task can be regarded as being completed. Executives also provide feedback.

Team

The team consists of representatives from the areas of standardization, automation, assembly, order processing, purchasing, cost optimization, design and sales.

Desk-to-desk – in the scrum room, the boundaries between specialist areas and departments are dissolved.

then passed it on to the next department. This principle is scrapped in the scrum, however, because all of the departments involved in a project – from its development to its future management – work together from the outset.

Losing the habit of thinking in stereotypes

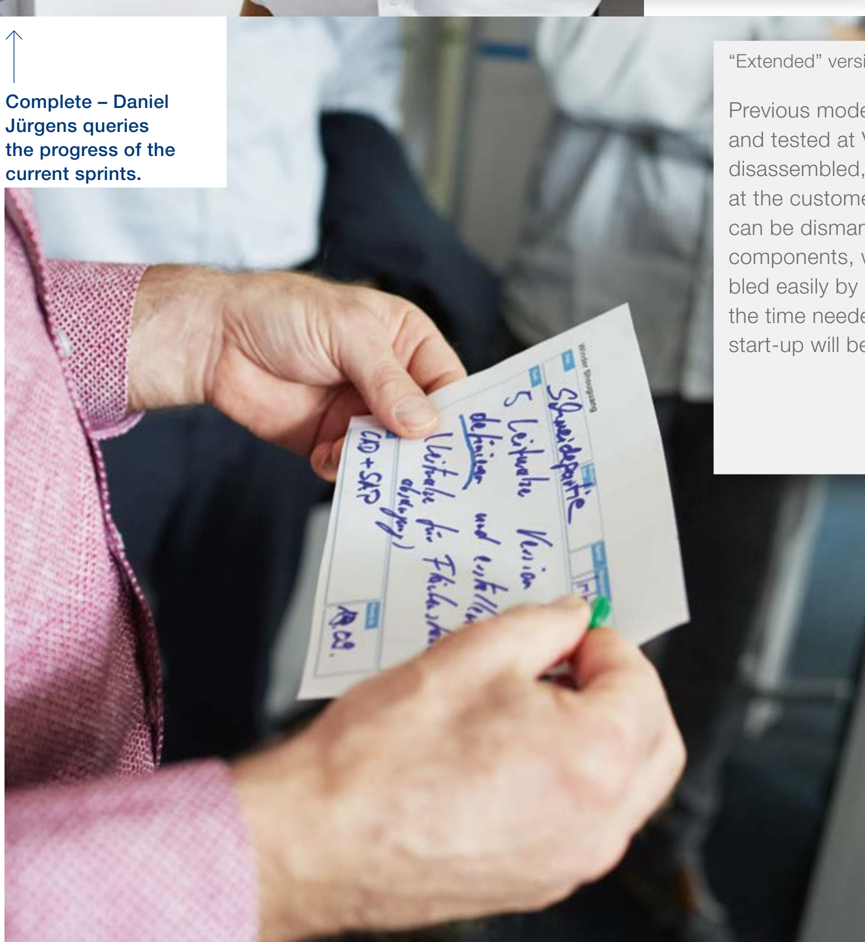
Daniel Jürgens says: “We all leave our compartmentalized ways of thinking in stereotypes behind; there are so many important perspectives and points of view.” The challenge of developing a winder for a width of ten meters while still achieving efficiency gains has now been mastered. The team attained its goal after 14 “sprints” – and the new “extended” version of the winder has already been sold eight times.

Ten meters ✕

The difficulty with components of this size is that when they rotate at high speed, they are subject to natural oscillations. The parts are also assembled in the narrowest of spaces and are not allowed to generate collisions despite their many moving parts.

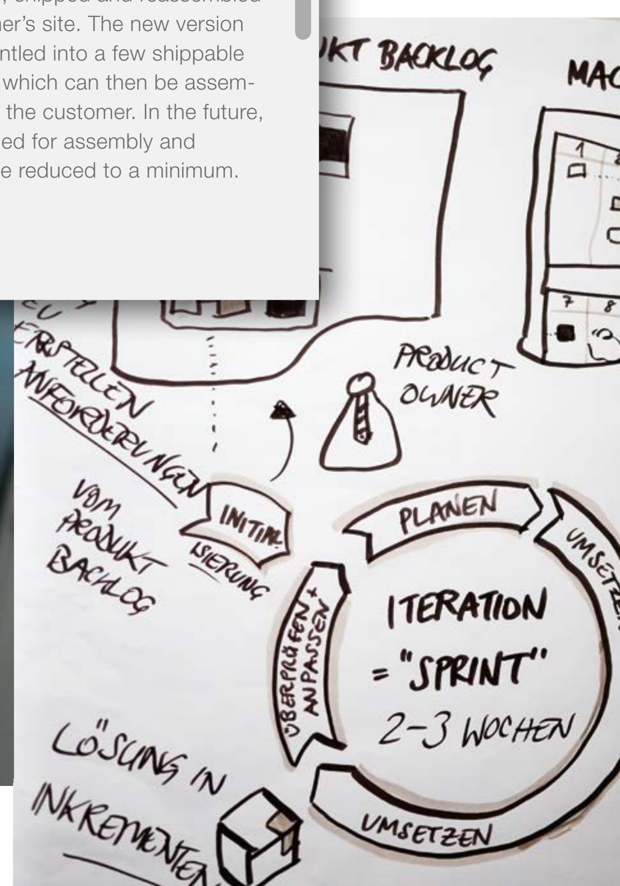
Some of the scrum team even left their own departments to tackle this project. Designers, automation engineers, product managers and buyers work together desk-to-desk in the scrum room. Some of them come from other international sites, where experts also connect regularly with one another via videoconferencing. In the scrum team, person-to-person communication is the rule; no one writes e-mails.

Complete – Daniel Jürgens queries the progress of the current sprints.



“Extended” version ✕

Previous models were first assembled and tested at Voith, then completely disassembled, shipped and reassembled at the customer’s site. The new version can be dismantled into a few shippable components, which can then be assembled easily by the customer. In the future, the time needed for assembly and start-up will be reduced to a minimum.

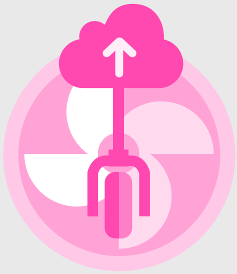


Big data

The term big data involves three important aspects: creation of value from increasingly large amounts of data, collation of different data sources, and the use of advanced, low-cost storage and processing technologies. Parallel computing power, which is automatically distributed and therefore scalable, can handle huge quantities of data, perform complex analyses and provide simultaneous access to many users.

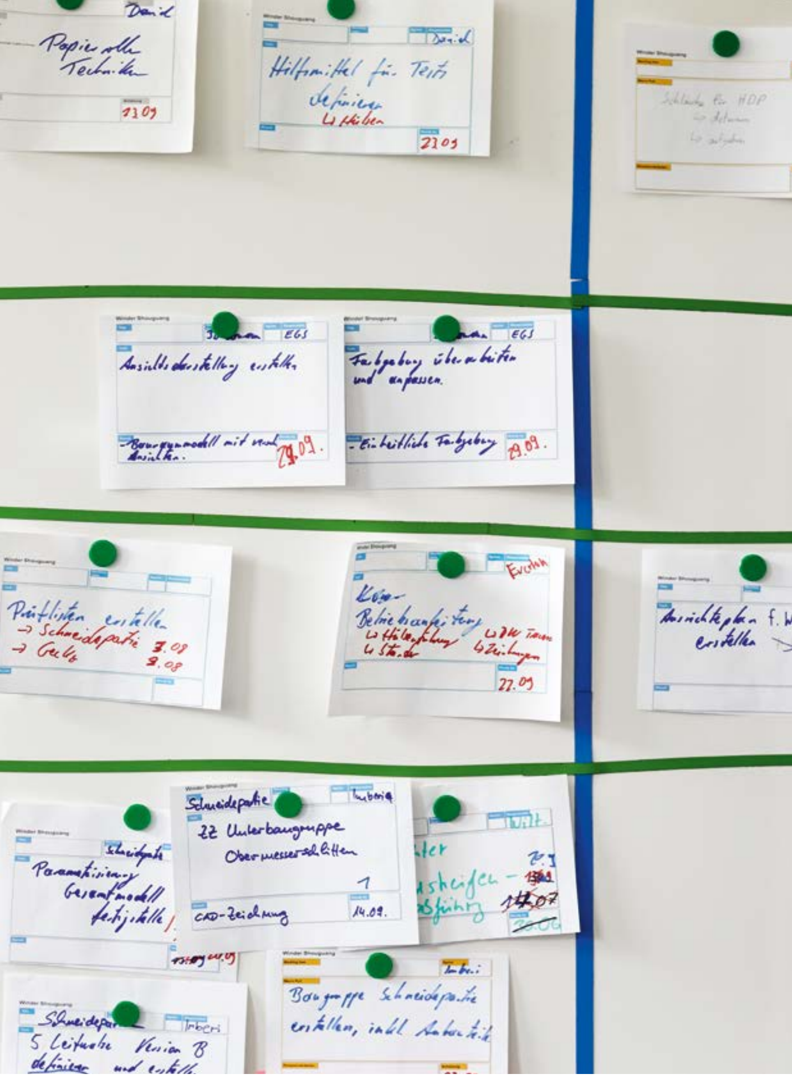
One important tool of big data is **machine learning (ML)**, a subfield of artificial intelligence. This refers to the many ways in which intelligent systems "learn" from available data. Instead of following rules set by programmers, they recognize patterns in data and use this information to solve a wide range of problems.

Applications
of
big data



HyGuard

In the course of their many jobs, experienced technicians at Voith learn how to perceive the state of a system such as a turbine just by listening to it. The HyGuard analysis system goes through the same kind of learning process. The noise in hydropower plants is recorded by microphones and relayed to the cloud for analysis. By studying increasing quantities of such data and evaluating other sources, the system becomes able to recognize which sounds are “normal” and which are signs of damage. In this way, preventive maintenance can be carried out on systems without a technician being present. HyGuard is always listening.



Scrum stands for a jostling scrimmage – the multidisciplinary team meets three times a week.

> **“We all leave our compartmentalized ways of thinking in stereotypes behind; there are so many important perspectives and points of view.”**
>
> Daniel Jürgens

On this morning, for example, Denis Imberi is sitting in front of one of the screens – he’s a design engineer and it’s his first time in a scrum team. He says: “This approach creates tremendous momentum. You go with the flow, you meet regularly with your colleagues, and you know what everyone is working on and how far they have progressed. This guarantees a great team spirit, but the main thing is that every person is deeply immersed in the project. You don’t have to explain anything to someone else when you need an answer. This really speeds up the work.”

Understanding others

Florian Burger hurries through a production hall, wearing protective goggles and blue Voith workwear. This is where the winders are assembled. He says: “Thanks to working with the scrum team, I was able to coordinate early on with the design engineers what can be done and what can’t – so we already considered many smaller issues at the outset, things that otherwise would have caused problems for us later.”

Daniel Jürgens, who is discussing with him the details for the delivery of a model, adds: “This agile and interdisciplinary approach is error-prone, but in a positive sense, because there are lots of small but transparent errors that come up early on, and they are quickly discovered and corrected thanks to the multidisciplinary work.” One department alone can quickly overlook an error like this, and it would be dragged right through the project, multiplying its effects. This would ultimately make a project expensive and slow. In the case of the winder, though, things like ergonomics or appropriate assembly workflows were addressed right from the start – and assembly time was significantly reduced by these early corrections.

Ready for use – a finished winder with already assembled cutting blades. After extensive testing, delivery to the customer takes place.

Having to decide

Jürgens believes that solving problems together is what creates such a great sense of team spirit within the scrum team. “When everyone in the group agrees, it makes the whole team extremely effective.”

One new feature is that every employee is forced to make decisions. A task must be completed in two weeks’ time and be focused in a particular direction. “This is a learning process,” says Jürgens. “You can’t constantly seek reassurance and postpone or delegate decisions and then look for a third possibility instead of just making the decision.”

Agile working with new digital technologies requires a change in culture and mentality. Soft skills are at least on the same level as professional competencies. This especially applies to executives, who must demand that more responsibility be shouldered by employees, but who above all must also allow those employees to exercise it. The transparency of information that can be achieved by the use of digital communication technologies in an organization inevitably leads to flat hierarchies. Managers who want to keep control of everything simply slow their companies down.

In the future, leadership will be more like a kind of facilitation. Supervisors, for example, give feedback on a scrum at regular intervals; their role is to provide advice and motivation. In the sprints and during those jostling scrimmage sessions, however, the team is on its own.

Helmut Maier,
Vice President Corporate
Product Improvement
& Engineering Excellence

Methods for cultural change

Helmut Maier worked as an engineer at Airbus for more than 20 years. He developed new Airbus models, such as the Beluga, at the Toulouse site. "It was a wonderful time – we worked on new components from early in the morning until late in the evening, and if something worked, we continued with it, but if it didn't, we just tried something else." He has been injecting this spirit of enthusiasm into the engineering and development teams at Voith since 2008, and is responsible for the development and introduction of new working methods.

To achieve his goals, he opts for new agile methods and procedures. "The feedback is very positive and is a sign of the changing demands of employees. Young people in particular want to feel their personal contribution at work, to decide freely, to communicate directly with customers and to take on responsibility without having to go through various career stages first."

The new ways of working also target customers: "We want to conceive and develop our products even more purposefully – from the customer's point of view. One tried-and-true method of working on projects with maximum flexibility and speed is Design Thinking in combination with the scrum, and we now use this in several divisions."

In various workshops, for example, innovative concepts and prototypes for rail vehicle drives and a high level of digitalization of this overall system were developed in teamwork and with the participation of customers. In Canada, Voith worked with Canadian customers to create new solutions for the modernization of older hydropower plants. This has led to the creation of a market for future sales in the double-digit millions.

Katharina Kehren,
R&D Manager Product
Innovation, Scrum-Master

"A scrum team must be driven by a positive spirit, openness and the will to approach tasks in novel ways instead of following established patterns."

Katharina Kehren

Sustainable success

The digital transformation will lead to more than just better efficiency and new business models. New technologies will make life easier for many people and open up opportunities for a secure livelihood, economic mobility and social integration. Smart technologies will benefit society and the environment by reducing our consumption of resources. Intelligent networking of energy sources and industrial processes will help to limit greenhouse gas emissions and achieve our climate targets. Voith is taking an active part in these efforts, thus contributing to a better world.

Sustainable success ×

1.1 billion euros

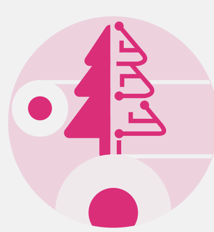
In the past five years, Voith has invested €1.1 billion in research and development.

Sustainable success ×

Intelligent mining

Voith is able to apply complex sensor technology and automation even in mining, where conditions are especially demanding. Smart conveyor belts and drives are an example. The Voith TurboBelt drive system adjusts its starting speed and force in real time depending on the quantity and location of the material to be conveyed. It sends its data to a control center that may even be at a different site. The optimized control system significantly reduces energy consumption.

Sustainable success ×



Digital paper-making

Nowadays important process steps in papermaking are monitored and controlled in real time by sensors and software. Voith calls this Papermaking 4.0. By automating and digitalizing sheet formation it minimizes the use of raw materials and energy.

Sustainable success ×

3

Three months is what it took to automate a pumped-storage power plant in Foyers, Scotland. The facility’s two 150 MW Francis turbines stabilize the power grid, a complex task that involves managing the varying input over long-distance transmission lines from a number of wind turbines. This task is too tricky even for skilled humans, but the HyCon 400 control system can handle it.

Sustainable success ✕

150

On the occasion of its 150th anniversary, Voith donated €150,000 to Theirworld, an organization of Global Business Coalition for Education (GBCE), which Voth has joined. The charitable organization provides educational support to children and young people in Africa with a focus on computer technology. Theirworld operates “Code Clubs” in a number of countries, and Voith’s donation will be used to establish six new Voith Code Clubs in Tanzania. The clubs teach basic skills in communication, leadership and programming to more than 700 girls and women, in this way giving them qualifications for Africa’s growing technology sector.

Sustainable success ✕

Paper from sun and wind

In 2016, the Federal Ministry of Education and Research launched the Kopernikus program, one goal of which is to promote technologies that adapt industrial processes to new energy sources, in particular renewables. Voith Paper, a partner in this project, is developing an application that will digitally connect the paper industry with energy markets. The objective is to adapt the power consumption of paper machines to the fluctuating supply of energy from the wind and sun.

Sustainable success ✕

Smart shifting

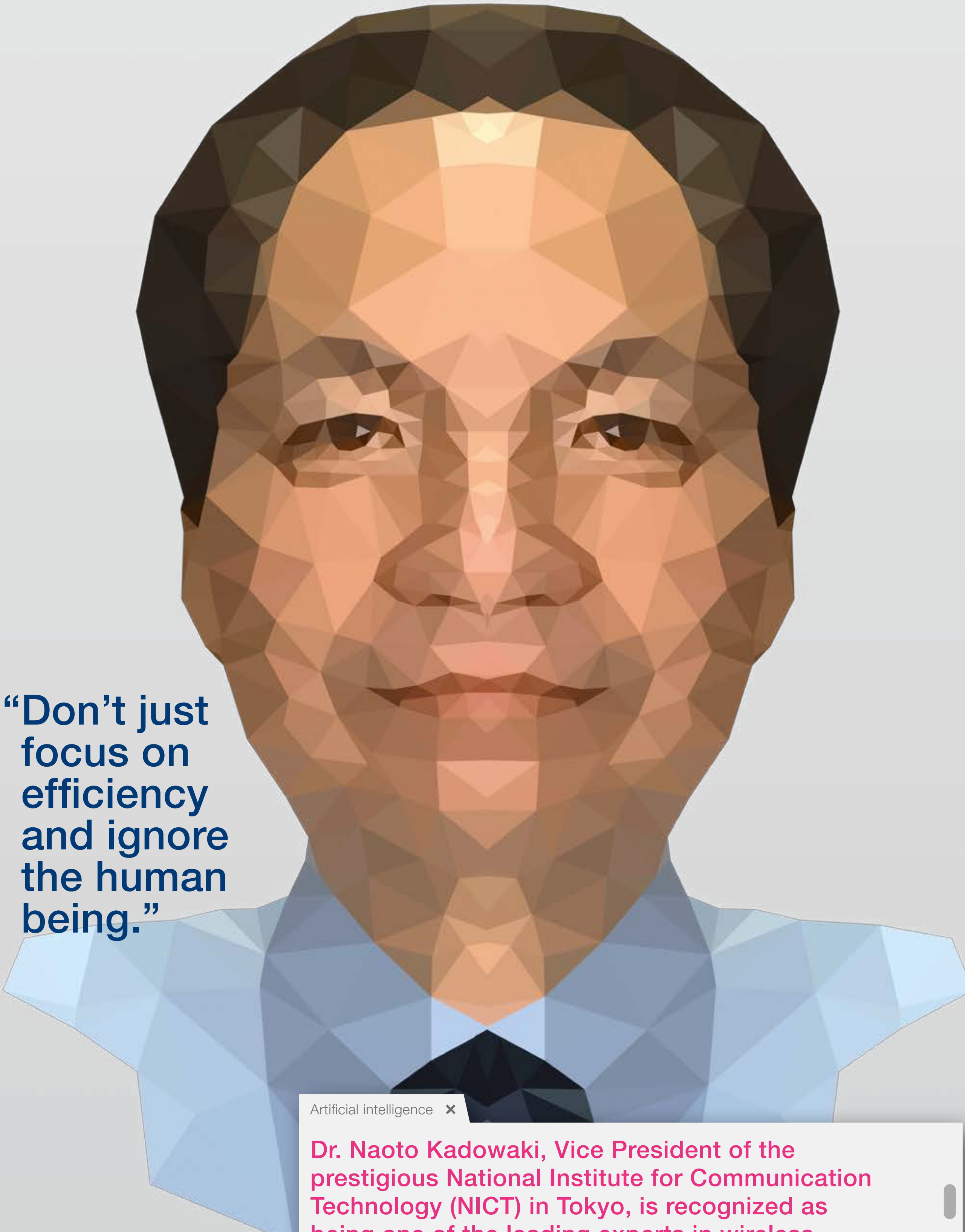
Modern DIWA.6 transmissions with stop-start technology deliver fuel savings of up to 12%. An electronic control unit also identifies the topography of the route and adjusts the transmission accordingly. A system for recording operating data facilitates preventive maintenance and early damage detection. Diagnostics software provides data to promote a fuel-efficient driving style.

Sustainable success ✕

80%

The Confederation of European Paper Industries (CEPI) has set a goal of reducing CO_2 emissions in the paper industry by 80% by 2050. Voith Paper is supporting this initiative through research on appropriate technologies. The first of these will be ready for the market in the next ten years.

“Don’t just focus on efficiency and ignore the human being.”



Artificial intelligence ×

Dr. Naoto Kadowaki, Vice President of the prestigious National Institute for Communication Technology (NICT) in Tokyo, is recognized as being one of the leading experts in wireless communication between machines. He heads the NICT, and in the future the Institute will cooperate with the German Research Center for Artificial Intelligence (DFKI) to advance the development of applications such as the Wireless Smart Factory.

> “Machines should recognize our needs and desires, perhaps even our personalities.”
>
> Dr. Naoto Kadowaki

Dr. Naoto Kadowaki, do you already have a robot at home?

No, not yet.

When it comes to artificial intelligence, many people first think of robots. But where do we actually find them today?

You probably make use of an intelligent wizard every day when you use your smartphone. These systems use AI-based knowledge, as do smart speakers like Siri, Echo and all the others offered by different manufacturers. We developed the “VoiceTra” automatic voice translation system using AI technology at NICT. The app is free, and it can process 31 languages.

How much longer will it be before we can talk to our cars?

We’ve been doing that for a while! Special language interfaces such as Apple’s Car Play allow you to navigate a car with your voice, send messages and much more. I believe that functions like this for cars will be very popular in a few years’ time.

And for machines?

Of course, machines can also be voice-controlled. The interfaces needed to do this are currently being researched. Machines should recognize our needs and wishes, perhaps even our personalities.

AI is a comparatively old topic. Computer science has been involved with it for decades. So why are we only now experiencing this degree of interest?

AI usually means “deep learning” from a technical point of view. The accuracy of the responses correlates with the amount of data that can be processed. Today, with our smartphones and the Internet, we can send and receive so much different information that we get a lot of different data types much more easily than before. This phenomenon increases the usability of deep learning and thus heightens the interest for many applications.

What are you currently researching at the NICT?

Wireless communication, including satellite communications, network technology and cybersecurity. As Vice President for Research and Development, I am also responsible for these areas. My research background is satellite communication.

NICT also has a partnership with the German Research Center for Artificial Intelligence (DFKI).

That’s a really exciting project. A researcher at NICT was working on an idea for intelligent manufacturing using wireless communication technology in factories, when she realized that scientists in Germany were pursuing a similar research approach, which is known there as Industry 4.0. That’s how the contact came about. In March of this year, the NICT and the DFKI signed the Declaration of Intent for Cooperation in Research.

What will the NICT contribute to the research?

We are researching the use of wireless communication in intelligent manufacturing. This is a real technological challenge in a factory – an enclosed space, and a lot of moving machines and materials made of metal. Radio wave reflection in an environment like this is very complicated, situations and positions change dynamically – and all this makes qualitative and stable communication very difficult to achieve. That’s why we’re investigating the behavior of radio waves within the factory and developing transmission propagation models for different types of factories. We can now make our technology available to the DFKI. In return, DFKI’s AI technology could be used in our modeling to eliminate interference in wireless communication. More synergies that could result from this cooperation immediately occurred to me – and they all have great potential, because the Wireless Smart Factory is becoming more and more popular in the manufacturing industry.

Systematic thinking

How Voith projects the issue of artificial intelligence into the future

Teemu Tunkelo

Dr. Teemu Tunkelo has been in charge of the Program Management Office (PMO) Industry 4.0 at Voith since 2015. He previously held senior management positions at Nokia, Siemens, ABB and Invensys. He also established two development centers in India for research, development and engineering initiatives in the energy and automation markets.

System-atic thinking

Voith's products can also "think." Artificial intelligence is not unknown territory in mechanical engineering, having long since been tried, tested and used. In paper machines, for example, smart cameras detect marginal deviations in the paper structure and use these to independently derive settings adjustments.

Teemu Tunkelo, CTO at Digital Solutions, is thinking even further ahead. "The issue of AI is no longer just about factories, it's about the entire environment in which they operate." Systems – that's the future. Thinking in terms of space, they're networked with sensors that can be harmonized with machines, services and even people in this way. Does that sound ambitious? It's just the beginning.

The river as a data flow

Initial projects have been tackled at many locations across the world with the objective of fully digitalizing natural systems. One example of Nature 4.0 is that bodies of water are virtually cut into slices. Someday rivers will also have a second, digital riverbed in the form of a stream of data in computers, allowing information such as flow velocity, sediment content, water depth and much more to be collected, all in real time. The question of what you could do with the data from these "transparent" rivers leads us back to the machines.

The blades of the turbines, for example, which Voith installed and now maintains in the hydroelectric power plants along the river, are exposed to a river's strong current day and night. The power of the turbines could be optimally adjusted using the mass of data on water levels. Using the sediments and flow velocity data, AI could perhaps deduce the stresses to which the material will be exposed at any one point in time. If the AI correlates this with other data sets, such as the general resilience of the material – then it could make a smart statement as to when a component is most likely to break under these particular conditions. In an ideal scenario,

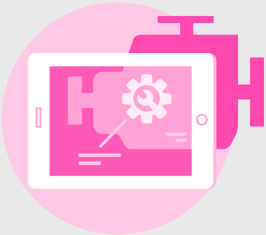
Augmented reality (AR)

Augmented reality is a virtual extension of the real world. Digital information is superimposed on a real image of the environment by means of devices such as head-mounted displays that stream visual information into the user's field of view. Locations can be marked by what is called tagging.

When the user no longer sees anything in the real world at all, the term used is **virtual reality (VR)**. The real environment is blocked out and therefore not perceived.

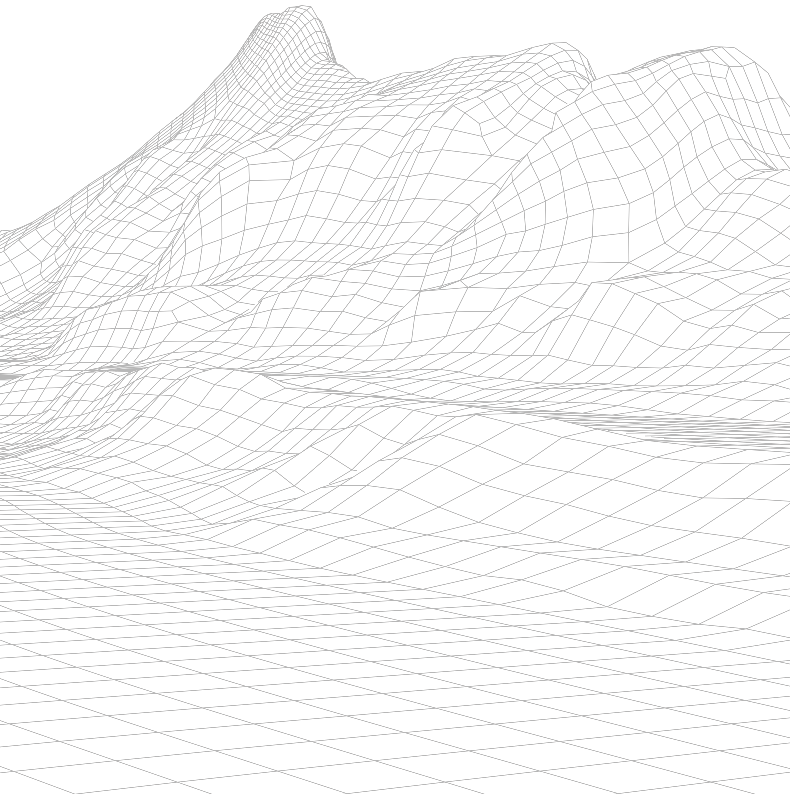
The merging of these two technologies is called **mixed reality (MR)**. Mixed reality is playing an increasingly important role in the consumer goods industry. Virtual sequences like videos are projected into real environments.

Applications of **augmented reality (AR)**



OnCare AR module

This system combines physical and digital information to assist technicians in the field with preventive maintenance. OnCare AR scans an object and simultaneously projects digitally stored data such as detailed drawings, instructions and data on spare parts and materials into the virtual space.



it would send a maintenance date to the service staff in advance, avoiding damage that no one else could possibly have forecast at that point in time.

Cogwheels in the system

Teemu Tunkelo is thinking even further ahead. “It will get really exciting when we network the systems with one other, when the algorithms also evaluate data from dams, weather forecasts, irrigation in agriculture, shipping, and from the many other hydroelectric power plants – and all to enable our plants to run optimally as cogwheels in the system and to develop new business models in this virtual system world at the same time.”

If we take this approach right through to its conclusion, the result is that one day there will be a digital twin of our world; and the pace in the development of storage capacities makes it highly likely that we’ll be carrying this twin around with us in our smartphones.

The focus of the smart machine builder of the future will range from the perspective of products to a view of systems and technical evolution, or as Teemu Tunkelo puts it: “Like a car that we start with a key and then use services such as mobility, security, entertainment, without asking who built the engine, let alone how expensive it was, we have to assume that in the future our products will be part of a solution for which the customer will pay.”

Where do you see Germany’s position in the research and implementation of AI?

In my opinion, Germany’s strengths mainly lie in multimedia analysis, data mining, pattern recognition, traffic control and cyber-physical systems.

What kind of homework must the industry tackle to optimally exploit AI in the future?

In view of the aging population, I first of all see a challenge for companies not to lose the special knowledge of their skilled workers. When these people retire, companies will have to secure their know-how in advance in order to maintain the quality of the products. The Internet of Things and artificial intelligence will support such tasks. Further preconditions are that all manufacturing and production processes are consistently digitalized and that a reliable and uniform database is available.

To what extent will artificial intelligence change the business world and society?

I can’t predict the future, but I think we’re moving in a completely networked world, one that intelligently evaluates data and creates individual services from it, without humans having to consciously request such services. In business, smart and personalized services and products will gain in importance through the Internet of Things and artificial intelligence. That is the future. But I hope that we don’t ignore people while we’re using artificial intelligence to increase efficiency.

Are we even ready to interact and communicate with intelligent machines?

It might sound a little trite, but we need to think and communicate much more logically. We need foresight to understand and to make decisions. In a completely networked world, the right answer in one limited environment can soon become a wrong one for a different environment.

Which of the new technologies would you like to try out?

Innovative satellite communications technology, which is very cost-effective, fully digital, much more powerful and flexible. It could network everyone and everything in the world cost-effectively.

Financial Report

Group

Page

Dear reader,

This year was a special one for Voith. In 2017 we celebrated 150 years of Voith – and in this anniversary year, we also **reached** additional milestones on our path toward a future of sustainable success.

The message is clear as this anniversary year comes to a close: firstly, as a family-owned business Voith has a solid foundation, and from the beginning this Group has been defined by entrepreneurship, the courage to forge ahead and a consistently international orientation. We are very proud of this tradition, and for good reason. Secondly, but equally importantly, this special year in particular has been an impressive example of this Company's vitality; we have demonstrated the degree of creativity and innovation with which Voith is tackling the greater issues facing industry, and shown how hard we are prepared to work on ourselves so that we may win the future.

“We have every reason to look ahead with confidence, not least due to the financial indicators from the year that has just ended. We met our projections and, in some cases, exceeded them.”

Dr. Hubert Lienhard

Voith is ready for the next 150 years! This is more than just a hollow phrase, but rather our firm conviction. After having successfully set the course over the past several years, the Group today is in better shape than ever before. We enjoy full agility in every respect and are meeting the next promising phase of growth – meeting it as a technology leader, a pacesetter and driver of innovation in our traditional core business. And as we do so, we are also positioning Voith as a significant shaper of the digital industry in the years to come.

We have every reason to look ahead with confidence, not least in view of the financial indicators from the year that has just ended. We met our projections and, in some cases, exceeded them. As announced, the Group’s incoming orders increased. Following the intensive reorganization of the Group over the past few years – which cost a great deal of energy but also unlocked new forces – we were able to maintain our sales at a good, stable level in a challenging environment. We continued to increase the profitability of our core business, and successfully absorbed the significant investment in our new Group Division, Voith Digital Solutions.

Bottom line, we see record earnings for the 2016/17 fiscal year, in part thanks to the successful sale of our stake in KUKA. This has led to a significant improvement in our financial situation: the equity ratio in the Group reached a historic high, and net liquidity is also at a very high level. Having gained this degree of financial freedom, we will use it to shape Voith’s new phase of growth under our own steam.

"The fusion of tradition and innovation – this is our recipe for continuing the 150-year story of our business' success in this digital age."

Dr. Hubert Lienhard

In the year that has just ended, the first year after completing the Group's restructuring, we focused our efforts on the issues of the future, especially the topic of digital transformation. The internal setting-up of Voith Digital Solutions is going exactly according to plan, and we have also worked on expanding our portfolio of digital offerings successfully. In March, Voith launched world's first digital marketplace for recovered paper in the US – merQbiz, Voith's first digital lighthouse project. In addition, we purchased a majority share of the digital agency, Ray Sono, our first large acquisition in the digital realm.

We have seen marked progress in the implementation of our strategy, a clear confirmation that our operational earnings power has grown sustainably and a significant improvement in our balance sheet: the 2016/17 fiscal year was undeniably a good year for Voith. And the year we have just begun is on course to be even better.

In 2017/18, we expect growth in sales and orders received as well as in profits from operations in our core business. Even taking into account the additional investments for Voith Digital Solutions – which, as in the year that just ended, will be once again around 50 million euros – the Voith Group's profits from operations are expected to increase.

We will continue to implement our digital agenda systematically in the current year – and these efforts will come to fruition. Voith Digital Solutions is working with the other Group Divisions on numerous incubator projects. The first of these applications will have their market debuts in the coming months. The Group is not only advancing its digital transformation, however; we are also investing in the future-oriented expansion of our core business activities. For example, Voith Turbo developed a strategic road map for tapping the dynamic e-mobility market. An important first milestone on this path was attained with a fully electric drive system for buses, which was made ready for the production stage in just a few months and which will come onto the market in the coming year.

This project represents a new Voith spirit: today, we work faster and more flexibly than ever before. We encourage taking responsibility and create the space and freedom to be courageous and creative. We are accelerating decision-making and establishing greater proximity to our customers and their needs.

Voith is changing – and yet it remains true to itself and its values. The fusion of tradition and innovation – this is our recipe for continuing the 150-year story of our business' success in this digital age. My heartfelt thanks go to all our employees across the world who have walked and are walking this path together with us with great dedication and ceaseless loyalty.

And finally, I thank our customers and business partners for the faith they have placed in Voith, even in turbulent times, and for the faith they have placed in me in these ten years in which it has been my honor to lead this Company.

We hope for your ongoing confidence in us!

Sincerely yours,

Hubert Lienhard

Dr. Hubert Lienhard
President and CEO

The Corporate Board of Management

Dr. Hubert Lienhard
President and CEO

Dr. Toralf Haag
Finance and Controlling

Andreas Endters
Voith Paper

Dr. Uwe Knotzer
Voith Turbo

Dr. Roland Münch
Voith Digital Solutions

Uwe Wehnhardt
Voith Hydro

> "After having successfully set the course over the past several years, the Group today enjoys full strategic and financial agility and an operating business in excellent shape. Furthermore, thanks to its significantly higher degree of efficiency and the necessary structural flexibility, it finds itself in a prime position for a sustainably positive evolution in the digital age."

The Corporate Board of Management

Report of the Supervisory Board for the 2016/17 Fiscal Year

Ladies and gentlemen,

Voith celebrated the Company's 150th anniversary in 2017. The celebrations, which were held at the various Voith locations around the world, were an opportunity not only to look back on the Company's long and successful history, but also to look together to the future. One impressive sign of Voith's commitment to the future in its anniversary year 2016/17 was the establishment of the new Voith Digital Solutions Group Division and acquisition of a 60 percent stake in Ray Sono AG, Munich. Both issues were discussed in depth by the Supervisory Board.

The change in legal form of Voith GmbH to a GmbH & Co. KGaA was also an important event for the Company in the 2016/17 fiscal year. The Supervisory Board is confident that this change will provide Voith greater room for maneuver and will support the Company's growth strategy throughout its digital transformation.

The sale during the period under review of Voith's stake in KUKA AG had a noticeably beneficial impact on various financial ratios for the 2016/17 fiscal year. The proceeds from this transaction will make it easier for Voith to finance important tasks in the future. These positive effects should not, however, obscure the fact that, all things considered, the global economy grew only moderately in the 2016/17 fiscal year and that overall conditions in the markets which are relevant for Voith have not developed with great dynamism. Industrial production in the USA, for example, continued to stagnate during the period under review. China's GDP growth again slowed. Public finances in many of the countries in the euro zone continued to be a matter of concern. This is also true of the Brazilian market, which is important for Voith and which remains mired in recession, although there are signs that this has now bottomed out. The recent sanctions imposed on Russia are also disadvantageous for Voith. On the other hand, the impending Brexit has not yet had the negative impacts which were generally feared.

Oversight activities of the Supervisory Board

This was the economic setting which formed the background to discussions at Supervisory Board meetings. The Supervisory Board discussed reports submitted by the Board of Management (since August 1, 2017 of the general partner) on the Group's current business and financial position and on each of the Group Divisions as well as reports on Group planning, Group strategy and significant business transactions. In addition, the Supervisory Board has been kept permanently informed by the Board of Management about the planned change of legal form which came into effect on August 1, 2017.

The Supervisory Board came together for four meetings held on October 10, 2016, on December 8, 2016, on March 23, 2017 and on June 2, 2017. As in previous years, the meetings of the Supervisory Board were characterized by an intense and goal-oriented exchange of opinions with the Company's Board of Management.

The agenda for the first meeting of the Supervisory Board, held on October 10, 2016, focused on the preliminary business figures for the 2015/16 fiscal year, planning for the 2016/17 and 2017/18 fiscal years as well as the Group's financial, investment and personnel planning. The Supervisory Board also gave special attention to the Group's portfolio strategy. Voith has identified four megatrends driving growth. These are demographic change, globalization, urbanization and technological change. Voith will participate in the opportunities arising from these trends by continuing to develop its portfolio.

The next meeting of the Supervisory Board on December 8, 2016 concentrated on the 2015/16 financial statements of Voith GmbH and the Group. In accordance with the recommendation made by the Audit Committee and following in-depth discussions with the auditor, KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, the Supervisory Board approved the financial statements and the management report of Voith GmbH as well as the consolidated financial statements for the 2015/16 fiscal year and the Board of Management's proposal to the shareholders' meeting for the appropriation of retained earnings. Finally, the Supervisory Board informed itself during the meeting about HR management at Voith.

In its meeting on March 23, 2017 the Supervisory Board drew on reports submitted by the Board of Management to address the Company's business development in detail during the first quarter of 2016/17 and the expectations for the 2016/17 fiscal year as a whole. In addition, the strategy of the Voith Hydro Group Division was explained and discussed.

During the last meeting of the Supervisory Board in the 2016/17 fiscal year, on June 2, 2017, the Board of Management reported to the Supervisory Board on the half year for the Group and on expectations for the 2016/17 fiscal year as a whole. The report was discussed extensively. The Supervisory Board also addressed the proportion of women in the Supervisory Board and the Board of Management, specifically achievement of previous targets. New targets and deadlines were set. The Board of Management simultaneously submitted a report to the Supervisory Board on the proportion of women in the first two management levels below the Board of Management level. Another important agenda item was the transformation of Voith GmbH into a GmbH & Co. KGaA.

Outside meetings of the Supervisory Board the Chairman of the Supervisory Board was kept permanently informed by the Board of Management (since August 1, 2017 of the general partner) about key developments and decisions. The Supervisory Board consulted regularly on important matters with the Chairman of the Board of Management. All the members of the Supervisory Board attended at least half of all the meetings of the Supervisory Board. No potential or actual conflicts of interest arose within the Supervisory Board.

Report on the work of the committees

The Personnel Committee met three times in the past fiscal year, on October 9, 2016, on December 8, 2016 and June 2, 2017.

There was no need to convene the Mediation Committee (Sec. 27 (3) of the German Codetermination Act (MitbestG)).

The Audit Committee met three times, on October 9, 2016, on December 7, 2016 and June 1, 2017.

At its meeting on October 9, 2016, held in the presence of the auditors from KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, the Audit Committee addressed materials pertaining to the financial statements for the 2015/16 fiscal year and various accounting issues. Furthermore, the Audit Committee discussed compliance issues.

At its meeting on December 7, 2016, which was held in the presence of the auditor KPMG AG Wirtschaftsprüfungsgesellschaft, the Audit Committee conducted an in-depth examination of the 2015/16 financial statements of the Group and Voith GmbH, as well as the auditor’s report. At this meeting with the auditors, the committee discussed individual issues relating to suggestions for improvement proposed in the management letter to the financial statements, none of which were deemed relevant to this report. The Audit Committee was also presented the Group audit report prepared for the fiscal year under review by the head of the Internal Audit Function and the compliance report by the head of the Compliance Committee; both reports were discussed in detail. Finally, during this meeting the Audit Committee reached decisions in connection with the implementation of the Audit Reform Act (AReG) and discussed the tax and accounting issues arising from the impending sale of the KUKA shares.

At the meeting on June 1, 2017, the Audit Committee reviewed the half-yearly consolidated financial statements as at March 31, 2017 and considered material issues affecting results, including the development of amounts outstanding and the recoverability of receivables. In addition, the Committee addressed the topic of risk management.

Changes on the Board of Management and Supervisory Board

Voith GmbH's shareholders passed a resolution at an extraordinary shareholders' meeting held on July 4, 2017 to change the legal form of the Company from that of a Gesellschaft mit beschränkter Haftung to a GmbH & Co. KGaA. The Company changed its legal form with legal effect upon its entry in the Company's commercial register on August 1, 2017 and has since operated under the name of Voith GmbH & Co. KGaA. The Company is managed by the general partner Voith Management GmbH, Heidenheim.

The executive status of the members of the Board of Management of Voith GmbH changed automatically by law on the effective date of the change in the Company's legal form. All the members of the Voith GmbH Board of Management had, however, already been appointed as members of the Board of Management of Voith Management GmbH in a previous resolution adopted by the Shareholders' Committee of Voith Management GmbH in accordance with the responsibilities assigned in the partnership agreement of Voith Management GmbH. This meant that the change in legal form did not bring about any changes in the composition of the previous Board of Management, whose members will now be responsible for running the business of the Company as the Board of Management of the general partner Voith Management GmbH.

The period of office of Mr. Bertram Staudenmaier as Chairman of the Board of Management of Voith Management GmbH ended on September 30, 2017. The parties agreed not to reappoint Mr. Staudenmaier to this position. The responsible body, the Shareholders' Committee of Voith Management GmbH, appointed Mr. Andreas Endters with effect from October 1, 2017 to succeed Mr. Staudenmaier as member of the Board of Management of Voith Management GmbH.

In September 2017, the Company announced that Dr. Hubert Lienhard will be retiring from his position as President and CEO of the Board of Management of Voith Management GmbH at the end of his period of office when he reaches the age of 67. The Shareholders' Committee has appointed Mr. Stephan Schaller, previously a member of the Shareholders' Committee and Supervisory Board, to succeed Dr. Lienhard. At the same time, the Company announced that Dr. Lienhard will be joining the Company's Supervisory Board and the Shareholders' Committee of Voith Management GmbH with effect from April 1, 2018.

There were no changes in the composition of the Supervisory Board during the year under review. The composition of the Supervisory Board, including its Audit Committee, remained unchanged as its members continued in office throughout the process of change in legal form. Separately from the change of form, Voith GmbH initiated status proceedings with its announcement on May 8, 2017 in the Bundesanzeiger (German Federal Gazette). The announcement by the Board of Management of Voith GmbH was to the effect that, in its view, Sec. 7 (1) No. 1 of the German Codetermination Act (MitbestG) requires that the Supervisory Board consists of six members each of shareholders and employees. The reconstituted Supervisory Board has been in office since the election of its employees' representatives and shareholders' representatives by the shareholders' meeting of the Company on December 6, 2017.

The Supervisory Board of Voith GmbH & Co. KGaA, like the Supervisory Board of Voith GmbH, is charged with monitoring the Board of Management. Nonetheless, authority in matters concerning human resources, i.e. in particular responsibility for appointing the Board of Management of the general partner, now lies with the Shareholders' Committee of the general partner Voith Management GmbH following the transformation of the Company into a GmbH & Co. KGaA.

The Supervisory Board would like to thank Mr. Bertram Staudenmaier who, as reported, left the Board of Management of Voith Management GmbH on September 30, 2017, after 12 years as a member (and for a while sole member) of the Board of Management of the Voith Paper Group Division. Mr. Staudenmaier decisively shaped the Voith Paper Group Division, which he successfully managed during some difficult years. The Supervisory Board wishes Mr. Staudenmaier all the best for the future.

The shareholders' meeting of Voith GmbH held on December 8, 2016 exonerated the Board of Management and the Supervisory Board for their activities in the 2015/16 fiscal year. The shareholders' meeting of Voith GmbH held on December 8, 2016 elected KPMG Wirtschaftsprüfungsgesellschaft, Munich, as auditors for the 2016/17 fiscal year. This appointment was renewed with the resolution on the change in legal form adopted by the shareholders' meeting of Voith GmbH on July 4, 2017. The Supervisory Board appointed the auditor accordingly.

2016/17 financial statements

The auditor, KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, audited the books and records, the financial statements and the management report of Voith GmbH & Co. KGaA and the consolidated financial statements and the Group management report as at September 30, 2017 and issued an unqualified audit opinion in each case. The consolidated financial statements were prepared in accordance with International Financial Reporting Standards (IFRS).

At its meeting on December 5, 2017, the Audit Committee examined in depth the annual financial statements and management reports prepared for Voith GmbH & Co. KGaA and the Group. Following an in-depth review of the financial statements, the consolidated financial statements and management reports, to which no objections were made, the Supervisory Board followed the recommendation made by the Audit Committee and accepted the outcome of the audit undertaken by the auditor at its meeting on December 6, 2017 and approved the financial statements and the consolidated financial statements. The member of management of KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, responsible and the lead auditor were both present at the meetings of the Audit Committee held on December 5 and 6, 2017 to explain the significant audit findings and to provide additional information. The financial statements of Voith GmbH & Co. KGaA were then adopted on December 6, 2017 by resolution of the shareholders' meeting with the approval of the general partner. Furthermore, at its meeting held on December 6, 2017, the Supervisory Board approved the proposal made by the general partner to the shareholders' meeting on the appropriation of the unappropriated retained earnings.

Finally, the Supervisory Board would like to thank the Board of Management of Voith Management GmbH, which is the general partner of Voith GmbH & Co. KGaA, and the management of the subsidiaries, the representatives of the workforce, but most of all the employees, for their dedicated service and their successful work in the past fiscal year which brought challenges for all members of Voith's staff.

Heidenheim, December 2017

Prof. Dr.-Ing. Dr.-Ing. E.h. Hans-Peter Keitel
Chairman of the Supervisory Board

The Supervisory Board

Prof. Dr.-Ing. Dr.-Ing. E.h.
Hans-Peter Keitel
Chairman of the Voith GmbH & Co. KGaA Supervisory Board, Heidenheim/Germany
Chairman of the Voith Management GmbH Shareholders' Committee, Heidenheim/Germany

Gerd Schaible*
Deputy Chairman, Head of Secretariat of the corporate works council of Voith GmbH, Heidenheim/Germany

Uwe Badziong*
Automation Engineer, Voith Digital Solutions, Mönchengladbach/Germany

Walter Beraus*
Secretary of the Metalworkers' Union, Regional Organization Baden-Württemberg, Stuttgart/Germany

Ton Büchner
Former CEO and Chairman of the Board of Management AkzoNobel NV, Amsterdam/the Netherlands

Dr. Siegfried Dais
Partner in Robert Bosch Industrietreuhand KG, Stuttgart/Germany

Ulrich Eckelmann*
Trade Union Secretary on the Executive Board of Industrial Union of Metal Workers (IG Metall), Frankfurt/Germany

Ulrich Freudel
Auditor, Tax Consultant, Mannheim/Germany

Johannes Hammacher
Executive Vice President of the family-owned company J. M. Voith GbR, Mannheim/Germany

Dr. Alan Hippe
Member of the Corporate Executive Committee F. Hoffmann-La Roche AG, Basel/Switzerland

Dr. phil. Nicola Leibinger-Kammüller
President of the Board of Management of Trumpf GmbH + Co. KG, Ditzingen/Germany

Dr. Volker Linden*
Head of Industrial Property Rights, Voith GmbH, Heidenheim/Germany

Thomas Martin*
Innovation manager/ chairman of the overall works council Voith Paper, Heidenheim/Germany

Dr. Ophelia Nick
Veterinarian, Wülfrath/Germany

Stephan Schaller
President BMW Motorrad, Munich/Germany

Gerold Schaubmayr*
Chairman of the works council of Voith Turbo GmbH & Co. KG, Crailsheim/Germany

Martin Schily
Economist
Tokyo/Japan

Detlef Schöling*
Chairman of the works council of Voith Dienstleistungen, Heidenheim/Germany

Ute Schurr*
Chairwoman of the works council of the common entity of companies of Voith Turbo Heidenheim, Heidenheim/Germany

Ralf Willeck*
First Authorized Representative IG Metall (Metalworkers' Union), Heidenheim/Germany

* Elected by the employees.
(Detlef Schöling: appointed by the court)

Group Management Report

Page

01. Background

Voith is a global technology group. With its diversified product and service portfolio, Voith sets standards in the markets of energy, oil & gas, paper, raw materials and transport & automotive. Founded in 1867, Voith today has locations in more than 60 countries worldwide. As a family-owned company, Voith focuses on sustainable profitable growth. The Group's reorganization implemented in recent years has been successfully completed. Work on setting up the new Voith Digital Solutions Group Division, which was established last year, is proceeding apace and is beginning to bear fruit.

01.1. Group structure and business activities

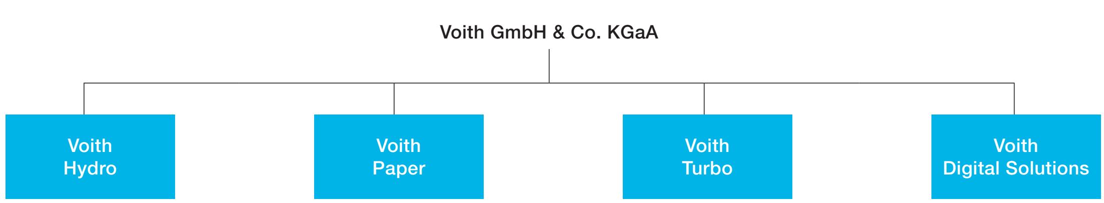
Family-owned, global technology group

Voith is a global technology group. With its broad portfolio of systems, products, services and digital solutions, Voith serves five essential markets: energy, oil & gas, paper, raw materials and transport & automotive. Voith operates in over 60 countries around the globe, maintaining an extensive network of production, service and sales units on every continent on the planet.

Information about the change in legal form can be found in section 01.5. **Significant events**.

Voith GmbH & Co. KGaA, based in Heidenheim an der Brenz, Germany, is the operative head organization and parent company of the Group. It is also where central functions are performed. The Company traded under the name of Voith GmbH until July 31, 2017 and has operated since August 1, 2017 in the legal form of a GmbH & Co. KGaA. The Board of Management of Voith Management GmbH is

Organizational structure
Voith Group Divisions



responsible for the strategy and operative management of the Voith Group. Voith Management GmbH, which like Voith GmbH & Co. KGaA, is 100% family-owned, is the personally liable general partner of and manages the business of Voith GmbH & Co. KGaA. The members of the Board of Management of Voith Management GmbH are appointed by the Voith Management GmbH Shareholders' Committee. Oversight of Voith GmbH & Co. KGaA is exercised by the Supervisory Board.

Operating business is concentrated in four segments: Voith Hydro, Voith Paper, Voith Turbo and Voith Digital Solutions. Legally independent head organizations oversee the activities of each Group Division's subsidiaries.

As a full-line supplier for equipping hydropower plants, Voith Hydro is one of the world's leading industrial partners for hydropower plant operators. This applies both to the field of electricity generation and to the pumped storage of energy. Voith Hydro's portfolio of products and services covers the entire life cycle and supplies all major components for large and small hydro plants: from generators, turbines, pumps, automation systems and digital solutions right through to aftermarket business in spare parts and maintenance services, as well as training services.

As a leading partner and pioneer to the paper industry, Voith Paper provides technologies, products and services for the entire paper manufacturing process, all from a single source. Its continuous stream of innovations optimizes the paper manufacturing process. Voith Paper focuses on developing resource-saving products which reduce the consumption of energy, water and fibers. Furthermore, Voith Paper offers a broad service portfolio for all sections of the paper manufacturing process.

Voith Turbo is the specialist for smart drive solutions and systems. Customers in numerous industries, such as oil and gas, energy, mining and mechanical engineering, marine technology, rail and commercial vehicles, value Voith Turbo's cutting-edge technology.

Voith Digital Solutions brings together Voith's many years of automation and IT expertise with know-how in the fields of hydropower, paper machines and drive technology. The Group Division, which was newly created last year, develops innovative products and services with existing and new customers to advance the Internet of Things and to play a major role in the digitalization of plant and mechanical engineering. Voith Digital Solutions is presented as a separate segment for the first time in the 2016/17 fiscal year.

01.2. Management system

The key financial performance indicators for the Voith Group are the development of sales and orders received as well as the profit from operations and return on capital employed (ROCE).

The profit from operations is calculated from ordinary business operations and is the balance of sales and costs plus operating interest income but before the financial result and income taxes.

The profit from operations is based on an operating earnings indicator derived from external financial reporting, i.e. the operational result before non-recurring items. The operating interest income and, where applicable, several other adjustment items are added to the latter to derive the profit from operations. Operating interest income comprises income received from the long-term financing of receivables from customers or attributable, as imputed interest effect, to that portion of customer advances that is not used to finance inventories and PoC receivables. Other adjustments include one-off effects which are shown as other operating income and expenses in the consolidated statement of income. In relation to ordinary business operations, however, these must be treated as non-recurring effects and the profit from operations is therefore adjusted for these amounts to provide a better basis for the internal control and assessment of business operations.

For more information on the calculation of ROCE, see the section **Notes on segment reporting** in the notes to the financial statements.

Capital employed designates the funds tied within the business with a view to generating sales. This essentially comprises property, plant and equipment and net working capital.

ROCE is calculated by bringing the profit from operations and capital employed into relation with each other.

Setting a performance indicator from the statement of income (profit from operations) in relation with an item based on the balance sheet (capital employed) is in compliance with generally accepted standards for holistic company management and with value-based management.

The indicators and reports submitted to the Corporate Board of Management of Voith GmbH & Co. KGaA as well as within the Group Divisions and the operating companies are based on these Group performance indicators.

01.3. Values, guidelines, compliance

Voith – Inspiring Technology for Generations

At Voith, we marry the culture of a family-owned business with that of a global player. For several years Voith was engaged in a comprehensive process of transformation which has impacted our portfolio of offerings, our organization and our culture. We consolidated the way we have come to see ourselves in a new corporate mission statement.

Our vision: Voith is the technology partner for industrial generations.

For us this implies: we create value for our customers, help them make a positive impact on societies in various regions of the world. Our customers' success over generations enables us to secure Voith's long-term independence and value-oriented development success. We want to be our customers' first choice based on our technical, cultural and personal familiarity with their markets.

Four principles help us to achieve our vision. These are described in our mission:

1. We earn customers' loyalty.
2. We combine global strength with local entrepreneurship.
3. We inspire the best in our people.
4. We strive for excellence in everything we do.

Our values define how we should behave: we are respectful and reliable, open and ambitious. Our values, and the guidelines derived from them, ensure that Voith acts according to the same philosophy worldwide.

We have summarized this mission statement in our new claim: "Inspiring Technology for Generations." This was launched worldwide on January 1, 2017 – at the beginning of the Company's 150th anniversary year.

The existing corporate design was also revised during the course of the year under review. Some of the colors used in the anniversary year will be adopted as part of the new corporate identity which will be presented to the public with this annual report in 2017/18. The new colors yellow, green, blue and magenta emphasize Voith's global orientation and symbolize the dynamic technological change which has determined the history of Voith and which will continue to be a determining element in the Company's future development. With the digitalization of our industries, we are currently in the midst of a process of transformation which will have a decisive impact on industry worldwide and on our Company.

Code of Conduct

Voith's Code of Conduct defines rules that govern dealings with customers and business partners as well as dealings between employees within the Company. We require each and every employee to comply with the applicable laws and our own internal guidelines (compliance). This applies to all levels of hierarchy throughout the Group. Infringements are met with sanctions. Rules and protocols are continuously updated according to the latest requirements.

The text of the Voith Code of Conduct is available on the Internet: **http://www.voith.com/corp-de/coc-english.pdf**

The main principles addressed by the Voith Code of Conduct are as follows:
- Compliance with the rules of fair competition
- No agreements that contravene competition law
- No corruption or bribery: no offering and granting or demanding and accepting of unfair benefits
- Transparency of donations and sponsorship
- Maintaining own and respecting third-party patents, intellectual property rights and Company secrets
- No undue preferential treatment of suppliers and service providers
- Respect for human rights, fair working conditions, and rejection of child and forced labor

Each employee is requested to report any suspicion of an infringement of Voith's Code of Conduct. This can be done in person by reporting to the immediate supervisor or the compliance officer or by e-mail, letter, telephone or fax to one of the help desks. We also follow up anonymous complaints using a global system for input from whistleblowers. The whistleblower system can also be used by people outside the Company to report infringements of any kind.

Compliance organization

The compliance program and related training measures are coordinated and refined by the Compliance Committee, whose chair reports directly to the CEO. This committee comprises the Head of Corporate Legal Affairs (chair), the Head of Corporate HR Management and the Head of Corporate Internal Audit. There are compliance officers in all units who are responsible for implementing the Code of Conduct in their field of competence.

However, it is the ultimate responsibility of each individual employee to act in accordance with our corporate values. In order to raise awareness of this, we ask our executives to act as role models and we also provide our employees with training. All Voith employees are required to take part in e-learning programs to ensure that their compliance knowledge is brought up to date every three years as a minimum. Employees without PC access are briefed by compliance officers or by their supervisors. In addition to the e-learning programs, executives at the top four levels as well as employees in sales and procurement also take part in classroom training covering important topics such as corruption, competition issues and export control. Compliance officers are required to undertake separate, in-depth training.

01.4. Group strategy

Four strategic pillars

At Voith, business success is defined as a long-term goal. As a family-owned company, Voith understood the importance of the sustainability mindset and of value-driven business long before these concepts became part of the economic debate. In the course of the Company's 150-year history, this approach has enabled Voith to overcome numerous obstacles, manage in turbulent times and to write industrial history. Voith's commercial strength is based on strategic basic principles which have been carefully built up over the decades:

1. Our diversified product portfolio which is based on megatrends
2. Our international footprint and local roots
3. Our innovative strength
4. Our financial independence as a family-owned company

Information about Voith's innovation activities is provided in section 05. **Research and development**.

Forging ahead with the digital agenda

On the bedrock of these strategic basic principles we took the decision in the 2014/15 fiscal year to make massive investments in the digital transformation of Voith over the next few years. Our objective is to play a major role in shaping the digitalization of industry. We are an established technology leader with extensive domain knowledge and a large portfolio of installed plant and products in the market. In combination with our digital expertise we believe this puts us in an excellent starting position.

As part of our digital agenda, we are pursuing three strategic directions: firstly, enhancing our existing product portfolio to include digital capabilities that offer customers extended functions and added value; secondly, developing new digital solutions for our established core markets; and thirdly, developing new applications and business models for markets not previously served by Voith.

The Voith Digital Solutions Group Division, which was founded in 2015/16, is at the heart of the Group's digital agenda. This is where Voith brings together its entire know-how in the fields of automation, IT, software, data analytics and sensor technology. Voith Digital Solutions thus acts as a digital enabler of established core activities while simultaneously developing fully new digital products and solutions.

We adopted a shift-and-lift approach when setting up Voith Digital Solutions to ensure the smooth transfer of business and customer relationships. Phase 1 (the shift phase) involved transferring the existing product portfolio and all automation and Industrie 4.0/Internet of Things R&D projects and employees to the new Group Division. The Group's in-house IT function was also completely integrated in Voith Digital Solutions. Phase 1 was finished on schedule during the year under review. The current phase 2 (the lift phase) is about leveraging in-house synergies in the product portfolio and the R&D projects and optimizing processes in the new Group Division. The objective is to lift our product and service portfolio to a new level which creates substantially added value for our customers.

Further information on the activities of Voith Digital Solutions during the year under review and on the Ray Sono acquisition can be found in **section 03.4.** of this management report.

We achieved important milestones for the implementation of a digital strategy during the year under review. The in-house transfer process (shift phase) was completed, structures were created and a fundamental enterprise resource planning (ERP) system was implemented. At the end of the year under review, Voith Digital Solutions had around 1,400 employees. At the same time, work proceeded on developing new digital products and solutions, the first of which, including the merQbiz digital marketplace for recovered paper, were launched during the year under review. The first larger acquisition has also been made with a majority holding in Ray Sono, a leading digital service provider in Germany. The new Group Division Voith Digital Solutions has thus fulfilled all the expectations of it in its first year of existence.

We regard Voith Digital Solutions as an important driver for the growth of the Voith Group. For this reason we will be consistently focusing investment of around €100 million in the new Group Division over the next two years. We can finance these investments from the cash flow generated by our traditional Group Divisions. We are also planning to purchase specific technologies and skills as well as to make investments in start-ups. For this purpose we now have sufficient financial resources and a substantially higher equity ratio, thanks in part to the successful sale of shares in KUKA Aktiengesellschaft.

The digital transformation affects the Voith Group – and not just Voith Digital Solutions – in numerous all-encompassing ways. It influences the processes in our own production and administration. Methods, such as design thinking and scrum, originating from digital and software projects, are also used in projects and development activities for hardware products. Digitalization modifies the demands made of our employees and calls for new training and human resource development approaches. It influences the way in which we work with each other and consequently also impacts the entire environment in which we work. Digitalization also changes the way we address and interact with customers and business partners, actual and potential employees, and many other stakeholders as well. The route we are taking is one of dynamic change. Voith Digital Solutions is helping the entire Group to accept and shape this dynamism.

Successful completion of the Group's reorganization

In the year under review we successfully completed the reorganization of the Group which began in autumn 2013 (Voith 150+ program). During the transformation process we put a lot of work into restructuring our product and service portfolio, increasing our efficiency by means of improved structures and processes, and reducing costs.

What are the main measures we have taken?

- We have fundamentally restructured the Group Division Voith Paper over several years to reflect changed market circumstances. The market for paper machines is experiencing a deep structural change and the importance of its product segments has shifted significantly. Voith Paper has managed the turnaround successfully. Thanks to a lower cost structure and adapted product portfolio Voith Paper is again doing well on the market.
- We have sold the Voith Industrial Services Group Division. The background to this was the fundamental strategic decision to focus the Voith Group on its technology and engineering competence for the digital age.
- In the other divisions, portfolios were subject to targeted streamlining. The measures taken included the merger, downsizing or closure of locations that failed to return the anticipated level of profitability.
- We have implemented a leaner, more centralized administration and implemented global business service units for accounting, human resources and procurement. This comprehensive restructuring of our indirect activities was completed back in the 2015/16 fiscal year, one year earlier than planned.

The implementation of Voith 150+ entailed a great deal of work and in some cases profound changes for our Company. We structured the job cuts arising from the transformation of the Group in a fair and responsible manner in dialog with employee representatives as required by the culture and values of our Company.

Our efforts paid off and Voith 150+ has produced significant improvements in our balance sheet and earnings power and has laid outstanding foundations for our future development.

What specific financial successes have we achieved?

We had announced that the program would, by the 2016/17 fiscal year, reduce our cost basis by €250 million in comparison to the 2012/13 fiscal year. In addition, we planned to release around €100 million of liquidity by reducing receivables and inventories in a targeted manner and thereby lowering working capital.

The program has enabled us to meet all our financial objectives, some of them earlier than announced. We have reduced our cost basis for the fiscal year by around €270 million in comparison to the 2012/13 fiscal year. Admittedly, the reduction in costs achieved did not bring about a one-to-one increase in results owing to counteracting effects such as higher personnel costs around the world, falling prices and excess capacities on our markets and capital expenditures for the setting up of Voith Digital Solutions that placed a burden on the earnings position. But without the restructuring measures and steps to enhance efficiency described, it would not have been possible for our operating business to generate a profit from operations well into the range of hundreds of millions of euros in the year under review. The situation with regard to our level of cash and cash equivalents is similar – without our proactive working capital management, it would have been some €100 million lower.

Voith ended the 2016/17 fiscal year strengthened with a much improved cost structure, a substantially higher equity ratio and robust net liquidity. This gives us the financial and commercial headroom for our future development.

Growth through excellence: Voith 150+ Next Level launched

Now that the Group transformation process is completed we will be concentrating on growth in the years ahead. A company that grows will be successful with its customers, will develop attractive product innovations, and offer its employees inspiring work. Shaping growth is a motivating and creative task. We aim to achieve this by leveraging our potential, and are also planning to add to our technology portfolio by means of targeted acquisitions.

We regard excellence in all areas as imperative for growth. We developed the Group-wide excellence program Voith 150+ Next Level to support our objectives. The official launch was August 1, 2017. In contrast to the previous program it focuses not only on optimizing structures and costs, but primarily on growth through excellence.

Voith 150+ Next Level consists of five modules: Operations Excellence (OPEX), Administration Excellence, Product Improvement & Engineering Excellence, Sales Excellence and Quality@Voith. The module contents are the outcome of a detailed analysis of current Voith products and processes which is specified in greater detail based on employee feedback from all regions. For this purpose we have also compared ourselves with other companies and wish to follow the best in our industry.

Each of the five modules is led by a manager with responsibility for this module and is sponsored by a member of the Corporate Board of Management. The modules support ongoing and new excellence initiatives and projects at the Group, Group Division and regional level. They do this by providing methods, tools, best practice examples and extensive training on product and process improvements.

Further information on our leadership concept can be found in section 07. **Employee**.

The five excellence modules are flanked by the ongoing development of our corporate culture. The ability to think and act independently at all levels of the Company is a critical determinant of best practice. We therefore intend to create an atmosphere where employees show self-initiative and articulate their own ideas, regardless of hierarchies; an atmosphere where they have the confidence to speak up as early as possible when they identify sources of error or see problems arising. We foster an error management culture where mistakes are regarded as opportunities for improvement. This demands dialog-oriented forms of leadership which establish a framework within which employees can actively shape improvement processes, innovation and change. All these aspects are emphasized in our new leadership concept, which defines the behavior expected by management, and are an important element of our management trainings.

01.5. Significant events

Change in legal form completed

On the recommendation of the Shareholders' Committee and Corporate Board of Management, the Voith Shareholders' Meeting resolved in July 2017 to convert the existing GmbH into a partnership limited by shares (Kommanditgesellschaft auf Aktien, KGaA). The change of legal form came into effect with its entry in the commercial register on August 1, 2017. The new corporate name is "Voith GmbH & Co. KGaA." The personally liable shareholder (general partner) of the partnership limited by shares is the newly formed Voith Management GmbH. The aim of this step is to expand Voith's ability to maneuver in the years ahead and support the Company's growth strategy in the wake of its digital transformation. The change has had no impact on cooperation with customers and business partners or on the Company's employees. The composition of the Supervisory Board and the Corporate Board of Management were also not affected by this change.

Changes on the Corporate Board of Management

After 13 successful years at Voith, Bertram Staudenmaier, Chairman of the Management Board of Voith Paper and member of the Corporate Board of Management Voith GmbH & Co. KGaA, decided not to extend his contract, which terminated at the end of the 2016/17 fiscal year. He was succeeded in June 2017 by Andreas Endters, whose appointment to replace Bertram Staudenmaier came into effect on October 1, 2017. Andreas Endters has more than 20 years' experience with Voith, 19 of which with Voith Paper. Most recently, he has been responsible since 2012 for the Projects business line (new machines and major rebuilds).

In September 2017, the Voith Management GmbH Shareholders' Committee appointed Stephan Schaller, currently a member of the Voith Shareholders' Committee and the Voith GmbH & Co. KGaA Supervisory Board and head of the global motorcycle division at BMW Group, to succeed long-standing President and CEO Dr. Hubert Lienhard. As planned, Dr. Lienhard, who has been in charge of the Group since 2008, will retire on March 31, 2018 upon completion of his second term in office. The change at the top of the Group will take place on April 1, 2018. Stephan Schaller brings with him many years of international experience in various sectors and industries outside Voith. A graduate in mechanical engineering, he has held many leading positions, including in two of the world's largest automotive companies. He has already been involved in all strategic developments of the Company in recent years in his role as member of the Shareholders' Committee and Supervisory Board.

Dr. Hubert Lienhard was also appointed to the Shareholders' Committee with effect from April 1, 2018. He will take the seat currently held by Stephan Schaller in this committee.

Number of members in the Supervisory Board to be reduced in line with the statutes

Following the successful sale of the Voith Industrial Services Group Division, the workforce based in Germany has fallen below 10,000. In accordance with the Company statutes and the requirements of the law, the number of members in the Supervisory Board will be reduced from 20 at present to 12 in the future. Nonetheless, the Supervisory Board will continue to have equal numbers of shareholder and employee representatives. This was announced on May 8, 2017 in the Bundesanzeiger (German Federal Gazette), and a new Supervisory Board must now be elected by no later than December 8, 2017. The new Supervisory Board will consist of six members elected by the shareholders' meeting and six members elected by the Company's employees.

02. Business development and earnings position of the Group

Voith looks back on a good fiscal year during which the Company grew perceptibly, as measured by orders received, and improved its operational earnings power. The three traditional Group Divisions achieved good profitability levels and increased their total profit from operations by 3% at practically stable levels of sales. Return on sales and ROCE also improved. The first visible progress was made on the digital transformation of the Group. The investments made in the setting up of the new Voith Digital Solutions Group Division were shouldered from current business. The Group reported record consolidated net income, largely influenced by the sale of its stake in KUKA.

02.1. Overall assessment

Operating activities improved, record net income achieved, investments made in the future

The 2016/17 fiscal year (October 1, 2016 to September 30, 2017) was a good year for Voith. The Company's operational earnings power has improved further, the balance sheet has been significantly strengthened and important alignments and visible progress have been made on the way towards the Group's digital transformation.

Voith's operating business developed successfully in a partially brighter market environment. The orders received by the Voith Group grew more than expected and perceptibly exceeded the figures for the previous year (+6%) with the Voith Paper Group Division standing out in particular (+24%). Group sales developed stably, as forecast, and were almost at the high level witnessed in the previous year. In terms of results, the three traditional Group Divisions benefited from efficiency gains made from the successful completion of the Voith 150+ program. As a result, the total profit from operations of Voith Hydro, Voith Paper and Voith Turbo rose by 3%. ROCE (return on capital employed) generated by core business improved from 15% in the previous year to 16%. There were only very minor currency effects in the year under review and these had no substantial influence on the development of Voith's key figures.

Total profit from operations in the Voith Group was, as expected, lower than in the previous year owing to forward-looking investments in the digital transformation of the Group. In this context, work on developing the new Voith Digital Solutions Group Division, which was established in April 2016, is proceeding apace and is beginning to bear fruit. With the market launch of the merQbiz trading platform for recovered paper Voith has started its first big lighthouse project and has also made an important acquisition in this field with its purchase of a majority share in the digital agency Ray Sono.

The Group net result was better than ever before in the Company's 150-year history: largely influenced by the sale of its stake in KUKA Aktiengesellschaft the net income amounted to €596 million (previous year: €29 million).

The Group's net assets and financial position is also significantly better. At the end of the year under review, Voith had an equity ratio of 27% and net liquidity of around €650 million.

02.2. Economic environment

Global economy gathering strength

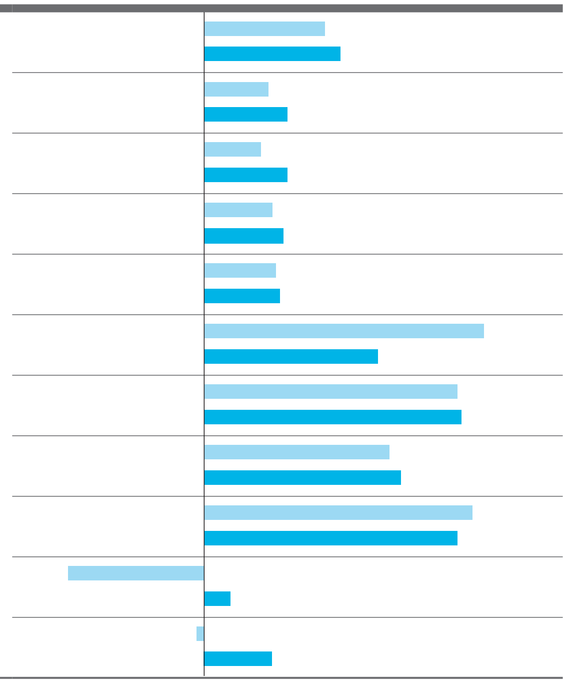
The global economy improved perceptibly in the 2016/17 fiscal year compared to the previous year. For example, in its latest October 2017 release the International Monetary Fund (IMF) has forecast robust global growth of 3.6% for the year 2017 compared with a rate of 3.2% in 2016.

The IMF forecasts a probable 2.2% rate of growth for the advanced economies in 2017 compared with 1.7% in the previous year. In this context, the euro zone has performed significantly better than anticipated thanks to surprisingly strong domestic demand, with the IMF forecasting growth of 2.1% for the euro zone in 2017. Only a year ago the forecast for the same period was just +1.5%. The economic projections for many euro zone countries, including the big four – Germany, France, Italy and Spain – were adjusted upwards in response to the positive development in the first half of the year. Robust growth is also anticipated in the USA.

Growth in emerging markets (IMF forecast: +4.6% in 2017, +4.3% in 2016) was, as has been consistently the case in recent years, again higher than in the advanced economies. At a projected rate of 6.8%, growth in China will again be above average in 2017, and in absolute figures China remains the growth driver for the global economy. The anticipated weakening of China's dynamism has failed to materialize for the time being and was countered in the short term by strongly expansive monetary and fiscal policies. Private and public debt have increased substantially as a result. India is growing at a similar fast pace to China, albeit at a lower absolute level. Although reforms are currently weakening the economy, they should inject positive momentum in the medium term. The ASEAN-5 countries are showing the dynamic development expected. Brazil is recovering only slowly from the recession of the past two years owing to the ongoing political crisis, unsolved structural problems and persistently lower commodity prices. Russia recovered appreciably in 2017 from the two-year recession provoked by the slide in the oil price and Western sanctions, and its economic output has risen significantly.

Economic growth
Real change in GDP on the previous year[1]

World output	2016	3.2%
	2017	**3.6%**
Advanced economies	2016	1.7%
	2017	**2.2%**
United States	2016	1.5%
	2017	**2.2%**
Euro area[2]	2016	1.8%
	2017	**2.1%**
Germany	2016	1.9%
	2017	**2.1%**
Emerging market and developing economies	2016	4.3%
	2017	**4.6%**
China	2016	6.7%
	2017	**6.8%**
ASEAN-5	2016	4.9%
	2017	**5.2%**
India	2016	7.1%
	2017	**6.7%**
Brazil	2016	-3.6%
	2017	**0.7%**
Russia	2016	-0.2%
	2017	**1.8%**



Source: International Monetary Fund; World Economic Outlook, Oct. 2017.
[1] 2016: estimates; 2017: forecasts.
[2] Including Germany.

Improved economic data have also influenced the investment climate positively in many industries and regions. For the first time in around five years, the German mechanical and plant engineering sector anticipates perceptible growth in 2017. Following the 2% fall in orders received in 2016, the relevant association for the mechanical engineering industry, VDMA, anticipates an increase of around 3% in 2017. Capacity utilization is also better than the long-term average for the industry.

Voith markets: investment climate somewhat brighter

The investment climate was somewhat brighter in the five target markets served by Voith. The paper market in particular was much more vigorous.

Energy: expansion of renewable energies continues apace

The energy market encompasses the conversion of various primary energy sources such as coal, gas, wind or hydropower into electricity and various forms of storage. This market is served by the Voith Hydro and Voith Turbo Group Divisions.

The global energy market is marked by two long-term trends: demand is shifting to the emerging markets, above all China and India, and supply is increasingly covered by low-emission, sustainable sources of energy, including in particular renewable energies. These long-term trends are overlaid by cyclical developments and short-term volatile swings.

According to the most recent figures available, electricity consumption and generation increased marginally in 2016, especially in the emerging markets, including in particular India and China. More than half of the new capacity installed worldwide is based on renewable energies. These renewable energy sources now account for some 30% of total existing electricity-generating capacity worldwide. More than half (54%) are hydropower facilities, followed by wind power (24%) and photovoltaics (15%). For the first time in years investment in renewable energy failed to rise in the 2016/17 fiscal year. This was due to a reduction in the number of projects, above all in China.

Contrary to expectations, delays led to significantly fewer contracts for hydropower plants being awarded in the 2016/17 fiscal year. This fall does not, however, represent a medium-term trend. We anticipate higher market volume once again next year. With pumped storage technology contributing to grid stability and supply reliability as renewable energies are being expanded, it is set to gain in further importance. This is particularly so in China where several pumped-storage power plants are being built and where several more projects are due to be awarded in the next five years. Investment in the market for conventional power plant technology, which is relevant for Voith Turbo, stabilized at a low level during the year under review.

Oil & gas: market environment dominated by low oil prices

The oil & gas market comprises three segments: upstream involving the extraction of crude oil and natural gas, midstream involving transport primarily via pipelines and tankers, and downstream consisting of the refining of crude oil and natural gas into the various fuels and raw materials used by the chemicals industry. The Voith Turbo Group Division provides user-specific products and services to all the segments of this market.

The oil price was higher in the 2016/17 fiscal year than in the previous year, but was still low compared to historical data. The price for a barrel of Brent oil was relatively stable, fluctuating between USD 43 (June 2017) and USD 59 (September 2017).

The gas price (Henry Hub) initially rose appreciably in late 2016 only to fall again in the course of the year under review. At around USD 3 at the end of the fiscal year in September 2017, it was only marginally higher than the previous-year level, but still 50% below the 2014 level, before the price started to fall.

Investment in the oil and gas market consequently remained at a low level. Market analysts project investment by globally integrated oil and gas companies again falling by around 8% in 2017. This would be equivalent to around a halving in corporate global investment since 2013.

Paper: significant upturn in the market for paper machines

The paper market comprises all aspects of the papermaking process, from preparation of recovered paper through to paper production, surface finishing through calendering and coating, and rewinding of paper reels. The Voith Paper Group Division serves this market for all paper grades – graphic papers such as newspaper and printing paper, board and packaging paper, tissue paper and specialty papers. Its range of offers includes new machines, rebuilds of entire production facilities, automation technology, partial rebuilds, services and spare parts, optimization products, roll covers and fabrics, preparation of primary (pulp) and secondary fiber (wastepaper) and water treatment facilities.

Global paper production rose in Voith's 2016/17 fiscal year, according to estimates by industry analysts at RISI, and is set to grow more dynamically in the years ahead. There is, in particular, growth potential for board and packaging paper for which demand is rising in all regions as global trade in goods and online shopping in particular expands in all regions. In this case, the highest growth rates are expected in Asia, followed by the regions of EMEA and North America. Consumption of tissue paper is also set to rise with the strongly growing middle class in Asia. Production of graphic paper will decline further in the years ahead, as demand has fallen with the digitalization of everyday life. Asia experienced by far the highest levels of growth in paper production in the year under review and is regarded as the driver for growth in the years ahead.

There has been significant upturn in the market for paper machines for both new machines and rebuilds, particularly for board and packaging paper as well as tissue paper. Business with new machines has picked up vigorously, particularly in China. Further impetus came from Europe. Demand for new machines remained subdued in South America owing to the ongoing economic and political crisis in Brazil. Demand for consumables and services has picked up as volumes of paper production have also risen substantially.

Raw materials: long-term decline in prices halted; investment remains low

We define raw materials as ores and minerals that are extracted from the earth, such as coal, copper and iron ore, as well as other geological materials such as sediments used in building. By contrast, the raw materials oil and gas are considered separately as part of the oil & gas market. The segments of the raw materials market that are of relevance for Voith are mining and the steel industry. Both are supplied by the Voith Turbo Group Division.

The market for raw materials had been in recession for several years as a result of excess capacities and dramatically falling prices. As a result, the volume of investment in the mining industry fell by more than half between 2013 and 2016. The fall in prices for important raw materials, such as iron ore, coal and copper, now appears to have stopped in the 2016/17 fiscal year. Nonetheless, although prices have risen slightly during the year under review, this was from a historically low level. According to market analysts, 2017 will be the first year in which investments have stabilized at their current low level. In the view of industry analysts, higher investments can be expected to be made in the mining sector in the medium term.

Global crude steel production expanded somewhat during the 2016/17 fiscal year. Growth was driven by China. All in all, global capacity utilization remains low. Steel prices are recovering in all regions.

Transport & automotive: growth overall moderate, but stable

The transport & automotive market includes diverse transport routes and the means of transport used on them for moving people and goods. The Voith Turbo Group Division serves this diverse market, supplying drive components and solutions as well as braking systems for the commercial vehicle industry, the railway industry and also the marine segment.

The market for heavy-duty trucks and buses continued to develop positively and exhibited modest growth overall in the year under review. There was a sharp rise in the number of registrations in Western Europe in 2016 and some growth is again expected in 2017. The Eastern European market as a whole grew at an above-average rate while the bus segment expanded appreciably. Following six years of growth in succession, the US truck market experienced a tangible cyclical decline in 2016. Demand is expected to remain stable at a high level until the end of 2017. In China, where around one third of all new heavy-duty commercial vehicles are sold, the market is expected to grow modestly in 2017 after a strong year in 2016. In Brazil, investments in infrastructure and new fleets remained at a low level following the end of the recession; a rapid recovery is not expected. We also see further market potential for commercial vehicles in the service field.

The rail sector, which is dominated by public sector investment in infrastructure, developed stably on the whole during the year under review. The global rail market is suffering from the persistent reluctance to engage in investments in China, particularly with regard to high-speed trains. Demand for metro systems and local public transport systems remains high in the context of urbanization in emerging markets, above all in China, India and the ASEAN countries. The EMEA region remains a stable core market with robust growth, despite the decline in investment in large-scale rail projects in the Middle East and Russia due to political instability and the fall in the price of oil. A process of international industry consolidation is underway among rail vehicle manufacturers.

In the marine market the tugs and ferry segment remains stable at a good level while demand in the market for new orders of tankers, cargo ships and offshore special ships has cooled off.

02.3. Sales

Sales almost unchanged compared to the previous-year level

In the 2016/17 fiscal year, Voith achieved Group sales of €4,223 million, almost unchanged compared to the high figure in the previous year (€4,252 million, -1%). The overall sales trend was stable and thus in line with our forecast (forecast in the 2016 annual report: "will match the level in the year under review").

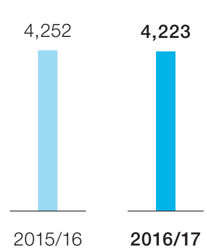
Sales developed differently in each Group Division, as expected. Voith Paper was able to increase its sales by 5%. Voith Hydro's sales (-1%) remained stable. However, Voith Turbo (-8%) saw a decline in sales, as announced.

Voith Paper made the largest contribution to the Voith Group's sales at 36% (previous year: 34%). Voith Hydro again contributed 33% and Voith Turbo 31% (previous year: 33%) of total sales. The contribution made by Voith Digital Solutions was less than 1% owing to the start-up situation of this new Group Division.

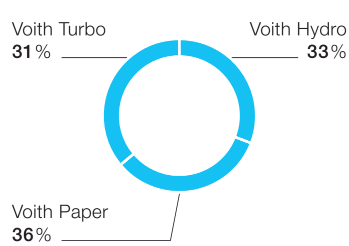
Detailed information on the development of sales in each Group Division can be found in section 03. **Business development and earnings position of the Group Divisions**.

The regional distribution of Group sales was as follows: the regions with the strongest sales were the Americas, Asia and Europe excluding Germany. The Americas contributed 28% (previous year: 27%) to the Group's sales, Asia 27% as in the previous year, the Europe excluding Germany region 26% (previous year: 28%) of total sales. A share of 13% (previous year: 12%) of the Group's sales was attributable to Germany. 6% of sales were again from other regions (in particular Africa and Australia).

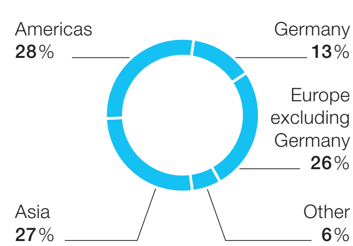
Sales Group
in € millions



Sales total €4,223 million
by Group Division



by region



02.4. Orders received

Orders received up by 6%

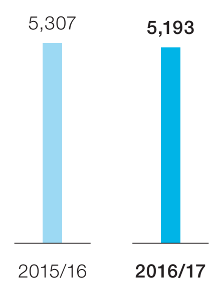
Orders received traced a pleasing upwards trend. In the 2016/17 fiscal year as a whole, the Voith Group secured new orders worth €4,368 million (previous year: €4,108 million). Voith has thus grown by 6% and exceeded its forecasts (forecast in the 2016 annual report: "slightly rising").

Detailed information on the orders received in each Group Division can be found in section 03. **Business development and earnings position of the Group Divisions**.

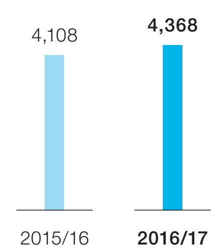
Our Group Division Voith Paper made an outstanding contribution to this good development, with orders up by 24% exceeding expectations. Voith Turbo also exceeded its forecast with an increase of 8%. Delays in the award of orders for large-scale hydropower projects meant that, contrary to expectations, orders received by Voith Hydro were below the previous year (-15%).

Voith Paper accounted for 42% (previous year: 36%) of orders received in the Group. Voith Turbo contributed a share of 31% (previous year: 30%) and Voith Hydro 27% (previous year: 34%).

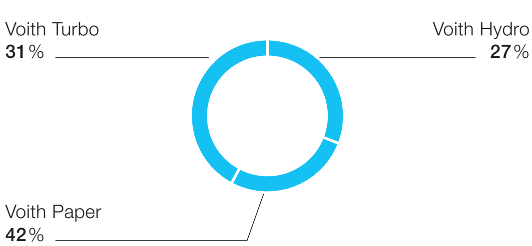
Orders on hand Group
in € millions



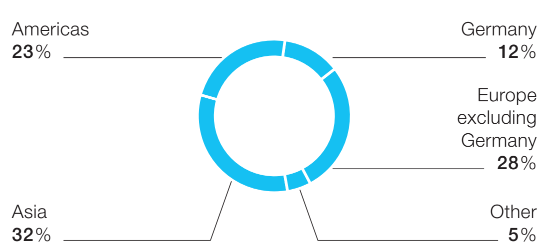
Orders received Group
in € millions



Orders received total €4,368 million
by Group Division



by region



With a share of 32% (previous year: 23%), Asia developed particularly strongly and was the most important region in the year under review in terms of orders received in the Group. The Europe excluding Germany region also achieved a perceptible boost to 28% of total orders (previous year: 26%). At 23%, the America's share was down on the previous year (32%). Germany's contribution amounted to 12% (previous year: 13%). All the other regions contributed 5% (previous year: 6%) of new business.

As at the end of the fiscal year, orders on hand in the Voith Group were worth €5,193 million (previous year: €5,307 million).

02.5. Results

Net result of €596 million decisively influenced by sale of shares in KUKA AG

The Voith Group reported net income in the 2016/17 fiscal year of €596 million. The sale of shares in KUKA Aktiengesellschaft played a decisive role in this record result. However, even without this effect it was possible to increase the net income above that of the previous year. Furthermore, the operating profitability of our core business was also improved. The profit from operations of the three traditional Group Divisions Voith Hydro, Voith Paper and Voith Turbo on aggregate increased by 3% compared to the previous year despite sales development remaining almost unchanged (-1%). Profit from operations in the Voith Group as a whole fell as anticipated owing to the planned start-up costs for the new Voith Digital Solutions Group Division (-12%).

Total output in the Voith Group was almost unchanged at €4,242 million (previous year: €4,252 million), and as such was almost on a par with the development of sales (-1%). Changes in inventories and other own work capitalized came to €18 million (previous year: €0). The total output of the traditional Group Divisions developed analogously to sales (Voith Hydro -1%, Voith Paper +5% and Voith Turbo -8%).

The cost of materials in the Voith Group rose to €1,843 million (previous year: €1,819 million, +1%). The ratio of costs of materials to total output rose slightly to 43.4% (previous year: 42.8%). This increase was due in particular to the greater share of the Group's total output accounted for by the material-intensive Group Division Voith Paper.

Personnel expenses amounted to €1,415 million (previous year: €1,401 million, +1%). The reduction in the employee headcount in the core business and the associated fall in personnel expenses was itself reduced by ongoing rises in personnel expenses, in part due also to the recruitment of better qualified employees for the Voith Digital Solutions Group Division. The ratio of personnel expenses to total output rose slightly to 33.4% (previous year: 33.0%).

Depreciation and amortization were approximately unchanged compared to the previous year at €130 million (previous year: €131 million, -1%). As a percentage of total output, depreciation and amortization remained unchanged at 3.1%.

The balance of other operating expenses and income was reduced to €641 million (previous year: €657 million, -3%). This is in part the result of lower warranty expenses for Voith Turbo than in the previous year. The ratio to total output improved to 15.1% (previous year: 15.4%).

Detailed information on the development of profit from operations and ROCE by Group Division can be found in **section 03.** of the management report.

The operational result before non-recurring items was €213 million (previous year: €244 million, -13%). The profit from operations, an indicator used for internal management purposes, came to €241 million (previous year: €275 million, -12%). The return on sales fell slightly to 5.7% (previous year: 6.5%) and ROCE (return on capital employed) to 11.5% (previous year: 12.9%). Profit from operations in the core business rose 3% to €304 million (previous year: €295 million) and the return on sales rose to 7.3% as a result (previous year: 7.0%). ROCE in the core business improved to 15.9% (previous year: 15.1%).

Further information on donations can be found in section 06. **Sustainability**.

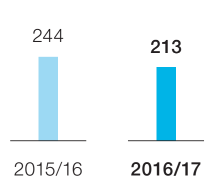
Further information on the non-recurring effects can be found in **note 07.** of the **notes to the consolidated financial statements**.

The non-recurring result stood at €-32 million (previous year: €-7 million). The non-recurring result for the period under review essentially comprises personnel-related and other expenses arising from measures designed to concentrate production capacities and enhance the competitiveness of Voith Hydro in Brazil, of Voith Paper in USA and Voith Turbo in Germany. Besides this, expenses arising from donor pledges amounting to €13 million are included here. In detail, the contributions to the non-recurring result in the period under review were as follows: Voith Hydro €-7 million (previous year: €+4 million), Voith Paper €-5 million (previous year: €-8 million), Voith Turbo €-6 million (previous year: €-5 million) and divisions with a holding function €-14 million (previous year: €+2 million).

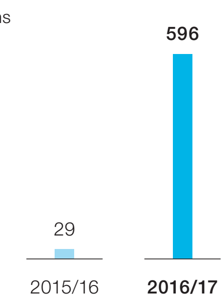
The gain from the disposal of associated companies of €563 million (previous year: €0) includes the effect on results of the sale in January 2017 of the Group's investment in KUKA Aktiengesellschaft.

The balance of interest expenses and interest income amounted to €-59 million (previous year: €-78 million, -24%). The improvement in the interest result was due to a fall in expenses of approximately €13 million arising from redemption of the bond and the partial repayment of the US private placement and of a further €7 million for lower interest expenses arising from pension obligations. Interest income from cash and cash equivalents and loan receivables also rose by €4 million. In contrast, expenditure arising from the measurement of financial liabilities from the repayment rights of holders of non-controlling interests went up by €6 million.

Operational result before non-recurring items
Group in € millions



Net result
Group in € millions



The other financial result amounted to €-10 million (previous year: €-29 million). This includes income from equity investments of €20 million (previous year: €7 million) and impairment losses on securities amounting to €-2 million (previous year: €-36 million). Furthermore, currency gains and losses on long-term financing positions and the measurement of the related hedge relationships are shown in the financial result in the year under review for the first time (balance of €-28 million, previous year: €0), in order to ensure a more accurate presentation of the profit from operations. In the previous year this resulted in an effect of €-3 million, which was reported in the profit from operations. The previous-year presentation has not been corrected due to immateriality.

Income taxes totaled €-82 million (previous year: €-51 million).

The net result from continued operations consequently amounted to €600 million (previous year: €89 million).

The net result from discontinued operations amounts to €-4 million (previous year: €-60 million). This shows the contribution to the Voith Group's profit made by Voith Industrial Services Group Division, which has been sold in the meantime. The amount arising in the year under review results from adjustments to the sale price and anticipated tax expenses arising from the sale.

Bottom line, the Group's net result comes to €596 million (previous year: €29 million).

03. Business development and earnings position of the Group Divisions

The operative Group Divisions have developed successfully. On aggregate, orders received were higher than in the previous year; Voith Paper performed exceptionally well with an increase of 24%. The profitability of the core business has again improved: in total, the three traditional Group Divisions have increased their profit from operations while sales remained virtually unchanged. Work on setting up Voith Digital Solutions is proceeding apace and on schedule. Investments in the new Group Division were covered entirely by current business.

03.1. Voith Hydro

Lower volume of projects awarded, increased profitability

The Voith Hydro Group Division looks back on a satisfactory 2016/17 fiscal year in which sales and profit from operations remained stable at a high level and profitability rose. Orders received were down compared to the previous year owing to delays in the award of hydropower projects.

Sales stable at high level

In the 2016/17 fiscal year, Voith Hydro reported sales of €1,381 million which, as anticipated, remained fairly stable at about the same level as in the previous year (€1,388 million, -1%). The regions with the strongest sales were North America and Asia, where we received a large volume of orders in previous years.

Fall in orders received owing to the market situation; market share nonetheless expanded

The volume of the hydropower market in the 2016/17 fiscal year contracted significantly compared to the previous year, and was below our expectations. In several major projects, the project award decision expected in the year under review was delayed because it took the customer longer to secure the necessary funds than originally anticipated. In contrast, the small hydro segment (plants with an output of up to 30 megawatts per unit) proved relatively stable, despite the fact that overall conditions for small hydropower plants remain difficult owing to insufficient funding and financing models in many countries. Demand for services rose during the year under review.

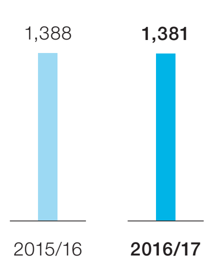
The drop in market volume was reflected by a fall in the orders received by Voith Hydro. This fall was due to large-scale projects, in particular. In contrast, Voith Hydro succeeded in increasing the orders received for its service business. Overall, Voith Hydro received new orders in the year under review worth €1,180 million (previous year: €1,387 million, -15%). We have participated appropriately in the market and have managed to expand our market share. Based on assumed stable market development we had, however, predicted around about the same high figure of orders received as last year. There were €2,976 million worth of orders on hand on September 30, 2017 (previous year: €3,315 million).

Two of the orders we received in the large hydro segment were for the large-scale delivery of pumped storage power plants in China. We will be supplying two 350-megawatt units for the Chang Long Shan power plant and six 300-megawatt units for the Liao Qing Yuan power plant. Asia continues to be one of the most important sales markets, with Southeast Asia in particular growing in importance alongside China and Japan. We won a major project in Laos for the extension and modernization of a hydropower plant built in the 1960s. The project is funded by a Japanese development aid fund.

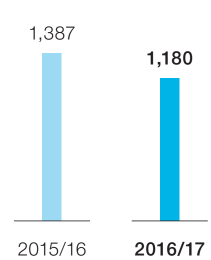
After two years of recession, the first signs of recovery are becoming evident in the important Brazilian hydropower market. Voith Hydro was awarded contracts for two modernization projects in the year under review: China Three Gorges Brazil, the new operator of the Ilha Solteira and Jupiá hydropower plants in the State of São Paulo, has commissioned Voith with the work on the first phase of a comprehensive modernization project. We also acquired several orders for synchronous condensers to provide grid stability. However, the ongoing economic and political crisis in Brazil continues to depress demand for new large machines.

Voith Hydro won several modernization projects in the large hydro segment in North America, such as Bridge River in Canada and Raccoon Mountain in the USA. We also won the contract for the modernization of a pumped storage power plant in Bad Creek, USA. Overall, the established hydropower market in North America did not develop quite as strongly in the year under review as it did in the previous year, because the award of several large projects was postponed until the coming fiscal year.

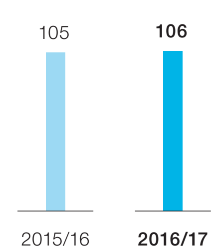
Sales Voith Hydro
in € millions



Orders received Voith Hydro
in € millions



Profit from operations Voith Hydro
in € millions



In Europe, where the market continues to stagnate owing to current energy policies, existing excess capacities and low energy prices, Voith also received several modernization contracts. These include two comprehensive modernization contracts for upgrading control systems at Norway's Tonstad and Solhom hydropower plants. We were awarded a contract for the modernization of the Ffestiniog pumped storage power plant in Wales, United Kingdom.

We also secured several small hydro contracts in Japan's important small hydropower market as well as contracts in Colombia, Austria, Kenya, Nepal, the USA and Canada. We were especially successful with our innovative StreamDiver technology for small hydropower plants, which we are now selling all around the world.

Voith Hydro's service business ("HyService") grew significantly to become an important mainstay for Voith Hydro.

Strategic cooperation agreed with CTG

In the year under review, we signed two strategic cooperation agreements – in addition to the Chang Long Shan contract – with China Three Gorges Corporation (CTG). One of the agreements strengthens strategic cooperation in promoting hydropower in Africa. Over the last 50 years, CTG has completed more than 300 projects in over 30 countries and regions, and is currently the dominant general contractor for the construction of hydropower plants on the African market. CTG is also active in South America, as well as China and Africa, and holds a major portfolio of hydropower plants in Brazil. The second agreement deals with cooperation on the modernization of these plants.

Increased profitability

Voith Hydro reported profit from operations in the year under review of €106 million (previous year: €105 million, +1%) and, as forecast, at the high level of the previous year. The return on sales rose to 7.7% (previous year: 7.6%). ROCE developed better than expected and increased to 21.8% (previous year: 21.3%), on the basis of a lower level of capital employed.

03.2. Voith Paper

Strong growth, profitability appreciably higher, turnaround completed

Voith Paper looks back on a good fiscal year. Voith Paper operated successfully and appreciably increased the level of orders received, exceeding its own expectations, in a much improved market environment. Profit from operations increased at a higher rate than sales as a result of the productivity increases and the effective restructuring measures taken in previous years, thereby significantly improving the return on sales and ROCE.

Sales increased

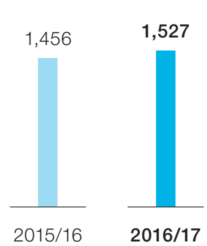
In the 2016/17 fiscal year, our Voith Paper Group Division generated sales worth €1,527 million (previous year: €1,456 million). Growth of 5% was in line with our forecast (forecast in the 2016 annual report: "slight growth").

Growth was driven by the significantly improved project business (new machines and major rebuilds). Sales also rose slightly in business with products, consumables and services. The region with the strongest sales was Europe (including Germany), followed by North and Latin America.

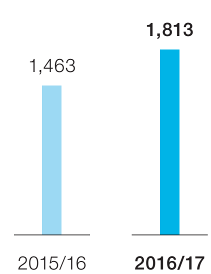
Orders received up by 24%

In the 2016/17 fiscal year, Voith Paper increased the level of orders received by 24% to €1,813 million (previous year: €1,463 million). This means that – for the first time since the structural and cyclical dip in the market in the 2012/13 fiscal year – Voith Paper has grown significantly. This pleasing development exceeded our own expectations (forecast in the 2016 annual report: "slight growth"). It is partly due to the successful focus of our development and sales activities on the growth segments of board and packaging paper as well as tissue paper, and partly to strong growth from the award of several large projects in the year under review. Alongside outstanding project business, we also recorded a slight growth in the business with products, consumables and services as a result of the modest increase in paper production.

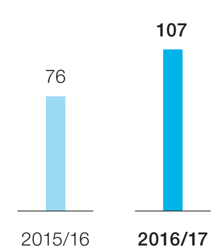
Sales Voith Paper
in € millions



Orders received Voith Paper
in € millions



Profit from operations Voith Paper
in € millions



As at the end of the fiscal year on September 30, 2017, Voith Paper's orders on hand improved to €1,228 million (September 30, 2016: €988 million).

Information about XcelLine can be found in section 05. **Research and development**.

Total production of all paper grades increased slightly in the paper market; this growth is set to cover all regions in 2017. The production of graphic paper continues to decline as projected, while the board and packaging paper and tissue segments continue to report growth in all regions. Papermakers again made substantial investments in new machines in the year under review. We achieved good sales successes in a perceptibly improved market environment with our new XcelLine paper machine generation. Four major contracts, each for a volume well into the hundreds of millions of euros, made a decisive contribution to the high level of orders received.

In Asia, papermakers invested heavily in the modernization of existing machines. This was partly due to the increase in paper prices and tougher environmental regulations in China. Investment focused on machines for the manufacture of board, packaging paper and tissue. With regard to orders received Voith participated appropriately in the development of this region where it also secured three major orders from leading Chinese papermakers for production lines for folding box board and testliner for the production of corrugated board.

Demand has also developed positively in Europe, where the earnings position of many manufacturers is good, particularly for machines for tissue, board and packaging paper. Voith won a major contract from Sweden for the production of one of the largest board machines for liquid packaging board. The Company also won a rebuild order from Germany and two orders for the delivery of new tissue machines to manufacturers in Spain and Portugal.

Demand was extremely low in South America. There was strong demand for tissue machines in North America.

Voith wins award as best machine clothing supplier

In December 2016, Voith won the Machine Clothing Supplier Award conferred by the international packaging and paper group Mondi. This award was established in 2013 to showcase the best performing business partner in the machine clothing sector, which plays a critical role in the paper production process.

Profit from operations up by 40%

In the 2016/17 fiscal year, Voith Paper increased its profit from operations by 40% to €107 million (previous year: €76 million) thereby exceeding its own expectations (forecast in the 2016 annual report: "noticeable rise"). This pleasing development reflects the cost savings and productivity increases achieved as a result of the restructuring. Bottom line, the return on sales improved to 7.0% (previous year: 5.3%). ROCE increased appreciably, as forecast in the 2016 annual report. It improved from 10.2% in the previous year to 14.9% in the year under review, largely owing to the higher profit from operations, but also on the basis of a lower level of capital employed.

03.3. Voith Turbo

Satisfactory business development, increase in orders received

Voith Turbo developed satisfactorily in the 2016/17 fiscal year in what remained a challenging market environment. As announced, sales and profit from operations have both fallen as a result of the fall in orders received in previous years. Nonetheless, the return on sales remained at a high level. With regard to orders received, Voith Turbo reported an increase again for the first time following a period of two years with declining orders received.

Sales below previous-year level due to market conditions

In the 2016/17 fiscal year, Voith Turbo generated sales of €1,283 million (previous year: €1,397 million). The decline in sales reflects the fall in orders received as a result of market conditions in the second half of the 2015/16 fiscal year, and at -8% was stronger than originally anticipated (forecast in the 2016 annual report: “a slight to considerable decrease”).

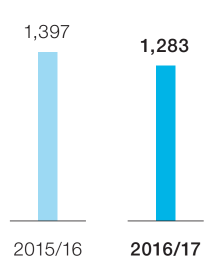
The Industry division saw a decline in sales after the trimming of investment budgets over several years by raw materials producers and oil companies in response to the difficult market environment. The Mobility division was also unable to match the exceptionally high level of sales achieved in the previous year. This was due to a decline in demand from the major Chinese rail vehicle market for high-speed trains and special vehicles.

More than half of sales in the past fiscal year were attributable to Europe (including Germany). The Asia-Pacific region accounted for almost one-quarter of sales.

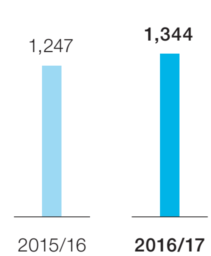
Orders received up by 8%

Voith Turbo received a perceptibly higher level of orders again for the first time since the 2013/14 fiscal year. In the year under review Voith Turbo received new orders worth €1,344 million (previous year: €1,247 million). With a plus of 8% we have more than met the forecast (“slight growth”) we made when the 2016 annual report was published. On, September 30, 2017, Voith Turbo had orders on hand worth €985 million (previous year: €1,004 million).

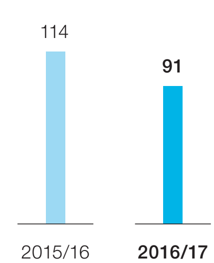
Sales Voith Turbo
in € millions



Orders received Voith Turbo
in € millions



Profit from operations Voith Turbo
in € millions



Both divisions contributed equally to the increase in orders received.

The markets which are relevant for the Industry division appear to have bottomed out. Oil and gas prices have stabilized at a low level; most raw materials prices have recovered somewhat after falling over a period of several years; nonetheless, confidence in sustained price rises is clearly weak. For this reason the investing activities of oil and gas corporations, and especially of mine operators, remained at a low level. The rising level of orders received by the Industry division is primarily the result of investments in maintenance; very few investments were made in additional production capacity in the year under review. The good level of orders received by Voith Turbo was supported by two major contracts from a power plant industry which is developing steadily, but no more than that.

The Mobility division continued to perform at a high level, and increased its orders received compared to the previous year. Positive developments were supported by good business in the commercial vehicle segment in particular. The rail market was marked by delays in the award of contracts and a high level of competitive intensity owing to the excess capacities of vehicle manufacturers and, all in all, developed steadily at best. Demand in the major Chinese rail vehicle market declined further. Marine operations, the smallest business unit in the Mobility division in terms of volume, increased its orders received, despite the collapse of the shipbuilding market, by operating successfully in niches such as the tugs and ferry segment.

Service business developed positively in both divisions. There is an increasing demand in the Industry division for maintenance services on account of the rise in the number of Vorecon variable-speed planetary gears installed. And in the Mobility division, overhauls of commercial and rail vehicles are due at a large number of operators.

Profit from operations lower, but still at high level

In the 2016/17 fiscal year, Voith Turbo achieved profit from operations of €91 million (previous year: €114 million, -20%). Profit from operations thus fulfilled our expectations (forecast in the 2016 annual report: “perceptible fall, at a higher rate than sales”) and remained high. As announced, the fall in profits was due to lower sales volume and a shift in the sales mix. On the other hand, the personnel and cost-savings measures initiated at an early stage have had a lasting impact which enabled results to reach the planned level, despite the decline in sales. The return on sales fell slightly to 7.1% (previous year: 8.1%). At 12.9% ROCE was, as forecast, perceptibly lower than last year (previous year: 15.8%) whilst remaining in double digits.

03.4. Voith Digital Solutions

Successful start, set-up on schedule

Voith Digital Solutions, the Group Division which was founded last year, is presented as a separate segment for the first time in this annual report.

Voith Digital Solutions pursues three strategic directions: firstly, enhancing Voith's existing product portfolio to include digital capabilities that offer customers extended functions and added value; secondly, developing new digital solutions for our established core markets; and thirdly, developing new applications and business models for markets not previously served by Voith.

Important milestones reached

We achieved defined milestones for the implementation of our digital strategy during the year under review. The internal process of transferring existing products and services, projects and teams from the three traditional Group Divisions to Voith Digital Solutions has now been completed. The Group's in-house IT service provider has also been fully integrated in Voith Digital Solutions.

Detailed explanations on the Voith Group's digital agenda can be found in section 01.4. **Group strategy**.

Expansion of digital product portfolio

Voith Digital Solutions has been working on expanding its portfolio of digital offerings. In March 2017, for example, Voith Digital Solutions launched merQbiz, the first digital marketplace for recovered paper, in the USA. merQbiz brings transparency to the strongly fragmented and heterogeneous North American market for recovered paper and enables buyers from pulp and paper mills as well as recycling businesses to conduct their transactions, including transport, securely. merQbiz has been very positively received by the market from the start. Around 6,000 tons of recovered paper had been traded via merQbiz by the end of the year under review.

In addition, Voith Digital Solutions is working together with the other traditional Group Divisions on numerous incubator projects. The first of these applications will have their market debuts in the 2017/18 fiscal year.

Majority holding acquired in leading digital service provider Ray Sono

Voith acquired a majority stake in Ray Sono AG in May 2017. Ray Sono is one of the leading digital service providers in Germany and serves well-known industrial companies and firms with end customer business. Ray Sono's expertise in the fields of design thinking, data processing and user experience are especially attractive for us. From the customer's perspective, good and intuitive user interfaces and the simple operation familiar from devices in private use are becoming increasingly important for industrial plant and machinery as well. The strategic partnership with Ray Sono has two aims: the joint development of industry-oriented digitalization solutions, above all in the Industrie 4.0/Internet of Things field, and the implementation of digital solutions within Voith's portfolio, such as the virtualization of machines and systems and the improvement of existing digital solutions with Ray Sono's support.

Further information on the acquisition of Ray Sono AG can be found in section 04.4. **Financial assets and investments**.

Sales and results reflect the start-up situation of Voith Digital Solutions

In the 2016/17 fiscal year, Voith Digital Solutions, as announced in advance, did not recognize any significant sales from start-up activities: merQbiz was only launched midway through the fiscal year. Other projects were still in the development phase. The sales made by Voith Digital Solutions presented in the segment reporting amounted to €13 million. Research and development accounted for the largest share of costs and were expended on merQbiz and other incubation projects. The bottom line profit from operations for the 2016/17 fiscal year amounted to €-43 million.

Beyond the business results posted in the Voith Digital Solutions segment, the new Group Division stands for further sales and profits for the Voith Group. This is because Voith Digital Solutions – as well as developing new digital products such as merQbiz – also provides the three established Group Divisions with support in enhancing their product portfolio in the field of automation solutions and digital offerings. The resulting sales – amounting in the year under review to €286 million – and profits are presented in the sales of the respective Group Divisions for the purposes of our segment reporting. In total, Voith Digital Solutions generated sales of €299 million for the Voith Group.

Digitalization will be future driver of growth

The business results reported by the Voith Digital Solutions Group Division are in line with our business planning and the forecast published in the 2017 six-monthly financial statements.

We regard the negative profit from operations planned for the first years of the Voith Digital Solutions Group Division as a conscious investment in the digital transformation of Voith, laying the basis for future growth.

04. Net assets and financial position

The financial position, in particular, improved during the year under review. Following the sale of the KUKA shares, Voith has a very good equity base and a thoroughly comfortable liquidity situation which provides scope for future growth.

04.1. Balance sheet

Significant rise in the equity ratio to 27.3%

We have strengthened the balance sheet significantly in the 2016/17 fiscal year. In comparison to September 30, 2016, total assets decreased by €361 million to €4,998 million (previous year: €5,359 million, -7%). Two events had a significant impact on the balance sheet. First, the stake in KUKA Aktiengesellschaft was sold. This increased the cash and cash equivalents and short-term securities carried on the assets side of the balance sheet thanks to the inflow of cash whilst simultaneously reducing assets held for sale. On the liabilities side, equity was increased by the amount obtained for the sale. Second, we repaid the bond which matured in June 2017. This reduced current liabilities and cash and cash equivalents accordingly.

Non-current liabilities were reduced by €108 million to €1,948 million (previous year: €2,056 million, -5%). This reduction was primarily the result of the sale of securities. This position fell by €73 million to €12 million (-86%).

In total, current assets were reduced by €253 million to €3,050 million (previous year: €3,303 million, -8%). The changes in the balance sheet items result primarily from the sale of the stake in KUKA Aktiengesellschaft. The cash inflow of €1,146 million was partly used for short-term deposits amounting to €560 million; this also largely explains the overall increase in short-term securities of €569 million. Cash and cash equivalents also rose as a result by €586 million. The redemption of the bond reduced cash and cash equivalents by €600 million. In total, cash and cash equivalents were reduced by €68 million to €582 million. Furthermore, within current assets the receivables from customer-specific contracts have declined; these include long-term contracts which are presented in accordance with the percentage-of-completion method (fall of €103 million, including Voith Hydro with a reduction of €122 million and Voith Paper with an increase of €19 million).

Non-current liabilities were reduced by €140 million to €1,637 million (previous year: €1,777 million, -8%). This effect chiefly originates from the reduction in pension provisions which fell by €106 million €747 million (previous year: €853 million), mainly due to the increase in discount rates in Germany, the USA and Canada. In addition, part of the US private placement and part of the syndicated loan placed in China were repaid ahead of schedule (€-59 million). In contrast, long-term financial liabilities increased by €46 million, mainly due to the recognition of liabilities arising from buy options.

Current liabilities were reduced by €788 million to €1,995 million (previous year: €2,783 million, -28%). The reduction was mainly due to the redemption of the bond for €600 million in June 2017. Other current bank loans amounting to €60 million were also repaid. In addition, liabilities from customer-specific contracts fell by €73 million (of which Voith Hydro €-61 million and Voith Paper €-11 million). Other liabilities (€-121 million) were reduced primarily as a result of lower customer advances (€-126 million). In contrast there was an increase in other provisions (€+75 million), largely due to higher contract-related provisions (€+99 million), less lower provisions for restructuring and severance payments (€-14 million). Trade payables increased by €79 million.

The net balance of deferred tax assets and liabilities fell by €47 million, caused among other things by the tax effect on the measurement-related fall in pension provisions.

Equity rose to €1,366 million (previous year: €799 million, +71%). The decisive factor in this respect was the high level of consolidated net income. Measurement-related adjustments to pension provisions also had a positive effect. The equity ratio rose appreciably to 27.3% (previous year: 14.9%).

04.2. Liquidity

Net liquidity rises sharply

The financial position of the Voith Group improved significantly in the year under review. The cash flow from operating activities amounted to €135 million in the year under review (previous year: €58 million). The improvement since the previous year results in part from the appreciably lower increase in net working capital in the year under review (€+22 million, previous year: €+134 million).

The cash flow from investing activities of €551 million (previous year: €120 million) is in part the result of receipts and payments relating to the sale of shares in KUKA Aktiengesellschaft. As described in section 04.1. Balance sheet, part (€-560 million) of the total receipts (€1,146 million) were invested in securities (short-term deposits). Furthermore, receipts during the year under review relating to the sale of Voith Industrial Services amounting to €39 million were obtained following settlement of outstanding receivables and liabilities by the purchaser. In the previous year, €193 million were received for the sale of Voith Industrial Services. The purchase of Ray Sono AG resulted in the year under review in a payment of €41 million, and the sale of shares in SGL Carbon resulted in an inflow of €61 million. Net receipts and payments of €-84 million were received and made for property, plant and equipment and intangible assets (previous year: €-106 million).

The cash flow from financing activities of €-743 million (previous year: €+25 million). As described in section 04.1. Balance sheet, we made substantial reductions in borrowed capital in the year under review, mainly by repaying the bond for €600 million, redeeming part of the US Private Placements and by reducing liabilities due to banks. The cash flow from financing activities in the previous year mainly stemmed from the balance of new borrowed capital, in part from the successful placement of a note loan for €300 million and partly from the repayment of short-term bank loans.

Total cash flow in the year under review thus amounted to €-57 million (previous year: €203 million).

The net liquidity of the Voith Group has risen significantly. Net debt, measured as the difference between interest-bearing financial liabilities and liquid financial assets, amounted to €-648 million on September 30, 2017 (= net asset position). One year previously this figure was €-168 million (= net asset position). Net debt in the year under review reflects the total cash inflow resulting from the sale of KUKA shares. Last year's figures contained the carrying amount of these shares accounted for using the equity method amounting to €592 million. Voith is thus in an extremely comfortable position in terms of its liquidity.

The net debt indicator is not defined under International Financial Reporting Standards (IFRS) accounting policies, which means that its definition and calculation might diverge from practice in other companies. In contrast to the carrying amounts in the balance sheet, which are based on the effective interest method, the indicator is calculated by measuring financial liabilities at their higher nominal repayment amount.

Development of cash flow

in € millions	2016/17	2015/16
Cash flow from operating activities	135	58
Cash flow from investing activities	551	120
Cash flow from financing activities	-743	25
Total cash flow	**-57**	**203**

04.3. Capital spending

Approximately €100 million invested

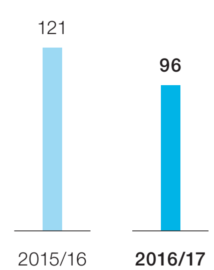
In the 2016/17 fiscal year, we invested a total of €96 million in property, plant and equipment and intangible assets. As a result, the volume of investment was lower than last year (previous year: €121 million, -20%) which was defined by two isolated high-volume investments. As a percentage of the Group's sales, our investment ratio came to 2.3% in the year under review (previous year: 2.8%).

Notable volumes of investments were made for the first time in property, plant and equipment and in intangible assets in the Voith Digital Solutions Group Division. We have not only invested in the development of digital products and services, but also in expanding our core business.

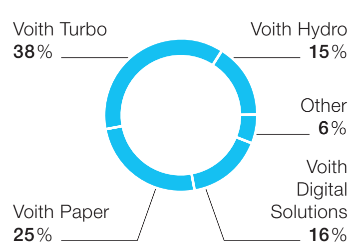
Investment focus on Germany

Half of our global capital spending (50%, previous year: 54%) was invested in Germany, where our largest locations are situated, and amounted to €48 million in the year under review (previous year: €65 million). We invested a total of €23 million in the Americas (previous year: €17 million) or 24% (previous year: 14%) of the total volume. For years, we have sustained a strong commitment in Asia, above all in China. In the 2016/17 fiscal year, we invested €19 million (previous year: €32 million) in this high growth region. That is 19% of our total investment spending in the year under review (previous year: 27%). Capital spending in Europe excluding Germany came to €6 million, as in the previous year. This corresponds to a share of 6% (previous year: 5%).

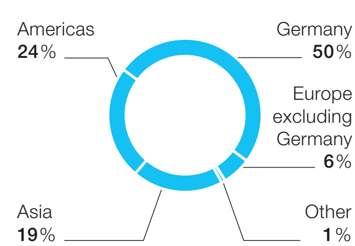
Investments Group
in € millions



Investments total €96 million
by Group Division



by region



Voith Hydro: practically stable investment volume

In the year under review, Voith Hydro invested €15 million in the capacities of its value chain, i.e. around the same amount as last year (previous year: €15 million, -4%). As a percentage of sales, this corresponds to an investment ratio of 1.0% (previous year: 1.1%). One of the investment priorities was to expand production capacity in North America and Asia.

Voith Paper: new production facility in Chile

At Voith Paper, capital expenditures amounted to €24 million (previous year: €30 million, -19%). The investment ratio was 1.6% (previous year: 2.0%). A large proportion of Voith Paper's investments were made in Europe (including Germany) and the Americas region. As well as improving our service footprint, we also invested in new facilities for the production of roll covers in Chile which opened in March 2017. By setting up production locally Voith has emphasized the importance it attaches to the region.

Voith Turbo: new production facility in Shanghai

In the 2016/17 fiscal year, the Voith Turbo Group Division invested a total of €36 million in property, plant and equipment and intangible assets (previous year: €46 million, -22%). This corresponds to an investment ratio of 2.8% (previous year: 3.3%). As well as Germany, Voith Turbo's investments were again focused primarily on the growing market of China. The commissioning in November 2016 of a production facility in Shanghai for the products of both the Mobility and Industry divisions completed an important investment project.

Voith Digital Solutions: investments in infrastructure and licenses

The Voith Digital Solutions Group Division invested €15 million in property, plant and equipment as well as intangible assets in the 2016/17 fiscal year, above all in IT infrastructure, software development and licenses. In line with its business model, Voith Digital Solutions invested very little in property, plant and equipment.

04.4. Financial assets and investments

Around €1.15 billion from sale of KUKA shares

As announced last year, we sold our 25.1% stake in the listed robot maker KUKA Aktiengesellschaft, Augsburg in January 2017 in response to a public takeover bid made by Chinese investors Midea Group Ltd. The transaction raised around €1,146 million in cash flow and positively impacted the Group's net results by €563 million. The investment proved extremely successful for the Voith Group which received roughly twice what it had paid for the shares in December 2014.

Majority holding acquired in leading digital service provider Ray Sono

On June 30, 2017, Voith acquired a 60% stake in Ray Sono AG, a leading digital provider in Germany. The strategic partnership has two aims: to develop industry-oriented digitalization solutions, above all in the fields of Internet of Things and Industrie 4.0, and to implement digital solutions within Voith's portfolio, such as the virtualization of machines and systems and the improvement of existing digital solutions with Ray Sono's support. At the time of its acquisition, Ray Sono had about 200 permanent employees and generated sales in 2016 of around €19 million with customers such as Austrian Airlines, BMW, BRITA, DATEV, Deutsche Bahn, Linde, MAN, McDonalds and Miles & More. Ray Sono has been integrated in the new Voith Digital Solutions Group Division.

All shares in SGL Carbon sold off

In the reporting period, Voith GmbH sold off all its shares in SGL Carbon SE. The sale generated cash inflow of €61 million.

05. Research and development

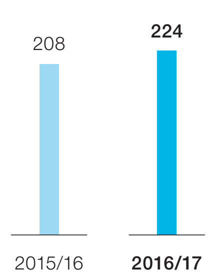
Research and development has traditionally played a central role at Voith. With several thousand active patents to its name and hundreds more new patents filed every year, Voith ranks as one of the world's innovative companies in the industries it serves. We spent €224 million on R&D activities in the year under review and our R&D ratio increased to 5.3%.

Increase in R&D spending

Voith's strong position on its markets and in its regions is largely based on the technological engineering competence it has built up as a result of decades of research and development work. Since the Company was founded, our engineers have been writing history with their inventions in the field of technology. The Voith Group has a strong intellectual property base: Voith currently has many thousands of active patents around the world, and hundreds more are registered each year.

Technological expertise and the ability to translate our know-how time and again into innovations with added value for our customers are the basis of our future business success. This is why we have always invested in research and development for new solutions, even in difficult economic times – around €1.1 billion in total over the past five years. In the 2016/17 fiscal year, the Group's R&D spending amounted to €224 million (previous year: €208 million, +8%). The increase in R&D spending in the Voith Group is ascribable to the new Voith Digital Solutions Group Division in which merQbiz and other

Research and development
in € millions



incubation projects have been developed. At 5.3 %, R&D spending as a percentage of the Group's sales was higher than in the previous year (previous year: 4.9 %). Of the total R&D spending of €224 million, €13 million was capitalized (previous year: €7 million). At the same time, amortization was recognized on capitalized development costs of €7 million was recognized (previous year: €7 million).

The majority of the Voith Group's research and development activities is performed by the Group Divisions. Cross-divisional development activities account for a small portion of our R&D expenditure.

Voith's research and development activities are internationally organized. The focus is on Germany, with centers in the rest of Europe, the Americas and Asia contributing valuable specialized R&D input in the relevant Group Divisions.

Aligned with global megatrends

One of Voith's objectives as a supplier to industry is to enable our customers to contribute to sustainable economic development. For this reason, the R&D strategy is systematically aligned with global megatrends and in particular with the infrastructure needs of the world's growth regions. Resource and energy efficiency, urbanization and mobility are not only the key challenges for the 21st century, they are also the central themes of our research and development strategy at Voith.

Further information on our digital strategy can be found in section 01.4. **Group strategy**.

In the years ahead we will also concentrate increasingly on consistently exploiting the opportunities offered by digitalization and connectivity to develop customer-oriented industrial solutions. Our aim is to create significant added value for our customers with our Industrie 4.0 offerings and to play a leading role in the digital transformation of mechanical and plant engineering. Voith Hydro, Voith Paper and Voith Turbo have in the past driven various projects in these areas, brought some of them to market maturity and already generated sales with some of them. In connection with the implementation of our digital strategy, all digital R&D projects have now been transferred to the new Voith Digital Solutions Group Division.

All Group Divisions again made substantial progress with their research and development work in the year under review.

Voith Hydro: major advances in pumped storage technology

Voith Hydro has completed a comprehensive development project for pumped storage technology which has been running for several years and which has made a decisive contribution to a milestone in hydropower. Europe's biggest variable-speed pumped storage plant, Frades II in Portugal, was commissioned in April 2017. The machine sets developed by Voith and installed in this plant are the most powerful and largest of their type in Europe. The central element of the system is a special asynchronous motor generator. Unlike a conventional synchronous machine, with a rotational speed firmly locked to the line frequency of 50 Hz, in the new doubly fed asynchronous generators the mechanical speed is not tied to line frequency and so can vary. The new system offers two advantages: on the one hand, the plant can respond faster and more flexibly to the active and reactive demand from the power grid. On the other, it offers additional stability in the event of a drop in voltage, reduces the likelihood of a power failure and enables a fast restart if a power outage does occur.

We have also set standards in other areas within the field of pumped storage technology. As part of our participation in the tendering process for the Chinese pumped storage power plant Chang Long Shan, we performed an R&D project in the previous fiscal years that played a key role in securing this major contract for us. In the process we have successfully developed machine sets which combine high power (357 megawatts) with high speed (600 revolutions per minute) within the smallest space. The machine developed by Voith not only offered higher hydraulic efficiency but also a smaller diameter and consequently better value for money compared to the machines offered by those of its competitors which also took part in the tendering process. In the next few years a large number of pumped storage projects which pose similar technical demands will be awarded in China. We are now well placed to participate.

Voith Paper: XcelLine, the new generation of paper machines, launched

Under the name “XcelLine,” Voith has improved and refined its paper machines for all paper grades. XcelLine stands for “Xcellent Performance”: The new generation of paper machines uses optimized individual components, combined with improved interfaces and process flows. This results in a significant reduction in project and start-up times. Voith XcelLine offers papermakers decisive advantages: fast and easy start-up, excellent value for money, pioneering technologies, ease of use and integrated solutions.

Voith Paper has also developed its range of services further and offers its individually tailored service packages under the “Servolution” name. A major feature of the concept is the close contact with customers, from the initial planning phase through the entire service life of the machine and beyond.

The Voith Paper Webshop enables our worldwide customers to purchase Voith products and services quickly and easily around the clock. Voith customers can also view at a glance all the information about their machine, from the original delivery to the order history and operating instructions, on the online platform.

One of the numerous product innovations launched on the market by Voith Paper in the 2016/17 fiscal year was the VForm. With the new VForm hydrofoils from Voith, papermakers can make decisive improvements to the quality of all paper grades already in the wire section. Unlike conventional dewatering systems the VForm allows the height and angle to be set for each individual hydrofoil.

We have enhanced the Voith BlueLine range with InfiltraDiscfilter and HiCon 2.0 technology. The patented innovative technology prevents the occurrence of critical areas in which the pulp thickens. This increases fiber yield and reduces water consumption. Voith BlueLine is a product line for stock preparation which keeps energy, water and fiber consumption as low as possible.

SkySoft is a new creping blade from Voith that ensures constant tissue quality. The specially developed ceramic tip of the SkySoft creping blade is highly wear-resistant, with the advantage of a longer lifetime and less machine downtime.

Voith Turbo: numerous new products in both divisions

At Voith Turbo, the strategic focus of R&D work included the development of digital innovations for Industrie 4.0 in collaboration with Voith Digital Solutions as well as adding electrical engineering and mechatronics to Voith Turbo's established core mechanics and hydrodynamics competences. We completed market launches for various new products in both divisions in the 2016/17 fiscal year.

In the Industry division, for example, we presented the VECO-Drive for the first time. The VECO-Drive is an innovative variable speed drive for compressors and pumps used to control speed. The VECO-Drive is an electric superimposing gear and is inspired by the established principle of the Voith Vorecon. The VECO-Drive combines a mechanical planetary gear with frequency-controlled low-voltage servo motors. The components are thus extraordinarily efficient, save energy and reduce operating expenditures. The VECO-Drive will be launched worldwide in the course of the forthcoming fiscal year.

The new Vorecon NX series, which we launched on the market last year, has been very well received in the market. Vorecon is a variable speed planetary gear used in all areas of the oil and gas industry's value chain. The Vorecon NX is the latest development of hydrodynamic power transmission in combination with a variable speed planetary gear. It is specifically designed for use in the lowest power range, such as in pipeline compressors, where it increases efficiency considerably. The new RWC variant was launched in the year under review. By decoupling the drive from the drive machine the Vorecon NX RWC enables the chain to be started in even difficult conditions. The RWC variant combines technologies which have been used by Voith in many areas for decades – Vorecon and rotor-turning gear units – in a new start solution.

We have developed new products and services for rail, road and marine uses in the Mobility division. For example, in the field of rail vehicle components we are working on the development of a new product variant of the Voith RailPack. Voith RailPacks are complete drive systems comprising the engine and transmission. RailPacks are available as diesel-mechanical, diesel-hydraulic and diesel-electric variants.

We are also working intensively on the development of the next generation of DIWA automatic transmissions for buses. In this context we presented an initial study at an international trade fair in Canada in May 2017. We will continue to work on the project in the coming year and the market launch is envisaged for the 2018/19 fiscal year.

We have added various SmartServices to our DIWA telemetry system. The DIWA SmartNet telemetry system offers bus operators a fast and easy overview of operationally relevant vehicle data as well as the possibility of optimizing their vehicle use. The version presented in October 2016 includes two new services: SmartAssist informs drivers about their driving behavior in real time, providing information on fuel consumption, tips for possible improvements, and it provides useful reports that can be retrieved at any time. SmartMaintenance provides constant and predictive fleet management transmission monitoring, thus enabling maintenance cost savings. These innovations are the outcome of cooperation between the Voith Turbo and Voith Digital Solutions Group Divisions.

Voith Digital Solutions: new digital offerings

Further information on merQbiz can be found in section 03.4. **Voith Digital Solutions**.

Voith Digital Solutions worked intensively on the development of new digital solutions during 2016/17. The first results of this work became apparent in March 2017 with the launch of merQbiz, the first digital marketplace for recovered paper in the world. We continued working on expanding merQbiz during the course of the year under review. For example, we are exploring methods of measuring the quality of recovered paper in order to provide the trading partners on merQbiz with reliable and comparable quality information about the traded goods. Other incubation projects are in development. The first of these are envisaged for launch in the 2017/18 fiscal year.

One focus of the R&D work undertaken by Voith Digital Solutions during the year under review was the development of an industry-independent platform which collects, links and analyzes data in a secure cloud. The platform provides customers from various industries with valuable knowledge about the status or performance of their machines or systems, and also shows where improvements can be made. The goal is to minimize the lost time for production facilities, reduce operating costs and ultimately extend equipment lifetime. The first tests with a pilot customer are planned for the 2017/18 fiscal year.

Voith Digital Solutions opened the Group's second high-tech digital campus in Raleigh, North Carolina, United States in August 2017. As well as this North American digital hub, Voith has also been running a high-tech digital campus for the EMEA region at its location in Heidenheim since 2016.

06. Sustainability

For us, sustainable business and the pursuit of corporate success go hand in hand. We aim to create measurable added value in the areas of economy, ecology and society and also make Voith the benchmark for our industries with regard to sustainability.

Sustainable business management

We continue the traditions and style of the family-owned company Voith based on our understanding of sustainability: the obligation to leave a minimum ecological footprint, to act fairly, and to return a profit over the long term. Our motto is for Voith to make a measurable contribution to sustainable development. We aim to make Voith the benchmark for sustainability in its industries.

The organization, responsibilities and the principles of our actions are embedded in the Group Directive on Sustainability. Six defined fields of action integrate sustainability management into the Group. These include sustainable business management, the pursuit of profitable growth, responsibility for products and supply chains, for the environment, for our employees and social responsibility. Information on the field of action regarding profitable growth can be found in sections 02, 03, 04, 09 and 10 of this management report. How Voith meets its responsibility to its employees is described in detail in section 07 of this management report. The other fields of action are described in this section.

Further information on pep. can be found in section 07. **Employees**.

The Voith Sustainability Report 2016 is available on the Internet at **http://www.voith.com/corp-de/Voith-sustainability-report-2016.pdf**, the fact base at **http://voith.com/corp-en/about-us/sustainability.html** and the brochure at **http://voith.com/corp-en/Voith-sustainability-brochure-2016.pdf**.

Voith began implementing sustainability management throughout the Group in 2008. Since 2009, Voith has recorded and analyzed all environmental data, materials indicators and relevant personnel data. Over several years, we have built up powerful IT systems to integrate this data across Group Divisions and regions and to use it as a basis to provide our sustainability experts and executives worldwide with highly standardized and automated processes for their day-to-day work. Since the 2014/15 fiscal year, we have been working with the integrated IT systems hse+ for occupational health and safety and environmental protection issues and pep. for human resources. Both systems are being successively expanded to include additional functions.

We have published an extensive sustainability report every year since 2011. The report for the 2015/16 fiscal year takes a new three-pronged approach to the diverse requirements of different target groups. The core of our sustainability communication remains the classic report. This is based on the authoritative international standards for sustainability reporting. The report itself is supplemented by more figures, data and facts which are collated on our website. These meet the requirements of the Global Reporting Initiative (GRI) and are primarily intended to be read by sustainability experts and

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Our most important stakeholders are Voith's owners and supervisory bodies, customers, employees, job candidates, suppliers and investors, the local population at the locations, business associations, public authorities and academia, and policy-makers.

specialists. Thirdly, we now also offer the "Sharing Values, Creating Value" brochure which is intended to provide potential employees and other interested persons an introduction to our commitment to sustainability.

In order to focus our sustainability management and reporting on the issues that matter most, we conduct stakeholder surveys at regular intervals that are fed into detailed materiality analyses. The results of the latest survey in the spring of 2016 and the materiality analysis based on it will be used to develop our sustainability strategy further. Our Advisory Board Sustainability, which is comprised of leading external sustainability experts, provides ongoing advice and further important input.

Responsibility for the environment

We have set ourselves the goal of steadily minimizing Voith's ecological footprint. We intend to create measurable economic added value for Voith by taking a responsible approach to the environment.

Our activities in the environment field are focused on two areas: firstly, operational environmental protection helps to avoid risk by complying with environmental regulations and minimizing the damage to the environment caused by our business operations; secondly, the efficient use of resources and energy provides opportunities for resource and energy-efficient production innovations at all our locations around the world.

Taking the 2011/12 fiscal year as the base, the Corporate Board of Management defined three key sales-related environmental targets for the six-year period between the 2011/12 and 2017/18 fiscal years:

1. Cut our energy consumption by 20%
2. Reduce our volume of waste by 25%
3. Lower freshwater consumption by 10%

We are currently on track to reach our targets but we must make further efforts to consistently pursue the course to achieve the reductions. We are currently formulating new targets with the experts on the Advisory Board. These will include a commitment to reaching a specific CO_2 target. To date, CO_2 emissions have only been addressed indirectly in relation to our energy target.

Our commitment to the environment has been recognized externally in a number of awards that we received over the past years. During the year under review, for example, we won the "100 Enterprises for Resource Efficiency" prize. This initiative was launched by the Technology and Innovation Centre for Environmental Technology and Resource Efficiency Baden-Württemberg. The official award ceremony took place in October 2017.

Responsibility for products and supply chains

We have set ourselves the standard of providing top-quality innovative products displaying a level of safety, reliability and efficiency that our customers can rely on. Our products and services should make a contribution to the conservation of resources and environmental protection throughout the entire value chain, from the manufacturing process through to their use.

A Group-wide management system for technical risks and quality (TRQM) is used to manage targets, processes and methods for the development and production phase. This is supplemented by policies specific to each Group Division. As part of a Group-wide operational excellence initiative, we are constantly optimizing the quality of our products and processes. Virtually all Voith locations have been certified under the international quality management standard ISO 9001.

Product ownership as we understand it involves close customer dialog based on mutual trust and specific surveys. Our customers' expectations are integrated in our product development, and we support our customers with special training offers and advice on the most economical operation of our products.

Our understanding of corporate responsibility also extends to our suppliers. The quantity and broad spectrum of procured goods and services make it a challenging task to ensure our supply chains are sustainable.

We have integrated social, ecological and economic aspects in our General Terms and Conditions of Purchase. Not only do our direct suppliers agree to comply with these General Terms and Conditions of Purchase, they also undertake to pass on these requirements to any subsuppliers. Furthermore, we request self-assessments from our suppliers and service providers on a regular basis and have the suppliers with the strongest sales evaluated by our staff in the departments responsible once a year. The results are stored in our central supplier management database. Long-term relationships of trust with our suppliers help us to minimize risks in the procurement process. In this context, we work with a preferred supplier and a blocked supplier concept. Social, ecological and economic aspects are included in both concepts.

In the future we will use a risk map, created in collaboration with ETH Zurich, which identifies the most significant economic, social and ecological risks in our supply chain, to derive needs-based strategies and concepts for our supplier management, self-assessment and supplier evaluation prioritizing Voith's key product groups and regions.

Social responsibility

We support local institutions and make a contribution to the development of society at all Voith locations around the world. The type and scope of our commitment as well as eligibility criteria have been documented in the Group Directive on Donations and Sponsorship since 2008. As part of our commitment to society, we support activities and organizations in the fields of education, social welfare, sports and culture. And, quite apart from all of the above, Voith takes action where it perceives an urgent humanitarian need.

On the occasion of its 150th anniversary, the Voith headquarters donated €12 million to the Baden-Württemberg Cooperative State University (DHBW) Heidenheim in spring 2017. This underlined Voith's commitment to education and the conviction that well-trained young people and a passion for innovation and research at the very highest level are necessary conditions for a successful future. In its anniversary year, Voith donated €1 million to the Hanns Voith Foundation. Alongside these large donations, Voith also supported 150 non-profit local initiatives during the year under review under the motto of "150 Good Causes." This project was special because Voith employees were able to get involved with and donate €1,000 to specific projects at their location. Voith also supported the Global Business Coalition for Education (GBC Education) and made a six-figure donation to help students in Tanzania develop their digital skills.

Voith is one of the initiators of the "Wir zusammen" (We Together) integration initiative of German industry launched in February 2016; this initiative is implementing a wide range of projects with the aim of pressing forward with the long-term integration of refugees in Germany. Voith's own involvement takes the form of mentoring in vocational training to make it easier for refugees to integrate into the labor market. As part of this mentoring program we offer additional support in the form of in-house German language courses and multicultural training to young people who complete a placement, initial qualification program or vocational training with Voith. A prerequisite is that the applicant has sufficient basic mathematical and natural science knowledge and adequate German language skills.

07. Employees

Qualified, motivated and dedicated employees are the foundation and motor of our success. We endeavor to offer our employees who meet our high demands challenging tasks, individual development opportunities and an attractive workplace. We take into account each of our employee's personal situations and enable them to pursue a wide range of different career options. At the close of the 2016/17 fiscal year, the Voith Group had around 19,000 employees.

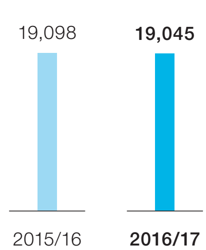
Headcount all but unchanged

After the number of employees in the Voith Group had been substantially reduced in previous years during the Group's transformation process, the number has remained almost unchanged in the year under review. As at September 30, 2017, the Voith Group had 19,045 employees (full-time equivalents excluding apprentices). Overall, this is 53 fewer jobs than one year previously (September 30, 2016: 19,098).

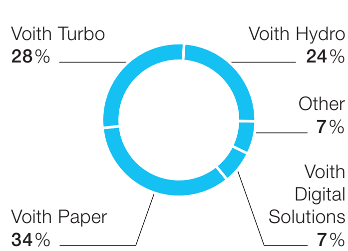
Job transfers to Voith Digital Solutions

Several hundred more jobs were again transferred from the three traditional Group Divisions to the new Group Division in the 2016/17 fiscal year in the process of establishing Voith Digital Solutions. Furthermore, the employees working at Ray Sono AG, in which a majority shareholding was acquired

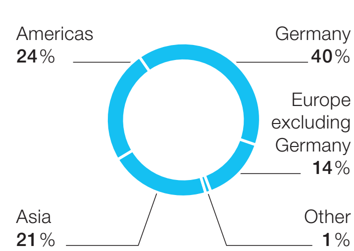
Employees Group



Employees total 19,045
by Group Division



by region



in the year under review, were consolidated in the Group for the first time and attributed to Voith Digital Solutions. At the end of the 2016/17 fiscal year, the Voith Digital Solutions Group Divisions had 1,397 employees (previous year: 654; +743 jobs). This corresponds to a share of 7% of the Group.

The number of employees in the three traditional Group Divisions fell as a result of the transfer of jobs.

The largest Group Division in terms of workforce continued to be Voith Paper, with 34% of the total number of employees (previous year: 34%). At the end of the year under review, Voith Paper had 6,449 employees, 101 fewer than last year (previous year: 6,550 employees).

Voith Turbo had 5,408 employees (previous year: 5,702) or 28% (previous year: 30%) of the Group's total workforce. The reduction by 294 jobs during the year under review resulted in part from planned capacity adjustments at particular locations and in part from the transfer of jobs to Voith Digital Solutions.

Voith Hydro had 4,507 employees (previous year: 4,934) or 24% (previous year: 26%) of the Group's total workforce. The number of employees working for Voith Hydro fell by 427, above all due to capacity adjustments in Brazil and to the transfer of jobs to Voith Digital Solutions.

The remaining jobs (1,284, previous year: 1,258) were for activities in the Composite division, the internal Administration and Service Center and divisions with the holding function. The slight rise in the number of these jobs was due to the continuing combination of internal service functions and basically involves the relocation of employees from the Group Divisions to the central functions.

40% of the workforce based in Germany

From a regional perspective, most of Voith's workforce continues to be based in Germany, with a share of 40% of the Group's total workforce (previous year: 39%). The Americas were still the second most important region with a 24% share (previous year: 26%). 21% of our workforce were employed in Asia (previous year: 20%). The Europe excluding Germany region accounted for 14% of the total workforce, as in the previous year. Employees working in other regions made up 1% of the workforce.

First-class professional training

In the year under review, we once again provided a large number of young people with career prospects and increased the number of apprenticeships by 10% compared to the previous year. At the close of the 2016/17 fiscal year, 953 apprentices and students were employed at Voith locations around the globe (previous year: 1,009[1]) .

[1] Previous year amount restated due to new method of calculation.

As a matter of tradition, we set great store by first-class vocational training. We place great value on interdisciplinary learning and a holistic approach to imparting a combination of both social and professional skills. The high quality of our training is repeatedly demonstrated in Germany by the excellent performance of Voith apprentices at state and federal level. In the 2016/17 fiscal year, 50% of our apprentices in Heidenheim received a final grade of 1.9 or higher (equivalent to good).

We are also committed to the topic of education at our international locations. The largest Voith training facility outside Germany is the Kunshan Training Center in China, opened in 2014. At that facility, we employ training methods based on the German dual system, enhanced with elements specific to Chinese culture. The fact that the dual system can be successfully put into long-term practice outside Germany is demonstrated by our experiences from Brazil. We have been training young people for many years now in São Paulo, Brazil, where Voith opened its first plant back in 1964 and where it has since been involved in a large number of the country's infrastructure projects. In cooperation with local training institutions, we have developed a training concept for a four-year apprenticeship program aimed at young people aged 15 years and older that regularly provides excellently qualified young technicians.

As part of the global graduate program we offer graduates from technical and business management disciplines demanding entry-level positions within the Company. We recruit participants from around the world who gain practical experience, attend training sessions, are supported by a mentor and work in different Group Divisions and regions.

Training for Industrie 4.0

The digital transformation is merging industrial processes with modern information and communication technology. This means that today's apprentices will be working in a completely changed production landscape in ten years time. We are looking very closely at training concepts for Industrie 4.0 which will enable us to provide young people with adequate preparation for the challenges of the future.

Voith launched two initiatives in the 2016/17 fiscal year, both of which focus on including digital contents within the curriculum of the dual system of training in the metal and electronics industry in Germany. The first step will entail Voith supporting the efforts already being made by the Federation of German Employers' Associations in the Metal and Electrical Engineering Industries (Gesamtmetall) and the VDMA to amend the training regulations which apply to the metal and electronics professions. This entails a form of facelift to bring training for the most important technical professions rapidly into line with state-of-the-art practices. Voith provides intensive expertise support for the process of producing new training regulations. Assuming that the procedure has been completed on schedule by the summer of 2018, every single apprentice in Germany who begins training from 2018/19 for a typical mechanical engineering profession, such as industrial mechanic, mechatronics engineer or cutting machine operator, will benefit from increased IT training content. The second long-term step will be the design and official recognition of an entirely new industrial trade. This is intended to be a hybrid occupation which will combine skills in mechanical engineering, electronics, automation, network technology and the Internet of Things. We have been in discussions with the Chamber of Industry and Commerce and other companies in our industry since the year under review; an official recognition procedure of this kind takes several years to complete. These two initiatives are examples of Voith living up to its ambition of being the training pacemaker and pioneer in Germany.

Quite apart from the institutionalization of training, Voith also uses the scope available within established trades to devise training plans which teach apprentices additional IT skills and advances the Company's digital transformation. These skills, such as additive production processes with the aid of 3D printers, using manufacturing execution systems (MES) or augmented reality, can be used in many different contexts. We have developed the necessary concepts and acquired the required equipment for this purpose during the year under review. From the 2017/18 fiscal year onwards the new digital work contents will be integrated in training for technical professions in Voith. Based on the model of our proven OpEx learning factories, we are now setting up learning in which Industrie 4.0 can be tried out.

Needs- and goal-oriented personnel development

Lifelong learning is a core topic at Voith. We support the ongoing development of our employees. Our objective: we always seek to have the right employee with the right qualifications and appropriate competencies at the right place in the Company. Our leadership concept, which includes numerous leadership tools, provides the operative framework for this purpose. The key elements are two formal meetings which are held with every employee once a year, the performance review and the employee appraisal. The outcome of these meetings is entered in our People Excellence Platform ("pep."), an IT-based personnel information system, together with the findings of the management review process so that development measures can be defined and implemented in line with the Company's needs and the requirements of any function or position to which an employee may aspire.

Based on our employees' individual training needs, we offer them access to internal and external training and personal development measures that foster professional, personal and methodology skill sets. Our executives also take part in standard development programs to create a common understanding of leadership in all Group Divisions and regions.

In the year under review, around 60,800 employees (previous year: around 42,500) from throughout the Group participated in our internal and external training measures.

Information about the Voith Group's strategic goals can be found in section 01.4. **Group strategy**.

We reorganized our personnel development during the year under review with the aim of supporting the strategic goals of the Voith Group. Digitalization will dramatically change the world of work. Innovations do not just arise from new technologies, they can also involve other ways of organizing work. New forms of collaboration and communication, stronger networking via teams, departments, national borders and hierarchical levels will shape the world of work in the future. In order to prepare our employees for the digital transformation, we are providing them with the fundamental digital knowledge they will need as well as additional specialized training tailored to meet requirements in each of the departments. We have therefore enriched our training and development programs with methodological knowledge, such as agile project management, scrum or design thinking. What is more, Voith's new leadership concept emphasizes aspects promoting the transformation of our corporate culture which forms part of the objectives of our Voith 150+ Next Level program. Our management training, for example, is designed to strengthen a dialog-oriented style of leadership and to promote independent thinking and acting at all levels of the Company as well as the courage to change and striving for excellence. The new programs for employees and executives were designed during the year under review and will be implemented in the 2017/18 fiscal year.

Occupational health and safety management

Occupational health and safety are top priorities for us. By taking a responsible approach to the design of workplaces and processes, we aim to avoid accidents and work-related illnesses as far as is possible.

Our occupational safety is based on an effective HSE organization (Health, Safety, Environment), which is structured as a shared service organization. A corresponding Group directive prescribes mandatory minimum requirements and standards for the Voith Group and contains in excess of 20 written standard operating procedures. All rules and regulations are available in the Group's hse+ IT system. All employees are covered by Voith's occupational safety program. Information and goals are rolled out through the organization, from the Board of Management through the respective executives down to employee level. Supervisors train their staff and address safety issues at regular meetings. This process is supported by the use of training documents provided by management.

Since the implementation of our global occupational safety program, we have seen great improvements at all our locations. Voith is now a global leader in occupational safety in its industry. The frequency rate, calculated pursuant to an international standard and documenting the number of accidents per one million working hours, has been reduced dramatically from the baseline of 13.9, or 921 reportable accidents in the 2008/09 fiscal year. In the year under review, the number of accidents was 1.4 per one million working hours or a total of 50 accidents per year. In comparison: the average frequency rate for companies in the German Wood and Metal Trades Association is 24. Voith also achieved a significant improvement in what is known as the severity rate, which stood at 271 hours lost per one million working hours in the year under review. The fact that both the number and the severity of accidents have been reduced significantly is an important indicator of the effectiveness of our programs. We intend to maintain on a permanent basis what we have already achieved and constantly improve on it in the future. Our success has also been confirmed by external opinions – for example we achieved a top score of A+ for our accident rate in the oekom research rating. We aim to involve employees more closely in our activities in the future. The eVAP occupational safety app (electronic Voith Awareness Program) launched in the year under review is an important step in this direction. The app can be used by employees locally to record matters quickly and simply and to send them to a central database.

In the field of occupational health and safety we place particular emphasis on prevention. This involves pursuing a regional approach appropriate to heterogeneous conditions. No matter where our employees work, they should be able to maintain their ability to work and retire in good health at the end of their working lives. In this regard, we concentrate on four fields of action: a safe working environment in line with demographic developments, health promotion and preventive health care, support in the event of sickness and combating stress as well as corporate culture and leadership.

Diversity and equal opportunity

Voith employs men and women who are at different stages of their lives, come from almost 90 nations, and bring their own individual experiences with them. As an employer, Voith sees it as its duty to offer all its employees equal opportunities and to ensure that the workplace is free from discrimination. Furthermore, studies have shown that diversity enriches the corporate culture, encourages team creativity and innovative drive, and contributes to the economic success of companies.

Since the 2012/13 fiscal year, Voith has been running a Diversity & Inclusion Program (D&I) to support diversity and equal opportunities. At Voith we understand “diversity” to be differences within our workforce or within individual organizational units with regard to five factors, namely: gender, age/generation, nationality/ethnic background, educational background/professional experience and individual differences such as beliefs or physical abilities. For us, “inclusion” means promoting a work culture of mutual respect that is open to differing ideas and perspectives. The overarching objective is to incorporate a wide range of insights, backgrounds and approaches into the solution of complex customer requirements.

The D&I program begins by gradually increasing employees’ awareness and moves on to initiating suitable measures and establishing an inclusive working environment at all locations. While the program is coordinated by our central HR function, the respective focus is defined by the regional and divisional management as the challenges faced differ from one region and Group Division to another.

In the 2016/17 fiscal year, our D&I program has noticeably picked up steam and executives and employees all around the world are now much more aware of this issue. A number of different workshops have been held in Group Divisions and regions, in various constellations: with executives from different hierarchical levels, D&I advocates and HR staff. Every workshop was attended by at least one member of the local top management. This illustrates that diversity and equal opportunities are important matters of concern to the Corporate Board of Management. A global internal communication campaign was also launched in the year under review, which is designed to reach our employees through various online and offline channels. The campaign relies heavily on dialog and the playful opportunities provided by social media to achieve a high level of emotional commitment from employees. We have also made progress with the operationalization of our D&I program. Regional D&I road maps have been implemented with measures and schedules, and a new manager toolkit describes specific instruments which can be used to strengthen diversity and equality of opportunity.

Although we at Voith have our eyes set firmly on all five dimensions, new legislation has recently put the gender dimension at the center of public debate in Germany. Women have been and continue to be under-represented in technical apprenticeships and in technical subjects at college and university level. As a result, technology companies, especially in the B2B field, generally employ significantly more men than women. This is one of the reasons why the proportion of women in Voith’s overall workforce stood at only 18% on September 30, 2017 (previous year: 17%; based on headcount).

Since we started addressing the topic of diversity and inclusion in a systematic manner, we have identified the need for action in this respect. Furthermore, the new German Act on Equal Participation of Women and Men in Management Positions (FührposGleichberG) obliges us to define and publish specific targets for the management holding company Voith GmbH & Co. KGaA (previously known as Voith GmbH until July 31, 2017).

We had set the following targets for the target date of June 30, 2017 which were published in the 2016 annual report.

Flashback
Proportion of women[1] in the management holding company Voith GmbH[2]

in %	Initial value on Sept. 30, 2015	Target rate for June 30, 2017	Actual figure on June 30, 2017
Supervisory Board	15	15	15
Board of Management (BM)	0	0	0
First management level below BM	21	25	18
Second management level below BM	18	20	13

[1] Based on headcount.
[2] Company name since August 1, 2017: Voith GmbH & Co. KGaA.

As previously announced, owing to ongoing contracts, the proportion of women in the Supervisory Board and the Corporate Board of Management has not changed. The aim of modestly increasing the proportion of women at the first two management levels has unfortunately not been achieved as vacancies could not be filled with appropriately qualified women.

Further information on the global evaluation procedure can be found below in section 07. **Employees** under the heading **Introduction of a global job grading system planned**.

We have set ourselves new goals for the years ahead. These are based on a new calculation. We have modified the definition of the first two management levels below the Board of Management, which are notifiable under the FührposGleichberG, to our new evaluation procedure which will come into effect from the 2017/18 fiscal year. The positions included in the calculation of the proportion of women at levels 1 and 2 have consequently changed. As a result, the figures for the starting date of June 30, 2017 and for the target date September 30, 2021 are not compatible with the targets and results published in the past.

Based on the figures for June 30, 2017 the following targets should be met by the end of the 2020/21 fiscal year:

Outlook
Proportion of women[1] in the management holding company Voith GmbH & Co. KGaA

in %	Initial value on June 30, 2017	Target rate for Sept. 30, 2021
Supervisory Board	15	15
First management level below BM[2]	25	25
Second management level below BM[2]	16	20

[1] Based on headcount.
[2] New definition.

Based on the new calculation method, we aim to achieve a consistent 25% of women at the first management level below the Corporate Board of Management by the target date of September 30, 2021. At the second level, the proportion of women should if possible increase from its present rate of 16% (on June 30, 2017) to 20% by the target date.

In order to achieve these targets, we have agreed on specific measures in addition to the D&I program that has been running for some time now. These measures relate primarily to the selection procedure used in the recruitment of new employees and the filling of internal vacancies. The decisive factors in the selection of suitable candidates will, however, remain the qualifications, performance and personality of the candidates concerned.

Bearing in mind the terms of existing contracts, there is no plan to alter the composition of the Supervisory Board. The transformation of Voith GmbH into a GmbH & Co. KGaA means that there is no longer any legal duty on the management body to set a specific target proportion.

Family and career

The work-life balance is one of the key factors in achieving an increase in the proportion of women in companies. Regardless of gender, most people consider a working environment to be attractive if it can be adapted flexibly to their respective situation in life. For this reason, we support our employees in combining family life with work. With this aim in mind we offer the greatest possible flexibility, i.e. in the form of a wide range of working time models, a combination of mobile working and presence at the Company, flexible work locations and vacation rules as well as sabbaticals.

We offer places at various childcare facilities for employees' children up to the age of ten at several of our locations in Germany. Various locations in Germany have their own parent-child office allowing our employees to bring their child with them to work when other childcare options fail at the last minute.

Employees in Germany can also obtain information by telephone or e-mail about issues such as caring for family members – an issue which, owing to demographic trends, is growing in importance for many employees. This service, and the arrangement of childminding, au-pair and other childcare services, is offered in cooperation with an external consultancy firm. Our employees can find additional practical information on childcare, nursing care and careers on our Germany-wide intranet platform.

First Group-wide employee survey performed

Further information about our new leadership concept can be found in this section of the management report under the heading **Needs- and goal-oriented personnel development** and in section 01.4. **Group strategy**.

We performed a global employee survey in 2017 for the first time with the aim of measuring the satisfaction of our employees and of identifying possible improvements. 14,500 employees from all four Group Divisions and the central functions took part in the anonymous survey; participation was high at 72%. The findings were evaluated during the year under review and presented to our executives and employees at the start of the new 2017/18 fiscal year. The valuable feedback we received from our employees will be used to develop specific ideas and measures. The findings will, for example, be integrated in our management development program which we have revised for the new fiscal year. Regular employee surveys are planned for the future.

Efficient processes and systems for human resources management

We have fundamentally revised our human resources structures and processes over a period of several years in the framework of Voith 150+. These are now supported by efficient IT systems.

The centralized organizational structure for human resources introduced in the 2015/16 fiscal year has proven to be successful. Based on the shared service system, four internationally distributed global business service centers with six service lines perform tasks for the regions, such as settlement, time management or HR administration with a uniform Company-wide service approach. The restructuring was an important precondition for the Group-wide standardization and automation of HR processes. During the year under review we have optimized and harmonized certain processes in the new structure and have set up simple ways of accessing HR services, such as by self-service, by phone, e-mail or our global ticketing system.

We have sought to establish integrated HR IT systems for several years. We have gradually built up our cloud-based modern personnel information system pep. (People Excellence Platform). The pep. system contains basic information, such as qualification and development information about all our employees worldwide. The organizational structure of all Voith business units is also mapped and transparency is created with regard to reporting lines and expert knowledge. This facilitates the creation of virtual teams which function across national borders and Group Division boundaries. The HRcockpit reporting tool associated with pep. provides our human resources experts and senior management with key figures at the press of a button. In this way, permanently up-to-date figures are available for each area of responsibility, for example average spans of control, fluctuation rates or the proportion of jobs which have been filled through internal succession plans. Smart analysis tools can be used to make comparisons with other business units. We aim to make these options available to more management levels in the new fiscal year. This will make pep. the central source of information for human resources: it will map all relevant HR processes and lay the groundwork for sound business decisions.

It has become apparent during the fiscal year that the savings which the centralization and pooling of activities were intended to achieve have, in fact, been made. What is more, IT-supported modernization and improvement of processes have also raised the quality of information available to employees and executives. In the future, we intend to exploit to an even greater extent the information base that has been greatly improved in terms of quantity and quality to be able to analyze complex factors and to create a basis for decision-making for future planning. Our medium-term objective is to identify human resources requirements in advance on the basis of job profiles as part of strategic personnel planning and to use the findings to derive measures such as training and development programs, recruitment initiatives or redeployments.

Introduction of a global job grading system planned

We have laid the foundations for a globally consistent job grading system for Voith during the year under review. While the value assigned to positions at Voith like in many medium-sized enterprises has, in the past, been derived primarily from reporting lines and spans of control, the new system will be based on criteria relating to factors such as responsibility, required expertise, experience and social skills. This means that the new system will not only reflect management careers, but will also do justice to the importance of specialist careers. The aim is to evaluate every position in the Group according to its relative value for the Company regardless of its hierarchical assignment. This system will be used in diverse HR processes, from job advertisements through to the planning of career paths and personnel development measures or the design of compensation and benefits systems. The new evaluation procedure system will be introduced throughout the Group in the 2017/18 fiscal year and will be successively integrated in the operative standard processes.

Excellent employer

The Voith employer brand enjoys an outstanding reputation. This is repeatedly confirmed by institutes on job portals and in employer rankings. We also won various other awards in the 2016/17 fiscal year.

For example, Voith won first place in the “top career opportunities” study of the mechanical and plant engineering industry published by Focus Money / Deutschland Test in November 2016. The study covers over 2,000 companies in 59 industries based in Germany. The evaluation covered aspects such as development opportunities, sustainability, innovative drive and employee commitment (as determined in company surveys) as well as the categories of leadership culture, sustainability and image (evaluated with the help of social listening tools). Voith is also a highly popular employer among talented young people and is frequently among the top 100 companies in Germany cited by young professionals and students in the engineering industry. As an example, Voith was ranked 55 by young engineering professionals and 74 by students in the annual ranking performed by the Swedish market research institute Universum. The Company's good performance among young graduates is confirmed by the trendence Graduate Barometer in which Voith is ranked 68 by engineering graduates. Voith has also repeatedly received seals of approval distinguishing the Company as a fair employer that offers its employees excellent training and development opportunities and promotes a work-life balance.

08. Subsequent events

There were no significant events after the end of the 2016/17 fiscal year.

09. Risks and opportunities

Entrepreneurial activity includes making decisions under conditions of uncertainty. Our risk management system allows us to identify and manage risks to protect the Company. There continue to be no risks to the Voith Group's ability to continue as a going concern. The most significant risks which could cause the results to deviate negatively from those forecast/targeted continue to be external. The risks are matched by opportunities that could have a positive influence on business development.

09.1. Risk and quality management

Aligned towards increasing the value of the Company

Entrepreneurial activity involves making decisions under conditions of uncertainty. Risk is therefore an integral part of entrepreneurial activity. To safeguard against risks that could jeopardize the Group and/or its companies as a going concern, Voith operates a consistent and binding Group-wide risk management system. Risks to the Group's ability to continue as a going concern are defined as aggregate risk potential that threatens more than 50% of equity or more than 10% of sales.

All the elements of risk management have been brought together in a risk management system. This is not only geared to compliance with legal requirements, it should also contribute to increasing the value of the Group and its companies by reducing potential risks and their probability of occurrence. At the same time, the system is intended to produce a state of equilibrium between correctly assessed risks and the exploitation of opportunities. Standardized risk controlling matrices on the basis of the Group-wide guideline governing internal control systems (ICS) have been implemented in the Group Divisions. The ICS is part of the risk management system aimed at ensuring the appropriateness and reliability of internal reporting and external financial reporting, the effectiveness, efficiency and propriety of ordinary business operations, as well as compliance with the Voith Code of Conduct and the guidelines of the Voith Group. Risk and quality management are interlinked and integrated in a comprehensive internal controlling system.

Decentralized nature of the risk management system

Voith distinguishes between two overarching risk groups with a total of six risk categories:

1. Risks to the Group
- External risks
- Management risks
- Liquidity and financial risks
- Infrastructure risks

2. Risks to performance
- Contractual risks
- Technical risks

Risk management at Voith is organized on a decentralized basis but is monitored and coordinated centrally. Responsibilities are clearly defined for the differentiated risk profiles at all levels of the Group.

The risk management process itself breaks down into four stages:

- Risk identification: Voith constantly monitors macroeconomic developments, developments in specific industries and internal business processes that could affect the situation of the Group. A risk catalog helps identify individual risks.
- Risk analysis and assessment: The risks identified in this way are assessed in terms of potential impact and their probability of occurrence. Wherever possible, the potential impact is quantified as a cost factor. In order to assess the potential risk the worst-case scenario and a realistic scenario are analyzed for each identified performance risk, and their impact on the financial situation of the Group is examined. This involves monthly reporting to the Group's management of those individual risks with a maximum impact of >€5 million or a realistic impact of >€2 million, including the measures taken to mitigate this risk such as existing insurance policies, recognized provisions or recorded depreciation.
- Risk management: Analysis and assessment of the identified risks gives Voith's management the data it needs to decide whether the risks should be avoided, reduced by suitable actions, transferred by signing appropriate agreements, or whether they have to be accepted and contained by means of optimized processes and controls.
- Risk monitoring and reporting: A multitiered set of controlling and reporting tools helps the Corporate Board of Management to analyze risks and make well-founded decisions.

09.2. Risks

In the sections that follow, we describe risks that could have a substantially negative effect on our net assets, financial position and earnings position and lead to failure to meet forecasts or targets. The order of the risks within the six risk categories presented below reflects how we currently estimate the importance of these risks for the Voith Group. Unless stated otherwise, the following risks relate to all the Group Divisions. Additional risks of which we are currently not aware or risks we currently estimate to be immaterial may also have a negative impact on our business activities.

09.2.1. Risks to the Group

External risks

Our economic environment is determined by global demand for capital goods. This demand is in turn influenced by the global macroeconomic environment. If economic developments were to fall substantially short of expectations, it is highly probable that this would have negative effects on Voith's net assets, financial position and earnings position. Economists see significant risks for projected global economic development.

A number of geopolitical trouble spots pose risks to the global economy. The conflict in northern Asia around North Korea is currently far more explosive than the one in the Middle East.

Uncertainty about the future direction of US economic and trade policy continues to affect export-oriented countries as well as the American and global economies as a whole. Restrictions in trade relationships between China, USA and Europe would have a substantially negative impact on global economic development. Protectionist tendencies are discernible all around the world.

Attention continues to be drawn to tensions between Europe and Turkey. There is a risk of trade being restricted in this part of the world, for example in the form of economic sanctions or the elimination of financing vehicles such as Hermes guarantees.

Due to the uncertainty about the terms and conditions of the United Kingdom's planned exit from the European Union, investments are currently being put on hold throughout Europe. The extent to which economic growth in Europe will weaken as a result of Brexit and what damage this will do to the global economy as a whole will depend on the duration and outcome of the Brexit negotiations.

A more medium-term risk for the world's economy is the as yet unresolved crisis in the euro zone. This is currently covered by the European Central Bank's expansive monetary policy. However, the high level of sovereign debt and the structural reforms urgently needed in several countries to increase international competitiveness continue to pose challenges.

Increased exchange rate volatility poses a further macroeconomic risk, albeit one which is less serious than the above-mentioned risks. On the one hand, more pronounced fluctuations in exchange rates lead to translation risks that make it more difficult to forecast our business performance. On the other hand, a rising exchange rate of the euro against key currencies, as we saw to some extent during the year under review, impairs the competitive position of our products on the global market and hampers exports to regions outside the euro zone.

Various market risks could have a negative impact on Voith's earnings position should they eventuate.

Two fundamental market risks are associated with the development of raw material prices, on the one hand, and the price of crude oil on the other. The dramatic fall in prices over a period of several years has had a strong negative effect on the earnings position of raw materials producers and oil groups in the past three fiscal years, noticeably decimating their investment spending. Both markets now appear to have bottomed out with regard to investments. Our planning for the 2017/18 fiscal year is based on the assumption that both markets will stabilize. If, however, prices were to remain as low as they are now for a long period of time, our customers would postpone their investments further. This could jeopardize the achievement of our targets for the 2017/18 fiscal year and have a negative impact on the earnings position of our Voith Turbo Group Division with its Industry division in the following year.

Uncertainties regarding energy policies, to which Voith Turbo and Voith Hydro in particular will have to adjust, are affecting the power generation market worldwide. For Voith Hydro, stepped-up shale gas extraction could in the medium to long term lead to partial displacement of new investments and modernization of existing hydropower plants in North America, which would diminish this Group Division's earnings position.

The Voith Group has analyzed the scenarios described above. The Corporate Board of Management is ready to take decisive action should economic conditions change.

Management risks

Further information on our digital agenda can be found in section 01.4. **Group strategy**.

Voith has set itself the aim of playing a major role in digitizing the industry and will make substantial investments in the key competencies for the megatrend of Industrie 4.0 over the next few years, both within the Company and through acquisitions. The new Group Division Voith Digital Solutions is intended not only to develop new digital solutions for our traditional core markets, but also to open up customer industries not covered by us to date for new applications and business models. As is always the case with such major transformation processes, there is the general risk of the strategic changes not being implemented within the planned time period or not leading to the desired outcome. Should the investments and start-up costs for the new Group Division not be covered by corresponding sales in the medium term, this would have a negative effect on the earnings position, net assets and financial position of the Voith Group and limit headroom for further growth. We are very much aware of this risk as well as of the associated opportunities. Strict project controlling is in place. The enhancement of the Voith product portfolio with digital applications enjoys the utmost attention from the Corporate Board of Management.

Beyond the risk described above, there are currently no indications of specific risks arising from the Group's management, e.g. from the reporting system, the corporate image or a lack of coordination of business activities within the Group.

Liquidity and financial risks

The key objective of liquidity and financial management is to make sure at all times that the Company is able to continue as a going concern and to ensure the financial independence of the family-owned business. The liquidity reserves remain at a secure level to ensure that the Company is always in a position to meet its payment obligations.

Cash management is the task of the Group's treasury function as well as the related regional treasury and finance centers. The Group maintains cash pooling systems in Europe, China, India and North America, which it uses to concentrate its cash and cash equivalents as far as possible (where legally permissible) and lower interest expenses caused by external debt financing. Borrowings are generally taken out by Voith GmbH & Co. KGaA and provided to the Group companies when needed.

The Voith Group's diversified financing structure is designed to safeguard long-term stability. The syndicated euro loan arranged in 2011 and increased to €770 million in 2014 under an amend-and-extend agreement, was extended a second time for one year in August 2016 and now runs until 2021 with €715 million available in the final year of the agreement. The loan has not been drawn on and is available as a strategic liquidity reserve if needed, as are additional bilateral lines of credit available to us from banks. The syndicated loan placed in China in 2012 for CNY 2 billion will be available until May 2020; 42% of the loan had been used up by the balance sheet date. This facility secures the finance for future investments and for the operating business in the same currency as the operating business on the local market. These instruments will allow for long-term growth in a changing global market environment. Voith has given high priority to the availability of liquidity from existing loan agreements. Risks of termination are minimized by monitoring compliance with the terms and conditions of the respective contracts on an ongoing basis. As in previous years, all contractual terms and conditions were complied with in the 2016/17 fiscal year.

The Ba1 rating given by Moody's was confirmed in February 2017 with "outlook stable."

With regard to securities, the Group generally holds a few individual direct investments. Fluctuations in the value of these investments as a whole are recognized directly in equity. Price losses are recognized in profit or loss only if there is objective evidence of a prolonged or significant decline in the investment's fair value. The criterion of a prolonged decline is met if the decline lasts longer than 12 months. The decline is regarded as significant if the fair value of the investment falls more than 30% below its cost. It should be noted that all investment decisions are based on thorough analysis of fundamental data. Any open share price risks are analyzed continuously.

As a globally operating company, Voith remains exposed to the risk of fluctuating exchange rates, which could have a negative impact on the net assets, financial position and earnings position. To contain risks arising from cash flows in different currencies (mainly US dollars but also currencies from emerging markets such as China, Brazil or India), defined foreign currency management procedures are applied consistently throughout the Group. All Group companies are required to hedge foreign currency items when these occur. Revaluation of the euro against various other currencies could have negative effects on sales and net result due to currency translation of the financial statements prepared in foreign currency. This could further have an impact on our competitive position as competitors could benefit from cost advantages in weaker currencies. Moreover, interest rate risks are hedged using suitable instruments in order to maintain interest and financing security in the long term.

To hedge existing transactions such as future cash flows in different currencies or floating-rate financing, Voith uses a variety of derivative financial instruments, in particular forward exchange contracts to manage currency risks and interest rate swaps to manage interest rate risks. The instruments used and the hedging strategies are formally designated and documented at the inception of the hedge in line with the Company's risk management objective. The risks are constantly monitored and, if necessary, the hedging instruments are adjusted.

To guard against political and economic risks associated with goods and services provided by the Group Divisions, the Group buys commensurate insurance from government export credit insurance agencies, from the private-sector insurance market and from banks. The Group also maintains adequate cash reserves to cover all other operating risks.

Counterparty risks with financial partners are monitored constantly.

Adequate provisions have been recognized and contingent liabilities have been disclosed in the notes to cover the potential financial burden of tax risks. Neither Voith GmbH & Co. KGaA nor any of its Group companies are involved in any further current or foreseeable taxation proceedings that could have a material effect on their economic situation.

There are no indications of particular liquidity or financial risks. For more information, please refer to the notes to the consolidated financial statements. The related reporting as well as reporting on financial instruments (Sec. 315 (2) No. 1 German Commercial Code (HGB)) is provided there in the section "Other notes."

Infrastructure risks

In the area of infrastructure risks, Voith primarily identifies IT risks, human resources risks, compliance risks and environmental protection risks, against which the Company takes specific countermeasures. There are currently no indications of particular risks relating to the Group's infrastructure.

Our successful business activities are underpinned by state-of-the-art and secure information technology. This is why we have our own IT function, which was transferred to the Voith Digital Solutions Group Division in the year under review and ensures that reliable data processing services are provided from our own computer center. These experts manage the whole IT infrastructure for the Group and also maintain the specific application systems used by each Group Division. Our information security management is based on the international standard ISO/IEC 27001, and thus meets the most stringent standards. Our central computer center is certified under this standard. Our primary objective regarding the management of IT risks is to ensure the availability of our IT infrastructure and IT applications used. Outages of basic systems owing to technical faults, virus attack or force majeure would result in business processes being massively disrupted or coming to a complete standstill. In order to prevent such business interruptions, we have built redundancy capacity into the core systems of our IT landscape at two computer centers. At the application level, we address the risk of defective software in addition to the risk of outages. We ensure the reliability ("integrity") of applications with a strict quality management system, which involves new software versions and programs being subject to a multistep test and approval process before they are implemented. In order to maintain the confidentiality of our data, these are categorized according to predefined confidentiality levels. Depending on the level of confidentiality, we have IT tools of varying complexity such as encryption technology, which we use to securely store and transfer data. This also ensures that our intellectual property is protected as well as possible. In addition to these technical measures, we train and inform our employees about how to securely handle confidential data by means of e-learning programs and awareness campaigns.

Further information on our personnel information system can be found in section 07. **Employees**.

Highly qualified professionals and executives are key to our products, our image and ultimately to the success and growth of Voith. If we were unable to cover our qualitative and quantitative personnel needs over a longer period of time, this would call into question our ability to reach our corporate targets. For this reason, we strive to provide ongoing further training and to retain experienced employees at Voith as well as to remain an employer of choice for new, qualified candidates on the labor market. We compete with other international players and act with foresight in order to ensure we have a sufficient number of such employees. With a family-friendly human resources policy and flexible working hours, international career development prospects and performance-linked compensation systems as well as a broad spectrum of training and development programs, we offer an attractive work environment. We are also extending our Group-wide personnel information system in the direction of strategic personnel planning in order to identify requirements in advance and to take suitable measures to cover them.

Further information on compliance management in the Voith Group can be found in section 01.3. **Values, guidelines, compliance**.

At Voith, we base all our actions on trust and integrity. The guidelines and values defined by the Corporate Board of Management are summarized in the Voith Code of Conduct. This is equally binding for all Voith employees worldwide and provides clear-cut rules of behavior toward third parties such as business partners, competitors, political parties and government authorities. Compliance with these principles is monitored by the Group's Compliance Committee and the compliance officers in the Group Divisions and in each Group company. As part of a structured process covering all locations worldwide, compliance officers draw up a risk control matrix for their specific area of responsibility, which also includes potential corruption risks. The findings for all units are aggregated and form the basis for internal compliance reviews. We place great value on functioning compliance management, as issues ranging from non-compliant behavior through to illegal acts committed by employees can be damaging to our reputation and lead to sanctions, penalties and ultimately to a fall in earnings.

The business activities of an industrial company give rise to risks for people and the environment. For this reason, industrial safety as well as compliance with environmental legislation and corporate policies is a top priority for us. Such risks occurring could also result in production outages, claims for damages being filed and a loss of reputation. To avoid environmental and health risks, all production processes are subject to the Group directives on health, safety and environmental protection and on quality and risk management. Environmentally relevant data have been systematically recorded and analyzed since the 2009/10 fiscal year. Integrated management systems monitor compliance with these directives and ensure that both production and products consistently meet the same high quality and environmental standards. Environmental risks can thus be identified at an early stage and appropriate countermeasures initiated. Adequate provisions have been recognized for any residual risks.

09.2.2. Risks to performance

Contractual risks

Long-term contracts, especially for major projects, form a key component of our plant engineering business at the Voith Hydro and Voith Paper Group Divisions. Such contracts are associated with a host of risks and we attach great importance to managing these risks. For example, the profit margins generated by fixed-price contracts may deviate from the values originally calculated as a result of changes in costs or productivity during their term. Also possible are cost overruns or contractual penalties stemming from unexpected technical problems or unforeseeable developments at project locations. Several of our multiyear contracts also contain demanding timelines or provisions to ensure that legal requirements are observed. If not met, these requirements could lead to contractual penalties, claims for damages, payment refusals or contract terminations. Project management and controlling, as it has been implemented, continuously reviews whether the projects are indeed developing in line with the planning. Any deviations are addressed early on. Regular checks ensure that adequate provisions have been made to cover any legal risks throughout the Group such as risks relating to warranties, liability, contractual penalties, guarantees and the possibility of inadequate or incorrect price calculations. Liability and property insurance in line with standard industry practice is taken out to cover potential losses and/or liability risks. Appropriate provisions are recognized for special risks arising from existing contracts if these risks can be reliably quantified.

Technical risks

Technical risks relate to innovation-related risks, sourcing risks and sales risks due to decreasing customer satisfaction. There are currently no indications of any particular technical risks within the Voith Group.

Detailed information on the current focus areas of our R&D activities is provided in section 05. **Research and development**.

Innovation-related risks are a key risk area for a technology group like Voith. The future profitability of the Company hinges on its ability to develop marketable products and services and to use state-of-the-art production technologies and service processes. Our earnings position could be negatively impacted by investments in technology that does not work as planned or find the level of market acceptance expected. Voith invests large sums of money to further improve and refine existing technologies, and to research and develop new products, systems and services. With several thousand active patents to its name and hundreds more new patents filed every year, Voith ranks as one of the world's most innovative companies in the industries it serves.

Collaboration with suppliers on the global procurement markets involves three types of risk: supply outages, unforeseen cost increases and non-compliance with environmental and social standards. We have embedded effective measures to secure our supplies – supplier selection and order processing – in our processes. Moreover, a permanent Group-wide risk management process has been implemented to identify supply risks and the risk of insolvency among suppliers at an early stage. Our dual sourcing strategy prevents dependence on individual suppliers to the greatest possible extent. Back-up strategies are thus in place in case suppliers who provide core components for the Group's products and services should default. Moreover, in the 2016/17 fiscal year Voith once again used all the means at its disposal to contain the risks posed by cost increases by concluding fixed-price contracts. We have

Detailed information on sustainability in our supply chains can be found in section 06. **Sustainability**.

integrated environmental and social standards in our General Terms and Conditions of Purchase. We review compliance with these standards on the basis of voluntary disclosures made by our suppliers and by means of audits conducted on our suppliers' production materials.

Our customers' satisfaction is key to achieving sales success and maintaining or increasing our market share. In the medium to long term, a fall in customer satisfaction would have a negative impact on our earnings position. For this reason, we develop technologies for and in cooperation with our customers that help them get ahead. Maintaining long-term partnerships is a high priority for us. We are proud to have collaborated with many customers, suppliers and other business partners over generations – some of our relationships even go back over 100 years. We survey customer satisfaction in order to objectively assess and enhance our customer service.

As part of our regular internal reporting on performance risks we monitor the theoretical maximum risks associated with specific risk positions as well as the risks deemed to be realistic after careful assessment. Maximum risks are considered in the light of whether they constitute risks jeopardizing the Group's ability to continue as a going concern. There were no risks to the Group's ability to continue as a going concern at the reporting date. The risks which may be realistically expected are considered for profit planning purposes and in order to assess the need to recognize provisions in the balance sheet. In total, provisions and allowances amounting to €221 million (previous year: €273 million) were recognized in the balance sheet for significant performance risks (maximum risk: €338 million; previous year: €403 million).

09.2.3. Overall risk

To the best of our knowledge, there are no risks which, either individually or collectively, could jeopardize the ability of the Voith Group to continue as a going concern. The risk situation for Voith has not changed significantly compared to the previous year. Of all the risks facing the Voith Group, external risks could have the strongest negative impact on business development. We are convinced that, in light of our strong diversification, our financial strength and the instruments used to control risks, our Group is able to bear the risks associated with our business activities.

09.3. Opportunities

In addition to the systematic management of risks, it is also essential that we support our business performance by actively managing opportunities. The identification of opportunities and their strategic and financial assessment plays an important role in the strategy discussions the Corporate Board of Management holds regularly with those responsible for the operating units. The results of these meetings are incorporated into the Voith Group's strategic decisions as well as into the medium-term planning and the annual operative planning process.

In the following, we describe significant opportunities that could have a positive impact on our net assets, financial position and earnings position and lead to overachievement of forecasts or targets. The order of the opportunities presented below reflects how we currently estimate the importance of these opportunities for the Voith Group. Unless stated otherwise, the following opportunities relate to all the Group Divisions.

Growing service business from postponed spending on new equipment

In the recently rather subdued investment climate, spending on new equipment and machines was postponed in many industries. Owing to the extended service life of existing equipment, customers are increasingly tending to make more intensive use of our range of services, such as maintenance, performance-enhancing components and spare parts. A growing number of our long-lived plants, products and components installed around the world must also be regularly maintained to sustain their efficiency and reliability. This offers opportunities in all Group Divisions for our service activities, which might grow more strongly than currently anticipated.

Expansion of our portfolio with product innovations

For information on current product innovations, see section 05. **Research and development**.

We are constantly working on developing new technologies, products and solutions as well as improving existing ones. We again launched numerous new products on the market in all Group Divisions in the year under review. In the best-case scenario, this will not only allow us to secure our market position but also to generate sales and to win market shares that have not yet been integrated in our business plan, especially if innovations are recognized as value adding by our customers much faster than currently assumed. We gear our development activities toward global megatrends as well as to current technology trends and new industry-specific requirements, for example those that are regulatory in nature. In the years ahead we will be focusing on offerings and solutions for Industrie 4.0 in particular.

Opportunities associated with the global economy

Given the improved global economy, we currently expect a brighter investment climate in the 2017/18 fiscal year. If the economic environment in important sales regions proves to be better than currently assumed, this would probably have a positive impact on Voith's net assets, financial position and earnings position. Developments in Brazil will need to be monitored particularly closely in this respect. A solution to the political crisis there would be highly beneficial to this large Brazilian economy and to the economy of Latin America as a whole; infrastructure project contracts which have been planned but which are currently on hold would also finally be awarded. Economic developments which exceed current expectations would benefit all Group Divisions, albeit with different degrees of delay and in all cases from the second half of the 2017/18 fiscal year at the earliest.

Growth through acquisitions

As part of our digital agenda, we are working intensively on strengthening our portfolio of products and services in areas such as automation, IT, software, data analytics and sensor technology, and also by means of strategic acquisitions. Even in the short term, potential digital acquisitions offer opportunities for additional earnings not provided for in the business plan; in the mid-term they can help improve our position in certain markets or tap promising new customer industries for Voith. If we succeed in playing a major role in the digitalization of industry worldwide and positioning ourselves as a leading supplier, this would offer the opportunity of establishing a strong fourth mainstay with Voith Digital Solutions and a new, profitable source of earnings for the Voith Group.

New sales markets for existing products and services

As well as expanding our portfolio of offerings, we also evaluate market opportunities for our existing products and services in all of our Group Divisions in those regions where they have been under-represented to date or have no presence at all. We also seek to transfer our already successful products to new fields of application or sales areas. The resulting additional sales potential has not yet been integrated in our business plan.

09.4. Internal control and risk management system for the Group’s financial reporting process

Proper and reliable financial reporting

The key elements of the internal control and risk management system for the Group’s financial reporting process are described in the following. The aim of the accounting-related internal control and risk management system is to guarantee that accounts are prepared correctly and reliably and to ensure that consolidated and separate financial statements comply with the applicable regulations.

The following structures and processes have been implemented in the Group:

The Corporate Board of Management bears overall responsibility for the internal control and risk management system with regard to the Group’s financial reporting process. All levels of the Group (companies, Group Division head organizations, Voith GmbH & Co. KGaA as management holding company) are integrated through a strictly defined management and reporting organization.

Uniform recognition and measurement based on the regulations applicable for the Voith GmbH & Co. KGaA consolidated financial statements is ensured by Group accounting guidelines. Amendments to accounting rules are constantly adapted and communicated by Voith GmbH & Co. KGaA. The quality of the guidelines is ensured by an ongoing exchange between the departments responsible.

Accounting is organized on a decentralized basis but is monitored and coordinated centrally. Accounting entries are recorded in the separate financial statements of the subsidiaries of Voith GmbH & Co. KGaA. Risk control matrices have been developed at corporate headquarters for those line items that, from a Group perspective, are significant and exposed to an elevated risk of misstatement. These matrices must be applied by the subsidiaries when preparing their end-of-year financial reporting. These matrices present the significant accounting-related risks for the specified line items of the financial reporting and contain corresponding instructions on controlling activities, responsibilities and documentation duties. Among other elements, the controlling activities comprise analytical procedures as well as the practice of having significant and complex business transactions processed and controlled by different people. Complex accounting issues (e.g. financial instruments) are referred to corporate departments or external experts (e.g. relating to pensions). The activities and controls for these issues are also considered in the risk control matrices.

The consolidated financial statements are prepared by adding information to the separate financial statements of the subsidiaries to create standardized reporting packages which are then included in the consolidation system. Once the data has been fed into the consolidation system, it is subject to an automated plausibility check. If this returns an error message, this is immediately corrected by the individuals in charge of the subsidiaries concerned. The subsidiaries are supported by contact persons at headquarters for all accounting-related issues. After the data is finally approved, the respective management, or in isolated cases the representatives they appoint, issues a letter of representation confirming the completeness and accuracy of the reporting package in accordance with the relevant requirements and that the internal controls have been conducted and documented.

Group-wide reconciliation of balances takes place worldwide via an intranet-based platform. The various deadlines for the different parts of the reporting package are stipulated in the consolidation system and centrally monitored in the course of the preparation process. All consolidation activities are undertaken centrally at Voith GmbH & Co. KGaA. The entire consolidation process is supported by both systems-based and manual controls.

The proper functioning of the controls defined in the accounting-related internal control system is evaluated on a regular basis. If any weaknesses are identified, the system is adjusted accordingly by central accounting.

The quality of financial reporting is also ensured by reconciling planning calculations with the external reporting at all levels of the Company. System access controls based on authorization concepts as well as programmed plausibility checks in those IT systems used for the financial reporting ensure that processes are complete and accurate.

The internal audit department performs regular reviews of the proper functioning, correctness, reliability and efficiency of all internal control and risk management systems in the Voith Group independently of the individual processes. Suitable measures are promptly taken to remedy any gaps or weaknesses that may be identified.

Compliance with the rules of the accounting-related internal control system is tested by the external auditors on a sample basis in the course of their audit of the consolidated and separate financial statements. Any deficiencies or flaws that appear are recorded in a management letter along with suggested improvements.

10. Forecast report

In the 2017/18 fiscal year, our aim is to increase all the fundamental operative key figures in the Voith Group – orders received, sales, profit from operations, ROCE. We will be able to shoulder the start-up costs for the new Voith Digital Solutions Group Division from the current business of the three traditional Group Divisions. In the future we are going to strengthen our focus on growth. We will continue to invest in the digital transformation of the Group and in developing its core business. In view of its very good equity base and comfortable liquidity situation, Voith is optimally equipped to create a new phase of growth from its own resources.

10.1. Business environment

Positive short-term economic conditions

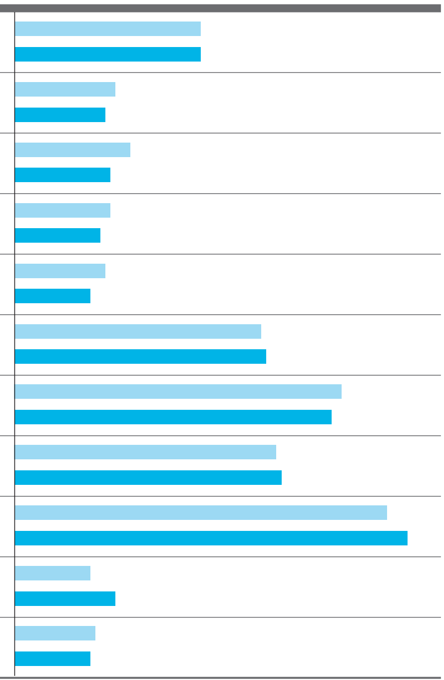
Economic analysts anticipate somewhat stronger worldwide economic growth over the next two years than during the year under review. For example, in its latest release the International Monetary Fund (IMF) has forecast global growth rates of 3.7% for the calendar years 2018 and 2019 compared with 3.6% in 2017. Even if these forecasts appear rather optimistic from our perspective, the short-term economic environment is certainly more favorable than it has been for many years. This is also apparent from the leading indicators of various purchasing manager indices (PMI). Since the summer of 2017, the PMIs for the sales regions which are relevant for Voith are all over 50 – which means that the signs point to growth everywhere.

For more information on the risks and opportunities for the global economy, see **sections 09.2.** and **09.3.** of this management report.

Nonetheless, the economic outlook is also subject to considerable geopolitical risks which, if they were to materialize, could produce a shock. It is also the case that short-term growth has been bought at a medium- to long-term price: years of extremely relaxed monetary policy have pushed conventional monetary policy to its limits in the industrialized countries. The necessary structural reforms have not been made and the burden of public debt in many countries, such as the euro zone, continues to be high. In China state-subsidized excess capacities and growing private and public debt also pose risks for the stability of financial markets and the real economy.

Economic growth
Real change in GDP on the previous year[1]

World output	2018	3.7%
	2019	3.7%
Advanced economies	2018	2.0%
	2019	1.8%
United States	2018	2.3%
	2019	1.9%
Euro area[2]	2018	1.9%
	2019	1.7%
Germany	2018	1.8%
	2019	1.5%
Emerging market and developing economies	2018	4.9%
	2019	5.0%
China	2018	6.5%
	2019	6.3%
ASEAN-5	2018	5.2%
	2019	5.3%
India	2018	7.4%
	2019	7.8%
Brazil	2018	1.5%
	2019	2.0%
Russia	2018	1.6%
	2019	1.5%



Source: International Monetary Fund; World Economic Outlook, Oct. 2017.
[1] Forecasts.
[2] Including Germany.

Emerging markets may develop somewhat better in the next two years than in the year under review. The IMF, for example, has forecast growth rates of between 4.9% and 5.0% for the emerging markets as a whole for the calendar years 2018 and 2019 compared with a rate of 4.6% in 2017. Despite its slightly slower pace of economic growth, China remains the growth driver for the global economy. This is based on the assumption that China will continue to pump cash into the economy and accept further debt growth in order to reach the targets in its five-year plan (raising gross domestic product by an annual 6.5% or more). In the next two years India will probably grow faster than China, and – assuming that the economic reforms which are currently being implemented are effective – will gain further momentum. Russia and Brazil are expected to continue recovering, although political uncertainties, weak domestic demand and the need for structural reforms all pose challenges in Brazil. We anticipate ongoing dynamic growth in Southeast Asia at rates above the average for all emerging markets.

Rates of growth in the advanced economies in the next two years are expected to fall slightly behind the growth achieved in 2017. The IMF anticipates ongoing robust growth in the USA over the next two years – despite prolonged uncertainty about the President's political agenda. The euro zone will probably grow moderately in the next two years, although a consistently strong euro could dampen growth prospects in export-oriented countries such as Germany.

Improved climate for investment in Voith's markets

The situation in most of Voith's five markets has improved.

As global energy needs continue to rise, electricity-generating capacities will be expanded further, focusing in particular on renewable energies. In the conventional sector, the strongest growth is expected in nuclear power generation. The generally positive outlook for hydropower will be hampered in the short and medium term by economic and political uncertainties that make it difficult to obtain financing for large projects. Demand for pumped storage technology is growing. The volume of projects awarded in hydropower markets will probably be higher in the 2017/18 fiscal year than the very low volume in the year under review.

The oil and gas market bottomed out in the year under review. Even though the oil price could manage to stabilize at just above USD 50 in 2018, as forecast by market analysts, we expect investment to remain subdued in the 2017/18 fiscal year.

Consumption of paper in the paper market – and thus also demand for consumables and services – is projected to rise slightly, although there will be huge differences between the various paper grades and regions. We expect a continuing upturn in demand for new machines and major rebuilds, although the market volume in the 2017/18 fiscal year will be lower than in the exceptionally strong year under review.

Although the decline in prices in the raw materials market has been stopped, investment will probably remain at rock bottom levels in the 2017/18 fiscal year. Low prices will continue to subject mine operators to cost pressures. We do not expect to see a significant rise in investment before the 2018/19 fiscal year.

We continue to be optimistic about the segments of the transport and automotive market which are most important for Voith. The commercial vehicles segment is expected to continue to grow significantly with impetus coming from the Asia region, in particular China and, in the EMEA region, Africa. We anticipate slight growth in the rail market with noticeable impetus coming from service business.

The forecast for our business development assumes that there will be no economic or political shocks that could tip the global economy into recession.

10.2. Future development of the Company

Focus on growth

Voith has successfully completed its Group transformation process and is entering the Industrie 4.0 age with strengthened operative earnings power and a substantially improved balance sheet structure. We continue to drive the digital transformation of our product and service portfolio forward and intend to play a major role in shaping the digital transformation of the mechanical and plant engineering industry. In the future, we will be focusing more strongly on growth. We are not only aiming for growth with our new Voith Digital Solutions Group Division, we also intend to increase the level of orders received, sales and profit from operations in our core business activities, in other words from the three traditional Group Divisions on aggregate, as early as the 2017/18 fiscal year.

Voith Hydro Group Division anticipates that, in the next few years, the hydropower market will again rise above the low level of the year under review. Voith Hydro intends to defend its market share in the years ahead and to boost its growth in specific areas. We anticipate an appreciable increase in the level of orders received in the 2017/18 fiscal year. Our planning is based on the assumption that the market volume will rise perceptibly above the low level in the year under review and that contracts for projects which were postponed in 2016/17 will be awarded. Sales are expected to remain stable in the 2017/18 fiscal year, despite the drop in orders received in the year under review. Profit from operations will also remain at much the same level as in the year under review. We are planning for a slight increase in our profitability indicator ROCE based on the high level already achieved.

In the Voith Paper Group Division, we expect to see a perceptible increase in sales in the 2017/18 fiscal year following the outstanding level of orders received in the year under review. Growth in sales will result from good service business alongside the fulfillment of existing contracts in the project business. Profit from operations will remain at a high level and will rise slightly above the level for the year under review. We anticipate a perceptible improvement in the profitability indicator ROCE as we are not only budgeting for better results but also wish to reduce the capital employed. With regard to the order situation, we expect the market to remain positive. Voith Paper will continue to receive far more orders in the 2017/18 fiscal year than it has in recent years, although it will not be able to replicate the high figures reported in the year under review which were the outcome of several major projects. For this reason our planning is based on perceptibly lower figures for orders received than in the 2016/17 fiscal year. We anticipate good business in Europe and Asia; in Brazil improvements are not expected in the short term.

The higher level of orders received by Voith Turbo in the year under review will have a positive impact on the sales figures in the 2017/18 fiscal year, which are expected to rise slightly. Nonetheless, we still assume that a changed sales mix will keep results stable. ROCE should be around the same as last year. The order situation has brightened up during the year under review. We expect orders received by Voith Turbo to grow slightly, and this to be generated by both divisions. We believe that service business in particular will produce stimulus for growth.

We expect a sharp percentage growth in sales for the new Voith Digital Solutions Group division, which is presented as a separate segment for the first time in this year under review. In view of the start-up situation, the sales figures shown for the Voith Digital Solutions segment will remain in the double-digit millions of euros. In addition, around €300 million of sales of digital products and solutions are expected to be generated by the traditional Group Divisions in collaboration with Voith Digital Solutions. Owing to the planned start-up costs, the profit from operations at Voith Digital Solutions will be in the negative double-digit million range, albeit somewhat lower than in the year under review, and will burden the Group's profit from operations accordingly. We regard the start-up costs, which we will fund from our profitable core business, as an investment in establishing a business which we intend to become an important engine of growth for the Voith Group in the years ahead.

Voith Group with profitable growth despite start-up costs for digital transformation

In the Voith Group, we expect to see a perceptible increase in sales in the 2017/18 fiscal year. Our sales projections are based on the high level of orders on hand as at September 30, 2017 and the slightly rising level of orders received in the new fiscal year. We also aim to grow our results. We plan for the profit from operations in our core business – i.e. the traditional Voith Hydro, Voith Paper and Voith Turbo Group Divisions on aggregate – to rise slightly. Our positive core business will enable us to shoulder the start-up costs for the new Voith Digital Solutions Group Division from current operations. Even taking into account these investments, we expect our operating result to develop positively: profit from operations of the Voith Group will rise slightly in the 2017/18 fiscal year. In this connection, it should also be possible to increase the profitability indicator ROCE slightly.

Forecasts are always subject to considerable uncertainty. A host of macroeconomic and industry-specific factors can influence, positively or negatively, the development of individual Group Divisions or the entire Group. For information on the significant risks and opportunities that could lead to a negative/positive forecast deviation, we refer to sections 09.2 and 09.3 of this management report. We will closely observe further developments as they occur and, where necessary, respond rapidly and decisively to changing conditions. Voith is a fundamentally healthy Company. Our robust financial constitution and reliable long-term access to capital provides us with the headroom we need to implement the decisions we regard to be expedient. The aim of the Corporate Board of Management is to keep the Company on a secure footing for the long term and to actively steer it through this challenging decade of the 21st century. Voith is excellently equipped to meet the challenges ahead: we have a portfolio that is fit for the future, sustainable customer relationships, an efficient organization and an outstanding workforce.

Consolidated Financial Statements

Consolidated statement of income

for the period from October 1, 2016 to September 30, 2017

in € thousands	Note	2016/17	2015/16
Sales	(1)	4,223,248	4,252,407
Changes in inventories and other own work capitalized	(2)	18,469	-443
Total output		**4,241,717**	**4,251,964**
Other operating income	(3)	400,918	387,782
Cost of materials	(4)	-1,842,819	-1,818,642
Personnel expenses	(5)	-1,415,408	-1,401,682
Depreciation and amortization		-129,588	-130,715
Other operating expenses	(6)	-1,042,001	-1,045,013
Operational result before non-recurring items		**212,819**	**243,694**
Non-recurring result	(7)	-32,167	-7,285
Operational result		**180,652**	**236,409**
Share of profit/loss from companies accounted for using the equity method		7,592	10,642
Gains/losses from the disposal of associated companies	(18)	562,575	0
Interest income		17,819	11,056
Interest expenses		-76,408	-88,740
Other financial result	(8)	-9,830	-29,271
Result before taxes from continuing operations		**682,400**	**140,096**
Income taxes	(9)	-82,306	-50,653
Net result from continuing operations		**600,094**	**89,443**
Net result from discontinued operations		**-4,351**	**-60,045**
Net result		**595,743**	**29,398**
Net result attributable to shareholders of the parent company		590,171	26,377
Net result attributable to holders of non-controlling interests		5,572	3,021

Consolidated statement of comprehensive income

for the period from October 1, 2016 to September 30, 2017

in € thousands	2016/17	2015/16
Net result	**595,743**	**29,398**
Components of other comprehensive income that will not be recycled through profit or loss in later accounting periods:		
Remeasurement of defined benefit plans	67,780	-135,984
Taxes on components of other comprehensive income that will not be recycled through profit or loss in later accounting periods	-21,043	38,168
Components of other comprehensive income that will be recycled through profit or loss in later accounting periods:		
Gains/losses on available-for-sale financial assets	-12,222	10,166
Gains/losses on cash flow hedges	2,375	-4,247
Gains/losses on currency translation	-32,619	6,805
Gains/losses on net investment in foreign operations	3	4,577
Taxes on components of other comprehensive income that will be recycled through profit or loss in later accounting periods	-681	1,198
Other comprehensive income	**3,593**	**-79,317**
Total comprehensive income	**599,336**	**-49,919**
Total comprehensive income attributable to shareholders of the parent company	597,833	-54,409
Total comprehensive income attributable to non-controlling interests	1,503	4,490
	599,336	**-49,919**

Consolidated balance sheet

as at September 30, 2017

Assets

in € thousands			2017-09-30	2016-09-30
A.	**Non-current assets**			
I.	Intangible assets	(10)	515,676	450,750
II.	Property, plant and equipment	(11)	978,459	1,040,677
III.	Investments accounted for using the equity method	(12)	32,006	15,307
IV.	Securities	(16)	11,734	84,859
V.	Other financial assets		105,954	109,584
VI.	Other financial receivables	(15)	89,411	88,631
VII.	Other assets	(15)	10,749	17,060
VIII.	Deferred tax assets	(9)	204,538	248,693
Total non-current assets			**1,948,527**	**2,055,561**
B.	**Current assets**			
I.	Inventories	(13)	547,825	567,233
II.	Trade receivables	(14)	713,899	690,632
III.	Receivables from customer-specific contracts	(14)	323,929	426,720
IV.	Securities	(16)	601,812	33,126
V.	Current income tax assets		52,263	54,688
VI.	Other financial receivables	(15)	101,289	172,480
VII.	Other assets	(15)	110,544	99,816
VIII.	Cash and cash equivalents	(17)	581,947	649,672
			3,033,508	**2,694,367**
IX.	Assets held for sale	(18)	15,845	609,365
Total current assets			**3,049,353**	**3,303,732**
Total assets			**4,997,880**	**5,359,293**

Equity and liabilities

in € thousands			2017-09-30	2016-09-30
A.	**Equity**			
I.	Issued capital		120,000	120,000
II.	Revenue reserves		1,138,763	532,060
III.	Other reserves		-37,664	1,440
IV.	Profit participation rights		6,600	6,600
Equity attributable to shareholders of the parent company			**1,227,699**	**660,100**
V.	Profit participation rights		96,800	96,800
VI.	Other interests		41,425	42,034
Equity attributable to non-controlling interests			**138,225**	**138,834**
Total equity		(19)	**1,365,924**	**798,934**
B.	**Non-current liabilities**			
I.	Provisions for pensions and similar obligations	(20)	747,282	852,803
II.	Other provisions	(21)	190,611	221,304
III.	Income tax liabilities		277	326
IV.	Bonds, bank loans and other interest-bearing liabilities	(22)	551,363	563,929
V.	Other financial liabilities	(24)	35,635	28,831
VI.	Other liabilities	(24)	58,222	59,079
VII.	Deferred tax liabilities	(9)	53,744	51,199
Total non-current liabilities			**1,637,134**	**1,777,471**
C.	**Current liabilities**			
I.	Provisions for pensions and similar obligations	(20)	29,319	29,969
II.	Other provisions	(21)	343,082	268,306
III.	Income tax liabilities		46,968	72,511
IV.	Bonds, bank loans and other interest-bearing liabilities	(22)	82,516	768,544
V.	Trade payables	(23)	509,741	430,779
VI.	Liabilities from customer-specific contracts	(14)	45,623	118,188
VII.	Other financial liabilities	(24)	234,080	270,425
VIII.	Other liabilities	(24)	703,493	824,166
			1,994,822	**2,782,888**
IX.	Liabilities directly associated with the assets classified as held for sale	(18)	0	0
Total current liabilities			**1,994,822**	**2,782,888**
Total equity and liabilities			**4,997,880**	**5,359,293**

Consolidated statement of changes in equity

	Equity attributable to shareholders of the parent company				
in € thousands	Issued capital	Revenue reserves	Gains/losses on available-for-sale financial assets	Cash flow hedges	Currency translation
2016-10-01	**120,000**	**532,060**	**13,968**	**-4,010**	**-4,015**
Net result		590,171			
Other comprehensive income		46,766	-12,260	1,691	-28,538
Total comprehensive income	**0**	**636,937**	**-12,260**	**1,691**	**-28,538**
Allocation of profit participation rights		-5,590			
Changes in non-controlling interests as a result of changes in group structure		254			
Share of net result attributable to profit participation rights					
Dividends		-18,000			
Non-controlling interests – capital contributions					
Non-controlling interests – put options		-7,431			
Other adjustments		533			
2017-09-30	**120,000**	**1,138,763**	**1,708**	**-2,319**	**-32,553**

	Equity attributable to shareholders of the parent company				
in € thousands	Issued capital	Revenue reserves	Gains/losses on available-for-sale financial assets	Cash flow hedges	Currency translation
2015-10-01	**120,000**	**624,938**	**3,992**	**-1,067**	**-9,410**
Net result		26,377			
Other comprehensive income		-97,791	9,976	-2,943	5,395
Total comprehensive income	**0**	**-71,414**	**9,976**	**-2,943**	**5,395**
Allocation of profit participation rights		-5,590			
Changes in non-controlling interests as a result of changes in group structure		-1,967			
Share of net result attributable to profit participation rights					
Dividends		-15,000			
Non-controlling interests – put options		-1,029			
Other adjustments		2,122			
2016-09-30	**120,000**	**532,060**	**13,968**	**-4,010**	**-4,015**

Net investment in foreign operations	Profit participation rights	Total	Equity attributable to non-controlling interests: Profit participation rights	Other interests	Total	Total equity
-4,503	**6,600**	**660,100**	**96,800**	**42,034**	**138,834**	**798,934**
		590,171		5,572	5,572	595,743
3		7,662		-4,069	-4,069	3,593
3	**0**	**597,833**	**0**	**1,503**	**1,503**	**599,336**
	363	-5,227	5,227		5,227	0
		254		-470	-470	-216
	-363	-363	-5,227		-5,227	-5,590
		-18,000		-4,928	-4,928	-22,928
				1,381	1,381	1,381
		-7,431		1,881	1,881	-5,550
		533		24	24	557
-4,500	**6,600**	**1,227,699**	**96,800**	**41,425**	**138,225**	**1,365,924**

Net investment in foreign operations	Profit participation rights	Total	Equity attributable to non-controlling interests: Profit participation rights	Other interests	Total	Total equity
-9,080	**6,600**	**735,973**	**96,800**	**41,470**	**138,270**	**874,243**
		26,377		3,021	3,021	29,398
4,577		-80,786		1,469	1,469	-79,317
4,577	**0**	**-54,409**	**0**	**4,490**	**4,490**	**-49,919**
	363	-5,227	5,227		5,227	0
		-1,967		-1,099	-1,099	-3,066
	-363	-363	-5,227		-5,227	-5,590
		-15,000		-4,120	-4,120	-19,120
		-1,029		1,077	1,077	48
		2,122		216	216	2,338
-4,503	**6,600**	**660,100**	**96,800**	**42,034**	**138,834**	**798,934**

Consolidated cash flow statement

in € thousands		2016/17	2015/16
Result before taxes from continuing and discontinued operations		680,384	92,044
Depreciation and amortization		129,996	167,850
Interest expenses/income		58,589	76,989
Other non-cash items	(18)	-568,376	7,597
Gains/losses from the disposal of property, plant and equipment and intangible assets		-4,291	-14,493
Gains/losses from the disposal of consolidated companies		0	52,522
Gains/losses from investments		-20,368	-7,100
Changes in provisions and accruals		-5,662	-74,109
Change in net working capital		-21,766	-134,198
Interest paid		-53,455	-53,002
Interest received		12,729	10,189
Dividends received		20,491	14,108
Tax paid		-93,036	-80,725
Cash flow from operating activities		**135,235**	**57,672**
Investments in property, plant and equipment and intangible assets		-95,890	-138,470
Proceeds from the disposal of property, plant and equipment and intangible assets		12,135	32,861
Investments in financial assets		-6,870	-6,294
Subsequent purchase price payments for earlier acquisitions		39,481	0
Acquisition of consolidated subsidiaries minus cash and cash equivalents		-40,854	0
Receipts and payments in connection with the disposal of consolidated subsidiaries		0	193,043
Proceeds from the disposal of financial assets	(18)	1,151,743	11,594
Proceeds from the disposal of securities		139,774	27,498
Payments for the acquisition of securities	(18)	-648,474	0
Cash flow from investing activities		**551,045**	**120,232**
Dividends paid		-28,518	-24,710
Contributions from holders of non-controlling interests		1,381	0
Acquisition of non-controlling interests		-216	-3,066
New bonds, bank loans and overdrafts		21,293	411,925
Repayment of bonds, bank loans and overdrafts		-738,697	-347,158
Changes in other interest-bearing financial receivables and liabilities		1,780	-12,190
Cash flow from financing activities		**-742,977**	**24,801**
Total cash flow		**-56,697**	**202,705**
Exchange rate movements and valuation changes		-11,028	12,014
Cash and cash equivalents at the beginning of the period		649,672	434,953
Cash and cash equivalents at the end of the period		**581,947**	**649,672**

Notes to the consolidated financial statements for the 2016/17 fiscal year

General information

Voith GmbH & Co. KGaA (Voith), which has its headquarters at St. Pöltener Str. 43, Heidenheim an der Brenz, is registered at the commercial register in Ulm, Germany (HRB 735450) and is the parent company of the Voith Group. The Company was incorporated as Voith GmbH until July 31, 2017. Since August 1, 2017 the Company has been incorporated in the legal form of a GmbH & Co. KGaA. The Board of Management of Voith Management GmbH (HRB 735126) is responsible for the strategy and operative management of the Voith Group. Voith Management GmbH is the personally liable shareholder (general partner) of and responsible for the management of the business of Voith GmbH & Co. KGaA.

Voith GmbH & Co. KGaA prepares consolidated financial statements as at September 30, 2017 on the basis of IFRS as endorsed by the EU, and a Group management report for the smallest consolidated group of companies requiring consolidation. JMV GmbH & Co. KG, as parent of the largest group of companies requiring consolidation, prepares consolidated financial statements as at September 30, 2017 on the basis of IFRS as endorsed by the EU, and a Group management report for the largest consolidated group of companies. Both sets of consolidated financial statements are published in the Bundesanzeiger (German Federal Gazette). The Board of Management of Voith Management GmbH authorized the consolidated financial statements for presentation to the Supervisory Board on November 29, 2017.

Voith issued debt instruments in 2007 for trading on the regulated market of the Luxembourg stock exchange. These bonds were redeemed in full in the fiscal year. Accordingly, Voith is no longer a capital market participant pursuant to the EU Regulation (EC) No. 1606/2002. This regulation requires all companies that participate in the capital markets (i.e. whose issued debt is traded on a regulated market in an EU member state) and that are domiciled in the EU to prepare their consolidated financial statements solely on the basis of International Financial Reporting Standards (IFRS) as endorsed by the EU. The term “IFRS” also includes the International Accounting Standards (IAS) to the extent that these remain in issue.

Accordingly, Voith has prepared its consolidated financial statements for the 2016/17 fiscal year in accordance with IFRS and the interpretations of the International Financial Reporting Interpretations Committee (IFRIC) on a voluntary basis. In preparing these consolidated financial statements, Voith has continued to apply all pronouncements which are binding on capital market participants issued by the International Accounting Standards Board (IASB) as well as the additional requirements of German commercial law pursuant to Sec. 315a HGB. The consolidated financial statements have been prepared in euros. Except where explicitly stated otherwise, all amounts are stated in thousands of euros (€ thousands). Minor rounding differences may occur.

The Voith Group is divided into four segments: Voith Hydro, Voith Paper, Voith Turbo and Voith Digital Solutions. The Voith Industrial Services Group Division was sold effective August 31, 2016. Accordingly, Voith Industrial Services is reported as a discontinued operation in this report. Details of the business activities pursued by the Group’s segments are provided in the explanatory notes to the segment reporting.

Consolidated group

In addition to those entities acting as holding companies, the consolidated financial statements also include all the Group's manufacturing, service and sales companies both in Germany and in other countries as at September 30 of each fiscal year. The financial statements of the subsidiaries are prepared for the same period as their parents' financial statements, using consistent accounting policies.

Subsidiary companies are consolidated in full from the date on which the Group obtains control. They are no longer included in the consolidation as soon as the parent company ceases to have control. For four companies (previous year: four) control over companies included in the consolidation is obtained due to the fact that the Group has a majority of voting rights in the relevant decision-making bodies.

The following companies are included in the consolidated financial statements:

	2017-09-30	2016-09-30
Voith GmbH & Co. KGaA and its fully consolidated subsidiaries:		
· Germany	32	29
· Other countries	111	112
	143	**141**
Associated companies and joint ventures:		
· Germany	3	4
· Other countries	11	11
	14	**15**

The following material companies are included in the consolidated financial statements:

VZ Voith GmbH & Co. KGaA, Heidenheim, Germany

VHH Voith Hydro GmbH & Co. KG, Heidenheim, Germany
VHY Voith Hydro Inc., York (PA), USA
VHP Voith Hydro Ltda., São Paulo (SP), Brazil
VHPO Voith Hydro GmbH & Co. KG, St. Pölten, Austria
VHMA Voith Hydro da Amazonia Ltda., Manaus, Brazil
VHM Voith Hydro Inc., Brossard (QC), Canada
VHS Voith Hydro Shanghai Ltd., Shanghai, China
VHFK Voith Fuji Hydro K.K., Kawasaki-shi, Kanagawa, Japan
VHN Voith Hydro Private Limited, New Delhi/India

VPH	Voith Paper GmbH & Co. KG, Heidenheim, Germany
VPP	Voith Paper Máquinas e Equipamentos Ltda., São Paulo (SP), Brazil
VPEZ	Voith Paper Fabric & Roll Systems GmbH & Co. KG, Heidenheim, Germany
VPIT	Voith IHI Paper Technology Co., Ltd., Tokyo, Japan
VPC	Voith Paper (China) Co., Ltd., Kunshan, Jiangsu, China
VPFS	Voith Paper Fabric & Roll Systems Inc., Wilson (NC), USA
VPA	Voith Paper Inc., Appleton (WI), USA
VPFI	Voith Paper Fabrics Ipoh Sdn. Bhd., Chemor, Perak Darul Ridzuan, Malaysia
VPTA	Voith Paper S.A., Ibarra (Guipúzcoa), Spain
VTA	Voith Turbo GmbH & Co. KG, Heidenheim, Germany
VTI	Voith Turbo Inc., York (PA), USA
VTBS	Voith Turbo BHS Getriebe GmbH, Sonthofen, Germany
VTKT	Shanghai Voith Schaku KTK Coupler Technology Co., Ltd., Shanghai, China
VTCN	Voith Turbo Power Transmission (Shanghai) Co., Ltd., Shanghai, China
VTIP	Voith Turbo Private Limited, Hyderabad (A.P.), India
VTHL	Voith Turbo H + L Hydraulic GmbH & Co. KG, Rutesheim, Germany
VTPA	Voith Turbo Ltda., São Paulo (SP), Brazil
VTGB	Voith Turbo Limited, Croydon, United Kingdom
VTAU	Voith Turbo Pty. Ltd., Wetherill Park, N.S.W., Australia
DSG	Voith Digital Solutions GmbH, Heidenheim, Germany

An exhaustive list of the companies and other investments included in the consolidated financial statements can be found in the consolidated financial statements. The consolidated financial statements of Voith GmbH & Co. KGaA are filed with the Bundesanzeiger pursuant to Sec. 264b No. 3 HGB and Sec. 264 (3) No. 4 HGB.

Significant non-controlling interests are held in the following company with its subsidiaries:

Voith Hydro Holding GmbH & Co. KG, Heidenheim, Germany

	2017-09-30	2016-09-30
Non-controlling shareholding, in %	35	35

The voting share capital held by Voith Hydro Holding GmbH & Co. KG is equal to the percentage of share capital held.

The following table shows the financial data of subsidiary companies in which significant non-controlling interests are held (the figures are those of the Voith Hydro Holding GmbH & Co. KG segment):

Voith Hydro Holding GmbH & Co. KG, Heidenheim, Germany

in € thousands	2017-09-30	2016-09-30
Sales	1,387,460	1,391,547
Net result	43,377	50,419
Net result attributable to non-controlling interests	13,290	15,686
Other comprehensive income	1,505	-2,605
Total comprehensive income	44,882	47,814
Total comprehensive income attributable to non-controlling interests	14,402	14,770
Current assets	1,030,285	1,194,842
Non-current assets	301,140	294,011
Current liabilities	757,149	1,086,551
Non-current liabilities	307,563	171,647
Net assets	266,713	230,655
Net assets attributable to non-controlling interests	80,574	67,661
Cash flow from operating activities	-62,919	-4,154
Cash flow from investing activities	-12,090	-9,641
Cash flow from financing activities	107,142	9,925
Total cash flow	**32,133**	**-3,870**
Net foreign exchange difference	-4,129	4,223
Net increase/decrease in cash and cash equivalents	**28,004**	**353**

Business combinations in the 2015/16 fiscal year

There were no business combinations in the 2015/16 fiscal year.

Business combinations in the 2016/17 fiscal year

On July 1, 2017 J.M. Voith GmbH & Co. Beteiligungen KG acquired 100% of the share capital of RS Beteiligungs GmbH. RS Beteiligungs GmbH in turn holds 60% of the share capital of Ray Sono AG. Ray Sono AG is one of Germany's leading agencies for digital communication and interaction. With this acquisition Voith has secured a strategic partnership with which it can play a significant role in the digital transformation being made by our customers as well as gaining growth potential from the new digital business models.

Under the terms of the business combination the minority shareholders were given the right to sell their shareholdings to Voith after a lock-up period of approximately four years (put option). As the business combination is accounted for under the anticipated acquisition method, the resulting put options are recorded within financial liabilities at an amount of €26 million.

Intangible assets totaling €13.28 million were identified in the purchase price allocation. These are included in the schedule of development of intangible assets presented in note 10 in the column “Business combinations.”

The difference between the acquisition price and the acquired net assets revalued to their respective fair values amounting to €54.74 million has been reported as goodwill, and represents the potential synergy effects to be gained from the diversification of the core business of the Voith Group prior to the acquisition. None of the amounts contributing to these synergy effects are assets which are permitted to be identified as separate intangible assets; they are regarded as elements of the acquired goodwill.

Ray Sono AG contributed additional sales of €5.76 million to the Group’s sales in the period from July 1, 2017. In the same period, its share of the annual net result totaled €-1.46 million (after including amortization of €0.73 million recorded on the intangible assets determined within the purchase price allocation). These amounts are stated after tax.

Should Ray Sono have been included in the Group for the whole financial year it would have generated additional sales of €15.4 million and an additional annual net result of €1.7 million after tax.

Balance sheet item

in € thousands	Acquisition date fair value
Intangible assets	13,277
Property, plant and equipment	784
Inventories	1,201
Receivables	4,301
Other assets	412
Cash and cash equivalents	1,586
Other liabilities and accruals	-7,930
Financial liability (PUT)	-26,000
Net fair value	**-12,369**
Goodwill	54,741
Purchase price of the interests acquired	**42,372**
Cash and cash equivalents	-1,586
Cash in-/outflow	**40,786**

The acquisition price was paid in cash.

Acquisition in the 2016/17 fiscal year of further interests in companies over which the Group already has control

The remaining 30% shareholding interests in Voith Paper Integrated Mill Service Co., Ltd., Kunshan/Jiangsu (Republic of China) were acquired in the 2016/17 fiscal year. The purchase price amounted to €216 thousand.

Acquisition in the 2015/16 fiscal year of further interests in companies over which the Group already has control

The remaining 20% of the shares in Voith Turbo Co., Ltd., Seoul, Republic of Korea were acquired in the 2015/16 fiscal year. The purchase price amounted to €3,066 thousand.

Sale of Voith Industrial Services in the 2015/16 fiscal year

Voith Industrial Services was sold, effective August 31, 2016. The final sale price (for 100%) has been determined since then, and amounted to €308 million. The sale price adjustment of €2 million compared to the preliminary price determined in the previous year of €310 million is presented within results from discontinued operations. Voith has retained a 20% shareholding in the Voith Industrial Services companies sold. The carrying values of the most significant assets and liabilities derecognized in the previous year were as follows: goodwill of €196 million, other intangible assets of €7 million, property, plant and equipment of €80 million, deferred tax assets of €9 million, other non-current assets of €10 million, inventories of €54 million, trade receivables and receivables from customer-specific contracts of €200 million, cash and cash equivalents of €42 million, other current assets of €24 million, non-current pension obligations of €23 million, deferred tax liabilities of €8 million, other non-current provisions and liabilities of €10 million, current pension obligations of €2 million, other current provisions of €36 million, trade payables and payables and liabilities from customer-specific contracts of €58 million, and other current liabilities of €116 million.

The net result from discontinued operations included in the statement of income includes the following:

in € thousands	2016/17	2015/16
Sales	0	908,456
Changes in inventories and other own work capitalized	0	1,095
Other operating income	0	26,057
Operating expenses	0	-908,284
Operational result before non-recurring items	**0**	**27,324**
Non-recurring result	0	-17,298
Operational result	**0**	**10,026**
Financial result	0	-1,160
Operational and financial result before taxes	**0**	**8,866**
Tax on operational and financial result	0	-17,117
Gain/loss on sale	-2,016	-51,794
Tax on gain/loss on sale	-2,335	0
Net result	**-4,351**	**-60,045**

Cash flow from discontinued operations:

in € thousands	2016/17	2015/16
Cash flow from operating activities	0	-44,905
Cash flow from investing activities	0	-17,561

Basis of consolidation

Acquisition accounting is performed using the acquisition method in accordance with IFRS 3 (revised). Accordingly, the consideration transferred to the seller plus any non-controlling interests and the fair value of the previously held equity interests in the acquiree are offset against the fair value of the acquired assets and liabilities as at the acquisition date. Any excess of cost over carrying amount is recognized as goodwill. Any excess of carrying amount over cost is recognized in profit or loss.

Any contingent consideration is recognized at acquisition date fair value. Subsequent changes to the fair value of the contingent consideration deemed to be an asset or liability are recognized either in profit or loss in accordance with IAS 39 or in other comprehensive income. If the contingent consideration is classified as equity, it is not remeasured and its subsequent settlement is accounted for within equity.

In the case of business combinations achieved in stages that give rise to control over an entity, or in the case of disposals of shares which result in a loss of control, the previously held or remaining equity interests are remeasured at fair value through profit or loss.

A change in the parent's ownership interest in a subsidiary that does not result in a loss of control is accounted for as an equity transaction. Accordingly, business combinations achieved in stages where the Group already has control or disposals of shares without a loss of control have been recognized directly in equity without affecting the result for the period from the 2009/10 fiscal year onwards.

Companies in which Voith GmbH & Co. KGaA has the power to directly or indirectly exercise a significant influence on financial and operating policy decisions (associates) are accounted for using the equity method, as are joint ventures over which common control is exercised together with other companies. Changes in the share of the associate's/joint venture's equity that are not recognized in profit or loss are likewise recognized directly in equity in the consolidated financial statements. The same accounting policies are used to determine Voith's share in equity of all companies accounted for using the equity method.

Receivables and liabilities between the consolidated companies are eliminated on consolidation. Intercompany profits in inventories and non-current assets are eliminated in the consolidated statement of income. Intercompany sales and other intercompany income are netted against the corresponding expense. Deferred tax is recognized for consolidation transactions that are recognized in profit or loss.

Foreign currency translation

The consolidated financial statements are presented in euros, which is Voith GmbH & Co. KGaA's functional currency. Financial statements prepared by subsidiaries that use a different functional currency are translated as follows:

The equity of foreign companies included in the consolidated financial statements is translated at historical rates. All other items on the balance sheet are generally translated to the presentation currency at the rates applicable as at the reporting date. Goodwill arising from business combinations before transition to IFRS is an exception to this rule. This goodwill continues to be translated at historical exchange rates.

In the statement of income, income and expenses are translated at average exchange rates. Retained earnings and losses are translated using the relevant historical exchange rate.

Differences arising from currency translation are netted with other reserves.

Foreign currency transactions in local financial statements are translated at historical exchange rates. At fiscal year-end the resulting monetary items are measured at the closing rate, and any exchange rate gains or losses are recorded as foreign exchange gains or losses under other operating income/expenses.

From the 2016/17 fiscal year exchange rate gains or losses resulting from long-term loans and liability balances, both between companies in the Group and on external balances, as well as valuation changes arising on their associated hedging instruments are reported in the statement of income within financial results. In previous years these were reported within other operating income and other operating expenses.

Currency translation differences arising from loans denominated in foreign currencies (where these are used to hedge a net investment in foreign operations) are recognized in other comprehensive income until the underlying net investment is disposed of. These currency translation differences give rise to deferred tax items that are also recognized under other comprehensive income.

Accounting policies

The consolidated financial statements are prepared using the historical cost method. The only exceptions to this rule are derivative financial instruments, available-for-sale financial instruments, and assets at fair value through profit or loss, which are recognized at fair value.

Consistent accounting policies are used to prepare the separate financial statements for the companies included in the consolidated financial statements. Significant accounting policies are described below.

Income and expenses

Sales (adjusted for customer bonuses, cash discounts and other rebates) are recognized when products or merchandise have been delivered and/or services rendered and when the risk of ownership has been transferred to the customer. Revenue earned under long-term contracts, which is primarily relevant for Voith Paper and Voith Hydro, is recognized in proportion to the completion of the contract performance obligations ("percentage of completion"). Please refer to the explanatory notes on long-term construction contracts for further details.

Interest expenses and interest income are recognized as they accrue. The effective interest method, i.e. the imputed interest rate, is used to discount estimated future cash receipts over the expected term to maturity of the financial instrument to the net carrying amount of the financial asset.

Dividend income is recognized when the Group's right to receive the payment is established.

Operating expenses are recognized as expenditure at the time when a service is used and other sales-related expenses are recognized as incurred. Taxes on income are calculated in accordance with tax law in the countries in which the Group operates.

For all categories of financial instruments recognized in accordance with IAS 39, net gains or losses as defined in IFRS 7 result from the measurement or disposal of financial instruments. At Voith, such income and expense items mainly consist of foreign exchange gains and losses, impairments, and gains/losses from the sale of financial instruments. Neither current interest income and expenses nor dividend income are included.

Intangible assets

Intangible assets acquired for monetary consideration are recognized at acquisition cost and amortized on a straight-line basis over their estimated useful lives.

Internally generated intangible assets are capitalized as development costs based on their production costs, provided that manufacture of these assets meets the recognition criteria stated in IAS 38 and, in particular, that the generation of future economic benefits is probable. The production costs include all costs which are directly attributable to the development process and a proportionate share of overheads. These assets are amortized using the straight-line method from the date of completion, i.e. the start of production, over a defined period, which is usually between three and five years. If the requirements for capitalization are not satisfied, expenses are recognized in profit or loss in the fiscal year in which they were incurred.

Impairment losses are recorded in accordance with IAS 36 if the carrying amount of the asset exceeds its recoverable amount. The recoverable amount is the higher of an asset's value in use, the present value of expected future cash flows from the use of the asset, and the fair value less costs to sell. Should the reasons for impairment losses recognized in previous periods no longer apply, these impairment losses are reversed.

The reversal posted through profit or loss is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in previous years.

Impairment losses are generally shown in the statement of income under depreciation and amortization. Reversals of impairment losses are reported under other operating income. However, significant impairment losses, particularly those associated with the discontinuation of operations, are presented as part of the non-recurring result.

Borrowing costs that are directly attributable to intangible assets are capitalized as part of the cost of those assets.

Goodwill is tested for impairment at least annually. For impairment testing, goodwill is assigned essentially to four groups of cash-generating units. In line with the management's internal reporting practices, these are identified on the basis of the Group's operating activities. Voith has therefore defined the three established segments Voith Hydro, Voith Paper and Voith Turbo as the relevant groups of cash-generating units. Additional goodwill was recorded in the new Voith Digital Solutions segment in the 2016/17 fiscal year as a result of the acquisition of Ray Sono AG. This was tested for impairment separately at the Ray Sono AG level due to the start-up situation in the new segment.

The Voith Group generally determines whether goodwill is impaired by reference to the value in use. This is based on the discounted cash flow projections taken from the latest business planning prepared by management. The planning assumptions are adjusted to reflect the current information available. Key assumptions on which calculations of fair value are based include assumptions about the trend in orders received and sales, growth rates, extrapolated cash flow forecasts beyond the planning horizon and discount rates. Due account is taken of reasonable assumptions regarding macroeconomic trends and historical developments. Based on the value in use measurement of these assets there was no indication of a need to record an impairment loss on goodwill.

For the purposes of the impairment tests the following assumptions were made concerning the cash-generating units:

Voith Hydro:
The Voith Hydro Group Division expects that the hydropower market will, in the coming years, be generally above the low level of the reporting period. We expect an appreciable growth in orders received in the 2017/18 fiscal year. Our planning is based on the assumption that the market volume will be perceptibly above the low level of the reporting period and that projects deferred in 2016/17 to future periods will be converted to orders. Despite the fall in orders received, sales are expected to remain stable in the 2017/18 fiscal year due to the continued high level of orders on hand.

Voith Paper:
Voith Paper saw a high level of orders received in the project business in the 2016/17 fiscal year. As a result Voith Paper expects an appreciable increase in sales in the years planned. For the Products & Services division, Voith Paper plans to achieve a continued increase in orders received and sales against the background of existing growth potential in North America and Asia. For Fabric & Roll Systems, Voith expects a virtually unchanged market volume in which slight growth is anticipated through the winning of market shares.

Voith Turbo:
Voith Turbo expects a turnaround in the recent sales trends. A moderate increase in sales is expected in the years planned (2017/18 and 2018/19). There was an appreciable increase in orders received in the 2016/17 fiscal year compared to the previous year. This positive trend continues and the moderate growth in orders received is forecast to continue in both planning years.

Ray Sono AG:
Constant and appreciable growth in both orders received and in sales is expected in the planning years, consistent with trends in the digital market.

The cash flow forecast is based on the detailed finance budget for the coming two years and a qualified top-down projection for years three to five. Cash flows for periods after the fifth fiscal year are extrapolated at a constant growth rate of approximately 1% (Ray Sono AG 2%). These growth rates do not exceed the average long-term growth rates of the industrial sectors in which the corresponding cash-generating unit operates.

The discount rates are derived from a calculation of the weighted average cost of capital, which is itself based on the financing costs of comparable competitors for each of the cash-generating units. The discount rates used reflect the specific equity risk associated with the respective cash-generating units. The present values of future net cash inflows are determined using after-tax interest rates of 7.5% for Voith Hydro (previous year: 6.6%), 9.3% for Voith Paper (previous year: 7.5%), 6.7% for Voith Turbo (previous year: 6.5%) and 6.5% for Ray Sono AG. Extrapolated from these amounts the pre-tax rates for which IAS 36 disclosures are required are 12.5% for Voith Hydro (previous year: 8.7%), 13.0% for Voith Paper (previous year: 10.4%), 9.5% for Voith Turbo (previous year: 9.2%) and 8.4% for Ray Sono AG.

For the three segments, no impairment charges arise if, for sensitivity purposes, a 1 percentage point increase in the discount rate or a 5% reduction in the expected future cash flows is assumed. For Ray Sono AG an increase in the discount rate of more than 0.25% would result in the recoverable amount being lower than the carrying value. No impairment charges arise if a 5% reduction in the future expected cash flows is assumed.

Property, plant and equipment

Property, plant and equipment are stated at acquisition or production cost less depreciation and after deduction of any impairment losses. The cost of internally produced property, plant and equipment includes all directly attributable production costs and an appropriate share of production overheads. Depreciation is recognized on a straight-line basis over the following useful lives:

Useful life

Buildings	40 to 50 years
Plant and machinery	4 to 15 years
Other equipment, furniture and fixtures	4 to 12 years

The carrying amount of property, plant and equipment is tested for impairment if unusual events or market developments give rise to indications of impairment. To this end, the carrying amount of an asset or cash-generating unit is compared with its recoverable amount, which is defined as the higher of fair value less costs to sell and value in use. Impairment losses are reversed if the fair value of a previously impaired asset subsequently increases again.

The reversal posted through profit or loss is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in previous years.

Impairment losses are generally shown in the statement of income under depreciation and amortization. Reversals of impairment losses are reported under other operating income. However, significant impairment losses, particularly those associated with the discontinuation of operations, are presented as part of the non-recurring result.

Repair and maintenance costs are recognized as expenses at the time when they are incurred. Any major renewals or improvements are capitalized. Borrowing costs that are directly attributable to property, plant and equipment are capitalized as part of the cost of those assets.

Leases

Whether an arrangement is or contains a lease depends on the substance of the arrangement and requires a decision to be made on whether fulfillment of the agreement depends on the use of a particular asset and whether the arrangement conveys the right to use the asset.

Leases that transfer substantially all risks and rewards incidental to the use of the leased asset to a Voith Group company (the lessee) are classified as financial leases. In such cases, the lessee recognizes the leased asset at the start of the lease period and writes it down over the asset's useful life. A corresponding liability is recognized and then settled by the lease payments. The interest component is recognized in the interest result. All other leases in which Voith Group companies act as the lessee are accounted for as operating leases. The lease payments for operating leases are recognized as expenses using the straight-line method over the term of the lease.

Financial instruments

A financial instrument is any contract that simultaneously gives rise to a financial asset of one party to the contract and a financial liability or equity instrument of the other party to the contract. Financial assets and liabilities are only recognized in the consolidated balance sheet when Voith is a contract party to a financial instrument.

The Group classifies non-derivative financial assets into the following categories: "loans and receivables," "available-for-sale financial assets" and "financial assets at fair value through profit or loss."

The Group classifies non-derivative financial liabilities as other financial liabilities (“financial liabilities measured at amortized cost”).

The derivative financial assets and liabilities are classified as “held for trading” unless they are designated as hedging instruments and are effective for that purpose.

Loans and receivables
The Group recognizes loans and receivables at the date they are originated. Such assets are initially recognized at fair value plus directly attributable transaction costs. Subsequent to initial recognition they are measured at amortized cost using the effective interest rate method.

Available-for-sale financial assets
Shareholdings in businesses accounted for as financial assets and reported within other investments are measured at fair value on initial recognition. Subsequent to initial recognition, such investments are stated at cost if no active market exists for individual companies and it is impracticable to determine their fair value at reasonable cost. In cases in which there is objective evidence of impairment, the carrying amount is reduced by the amount of any impairment.

In accordance with IAS 39, loans classified as non-current loans are recognized under other financial assets measured at amortized cost, adjusted (where necessary) for any impairment.

The securities held by the Voith Group are normally available for sale. In the case of customary purchases and sales these are accounted for on the trading date and are subsequently measured at fair value, whereby the change in fair value is not recognized in the statement of income.

Any gains or losses arising from changes in the fair value of available-for-sale financial assets are recognized in other comprehensive income until the asset is derecognized. The carrying amounts of non-current financial assets and available-for-sale securities are regularly tested for objective evidence that they may be impaired. Such evidence can take the form of significant financial difficulty of the debtor or changes in the technological, economic and legal environment. Objective evidence that equity instruments may be impaired is given if there is a sustained or significant decline in their fair value. The criterion of a prolonged decline is met if the decline lasts longer than 12 months. The decline is regarded as significant if the fair value of the investment falls more than 30% below its cost. If this happens, the amounts hitherto recognized under other comprehensive income are recognized in profit or loss.

Financial assets at fair value through profit or loss

A financial asset is measured at fair value through profit or loss if it is held for trading purposes or if it is designated to be measured at fair value through profit or loss on initial recognition. Attributable transaction costs are recognized in the statement of income at the date they are incurred.

Financial liabilities measured at amortized cost

Non-derivative financial liabilities are measured on initial recognition at fair value less attributable transaction costs. Subsequent to initial recognition these financial liabilities are measured at amortized cost using the effective interest rate method.

Financial assets and liabilities held for trading

All derivative financial instruments are recognized at fair value on the trading date. Gains and losses on financial assets and liabilities that are held for trading are recognized in the statement of income.

Fair value

The fair value of investments for which an organized market exists is determined by the quoted market price at the reporting date. Where no active market exists, valuation techniques are used to determine the fair value. The techniques used by Voith for this purpose aim to reflect objective criteria as accurately as possible and to simulate an active market. This is done, for example, by analyzing discounted cash flows, referring to arm's length transactions between knowledgeable, willing and independent partners, and drawing on comparisons with the current fair value of other financial instruments which are identical in all significant aspects.

Derivative financial instruments and hedging

Voith uses a variety of financial derivatives – such as forward exchange contracts and interest rate swaps – to hedge underlying transactions. Essentially, the Group applies fair value hedge accounting of firm commitments to hedge operating business transactions.

At the inception of a hedge relationship, the Group formally designates and documents the hedge relationship and the risk management objective and strategy for entering into the hedge. This documentation includes identification of the hedging instrument, the hedged item or transaction, the nature of the risk being hedged, and how the Group will assess the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's fair value that is attributable to the hedged risk. Such hedging relationships are considered to be highly effective in offsetting the risks of fair value changes. Their effectiveness is assessed on an ongoing basis to determine whether they have been highly effective throughout the financial reporting periods for which the hedge was designated.

Hedges that meet the strict criteria for hedge accounting are accounted for as described below:

Fair value hedges

Fair value hedges are hedges of the Group's exposure to changes in the fair value of a recognized asset or liability or an unrecognized firm commitment that is attributable to a particular risk and could affect profit or loss for the period. In the case of fair value hedges, the carrying amount of a hedged item is adjusted by the profit or loss that is attributable to the hedged exposure, and the difference is reported in profit and loss. The derivative financial instrument is remeasured at its fair value and any gains or losses arising as a result are recognized in profit or loss.

For fair value hedges relating to hedged items carried at amortized cost, the adjustment to the carrying amount is amortized through profit or loss over the remaining term to maturity.

When an unrecognized firm commitment is designated as a hedged item, the subsequent accumulated change in the fair value of the firm commitment that is attributable to the hedged risk is recognized as an asset or liability and the corresponding gain or loss is recognized in the profit or loss of the period. Changes in fair value of the hedging instrument are also recognized in the profit or loss of the period.

The Group discontinues fair value hedge accounting if the hedging instrument expires, is sold, terminated or exercised, or if the hedge no longer meets the criteria for hedge accounting. Every adjustment to the carrying amount of a hedged financial instrument is released to income using the effective interest method. The reversal may begin as soon as an adjustment exists and shall begin no later than when the hedged item ceases to be adjusted for hedging gains and losses.

Cash flow hedges

Hedging transactions are classified as cash flow hedges when the transactions hedge the risk of changes in cash flows which can be attributed to a risk affecting a recognized asset, a recognized liability or a planned transaction, and could affect profit or loss for the period. The effective portion of the gain or loss on a hedging instrument is recognized directly in equity, while the ineffective portion is recorded in the statement of income.

The amounts recorded in equity are reclassified to the statement of income in the period in which the hedged transaction affects the statement of income, e.g. in which the hedged financial income or expense is recorded or in which a planned sale or purchase is made. If the underlying hedged transaction is the acquisition of a non-financial asset or a non-financial liability, the amounts recorded in equity are included in the initial carrying amount of the non-financial asset or a non-financial liability.

If the planned transaction is no longer expected to occur, the amounts recorded previously in equity are transferred to the result for the period. When the hedging instrument expires, is sold, terminated, or without being replaced or rolled up into another hedging instrument is exercised in another hedging instrument or when the Group ceases to designate a hedging instrument as such, the amounts previously recorded remain in equity until the planned transaction occurs. If the planned transaction is no longer expected to occur, the amounts recorded are included in the result for the period.

Embedded derivatives

When the Group becomes party to a contract, it assesses whether any embedded derivatives should be separated from the host contract. Embedded derivatives can arise, for example, in cases where commercial agreements include requirements that payments are made in non-trading currencies. A reassessment is not made unless there is a substantial change in the terms of the contract that significantly modifies the cash flows that would otherwise have been generated from the contract.

Where there are embedded derivatives for which separate recognition is required, such derivatives are recognized at fair value as financial assets held for trading. Embedded financial derivatives with positive fair values are stated under other financial receivables; those with negative fair values are stated under bonds, bank loans and other interest-bearing liabilities or other financial liabilities.

Inventories

Materials and supplies, merchandise, work in progress and finished goods are all stated under inventories at the lower of cost and net realizable value. In addition to direct costs, cost includes an appropriate portion of necessary materials and production overheads as well as production-related depreciation that can be directly allocated to the production process. The average cost, or cost based on the first-in, first-out (FIFO) method, is capitalized in the balance sheet. Appropriate allowance is made for inventory risks associated with slow-moving stocks, reduced salability, etc. When the circumstances that previously caused inventories to be written down below cost no longer exist, the write-down is reversed.

Long-term construction contracts

Long-term construction contracts are recognized in accordance with the percentage-of-completion (PoC) method. The percentage of completion per contract to be recognized is calculated as the ratio of the actual costs incurred to the anticipated total costs of the project (“cost-to-cost method”). Revenue received is stated as sales and, after deducting customer advances and installments, as trade receivables. If the outcome of a construction contract cannot be estimated reliably, it is not possible to calculate contract revenue and costs based on the percentage of completion. In such cases, revenue is recognized at the amount of costs incurred for the construction contract to date, while the contract costs are immediately recognized in full in the period in which they are incurred. Expected losses on such contracts are based on recognizable risks.

Receivables and other assets

Receivables and other assets (with the exception of derivatives) are assigned to the category "loans and receivables" and are measured at their nominal or acquisition cost. They are regularly tested for impairment on an individual basis. Where objective evidence of possible loss exists (for example, if the debtor is experiencing significant financial difficulty, if it is highly probable that insolvency proceedings will be opened against the debtor, if the debtor defaults on or is in arrears with interest or principal payments, if significant adverse changes in the technological, economic or legal environment occur, if there is a significant or prolonged decline in the fair value of a financial instrument below its cost, or if legal proceedings are opened), individual allowances are recorded using an allowance account to reflect these factors. To the extent that impairment is derived from historical bad debt rates on a portfolio basis, a fall in the total volume of receivables reduces such allowances and vice versa. Impaired receivables are derecognized when they are assessed as uncollectible. Interest-free or low-interest receivables due in more than one year are discounted.

Cash and cash equivalents

Cash and cash equivalents include cash in hand and checks, cash at banks and cash equivalents. Cash at banks includes both daily deposits and time deposits with fixed maturities of up to three months.

Discontinued operations and non-current assets held for sale

Non-current assets and disposal groups held for sale are classified as non-current assets held for sale or as liabilities directly associated with assets held for sale, respectively, if their carrying amount is to be recovered through sale rather than through continuing use. This condition is regarded as met when the sale is highly probable and the asset or disposal group is available for immediate sale in its present condition. In this case, management has decided to sell the asset and it is expected that the sale will take place within 12 months from the date of classification. Non-current assets held for sale are measured at the lower of their carrying amount and their fair value less costs to sell. Assets held for sale are not subject to depreciation and amortization.

Discontinued operations are recognized as soon as any component of an entity with business activities and cash in- and outflows that can be clearly distinguished from the rest of the entity for operational and accounting purposes is classified as held for sale or has already been disposed of, and such business division either (1) represents a separate major line of business or a geographical area of operations, and (2) is part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations, or (3) is a subsidiary exclusively acquired with a view to resale. The net result of discontinued operations is reported separately from income and expenses from continuing operations in the consolidated statement of income. Figures shown for previous years are presented on a comparable basis. Cash in- and outflows from discontinued and continuing operations are not presented separately in the consolidated cash flow statement, and figures shown for previous years in the cash flow statement are not restated. Figures disclosed in the notes to the consolidated financial statements for items in the consolidated statement of income relate to continuing operations. Information on discontinued activities is provided in the section "Disposals and discontinued operations." Sales revenues and expenses generated within the Group have been eliminated in order to present the financial effect of the discontinued operations with the exception of sales revenues and expenses which are expected to continue after the sale of the discontinued operations.

Deferred and current taxes

Deferred tax assets and liabilities are recognized for temporary differences between the amounts carried in the tax accounts and the amounts reported for IFRS purposes (temporary concept) in accordance with IAS 12. Deferred tax assets are also recognized for unused tax losses insofar as it is reasonable to expect that they will be realized in the near future. Deferred taxes that relate to items recognized under other comprehensive income are also themselves recognized in equity. Deferred taxes are calculated based on the tax rates enacted or substantively enacted by the reporting date that apply or are expected to apply in the countries concerned at the time of realization. Deferred tax assets on unused tax losses that are not likely to be realized within a foreseeable period (normally two years) or that are not covered by deferred tax liabilities are either written down or not recognized at all. Deferred tax assets and deferred tax liabilities are presented on a net basis if the Group has a legal right to offset current tax assets against current tax liabilities and they relate to income taxes levied by the same taxation authority.

Current taxes are calculated and reported in accordance with the tax laws and regulations valid for each company.

Profit participation rights

The profit participation rights amounting to €103,400 thousand are reported as a separate component of the Group's equity, based on their contractual terms and in accordance with IAS 32. Interest is not reported as interest expenses, but is treated in a similar manner to a dividend obligation.

Provisions for pensions and similar obligations

Provisions for pension obligations are measured based on actuarial valuation methods using the prescribed projected unit credit method for defined benefit plans as required by IAS 19. This method considers not only the pensions and future claims known at the end of the year under review but also future anticipated increases in salaries and pensions. Defined benefit obligations are measured based on the proportion of future benefits accrued at the reporting date. Measurement includes assumptions about the future development of certain parameters that could affect the actual future benefit amount. The expenses for these benefit plans are divided into service cost and interest cost on the net debt from the obligations and plan assets. Both expense items are recognized in the statement of income. Revaluations of the net debt recognized are disclosed under other comprehensive income net of deferred taxes.

Other provisions

Provisions are recognized for all discernible risks and uncertain obligations at the amount that is likely to be realized. These provisions are not netted against recourse claims. Provisions are recognized when the Group has a present obligation to a third party as a result of a past event and it is probable that an outflow of resources will be required whose amount can be estimated reliably. Provisions for warranty claims are based on historical claim trends and estimated future trends. Specific provisions are set up for known claims. Provisions for outstanding expenses, onerous contracts and other business-related obligations are measured based on services still to be rendered, usually at the amount of the costs to sell.

Provisions which do not lead to an outflow of resources in the following year are carried at the discounted settlement amount at the end of the year under review. The discount rate used is derived from market interest rates. The settlement amount also includes the estimated cost increases. If an amount set aside as a provision is expected to be refunded (through an insurance claim, for example), the refund amount is stated separately as an asset only if it is virtually certain. Income from refunds is not netted against expenses.

Liabilities

Current liabilities are stated at the amount needed to settle the obligation. Financial liabilities are measured at their amortized cost. Amortized cost corresponds to the cost of the financial liabilities adjusted for repayments, issue costs and the amortization of any debt discounts or debt premiums. Where liabilities are accounted for as hedged transactions, they are measured taking into account the market value of the hedged risk. Gains and losses are recognized in profit or loss.

Liabilities arising from leases that are classified as finance leases in accordance with the criteria laid out in IAS 17 are recognized at the present value of the minimum lease payments at the start of the lease and subsequently stated under financial liabilities at their amortized cost. Lease payments are split into an interest component and a principal component. The interest component of each payment is recognized as an expense in the statement of income.

Classification of non-controlling interests in limited partnerships based on termination rights of holders of non-controlling interests and put options

In accordance with IAS 32, financial instruments that entitle the holder to repayment of the capital made available to the partnership must be classified as liabilities. In companies that operate as limited partnerships, partners have the right under German law to demand repayment of the capital they have made available to the partnership. This right cannot be excluded by the partnership agreement. This provision also extends to other comparable repayment rights of holders of non-controlling interests with a settlement agreement. Put options create sale rights for the holder of the put pursuant to IAS 32.

a) Put options

Where the right to terminate on the part of non-controlling interests exists in the form of a put option, the corresponding non-controlling interests are not derecognized but are treated as a component of equity during the year under review. Based on this, a share of net income for the year is allocated to holders of non-controlling interests. At each reporting date, it is assumed that the put option will be exercised and the corresponding non-controlling interests are reclassified from equity to financial liabilities. This financial liability is recognized in the amount of the estimated compensation obligation and measured at fair value. The difference between this liability and the share of equity attributable to non-controlling interests is treated as a transaction between owners and has been recognized from the 2009/10 fiscal year onwards as a change in equity without any effect on the statement of income. Until and including the 2008/09 fiscal year such transactions were regarded as a business combination achieved in stages and the difference stated as goodwill. The Group elected to retain these amounts under the transitional arrangements provided for under IAS 27 (2008).

The amounts reclassified from equity to financial liabilities totaled €42,495 thousand in the 2016/17 fiscal year (previous year: €9,891 thousand).

b) Limited partnerships
Up to and including the 2014/15 fiscal year the interests held in limited partnerships as well as non-controlling interests with comparable termination rights were treated in the same way as put options. The liability was measured at amortized cost taking account of the attributable share of total comprehensive income. The accounting treatment was changed in the 2015/16 fiscal year; the liability continues to be measured in a similar manner to amortized cost. It is no longer treated as a component of equity during the year under review. From now on the measurement-related changes in the liability are recognized in the interest result in the consolidated statement of income.

If the non-controlling interests in limited partnerships are terminated or if the respective comparable termination rights or put options are exercised, the financial liabilities recognized prior to termination/exercise of the put options are reclassified as other financial liabilities.

Financial guarantee contracts

Financial guarantee contracts issued by the Group are those contracts that require a payment to be made to reimburse the holder for a loss it incurs because the specified debtor fails to make a payment when due in accordance with the terms of a debt instrument. These financial guarantee contracts are treated as insurance contracts as defined by IFRS 4, i.e. the financial guarantee contracts are disclosed as contingent liabilities until utilization becomes probable. When this is the case, the corresponding obligation is recognized.

Exercise of judgment and estimates by management

The presentation of net assets, financial and earnings position in the consolidated financial statements requires the exercise of judgment by management. Management has exercised judgment in the following instances:

- Income taxes: management must exercise judgment in determining current and deferred taxes, as deferred taxes are recognized to the extent that their realization is probable
- Determining the requirement for, and measuring the amount of, impairment of intangible assets and property, plant and equipment
- Determining the requirement for allowances against doubtful receivables
- Sales revenues from construction contracts: determining the percentage of completion and estimation of whether a contract is associated with the inflow of future economic benefits
- Measurement of provisions and assessment of the likelihood of their utilization

Some accounting policies require critical estimates that involve complex and subjective assessments and the use of assumptions, some of which are inherently uncertain and subject to change. These critical accounting estimates can vary from period to period and significantly impact a company's financial position and/or earnings. The management explicitly points out that future events will often deviate from planning assumptions, and that it is normal for estimates to have to be adjusted.

Significant estimates and assumptions have to be made in the following areas of accounting:

Revenue recognition from long-term construction contracts
The Group generally accounts for construction contracts using the PoC method, according to which revenue is recognized based on the percentage of completion. Accurate estimates of the percentage of completion are of vital importance under this method. Depending on the method used to measure the percentage of completion, the most significant estimates concern the total contract cost, the remaining costs to complete the contract, the total contract revenue and contract risks.

The management of Voith's operating subsidiaries constantly reviews all estimates that are needed in the accounting for construction contracts and adjusts them as and when necessary.

Such examinations are part of management's normal accounting activities at operating level. We refer to note 14.

Trade and other receivables
Determining allowances for doubtful receivables requires significant judgment on the part of management as well as an analysis of the individual debtors that covers their creditworthiness, current economic trends and an examination of historic default scenarios. We refer to note 14.

Impairment of goodwill
Determining the recoverable amount of a Group Division to which goodwill was allocated involves estimates by management. The value in use is measured based on planning for the first five years, which is based on taking management's expectations and adjusting them for economic trends and historic developments. Estimates of growth, the weighted average cost of capital and tax rates are likewise based on reliable information that reflects the risks associated with operating business in each given industry or division. We refer to note 10 and to the segment reporting for details of the carrying amounts.

Development costs
Development costs are capitalized if the recognition criteria described in IAS 38 are met. Initial capitalization is based on management's estimate that the technical and economic feasibility is demonstrated; the forecast of the expected future economic benefit to be gained from assets is essential to the decision whether or not costs are to be capitalized. We refer to note 10.

Pension obligations

Estimates of pension obligations depend significantly on key assumptions including discount factors, expected salary increases, mortality rates and healthcare trends. The assumptions used to calculate the discount factor reflect the interest rates that can be realized on high-quality fixed-income instruments with appropriate maturities. We refer to note 20.

Other provisions

Recognizing provisions for anticipated losses on contracts, warranty-related costs and litigation involves the use of significant estimates. Voith recognizes provisions for anticipated losses in all cases where current estimates of the total contract costs exceed expected contract revenues. Onerous contracts are identified by estimating the total costs of the contract, which requires significant judgment. Estimates are also necessary for assessing obligations from warranties and litigation. Provisions for restructuring are based on detailed plans for expected activities which are reviewed and approved by the Board of Management. We refer to note 21.

Taxes

The Voith Group has business operations in many countries and is subject to many different tax laws. Both current and deferred taxes on income must be calculated for each individual taxable entity. To calculate deferred tax assets on unused tax losses and temporary differences, for example, assumptions must be made about the possibility of realizing sufficient taxable income in the future and the interpretation of complex tax laws and regulations. We refer to note 9.

Adoption of amended and new standards and interpretations

Changes in accounting and measurement policies due to first-time adoption of revised and new IFRS and IFRICs

The following new and revised IAS and IFRS standards were applied for the first time in the 2016/17 fiscal year:

Standard/interpretation	Amendment/new standards for interpretation
Amendments to IAS 1: Disclosure Initiative	Initiative to research various possibilities in order to examine ways in which existing disclosure requirements made by IFRS users can be improved and simplified.
Amendments to IAS 16 and IAS 38: Clarification of Acceptable Methods of Depreciation and Amortization	Clarification of acceptable methods of depreciation and amortization.
Amendments to IFRS 11: Joint Arrangements	Clarification of the accounting for the acquisition of interests in a joint activity.
Improvements to IFRS (2012–2014)	Amendments to standards IFRS 5 and 7, IAS 19 and 34.

None of the IAS and IFRS standards adopted had a significant effect on the net assets, financial and earnings position of the Group.

The adoption of the following revised and newly issued IFRS and IFRICs was not yet mandatory in the 2016/17 fiscal year, and/or they had not yet been endorsed by the European Commission for adoption in the European Union.

Standard/interpretation	Amendment/new standards for interpretation	Mandatory effective date
Amendments to IFRS 2: Classification and Measurement of Share-based Payment Transactions	Clarification of the classification and measurement of transactions involving share-based payments.	Periods beginning on or after January 1, 2018
Amendments to IFRS 4: Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts	The objective of the amendment is to reduce the effects of the different effective dates of IFRS 9 Financial Instruments and the successor standard to IFRS 4.	Periods beginning on or after January 1, 2018
IFRS 9 Financial Instruments	Regulations for the recognition and the measurement, derecognition and hedge accounting of financial instruments.	Periods beginning on or after January 1, 2018
Amendments to IFRS 9: Financial Instruments	Amendments concerning early repayment options with negative early repayment compensation.	Periods beginning on or after January 1, 2019
IFRS 15 Revenue from Contracts with Customers incl. amendment of the effective date	Combination of revenue recognition rules previously contained in various standards and interpretations.	Periods beginning on or after January 1, 2018
Clarifications to IFRS 15: Revenue from Contracts with Customers	The amendments are aimed at providing transition relief in the case of modified agreements and completed contracts.	Periods beginning on or after January 1, 2018
IFRS 16 Leases	IFRS 16 governs the recognition, measurement, presentation and disclosure of leases in financial statements.	Periods beginning on or after January 1, 2019
IFRS 17 Insurance Contracts	IFRS 17 provides rules for identifying, recognizing, valuing and presenting insurance contracts, including related disclosure requirements.	Periods beginning on or after January 1, 2021
Amendments to IAS 7: Disclosure Initiative	Project as part of the disclosure initiative for IAS 7 Statement of Cash Flows to improve information provided to users of financial statements about an entity's financing activities and liquidity.	Periods beginning on or after January 1, 2017
Amendments to IAS 12: Recognition of Deferred Tax Assets for Unrealized Losses	Clarification of the accounting for deferred tax assets for unrealized losses in the case of assets accounted for at fair value.	Periods beginning on or after January 1, 2017
Amendments to IAS 28: Interests in Associates and Joint Ventures	Under this amendment long-term interests which, in economic terms, represent part of a net investment in a company accounted for under the equity method, are to be accounted for and valued in accordance with IFRS 9.	Periods beginning on or after January 1, 2019
Amendments to IAS 40: Transfers of Investment Property	Clarifications concerning the transfer to and from the category "Investment properties."	Periods beginning on or after January 1, 2018
IFRIC 22 Foreign Currency Transactions and Advance Consideration	IFRIC 22 clarifies the accounting for transactions which include the receipt or payment of consideration in a foreign currency.	Periods beginning on or after January 1, 2018
IFRIC 23 Uncertainty over Income Tax Treatments	IFRIC 23 expands the rules in IAS 12 concerning accounting for uncertainty over the tax treatment of affected issues and transactions.	Periods beginning on or after January 1, 2019
Improvements to IFRS (2014–2016)	Amendments to standards IFRS 1 and 12 and IAS 28.	Periods beginning on or after January 1, 2017 (for IFRS 12) and after January 1, 2018 (for IFRS 1 and IAS 28).

None of the revised and newly issued IFRS and IFRICs subject to mandatory adoption from the 2017/18 fiscal year onwards are expected to have any significant impact on the net assets, financial and earnings position of the Voith Group. The impact on the Voith Group of revised or newly issued standards and interpretations that will be subject to mandatory adoption at a later date is currently being investigated.

IFRS 9 Financial Instruments: IFRS 9 introduces a uniform approach to classifying and valuing financial assets and in doing so it replaces IAS 39 Financial Instruments: Valuation and Measurements. The standard takes account of the cash flow properties and of the business model in which the instruments are used. The Corporate Board of Management expects that there will be changes to the valuation of certain equity instruments which are currently valued at amortized cost under IAS 39 and which will need to be valued at fair value under IFRS 9. There are significant changes to the recognition of impairments, which will be based on an expected loss model in future. Based on current information this amendment is not expected to have a significant effect. The new regulations on hedge accounting are intended to better represent the risk management activities of an entity. In addition, IFRS 9 includes substantial new disclosure requirements, in particular in connection with hedge accounting, on credit risks and expected losses.

As a general principle the new accounting rules are applicable retrospectively on initial application at the mandatory effective date. In implementing the changes to classification and valuation (including impairment) Voith will apply the alternative treatment permitted by IFRS 9 and not adjust comparative figures presented for earlier periods. Differences between the carrying amounts of the financial assets and financial liabilities which result from the initial application of IFRS 9 will be recorded in revenue reserves and other reserves at the date of initial application. Currently, Voith does not plan to apply the new hedging rules. The hedging arrangements will continue to be accounted for in accordance with the requirements of IAS 39.

IFRS 15 Revenue from Contracts with Customers: The IASB issued the new standard for revenue recognition under IFRS in May 2014, IFRS 15 Revenue from Contracts with Customers. The objective of the new standard is to unify the numerous rules on revenue recognition into one single standard. Accordingly IFRS 15 replaces the existing revenue recognition standards IAS 18 Revenue and IAS 11 Construction contracts and their associated interpretation statements. The clarification to IFRS 15 (Clarifications) issued in April 2016 will also be implemented by Voith. The new standard now provides uniform basic principles which are applicable to all sectors and all types of revenue transactions. The key point is that sales revenue will be recognized once control (known as transfer of control) has occurred, replacing the transfer of risk and rewards principle used until now. The determination of the amount and timing or period over which revenue will be recognized will be ascertained using a five-step model. In addition, the new standard can be expected to result in additional qualitative and quantitative disclosures being made.

The business models of all of Voith's Group Divisions have been analyzed as part of a Group-wide implementation project in order to determine possible changes resulting from IFRS 15. The Group Divisions Voith Paper and Voith Hydro, which have reported their construction contracts under the percentage of completion method until now, will meet the criteria under IFRS 15 requiring them to continue to recognize sales revenues over time. There will be only a few exceptions in which the sales revenues will be recognized at a later date in future. The Group Division Voith Turbo has made no use of the percentage of completion method until now, i.e. revenue from sales was recognized once delivery of the goods or services was complete or on transfer of rewards and risks of ownership to the customer, respectively. Here it is expected that there will be in future individual product lines which will recognize revenues earlier than in the past, as the new criteria under IFRS 15 for recognizing revenues over time will be met.

In addition, it may be necessary to separate a contract into multiple performance obligations or to amend the accounting to deal with special issues such as variable compensation or the presence of a significant finance component which both may result in a different, but not materially different, accounting than has been applied to date.

The standard differentiates between a full retrospective and a modified retrospective approach to initial application. Voith will make a final decision which method will be applied during the 2017/18 fiscal year.

IFRS 16 Leases: IFRS 16 replaces the current classification of leasing arrangements into operating and finance leases for lessees. In future lessees will record most lease arrangements and the associated right-of-use assets and leasing liabilities in the balance sheet. The Corporate Board of Management assumes that applying IFRS 16 will result in a slight increase in EBIT, total assets and cash flow from operating activities.

At present, the Voith Group does not plan to early adopt the new or amended standards and interpretations.

Changes to presentation in the consolidated statement of income

In order to improve the transparency of the presentation of the Group's operational results a change in presentation has been made from the 2016/17 fiscal year to present currency gains and losses resulting from long-term loan and liability balances both between companies in the Group and on external balances as well as valuation changes arising on their associated hedging instruments within financial results. The resulting effect in the previous year amounted to €3,493 thousand which increases the operational result by this amount, with a corresponding increase in the expense recorded as other financial result. A correction has not been made to the statement of income on materiality grounds.

Notes to the consolidated statement of income

01. Sales

in € thousands	2016/17	2015/16
Sale of goods	2,940,501	3,042,443
Rendering of services	1,282,747	1,209,964
	4,223,248	**4,252,407**

02. Changes in inventories and other own work capitalized

in € thousands	2016/17	2015/16
Changes in inventories of finished goods and work in progress	10,022	-8,531
Other own work capitalized	8,447	8,088
	18,469	**-443**

03. Other operating income

in € thousands	2016/17	2015/16
Income from the utilization of contract-specific provisions	118,359	119,060
Income from the reversal of provisions and accruals	66,719	52,476
Foreign exchange gains	92,691	123,599
Recovered bad debts	12,005	11,203
Gains on the disposal of intangible assets and property, plant and equipment	7,659	5,558
Rental and lease income	1,856	3,063
Income from insurance indemnification payments	15,538	28,049
Other income	86,091	44,774
	400,918	**387,782**

04. Cost of materials

in € thousands	2016/17	2015/16
Cost of materials and supplies and of purchased merchandise	1,499,399	1,455,089
Cost of purchased services	343,420	363,553
	1,842,819	**1,818,642**

05. Personnel expenses

in € thousands	2016/17	2015/16
Wages and salaries	1,164,783	1,154,826
Social security, pension and other benefit costs	250,625	246,856
	1,415,408	**1,401,682**

Number of employees

	Annual average		As at the reporting date	
	2016/17	2015/16	2017-09-30	2016-09-30
Direct production employees	9,472	24,752	9,559	9,420
Administration staff/indirect production	9,479	10,964	9,486	9,678
	18,951	**35,716**	**19,045**	**19,098**
Apprentices and interns[1]	953	1,009	953	1,009
	19,904	**36,725**	**19,998**	**20,107**

[1] Previous year amount restated due to new method of calculation.

Number of employees by region

	Annual average		As at the reporting date	
	2016/17	2015/16	2017-09-30	2016-09-30
Germany	7,428	12,557	7,641	7,363
Europe excluding Germany	2,689	6,917	2,662	2,760
Americas	4,752	9,970	4,650	4,925
Asia	3,914	6,101	3,925	3,884
Other	168	171	167	166
	18,951	**35,716**	**19,045**	**19,098**

06.

Other operating expenses

in € thousands	2016/17	2015/16
Increase in provisions and accruals	229,079	231,060
Other selling expenses	307,075	289,141
Other administrative expenses	240,660	227,557
Foreign exchange losses	90,971	121,820
Rent for buildings and machinery	51,314	47,852
Bad debt allowances	18,106	23,325
Losses on the disposal of intangible assets and property, plant and equipment	3,369	1,347
Other expenses	101,427	102,911
	1,042,001	**1,045,013**

07.

Non-recurring result

Voith generally defines expenses and income arising from major restructuring activities, measures addressing personnel capacity and the discontinuation of operations as exceptional items and presents them under the non-recurring result.

The non-recurring result totaled €-32 million (previous year: €-7 million).

In the 2016/17 fiscal year the non-recurring result primarily includes personnel-related and other expenses arising from measures taken to consolidate production capacities and to improve competitiveness at Voith Hydro in Brazil, Voith Paper in the USA and at Voith Turbo in Germany. In addition the donations commitments of €13 million are included here in this reporting period.

In the previous year the non-recurring result totaled €-7 million and included individual matters which were consequential effects resulting from a package of initiatives implemented at Voith Paper as well as matter related to excellence initiatives as part of the Group-wide Voith 150+ success program. Specifically, personnel costs were included for which it was not permitted to record provisions in earlier years, as well as other expenses and income arising on the disposal of property, plant and equipment and the release of provisions made for the measures. In addition, the non-recurring result included personnel-related expenses arising from a measure at Voith Turbo introduced in response to the weakness in the oil and gas industry, in the mining industry, and at steel producers. In addition, expenses of €18 million were attributable to the restatement of a cut-off error at two Asian Voith Paper subsidiaries which was corrected in the current year.

The contributions to the non-recurring result affected Voith Hydro €-7 million (previous year: €+4 million), Voith Paper €-5 million (previous year: €-8 million), Voith Turbo €-6 million (previous year: €-5 million) and areas with holding functions €-14 million (previous year: €+2 million).

In detail, the non-recurring result includes the following:

in € thousands	2016/17	2015/16
Personnel expenses	-15,734	-22,296
Depreciation and amortization of non-current assets	0	-515
Loss on the disposal of property, plant and equipment	-873	0
Sundry other expenses	-20,169	-24,187
Gain on the disposal of property, plant and equipment	389	10,244
Income from the reversal of provisions	2,740	27,704
Sundry other income	1,480	1,765
	-32,167	**-7,285**

The personnel expenses presented mostly comprise measures to adjust personnel capacity, such as early retirement and other termination benefits.

08. Other financial result

in € thousands	2016/17	2015/16
Gains/losses from investments	20,369	6,781
Impairment of other investments and loans	-408	-231
Impairment of securities	0	-36,219
Income from securities and loans	453	398
Expenses from securities and loans	-2,097	0
Currency gains on long-term financing positions	6,519	0
Currency losses on long-term financing positions	-36,557	0
Valuation of derivatives used to hedge financial transactions	1,891	0
	-9,830	**-29,271**

The impairment losses recognized on other investments and loans mainly concern available-for-sale financial instruments that are measured at amortized cost.

The impairments of securities are impairment losses recognized on available-for-sale financial assets with market quotations, the fair value of which has decreased significantly.

The currency gains and losses on long-term financing positions result from currency gains and losses on long-term loans and liability balances both between companies in the Group and on external balances. The valuation effect of derivatives used to hedge financial transactions are the hedging instruments related to these long-term financing positions.

09. Income taxes

in € thousands	2016/17	2015/16
Current taxes	-67,164	-80,534
Deferred taxes	-15,142	29,881
	-82,306	**-50,653**

Current taxes include domestic income taxes and comparable foreign income taxes that are calculated in accordance with the local tax laws valid for each subsidiary.

Deferred taxes are recognized for temporary differences between carrying amounts for tax reporting and carrying amounts recognized under IFRS at the individual Group companies as well as for consolidation measures recognized in profit or loss. Deferred tax assets are also recognized for unused tax losses that can be reasonably expected to be realized in the near future. The average income tax rate for German companies is 29.84% (previous year: 29.84%).

Deferred taxes are calculated at the tax rates valid in the respective countries.

The deferred tax expense from temporary differences amounted to €3,934 thousand (previous year: tax income of €29,111 thousand).

The deferred tax expense from unused tax losses amounted to €11,208 thousand in the 2016/17 fiscal year. This primarily includes the impairment of deferred tax assets of €6,882 thousand which were recognized in the 2015/16 fiscal year, a reduction of deferred tax assets on tax losses carried forward of €5,622 thousand as a result of amendments to tax losses carried forward from previous years, income of €7,153 thousand from the initial recognition of deferred tax assets on tax losses for the current fiscal year, expenses of €12,150 thousand from the utilization of tax losses brought forward from previous years, and income of €7,541 thousand from the initial recognition of previously unrecognized tax losses.

The deferred tax income from unused tax losses amounted to €770 thousand in the 2015/16 fiscal year. This primarily includes the impairment of deferred tax assets of €901 thousand which were recognized in the 2014/15 fiscal year, a reduction of deferred tax assets on tax losses carried forward of €3,237 thousand as a result of amendments to tax losses carried forward from previous years, income of €7,151 thousand from the initial recognition of deferred tax assets on tax losses for the current fiscal year, expenses of €11,964 thousand from the utilization of tax losses brought forward from previous years, and income of €6,703 thousand from the initial recognition of previously unrecognized tax losses.

In addition, the current income tax charge was reduced by the use of previously unrecognized deferred tax assets on unused tax losses of €5,961 thousand (previous year: €3,968 thousand).

As at September 30, 2017 no deferred tax assets were recognized on German trade tax losses of €649,593 thousand (previous year: €615,723 thousand), on German corporate income taxes of €158,702 thousand (previous year: €85,870 thousand) or on interest expenses currently not deductible under German tax law of €178,459 thousand (previous year: €151,554 thousand) as it is probable that the losses carried forward cannot be used in the near future.

In addition, no deferred tax assets were recorded on foreign federal tax losses carried forward of €65,836 thousand (previous year: €48,791 thousand) or foreign state taxes of €104,704 thousand (previous year: €106,773 thousand), also due to the fact that the utilization of the losses is not probable in the near future.

Further changes in unused tax losses may arise as a result of the current external tax audit of the companies in Germany and abroad.

In Germany, unused tax losses can be carried forward indefinitely. Outside Germany, tax losses can usually be carried forward for a limited period of no more than five to ten years.

	2017-09-30		2016-09-30	
in € thousands	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	12,635	46,680	4,274	42,657
Property, plant and equipment	1,918	34,131	1,892	37,988
Financial assets and securities	900	12,825	637	17,560
Inventories and receivables	29,768	41,853	29,102	32,329
Other assets	6,518	11,978	9,959	15,099
Pension provisions	124,661	10,960	154,820	11,378
Financial liabilities	9,486	2,207	8,098	2,707
Other provisions and liabilities	119,788	10,042	118,667	4,674
Tax effect on distributable earnings of Group companies		3,851		5,182
Impairment of deferred tax assets on temporary differences	-12,688		-4,730	
Unused tax losses	32,335		44,349	
Netting	-120,783	-120,783	-118,375	-118,375
	204,538	**53,744**	**248,693**	**51,199**

For details of the origin of deferred taxes on items recorded directly in equity, please refer to note 19.

Reconciliation of deferred tax assets and liabilities:

in € thousands	2017-09-30	2016-09-30
Balance, October 1	**197,494**	**129,952**
thereof: deferred tax assets	248,693	180,803
thereof: deferred tax liabilities	-51,199	-50,851
Deferred tax income/(expense) reported in the income statement in the reporting period	-15,142	29,881
Deferred tax income/(expense) reported in other comprehensive income in the reporting period	-21,725	38,926
Discontinued operations	0	-2,699
Reclassifications held for sale	0	-3,216
Business acquisitions and disposals	-4,410	0
Currency	-5,423	4,650
Balance, September 30	**150,794**	**197,494**
thereof: deferred tax assets	204,538	248,693
thereof: deferred tax liabilities	-53,744	-51,199

Reconciliation of expected and effective tax expense:

The income of Voith GmbH & Co. KGaA and its subsidiaries in Germany is subject to corporate income tax and trade tax. Profits earned outside Germany are taxed at the current rates valid in the countries concerned. The expected tax expense rate of 29.84% (previous year: 29.84%) takes into account the legal structure of the Voith Group.

in € thousands	2016/17	2015/16
Result before income taxes	682,400	140,096
Expected tax expenses (+)/tax income (-)	203,628	41,805
Deviations from expected tax rates	-3,993	-8,314
Effect of changes in tax rates	625	271
Tax-free income	-173,132	-11,712
Non-deductible expenses	34,147	29,267
Taxes relating to other periods	-4,192	-6,049
Change in impairments of deferred tax assets	26,546	7,144
Other tax effects	-1,323	-1,759
Income taxes	**82,306**	**50,653**
Effective tax rate (in %)	**12.1**	**36.2**

No deferred tax was recorded on temporary differences on investments in subsidiaries of €1,025,322 thousand (previous year: €916,400 thousand) as the specified criteria in IAS 12.39 were met.

When distributions by foreign subsidiaries to Germany are made, 5% of the distribution is subject to German taxation. In addition, withholding taxes and dividend-related taxes abroad may also be incurred. Further income tax implications must also be observed in the case of distributions from subsidiaries abroad to another foreign company.

Notes to the consolidated balance sheet

10. Intangible assets

Development of intangible assets from 2015-10-01 to 2016-09-30

in € thousands	Franchises, industrial rights and similar rights and assets as well as licenses in such rights and assets	Goodwill	Development costs	Prepayments	Total
Cost 2015-10-01	**190,659**	**439,993**	**120,909**	**2,834**	**754,395**
Business combinations	0	0	0	0	0
Currency translation differences	712	184	-26	0	870
Additions	3,378	0	7,053	189	10,620
Capitalized interest	0	0	28	0	28
Disposals	-2,470	0	-2,639	-3	-5,112
Other adjustments	0	0	0	0	0
Transfers	3,419	0	-820	-2,831	-232
Reclassification to assets held for sale	0	0	0	0	0
Cost 2016-09-30	**195,698**	**440,177**	**124,505**	**189**	**760,569**
Accumulated amortization and impairments 2015-10-01	**-140,106**	**-54,179**	**-101,136**	**0**	**-295,421**
Business combinations	0	0	0	0	0
Currency translation differences	-1,572	0	25	0	-1,547
Amortization	-11,112	0	-6,539	0	-17,651
Impairment losses	-21	0	-122	0	-143
Disposals	2,356	0	2,639	0	4,995
Transfers	-52	0	0	0	-52
Reclassification to assets held for sale	0	0	0	0	0
Other adjustments	0	0	0	0	0
Accumulated amortization and impairments 2016-09-30	**-150,507**	**-54,179**	**-105,133**	**0**	**-309,819**
Carrying amount 2016-09-30	**45,191**	**385,998**	**19,372**	**189**	**450,750**

Development of intangible assets from 2016-10-01 to 2017-09-30

in € thousands	Franchises, industrial rights and similar rights and assets as well as licenses in such rights and assets	Goodwill	Development costs	Prepayments	Total
Cost 2016-10-01	**195,698**	**440,177**	**124,505**	**189**	**760,569**
Business combinations	13,492	54,741	0	0	68,233
Currency translation differences	-2,679	-251	-2	-9	-2,941
Additions	2,550	0	13,493	89	16,132
Capitalized interest	0	0	0	0	0
Disposals	-4,516	0	-2,088	0	-6,604
Other adjustments	9	0	0	0	9
Transfers	3,055	0	0	-175	2,880
Reclassification to assets held for sale	0	0	0	0	0
Cost 2017-09-30	**207,609**	**494,667**	**135,908**	**94**	**838,278**
Accumulated amortization and impairments 2016-10-01	**-150,507**	**-54,179**	**-105,133**	**0**	**-309,819**
Business combinations	-215	0	0	0	-215
Currency translation differences	1,743	0	23	0	1,766
Amortization	-10,053	0	-6,440	0	-16,493
Impairment losses	0	0	-970	0	-970
Disposals	4,073	0	1,666	0	5,739
Transfers	-2,601	0	0	0	-2,601
Reclassification to assets held for sale	0	0	0	0	0
Other adjustments	-9	0	0	0	-9
Accumulated amortization and impairments 2017-09-30	**-157,569**	**-54,179**	**-110,854**	**0**	**-322,602**
Carrying amount 2017-09-30	**50,040**	**440,488**	**25,054**	**94**	**515,676**

The impairment losses for the 2016/17 fiscal year of €970 thousand on capitalized development costs are based on updated commercial profitability assessments and relate to the Voith Paper segment.

An interest rate of 4.4% was used to calculate capitalized interest (previous year: 4.4%).

11. Property, plant and equipment

Development of property, plant and equipment from 2015-10-01 to 2016-09-30

in € thousands	Land and buildings, including buildings on third-party land	Plant and machinery	Other equipment, furniture and fixtures	Prepayments and assets under construction	Total
Cost 2015-10-01	**843,320**	**1,499,405**	**507,110**	**39,861**	**2,889,696**
Business combinations	0	0	0	0	0
Currency translation differences	108	3,531	1,598	-830	4,407
Additions	2,851	27,429	27,564	52,115	109,959
Capitalized interest	0	0	0	223	223
Disposals	-39,401	-109,371	-33,491	-1,403	-183,666
Transfers	7,043	11,860	3,243	-21,912	234
Reclassification to assets held for sale	0	0	0	0	0
Other adjustments	0	0	0	0	0
Cost 2016-09-30	**813,921**	**1,432,854**	**506,024**	**68,054**	**2,820,853**
Accumulated depreciation and impairments 2015-10-01	**-371,024**	**-1,069,646**	**-390,124**	**0**	**-1,830,794**
Business combinations	0	0	0	0	0
Currency translation differences	134	-2,914	-1,279	0	-4,059
Depreciation	-18,018	-62,307	-32,584	0	-112,909
Impairment losses	-486	-45	-12	0	-543
Disposals	28,494	107,734	31,600	0	167,828
Transfers	-1,331	1,588	-205	0	52
Reclassification to assets held for sale	0	0	0	0	0
Reversal of impairment losses	0	249	0	0	249
Other adjustments	0	0	0	0	0
Accumulated depreciation and impairments 2016-09-30	**-362,231**	**-1,025,341**	**-392,604**	**0**	**-1,780,176**
Carrying amount 2016-09-30	**451,690**	**407,513**	**113,420**	**68,054**	**1,040,677**

Development of property, plant and equipment from 2016-10-01 to 2017-09-30

in € thousands	Land and buildings, including buildings on third-party land	Plant and machinery	Other equipment, furniture and fixtures	Prepayments and assets under construction	Total
Cost 2016-10-01	**813,921**	**1,432,854**	**506,024**	**68,054**	**2,820,853**
Business combinations	497	26	1,166	0	1,689
Currency translation differences	-15,694	-37,004	-4,811	-1,927	-59,436
Additions	5,834	23,473	28,371	22,080	79,758
Capitalized interest	1	0	0	220	221
Disposals	-14,818	-15,933	-23,431	-1,850	-56,032
Transfers	24,281	27,076	2,025	-56,262	-2,880
Reclassification to assets held for sale	0	0	0	0	0
Other adjustments	-40	1,569	1,918	1	3,448
Cost 2017-09-30	**813,982**	**1,432,061**	**511,262**	**30,316**	**2,787,621**
Accumulated depreciation and impairments 2016-10-01	**-362,231**	**-1,025,341**	**-392,604**	**0**	**-1,780,176**
Business combinations	-229	-10	-666	0	-905
Currency translation differences	5,887	25,723	3,932	0	35,542
Depreciation	-18,054	-61,453	-32,400	0	-111,907
Impairment losses	0	-150	-68	0	-218
Disposals	9,879	14,875	22,503	0	47,257
Transfers	-155	-423	3,179	0	2,601
Reclassification to assets held for sale	0	0	0	0	0
Reversal of impairment losses	0	0	0	0	0
Other adjustments	0	267	-1,623	0	-1,356
Accumulated depreciation and impairments 2017-09-30	**-364,903**	**-1,046,512**	**-397,747**	**0**	**-1,809,162**
Carrying amount 2017-09-30	**449,079**	**385,549**	**113,515**	**30,316**	**978,459**

An interest rate of 6.0% was used to calculate capitalized interest (previous year: 6.0%).

The prepayments and assets under construction include buildings of €1,041 thousand (previous year: €23,076 thousand), plant and machinery of €27,217 thousand (previous year: €41,832 thousand), non-production related equipment of €2,058 thousand (previous year: €3,120 thousand) and other assets of €0 (previous year: €26 thousand).

12. Investments accounted for using the equity method

Associates

The following table summarizes the financial information for associates (all amounts relate to the Group's proportionate share of the respective associates):

in € thousands	2017-09-30	2016-09-30
Carrying value of the investments in associates	1,495	1,467
Share of:		
Net result of continuing operations	158	-128
Total comprehensive income	**158**	**-128**

Joint ventures

The Group has interests in joint ventures which are not individually material. The following table summarizes the financial information for these joint ventures (all amounts relate to the Group's proportionate share of the respective joint ventures):

in € thousands	2017-09-30	2016-09-30
Carrying value of the joint ventures	30,511	13,840
Share of:		
Net result of continuing operations	7,434	-1,159
Other comprehensive income	-386	-154
Total comprehensive income	**7,048**	**-1,313**

In some cases, the companies accounted for under the equity method have fiscal reporting periods which do not end on September 30. Accordingly, some companies prepare interim financial statements as at September 30. For other companies the effects of the different reporting periods are not significant for the Voith Group's earnings and net assets position.

13. Inventories

Inventories consist of the following items:

in € thousands	2017-09-30	2016-09-30
Raw materials and supplies	194,785	197,530
Work in progress	146,166	169,257
Finished goods and merchandise	131,483	126,988
Prepayments	75,391	73,458
	547,825	**567,233**

Write-downs of inventories recognized as expenses amounted to €9,604 thousand (previous year: €16,652 thousand). Obligatory reversals of write-downs totaling €8,090 thousand (previous year: €6,172 thousand) were made. These amounts are recognized in the cost of materials in the current fiscal year. In the previous year €8,182 thousand was recognized in cost of materials and €2,298 thousand was recognized in discontinued operations.

14. Trade receivables and receivables from customer-specific contracts

Trade receivables consist of the following items:

in € thousands	2017-09-30	2016-09-30
Trade receivables	761,727	739,124
Bad debt allowances	-47,828	-48,492
Receivables from customer-specific contracts	323,929	426,720
	1,037,828	**1,117,352**

Trade receivables are classified as current assets. As at September 30, 2017 the volume of receivables that is not expected to be realized within one year is €13,269 thousand (previous year: €4,189 thousand).

Movements in the allowance account for the impairment of trade receivables were as follows:

in € thousands	2017-09-30	2016-09-30
Impairment at the beginning of the fiscal year	**-48,492**	**-38,195**
Additions	-16,703	-23,313
Utilization	4,579	4,925
Reversal	11,925	8,393
Changes in consolidated group/exchange differences	863	-302
Impairment at the end of the fiscal year	**-47,828**	**-48,492**

The total reversal of €11,925 thousand (previous year: €8,393 thousand) exclusively includes specific bad debt allowances of €11,925 thousand (previous year: €8,393 thousand). Additions of €16,703 thousand (previous year: €23,313 thousand) consist of additions to specific bad debt allowances of €16,318 thousand (previous year: €22,962 thousand) and to portfolio-based allowances of €385 thousand (previous year: €351 thousand).

Credit insurance is used to manage default risk in trade receivables. For this purpose, Hermes cover is used to secure receivables from foreign customers in particular.

Future receivables from customer-specific construction contracts recognized using the percentage-of-completion method are determined as follows:

in € thousands	2017-09-30	2016-09-30
Costs incurred and recognized profits less recognized losses to date on current customer-specific projects	6,537,092	4,700,803
Progress billings to date	-5,137,716	-3,372,238
Future receivables from customer-specific construction contracts before advances received	**1,399,376**	**1,328,565**
Advances received (progress billings)	-1,121,070	-1,020,032
	278,306	**308,533**
Thereof receivables from construction contracts	323,929	426,721
Thereof liabilities from construction contracts	-45,623	-118,188

Other liabilities include further advances received on customer-specific contracts of €477,734 thousand (previous year: €603,005 thousand) for which no production costs have been incurred to date.

Sales from customer-specific contracts totaled €2,226,098 thousand (previous year: €2,204,026 thousand).

An amount of €17,233 thousand (previous year: €21,754 thousand) from progress billings has been retained by customers as the amounts are payable only on fulfillment of agreed contractual conditions.

15. Other financial receivables and other assets

Other financial receivables

in € thousands	Current	Non-current	2017-09-30	Current	Non-current	2016-09-30
Derivatives used to hedge operational transactions	23,775	21,268	45,043	35,908	14,185	50,093
Derivatives used to hedge financial transactions	483	1,062	1,545	557	5,847	6,404
Financial receivables	24,695	1,280	25,975	79,806	160	79,966
Sundry financial assets	52,336	65,801	118,137	56,209	68,439	124,648[1)]
	101,289	**89,411**	**190,700**	**172,480**	**88,631**	**261,111**

[1)] Includes assets of €37,634 thousand (previous year: €42,267 thousand) which are no financial instruments and which are accordingly excluded from the disclosures made in the section “Additional information on financial instruments.”

Other assets

in € thousands	Current	Non-current	2017-09-30	Current	Non-current	2016-09-30
Deferred income	20,228	6,930	27,158	22,398	11,022	33,420
Other taxes (without income tax)	90,316	3,819	94,135	77,418	6,038	83,456
	110,544	**10,749**	**121,293**	**99,816**	**17,060**	**116,876**

Sundry financial assets totaling €1,632 thousand (previous year: €42,291 thousand) are used as collateral for liabilities and contingent liabilities. They may be drawn on if the underlying obligations are not fulfilled or if the contingent liabilities are realized.

16. Securities

Non-current securities totaling €11,734 thousand (previous year: €84,859 thousand) includes assets of €9,113 thousand (previous year: €9,039 thousand) that are used to cover future pension obligations.

Current securities of €601,812 thousand include time deposits totaling €560 million held by Voith GmbH & Co. KGaA with selected bank partners with original maturities of over 90 days, with remaining days to maturity of between 20 and 185 days at the balance sheet date (previous year: none).

Further information on securities can be found in the section “Additional information on financial instruments.”

17. Cash and cash equivalents

This item mainly consists of time deposits held at banks.

in € thousands	2017-09-30	2016-09-30
Checks	0	21
Cash on hand	348	297
Cash equivalents	31,415	10,708
Cash at bank	550,184	638,646
	581,947	**649,672**

Cash at banks earns interest at floating rates based on daily bank deposit rates.

Short-term deposits are made for varying periods of between one day and three months, depending on the cash requirements of the Group. These deposits earn interest at the respective short-term deposit rates.

18. Assets held for sale and liabilities directly associated with assets held for sale

This item includes one investment which is held for sale at September 30, 2017.

In the previous year this item was stated at €609 million which primarily included Voith's investment in KUKA Aktiengesellschaft. The sale of our 25.1% investment in KUKA Aktiengesellschaft, Augsburg, a stock-exchange listed robot manufacturer, as a result of a public takeover bid by Midea Group Ltd., a Chinese investor, was completed in January 2017. As a result of this transaction we recorded a cash inflow of €1,146 million which is presented in the cash flow statement, and a positive effect of €563 million on the Group's net result. Voith GmbH & Co. KGaA invested €560 million with selected bank partners with original maturity dates of over 90 days as short-term investments; these are reported in the balance sheet within current securities.

19. Equity

Issued capital

A consequence of the change in the legal form of the Group's parent is that the Group's capital structure has changed. Following the change, the issued capital of Voith GmbH of €120,000 thousand, represented by 120,000,000 shares, is the issued share capital of Voith GmbH & Co. KGaA. This consists of 108,000 thousand ordinary shares with an arithmetical share of €1 each and 12,000 thousand preference shares with an arithmetical share of €1 each. The shareholders of Voith GmbH at the date the change in legal form was registered received the same number of shares in the issued capital as they had previously held in Voith GmbH prior to the change in legal form. Accordingly, they hold preference shares in the same proportion to their holdings in ordinary shares.

Revenue reserves and other reserves

The revenue reserves and other reserves consist of retained earnings generated by Voith GmbH & Co. KGaA and its consolidated subsidiaries as well as the effects of the remeasurement of defined benefit plans, the currency translation of foreign subsidiaries, the valuation of net investments in foreign operations, gains/losses from available-for-sale financial assets recognized directly in equity without effect on profit or loss, and cash flow hedges pursuant to IAS 39.

The statement of comprehensive income shows the individual components of other comprehensive income. Other comprehensive income consists of:

in € thousands	2016/17	2015/16
Remeasurement of defined benefit plans	**67,780**	**-135,984**
· Gains/losses in the current period	67,780	-135,984
Gains/losses on available-for-sale securities	**-12,222**	**10,166**
· Gains/losses in the current period	-2,392	10,166
· Transfers to profit and loss	-9,830	0
Gains/losses on cash flow hedges	**2,375**	**-4,247**
· Gains/losses in the current period	2,375	-4,247
· Transfers to profit and loss	0	0
Gains/losses on currency translation	**-32,619**	**6,805**
· Gains/losses in the current period	-24,386	-2,563
· Transfers to profit and loss	-8,233	9,368
Gains/losses from currency translation of net investments in foreign operations	**3**	**4,577**
· Gains/losses in the current period	3	4,577
· Transfers to profit and loss	0	0
Tax on components of other comprehensive income	**-21,724**	**39,366**
Other comprehensive income	**3,593**	**-79,317**

Deferred taxes on the components of other comprehensive income are as follows:

	2017			2016		
in € thousands	Before taxes	Deferred taxes	After taxes	Before taxes	Deferred taxes	After taxes
Remeasurement of defined benefit plans	67,780	-21,043	46,737	-135,984	38,168	-97,816
Gains/losses on available-for-sale securities	-12,222	10	-12,212	10,166	-105	10,061
Gains/losses on cash flow hedges including share of associates	2,375	-691	1,684	-4,247	1,303	-2,944
Gains/losses on currency translation	-32,619	0	-32,619	6,805	0	6,805
Gains/losses from currency translation of net investments in foreign operations	3	0	3	4,577	0	4,577
Other comprehensive income	**25,317**	**-21,724**	**3,593**	**-118,683**	**39,366**	**-79,317**

Profit participation rights

Profit participation rights with a nominal volume of €103,400 thousand (previous year: €103,400 thousand) qualify as equity under the IAS 32 criteria. The rights are lower-ranking bearer profit participation rights with variable compensation, no fixed maturity date and no right of termination on the part of the creditors. Profit participation rights of €96,800 were issued by a subsidiary of Voith GmbH & Co. KGaA. Profit participation rights of €6,600 thousand were issued by Voith GmbH & Co. KGaA. Subject to the approval of the appropriate governing body, profits totaling €5,590 thousand (previous year: €5,590 thousand) are scheduled to be distributed on the sum total of these rights for the 2016/17 fiscal year.

Non-controlling interests

The majority of non-controlling interests are held by the co-owners of the subsidiaries Rif Roll Cover Srl, Italy, Voith Fuji Hydro K.K., Japan, Voith IHI Paper Technology Co., Ltd., Japan, Voith Hydro Shanghai Ltd., China, Voith Paper Fabrics India Ltd., India, and PT. Voith Paper Rolls Indonesia, Indonesia. Of the profit participation rights totaling €103,400 thousand, €96,800 thousand is attributable to non-controlling interests.

Appropriation of retained earnings of Voith GmbH & Co. KGaA

The Board of Management proposes to pay a dividend of €0.21 per share (€25,000 thousand in total) out of the net result of Voith GmbH & Co. KGaA, and that the remaining amount (€7,453 thousand) will be carried forward. Of the total dividends proposed €2,500 thousand is attributable to preference shares. Dividend payments in the fiscal year amounted to €18,000 thousand (previous year: €15,000 thousand). The distribution per share in the fiscal year amounted to €0.15 per share (previous year: €0.13 per share).

Additional disclosures on capital management

Voith is a family-owned company. As such, it is obliged to maintain a robust and sustainable financial profile that enables the Group to meet its earnings and growth targets.

Voith manages its capital with the aim of maximizing the return on capital. The Group's managed capital consists of equity and interest-bearing financial liabilities.

in € thousands	2017-09-30	2016-09-30
Equity	1,365,924	798,934
Interest-bearing financial liabilities	633,879	1,332,473
	1,999,803	**2,131,407**

Year-on-year equity increased by 71.0% compared to the previous year. This was primarily a result of the contribution made by the €562.6 million gain on the sale of the KUKA shares. Interest-bearing financial liabilities fell by 52.4%. The composition of interest-bearing financial liabilities is described in note 22.

The articles of incorporation and bylaws of Voith GmbH & Co. KGaA do not prescribe any specific capital requirements.

20. Provisions for pensions and similar obligations

Provisions for pensions are recognized for benefit obligations in the form of retirement, invalidity and surviving dependents benefits payable under pension plans. The benefits provided by the Group vary according to local legal, tax and economic conditions in the respective countries and are usually based on the length of employee service and the level of remuneration.

The Group's post-employment benefits include both defined benefit plans and defined contribution plans. In the case of defined contribution plans, the Company pays contributions to state or private pension schemes based on either legal or contractual requirements or on a voluntary basis. Once the contributions have been paid, there are no further obligations for the Company. Current contributions are recognized as pension expenses in the period concerned and total €87,536 thousand for the Group as a whole (previous year: €87,126 thousand).

The majority of the pension plans are defined benefit plans that take the form of provisions-based or externally funded schemes.

The pension provisions for defined benefit plans are determined in accordance with IAS 19 using the internationally recognized projected unit credit method. For this purpose, the future obligations are measured on the basis of the pro rata employee benefit obligations earned at the end of the fiscal year. Pension provisions are measured taking into account development assumptions for those factors which affect the benefit amount. All defined benefit plans require actuarial valuations. These are prepared annually by qualified actuaries.

The amount of the individual pension benefit contribution is generally measured based on the wage or salary level and/or position in the corporate hierarchy, as well as the length of service. The features and related risks of the defined benefit plans available to employees vary according to local legal, tax and economic conditions in the respective countries. The features of the material defined benefit plans at Voith are described below.

a) Pension plans in Germany and Austria
The pension plans in Germany generally include retirement, invalidity and surviving dependents' benefits. Traditionally, the pension commitments are measured on the beneficiary's final salary. In recent years, these benefits have been increasingly replaced by capital savings models. Under capital savings models the amount of the benefit is measured as the sum of the (annual) savings modules. The individual modules are measured from the defined salary-based contribution using a variable conversion factor for age and interest rates for a defined retirement age.

Numerous Group companies have introduced capital savings models to satisfy their obligation to pay an employer contribution.

In accordance with the German Company Pensions Act, current benefit payments are regularly reviewed with regard to the increase in the consumer price index.

In comparison to the older final-salary-based pension commitments, which involve a relatively high risk of extra funding requirements arising from salary trends, from external input parameters (e.g. the income threshold for the statutory pension insurance scheme) and from the adjustment of current pensions, the current capital savings models ultimately only involve the risk of a change in the interest rates used in the calculation.

Pension provisions are recognized for all pension commitments. Funding is therefore only obtained in exceptional cases. The plan assets of German companies take the form of insurance policies. They do not include any financial instruments issued by companies of the Voith Group.

For mortality and invalidity, the RT 2005G mortality tables by Heubeck are used. Employee turnover probabilities were calculated specifically for the Group.

In Austria, the obligations result primarily from a severance benefit scheme ("Abfertigungen"). Benefits become due upon termination of the employment relationship (provided the employee is not culpable for the termination), i.e. also upon retirement. Austrian severance benefits all qualify as capital savings. A few years ago, the nature of these benefits changed for new hires to post-employment benefits on account of new statutory requirements. These qualify as defined contribution plans and are organized via legally independent employee welfare funds. The employer's obligation is limited to payment of the contribution. In addition, obligations exist for retirement, invalidity and surviving dependents' benefits on the basis of individual commitments and a pension plan closed to new hires a long time ago at the St. Pölten location.

b) Pension plans in the United States and Canada
The companies of the Voith Holding Inc. Group in the United States have a number of defined benefit plans. The plans are closed to new entrants, who are offered defined contribution plans instead. All of the pension plans are frozen. No new participants are accepted and no further provisions will be recognized for future benefit payments or future service cost (apart from a small group of participants in a plan for whom only salary rises are still considered in the calculation of the final average benefit payment). The pensions are primarily based on the final average salary or the length of service (i.e. the product of a fixed dollar amount and the number of years of service) and are paid monthly for life. Moreover, there are two unfunded supplementary plans for benefits paid to a small group of former employees beyond the normal upper limit for pension plans required by law. These plans have also been frozen and no active employees currently participate in these plans. Finally, there is a plan for post-employment medical benefits for a group of plan participants who met the age and length of service criteria when the plan was closed to new participants. This plan is unfunded. These defined benefit plans give rise to actuarial risks for the Voith Holding Inc. Group, arising from such factors as the investment risk, interest rate risk, longevity risk and the risk of a rise in the costs of medical care.

The plan assets for defined benefit plans are invested in a master trust. The companies in the Voith Holding Inc. Group paying the contributions have assigned the responsibility for overseeing the investment of plan assets to an investment committee. According to a trust agreement and US law, the members of the investment committee have a fiduciary duty to act solely in the best interests of the beneficiaries. The committee has drawn up an investment guideline that lays down the investment goals and procedures that must be followed. The trustee of the master trust only acts on the express instructions of the investment committee or an authorized representative of the investment committee. The trustee is responsible for the safe custody of the plan assets, but is not generally empowered with decision-making authority.

The legal and regulatory framework for calculating the minimum funding requirement for the pension plans is based on the relevant US laws, including the Employee Retirement Income Security Act (ERISA) as amended. An annual assessment of the minimum funding requirement is made by the plan's actuary on the basis of these laws. In the past, Voith paid into the plans to maintain a funded status of at least 80%, as required by local law. The annual employer's contributions correspond to the net present value of the benefit obligation accumulated in the year, plus the amortization of any plan deficit from the previous year. If the employer's contribution exceeds the minimum funding requirement or if the plan assets exceed the liabilities, the surplus may be offset against future minimum funding requirements.

The Voith Group maintains two active defined benefit plans in Canada. Both plans are closed to new entrants, who participate in various defined contribution plans instead. The benefits paid under both of these plans take the form of lifelong monthly pensions.

The plan assets of the defined benefit plans are invested in insurance policies with an insurer who manages the plan assets as trustee. The companies in the Group paying the contributions have assigned the responsibility for overseeing the investment of plan assets to the managers and directors of various companies acting as representatives of the Company. According to Canadian law at both federal and provincial level, the Company and its representatives have a fiduciary duty as the managers of the plan assets to act solely in the best interests of the beneficiaries.

The legal and regulatory framework used to calculate the minimum funding requirement for pension plans is based on the relevant laws applying in the Province of Ontario and at federal level in Canada, including the Ontario Pension Benefits Act and the Ontario Income Tax Act as well as the associated laws and regulations as amended. Based on these laws, either an annual or a three-yearly assessment of the minimum funding requirement is made by the plan's actuary.

The following amounts were recorded in the consolidated financial statements for post-employment defined benefit pension plans:

	Defined benefit obligation		Fair value of plan assets		Net carrying amount from defined benefit plans	
in € thousands	2017-09-30	2016-09-30	2017-09-30	2016-09-30	2017-09-30	2016-09-30
Germany + Austria	748,167	842,953	-23,340	-31,106	724,827	811,847
USA + Canada	181,245	218,695	-139,729	-159,082	41,516	59,613
Other	31,656	32,575	-21,398	-21,263	10,258	11,312
	961,068	**1,094,223**	**-184,467**	**-211,451**	**776,601**	**882,772**

Movements on the net liability under defined benefit plans:

in € thousands	2017-09-30 Present value of defined benefit obligations	2017-09-30 Fair value of plan assets	2017-09-30 Total	2016-09-30 Present value of defined benefit obligations	2016-09-30 Fair value of plan assets	2016-09-30 Total
Balance, October 1	**1,094,223**	**-211,451**	**882,772**	**950,857**	**-199,580**	**751,277**
Current service cost	21,303	-	**21,303**	17,826	-	**17,826**
Past service cost from plan curtailments	-6,546	0	**-6,546**	-7,157	0	**-7,157**
Interest expenses (+)/interest income (-)	17,689	-5,012	**12,677**	26,099	-7,273	**18,826**
Remeasurements:						
Losses (+)/gains (-) from changes in demographic assumptions	1,715	-	**1,715**	855	-	**855**
Losses (+)/gains (-) from changes in financial assumptions	-63,321	-	**-63,321**	141,198	-	**141,198**
Losses (+)/gains (-) from experience adjustments	-1,894	-	**-1,894**	958	-	**958**
Remeasurement of plan assets (without amounts included in interest result)	-	-4,280	**-4,280**	-	-7,027	**-7,027**
Employer contributions to the fund	-	-7,877	**-7,877**	-	-12,508	**-12,508**
Employee contributions to the fund	-	62	**62**	-	-433	**-433**
Benefits paid	-72,352	26,075	**-46,277**	-40,180	13,393	**-26,787**
Transfer to Voith Management GmbH	-19,864	9,821	**-10,043**	0	0	**0**
Other	328	- 6	**322**	-4,858	505	**-4,353**
Currency translation differences on foreign plans	-10,213	8,201	**-2,012**	-588	1,472	**884**
Addition to termination benefits in accordance with IAS 19.159 et seq.	-	-	**0**	9,213	-	**9,213**
Balance, September 30	**961,068**	**-184,467**	**776,601**	**1,094,223**	**-211,451**	**882,772**

Movements on the net liability under defined benefit plans in Germany + Austria:

Germany + Austria

in € thousands	2017-09-30 Present value of defined benefit obligations	2017-09-30 Fair value of plan assets	2017-09-30 Total	2016-09-30 Present value of defined benefit obligations	2016-09-30 Fair value of plan assets	2016-09-30 Total
Balance, October 1	**842,953**	**-31,106**	**811,847**	**713,393**	**-27,932**	**685,461**
Current service cost	19,398	-	**19,398**	15,871	-	**15,871**
Past service cost from plan curtailments	-4,786	0	**-4,786**	-6,291	0	**-6,291**
Interest expenses (+)/interest income (-)	11,038	-427	**10,611**	17,135	-699	**16,436**
Remeasurements:						
Losses (+)/gains (-) from changes in demographic assumptions	-259	-	**-259**	0	-	**0**
Losses (+)/gains (-) from changes in financial assumptions	-53,551	-	**-53,551**	123,334	-	**123,334**
Losses (+)/gains (-) from experience adjustments	-1,673	-	**-1,673**	1,851	-	**1,851**
Remeasurement of plan assets (without amounts included in interest result)	-	-675	**-675**	-	-594	**-594**
Employer contributions to the fund	-	-2,029	**-2,029**	-	-2,589	**-2,589**
Employee contributions to the fund	-	0	**0**	-	0	**0**
Benefits paid	-46,355	1,076	**-45,279**	-26,611	712	**-25,899**
Transfer to Voith Management GmbH	-19,864	9,821	**-10,043**	0	0	**0**
Other	1,266	0	**1,266**	-4,942	-4	**-4,946**
Currency translation differences on foreign plans	0	0	**0**	0	0	**0**
Addition to termination benefits in accordance with IAS 19.159 et seq.	-	-	**0**	9,213	0	**9,213**
Balance, September 30	**748,167**	**-23,340**	**724,827**	**842,953**	**-31,106**	**811,847**

Movements on the net liability under defined benefit plans in USA + Canada:

USA + Canada

in € thousands	2017-09-30 Present value of defined benefit obligations	2017-09-30 Fair value of plan assets	2017-09-30 Total	2016-09-30 Present value of defined benefit obligations	2016-09-30 Fair value of plan assets	2016-09-30 Total
Balance, October 1	**218,695**	**-159,082**	**59,613**	**207,938**	**-149,999**	**57,939**
Current service cost	1,554	-	**1,554**	1,083	-	**1,083**
Past service cost from plan curtailments	-1,840	0	**-1,840**	-770	0	**-770**
Interest expenses (+) / interest income (-)	5,994	-4,138	**1,856**	8,097	-5,870	**2,227**
Remeasurements:						
Losses (+) / gains (-) from changes in demographic assumptions	2,206	-	**2,206**	583	-	**583**
Losses (+) / gains (-) from changes in financial assumptions	-10,010	-	**-10,010**	13,204	-	**13,204**
Losses (+) / gains (-) from experience adjustments	-975	-	**-975**	-354	-	**-354**
Remeasurement of plan assets (without amounts included in interest result)	-	-3,375	**-3,375**	-	-5,014	**-5,014**
Employer contributions to the fund	-	-5,434	**-5,434**	-	-8,929	**-8,929**
Employee contributions to the fund	-	62	**62**	-	-433	**-433**
Benefits paid	-24,310	23,828	**-482**	-11,185	11,104	**-81**
Other	-903	772	**-131**	-581	420	**-161**
Currency translation differences on foreign plans	-9,166	7,638	**-1,528**	680	-361	**319**
Balance, September 30	**181,245**	**-139,729**	**41,516**	**218,695**	**-159,082**	**59,613**

Costs for defined benefit plans break down as follows:

in € thousands	2017-09-30	2016-09-30
Current service cost	21,303	17,826
Past service cost	-6,546	-7,157
Interest expenses from pension obligations and plan assets	12,677	18,826

Current service cost and past service cost are stated under personnel expenses. Interest expenses on the obligation and interest income on plan assets are stated in the interest result. Past service cost includes the effects of the increase in the discount rates for the capital savings plans.

The fund assets consist of the following components:

	Quoted prices in an active market		No quoted prices in an active market		Total	
in € thousands	2017-09-30	2016-09-30	2017-09-30	2016-09-30	2017-09-30	2016-09-30
Equity instruments	70,061	40,025	0	0	70,061	40,025
Debt instruments	75,817	118,371	0	0	75,817	118,371
Real estate	7,128	8,663	1,949	2,566	9,077	11,229
Cash and cash equivalents	2,886	9,280	103	13	2,989	9,293
Other[1]	1,878	128	24,645	32,405	26,523	32,533
	157,770	**176,467**	**26,697**	**34,984**	**184,467**	**211,451**

[1] Primarily employer's pension liability insurance.

The calculation of pension provisions is based on the following assumptions:

	Germany + Austria		USA	
in %	2017-09-30	2016-09-30	2017-09-30	2016-09-30
Discount rate	2.00	1.33	3.46	3.20
Pension increases	1.70	1.33	0	0

The inputs used in the calculation of the defined benefit obligation include assumed discount rates, wage and salary trends, as well as mortality rates. These vary depending on the economy and other factors in the respective country.

Changes to the relevant actuarial assumptions would have had the following impact on the defined benefit obligation:

		2017-09-30		2016-09-30	
		in € thousands	in %	in € thousands	in %
Discount rate	up 0.50% points	-64,282	-6.7	-77,377	-7.1
	down 0.50% points	72,125	7.5	87,451	8.0
Pension increases	up 0.25% points	16,174	1.7	10,548	1.0
	down 0.25% points	-15,449	-1.6	-10,014	-0.9
Life expectancy	+ 1 year	28,801	3.0	34,610	3.2

The sensitivity analyses presented here show the effect of changes to one assumption with no change in the other assumptions, i.e. possible correlations between the individual assumptions are not considered.

Increases or decreases in the discount rate, the wage and salary trends and the mortality rates do not have the same impact in absolute terms on the defined benefit obligation (DBO), primarily on account of discounting the obligation to net present value. If a number of assumptions are changed simultaneously, the total impact does not necessarily equate to the sum of the effects attributable to the individual assumptions changed. In addition, the sensitivity of the DBO to a change in an assumption is only a reflection of the specific magnitude of the change. If an assumption changes by a different magnitude than that assumed here, the impact on the DBO will not necessarily be linear.

Asset-liability matching strategies

Due to the treasury guidelines of the Voith Group, which rule out any speculative transactions, the funded pension plans in the United States pursue an investment strategy that is oriented towards the obligations from the pension plans and not primarily towards maximizing the value of the securities portfolios. The goal of the investment strategy is to close any gaps in funding between the defined benefit obligation and the plan assets. If this is achieved, the goal is to maintain this funded status.

The main factors influencing the funded status include the development of interest rates and pricing risks inherent in the plan assets. In 2011, Voith installed a dynamic pension management with the involvement of international asset management experts and insurers. A new standard asset allocation is ratified each year by the Voith pension committee along the latest efficiency curves between income and risk. This is based on an individual limited risk strategy. However, a fixed percentage of the funding gap is always set as an upper risk limit.

The pension committee ratified an investment guideline that allows the external asset manager to use all defined asset classes from 0–100% for tactical purposes. This allows the asset manager to react ad hoc to market turbulence. In the mid-term, the portfolio will move towards the standard allocation depending on the residual risk budget. The success of such dynamic risk management is reviewed regularly by the pension committee and must be measured against a standard asset allocation without dynamic risk management.

The interfaces between the actuaries, the asset managers, the pension committee and the Group treasury are structured efficiently and functionally at Voith. In addition to a monthly comparison of the data and the reporting, the persons involved exchange information on the evolution of the pension strategy on the basis of a predefined schedule.

Future cash flows

Contributions of €8,505 thousand are expected to be paid into the plans in the next reporting period.

The weighted average term of the DBO is 14 years.

21. Other provisions

Provisions consist of the following:

in € thousands	At 2016-09-30	Change in the consolidated Group	Utilization	Additions	Reversals	Transfers	Discounting effect	Currency translation differences	At 2017-09-30
Personnel-related provisions	77,770	412	-12,234	9,323	-3,671	0	212	-437	71,375
Other tax provisions	5,481	0	-2,533	1,911	-708	0	0	-171	3,980
Warranty provisions	198,159	53	-93,890	138,887	-33,132	9,373	0	-2,364	217,086
Other contract-related provisions	80,748	35	-21,140	103,211	-18,964	3,391	0	-517	146,764
Other provisions	127,452	936	-43,362	15,592	-4,649	0	0	-1,481	94,488
	489,610	**1,436**	**-173,159**	**268,924**	**-61,124**	**12,764**	**212**	**-4,970**	**533,693**

	2017-09-30		2016-09-30	
in € thousands	< 1 year	> 1 year	< 1 year	> 1 year
Personnel-related provisions	15,318	56,057	18,172	59,598
Other tax provisions	3,042	938	4,760	721
Warranty provisions	161,233	55,853	116,038	82,121
Other contract-related provisions	132,339	14,425	78,351	2,397
Sundry other provisions	31,150	63,338	50,985	76,467
	343,082	**190,611**	**268,306**	**221,304**

Other provisions include restructuring provisions and provisions for personnel adjustments totaling €62 million (previous year: €89 million).

Refund claims totaling €34.1 million associated with other provisions were capitalized (previous year: €19.4 million).

Personnel-related provisions mainly comprise the phased retirement scheme and long-service bonuses. In the case of provisions for phased retirement, the amount and maturity of the future payments to be made to the beneficiaries are uncertain. Warranty provisions are recorded based on past experience or on the basis of individual assessments and represent the legal and contractual warranty obligations as well as goodwill commitments to customers. The provisions generally represent amounts that will be payable within the next two fiscal years. Other contract-related provisions include obligations for services still to be rendered on customer orders or parts of orders that have been billed, obligations for service and maintenance contracts, and commission provisions. In these cases, the amount and timing of future expenses are dependent on completion of the orders concerned.

22. Bonds, bank loans and other interest-bearing financial liabilities

Financial liabilities include the following:

in € thousands	Current	Non-current	2017-09-30	Current	Non-current	2016-09-30
Bonds	0	17,935	17,935	597,059	59,558	656,617
Bank loans	23,947	394,400	418,347	86,659	419,780	506,439
Financial liabilities from leases	246	612	858	288	797	1,085
Notes payable	1,151	0	1,151	332	0	332
Derivatives used to hedge financial transactions	4,211	15,131	19,342	15,475	6,074	21,549
Other loans and borrowings	52,961	123,285	176,246	68,731	77,720	146,451
	82,516	**551,363**	**633,879**	**768,544**	**563,929**	**1,332,473**

Other loans and borrowings contain obligations from the classification of non-controlling interests in limited partnerships based on termination rights of holders of non-controlling interests and put options.

The Voith Group's current and non-current bonds and its bank loans are denominated in the following currencies:

in € thousands	2017-09-30	2016-09-30
Euro	299,324	910,357
Chinese renminbi	107,962	186,616
US dollar	18,693	59,629
Other currencies	10,303	6,454
	436,282	**1,163,056**

Notes on net debt

Net debt as defined in the Company includes the following:

in € thousands	2017-09-30	2016-09-30
Bank loans	418,347	506,439
Bonds	17,935	659,558
Other interest-bearing financial liabilities	197,597	169,417
Securities	-613,546	-709,494
Cash and cash equivalents	-581,947	-649,672
Other realizable financial receivables and loans	-86,159	-143,961
	-647,773	**-167,713**

Net debt, as the difference between financial liabilities and realizable financial assets, is an important indicator for banks, analysts and rating agencies. This net debt indicator is not defined under International Financial Reporting Standards (IFRS) accounting policies, which means that its definition and calculation might diverge from practice at other companies. In contrast to the carrying amounts in the balance sheet, which are based on the effective interest method, the indicator is calculated by measuring financial liabilities at their higher nominal repayment amount. The bonds are included here at an amount of €0 (previous year: €3 million) higher than the carrying amount in the balance sheet. The securities presented in this table for the previous year include the carrying amount of the investment in KUKA Aktiengesellschaft accounted for using the equity method, which was reported within assets held for sale in the consolidated balance sheet.

23. Trade payables

Trade payables of €3,481 thousand (previous year: €17,396 thousand) are due after more than one year.

24. Other financial liabilities/other liabilities

Other financial liabilities

in € thousands	Current	Non-current	2017-09-30	Current	Non-current	2016-09-30
Derivatives used to hedge operational transactions	7,877	1,063	8,940	18,632	3,217	21,849
Personnel-related liabilities	96,099	193	96,292	101,979	137	102,116
Sundry financial liabilities	130,104	34,379	164,483	149,814	25,477	175,291
	234,080	**35,635**	**269,715**	**270,425**	**28,831**	**299,256**

Personnel-related liabilities at fiscal year-end included outstanding annual bonus payments and outstanding payments for wages, salaries and social security contributions.

Other liabilities

in € thousands	Current	Non-current	2017-09-30	Current	Non-current	2016-09-30
Tax liabilities	59,453	21,517	80,970	52,222	26,667	78,889
Advances received	578,021	0	578,021	704,430	0	704,430
Deferred income	2,487	8,503	10,990	2,061	5,569	7,630
Other liabilities	63,532	28,202	91,734	65,453	26,843	92,296
	703,493	**58,222**	**761,715**	**824,166**	**59,079**	**883,245**

Tax liabilities principally relate to sales taxes (VAT).

Notes on segment reporting

Information on the segment data

The business is managed according to the different products and business segments and corresponds to the structure of internal reporting to the Board of Management of Voith GmbH & Co. KGaA.

The Voith Digital Solutions Group Division, which was founded in the previous year, is being reported as a stand-alone segment for the first time. The new Group Division brings together all the Group's expertise in the areas of automation, IT, software, data analytics and sensor technology. The sales with third parties reported in the Voith Digital Solutions segment were primarily generated from business activities of the newly acquired Ray Sono AG business and the Group's own IT service provider with external customers. Sales with other segments relate to digital support for the existing Group Divisions. Digital solutions' sales with third parties included in the established Group Divisions are stated for the first time in the segment information by business segment. The profit from operations reflects to a great extent the start-up costs for this new Group Division. The sales reported in the Voith Digital Solutions segment in the previous-year period and the profit from operations include the IT services rendered within the Group. The reconciliation column for the previous-year period was adjusted by these amounts. In all other respects, the demarcation between the segments and the method used to calculate the segment information remains unchanged in comparison to September 30, 2016.

The Voith Industrial Services Group Division was sold, effective August 31, 2016, and is consequently not included in segment reporting in the current or in the previous year.

Segment information is generally based on the same presentation and measurement methods as the consolidated financial statements. Intercompany sales are effected at market prices and intersegment transactions and business are all reported in accordance with the accounting policies used for the consolidated financial statements.

In the Voith Group, the key indicator to assess and manage the individual segments is return on capital employed (ROCE). The calculation of ROCE is defined as profit from operations in relation to the average capital employed.

The operational result is the basis for calculating ROCE and is thus a key management indicator. It is essentially an operating earnings indicator derived from external reporting, comprising the operational result before non-recurring items. In line with the calculation of profit from operations, the following profit/loss components are taken into consideration.

Operating interest income is defined as interest received by the Company on the long-term financing of receivables from customers, or as the imputed interest effect attributable to that portion of customer advances that is not used to finance inventories and PoC receivables.

Capital employed is defined as operating net assets. It is the aggregate of property, plant and equipment and intangible assets (excluding goodwill), inventories, trade receivables, other non-interest-bearing assets and income tax assets as well as prepaid expenses, less trade payables, non-interest-bearing liabilities and income tax liabilities and deferred income and advances received, which are deducted up to the amount of inventories and PoC receivables.

The capital employed on the reporting date is an average value derived from the values as at the end of the fiscal year, as at the reporting date for the previous six-monthly financial statements and as at the end of the previous year. In contrast to the requirements of IAS 21, the assets and liabilities of foreign subsidiaries are translated at the average exchange rate for the year under review. Owing to the use of averages, capital employed cannot be reconciled to the figures in the consolidated balance sheet on any given reporting date.

Consolidation entries were taken into account in full in calculating capital employed.

Capital expenditures relate to intangible assets (excluding goodwill) and property, plant and equipment. Additions due to business combinations are not included.

Sales are broken down regionally, based on the customer's registered office. Non-current assets, consisting of property, plant and equipment, goodwill and other intangible assets, are allocated based on the location of the asset.

Information on the activities of the segments presented

As a full-line supplier for equipping hydropower plants, **Voith Hydro** is one of the world's leading industrial partners for hydropower plant operators. This applies both to the field of electricity generation and to the pumped storage of energy. Voith Hydro's portfolio of products and services covers the entire life cycle and supplies all major components for large and small hydro plants: from generators, turbines, pumps and automation systems and digital solutions right through to aftermarket business in spare parts and maintenance services, as well as training services. Voith Hydro is a joint venture with Siemens, in which Voith holds a majority 65% of all shares and voting rights.

As a leading partner and pioneer to the paper industry, **Voith Paper** provides technologies, products and services for the entire paper manufacturing process, all from a single source. Its continuous stream of innovations optimizes the paper manufacturing process. Voith Paper focuses on developing resource-saving products which reduce the consumption of energy, water and fibers. Furthermore, Voith Paper offers a broad service portfolio for all sections of the paper manufacturing process.

Voith Turbo is the specialist for smart drive solutions and systems. Customers in numerous industries, such as oil and gas, energy, mining and mechanical engineering, marine technology, rail and commercial vehicles, value Voith Turbo's cutting-edge technology.

Voith Digital Solutions brings together Voith's many years of automation and IT expertise with know-how in the fields of hydropower, paper machines and drive technology. The Group Division, which was newly created last year, develops innovative products and services with existing and new customers to advance the Internet of Things and to play a major role in the digitalization of plant and mechanical engineering. Voith Digital Solutions is presented as a separate segment for the first time in the 2016/17 fiscal year.

Segment information by business segment

	Voith Hydro		Voith Paper		Voith Turbo	
in € millions	2016/17	2015/16	2016/17	2015/16	2016/17	2015/16
Sales with third parties	1,381	1,388	1,527	1,456	1,283	1,397
· Thereof attributable to Digital Solutions	131	131	87	71	68	85
Sales with other segments	6	4	24	23	4	5
Segment sales, total	1,387	1,392	1,551	1,479	1,287	1,402
Profit from operations	106	105	107	76	91	114
Depreciation and amortization of property, plant and equipment and intangible assets[2]	23	23	50	54	41	42
Capital spending[3]	15	15	24	30	36	47
Segment goodwill	15	15	222	222	141	141
Average capital employed	489	493	721	748	703	719
ROCE	21.8%	21.3%	14.9%	10.2%	12.9%	15.8%
Employees[4]	4,507	4,934	6,449	6,550	5,408	5,702

[1] Sub-total of Voith Hydro, Voith Paper and Voith Turbo.
[2] Depreciation and amortization does not include depreciation and amortization recorded in the non-recurring result as it is not included in profit from operations.
[3] Without additions due to business combinations and financial assets.
[4] Statistical headcount on reporting date.

As the earnings component “Operating interest income” is not shown directly in the consolidated statement of income, this item is presented separately in the reconciliation of total profit from operations to result before taxes presented below.

Total Core Business[1)]		Voith Digital Solutions		Reconciliation		Total	
2016/17	2015/16	2016/17	2015/16	2016/17	2015/16	2016/17	2015/16
4,191	4,241	13	2	19	9	4,223	4,252
286	287	13	2	0	0	299	289
34	32	132	92	-166	-124	0	0
4,225	4,273	145	94	-147	-115	4,223	4,252
304	295	-43	-8	-20	-12	241	275
114	119	8	5	8	7	130	131
75	92	15	6	6	23	96	121
378	378	55	0	7	8	440	386
1,913	1,960	44	27	132	150	2,089	2,137
15.9%	15.1%	-97.3%	-29.8%			11.5%	12.9%
16,364	17,186	1,397	654	1,284	1,258	19,045	19,098

Reconciliation of total profit from operations to the Group's result before taxes:

in € millions	2016/17	2015/16
Profit from operations	**241**	**275**
Operating interest income	-29	-32
Non-recurring result	-32	-7
Share of profit/loss from companies accounted for using the equity method	8	11
Gains/losses from the disposal of associated companies	563	0
Interest result	-59	-78
Other financial result	-10	-29
Result before taxes from continuing operations	**682**	**140**

Segment information by region

External sales (registered office of customer)

in € millions	2016/17	2015/16
Germany	557	519
Foreign countries	3,666	3,733
thereof Europe	1,096	1,166
thereof Americas	1,195	1,163
thereof Asia	1,111	1,145
· of which China	543	570
thereof others	264	259
	4,223	**4,252**

Non-current assets

in € millions	2016/17	2015/16
Germany	706	658
Foreign countries	788	833
thereof Europe	151	158
thereof Americas	293	303
· of which USA	193	194
thereof Asia	341	369
· of which China	304	329
thereof others	3	3
	1,494	**1,491**

Other notes

Contingent liabilities, contingent assets and other financial obligations

Appropriate provisions have been recognized in the relevant Group companies to cover potential obligations arising from taxation, legal and arbitration proceedings.

In addition, there are risks associated with the recognition of transfer prices outside Germany amounting to €5 million (previous year: €5 million) and risks from legal disputes of €27 million (previous year: €36 million). A successful outcome is currently expected in both cases.

Neither Voith GmbH & Co. KGaA nor any of its Group companies are involved in any further current or foreseeable taxation, legal or arbitration proceedings that could materially influence the economic situation.

Owing to the ongoing tax field audit of German companies, further changes may be made to tax items.

Contingent liabilities

The contingent liabilities listed below are stated at face value. No provisions were recognized for these contingencies, as the probability of occurrence is regarded as low:

in € thousands	2017-09-30	2016-09-30
Guarantee obligations	1,161	693
Warranties	313	328
	1,474	**1,021**

Most of the guarantee obligations expire in 2018.

Other financial obligations

In addition to liabilities, provisions and contingent liabilities, the Voith Group also has other financial obligations, in particular arising from rental and lease agreements for buildings, land, plant, machinery and other non-production-related tools and equipment.

in € thousands	2017-09-30	2016-09-30
Purchase commitments for capital expenditures	10,935	13,087
Obligations arising from non-cancelable operating leases	120,506	129,227
Other	6,918	3,551
	138,359	**145,865**

Assets leased under operating leases led to cash outflows totaling €51,314 thousand (previous year: €70,025 thousand). These payments mostly related to leased passenger vehicles, machinery and buildings. The majority of leases run for between 1 and 15 years. Some companies have the option of extending their rental contracts.

The total of future minimum lease payments for non-cancelable operating leases is shown below, broken down by maturity:

in € thousands	2017-09-30	2016-09-30
Nominal value of future minimum lease payments		
· due in less than one year	42,091	39,845
· due between one and five years	68,262	74,911
· due in more than five years	10,153	14,471
	120,506	**129,227**

The future minimum lease payments from non-cancelable operating leases are partially offset by an immaterial amount of cash inflows expected from non-cancelable subleases.

Additional information on financial instruments

Carrying amounts, amounts recognized in the balance sheet and fair values by measurement category.

			Amount recognized in the balance sheet in accordance with IAS 39					
in € thousands	IAS 39 measurement category	Carrying amount 2017-09-30	Amortized cost	Cost	Fair value through equity	Fair value through profit or loss	Amount recognized in the balance sheet in accordance with IAS 17	Fair value 2017-09-30
Assets:								
Cash and cash equivalents	LaR	581,947	581,947					581,947
Trade receivables	LaR	713,899	713,899					713,899
Receivables from construction contracts	LaR	323,929	323,929					323,929
Other financial assets and securities		719,500						
· Financial investments	LaR	599,965	599,965					599,965
· Loans	LaR	56,987	56,987					56,987
· Investments	AfS	48,967		27,367	21,600[2]			21,600[1]
· Securities	AfS	13,581			13,581			13,581
Derivative financial instruments		46,588						
· Forward exchange contracts	FAHfT	4,820				4,820		4,820
· Forward exchange contracts (fair value hedges)	n. a.	40,735				40,735		40,735
· Interest rate swaps (fair value hedges)	n. a.	1,033				1,033		1,033
Other receivables		106,478						
· Financial receivables	LaR	25,975	25,975					25,975
· Sundry financial assets	LaR	80,503	80,503					80,503
Liabilities:								
Trade payables	FLAC	509,741	509,741					509,741
Bonds/bank loans/notes	FLAC	437,433	437,433					454,275
Financial liabilities from leases	n. a.	858					858	
Derivative financial instruments		28,282						
· Forward exchange contracts	FLHfT	13,892				13,892		13,892
· Call option	FLHfT	3,500				3,500[2]		3,500
· Forward exchange contracts (fair value hedges)	n. a.	8,299				8,299		8,299
· Forward exchange contracts (cash flow hedges)	n. a.	1			1			1
· Interest rate swaps (cash flow hedges)	n. a.	2,590			2,590			2,590
Other loans and borrowings	FLAC	176,246	136,065		40,181			210,673
Sundry financial liabilities	FLAC	260,775	260,775					260,775
IAS 39 measurement categories:								
Loans and receivables (LaR)	LaR	2,383,205	2,383,205					
Available for sale (AfS)	AfS	62,548		27,367	35,181			
Financial assets held for trading (FAHfT)	FAHfT	4,820				4,820		
Financial liabilities measured at amortized cost (FLAC)	FLAC	1,384,195	1,344,014		40,181			
Financial liabilities held for trading (FLHfT)	FLHfT	17,392				17,392		

[1] The financial assets available for sale (AfS) include investments whose fair values could not be determined reliably and that are currently not planned to be sold.
[2] A call option embedded in the investment (equity instrument) held by Voith was accounted for separately. The call option in which Voith is the writer grants the majority owner the right to acquire all shares held by Voith in the period up to 2019.

in € thousands	IAS 39 measurement category	Carrying amount 2016-09-30	Amount recognized in the balance sheet in accordance with IAS 39: Amortized cost	Cost	Fair value through equity	Fair value through profit or loss	Amount recognized in the balance sheet in accordance with IAS 17	Fair value 2016-09-30
Assets:								
Cash and cash equivalents	LaR	649,672	649,672					649,672
Trade receivables	LaR	690,632	690,632					690,632
Receivables from construction contracts	LaR	426,720	426,720					426,720
Other financial assets and securities		227,569						
· Financial investments	LaR	30,943	30,943					30,943
· Loans	LaR	56,259	56,259					56,259
· Investments	AfS	53,325		31,925	21,400[2]			21,400[1]
· Securities	AfS	87,042			87,042			87,042
Derivative financial instruments		56,497						
· Forward exchange contracts	FAHfT	3,393				3,393		3,393
· Interest rate/currency swaps	FAHfT	563				563		563
· Forward exchange contracts (fair value hedges)	n. a.	46,695				46,695		46,695
· Forward exchange contracts (cash flow hedges)	n. a.	5			5			5
· Interest rate swaps (fair value hedges)	n. a.	5,841				5,841		5,841
Other receivables		162,347						
· Financial receivables	LaR	79,966	79,966					79,966
· Sundry financial assets	LaR	82,381	82,381					82,381
Liabilities:								
Trade payables	FLAC	430,779	430,779					430,779
Bonds/bank loans/notes	FLAC	1,163,388	1,163,388					1,198,782
Financial liabilities from leases	n. a.	1,085					1,085	
Derivative financial instruments		43,398						
· Forward exchange contracts	FLHfT	5,402				5,402		5,402
· Interest rate/currency swaps	FLHfT	13,382				13,382		13,382
· Call option	FLHfT	4,800				4,800[2]		4,800
· Forward exchange contracts (fair value hedges)	n. a.	15,562				15,562		15,562
· Forward exchange contracts (cash flow hedges)	n. a.	885			885			885
· Interest rate swaps (cash flow hedges)	n. a.	3,367			3,367			3,367
Other loans and borrowings	FLAC	146,451	139,362		7,089			334,791
Sundry financial liabilities	FLAC	277,408	277,408					277,408
IAS 39 measurement categories:								
Loans and receivables (LaR)	LaR	2,016,573	2,016,573					
Available for sale (AfS)	AfS	140,367		31,925	108,442			
Financial assets held for trading (FAHfT)	FAHfT	3,956				3,956		
Financial liabilities measured at amortized cost (FLAC)	FLAC	2,018,026	2,010,937		7,089			
Financial liabilities held for trading (FLHfT)	FLHfT	23,584				23,584		

[1] The financial assets available for sale (AfS) include investments whose fair values could not be determined reliably.
[2] A call option embedded in the investment (equity instrument) held by Voith was accounted for separately. The call option in which Voith is the writer grants the majority owner the right to acquire all shares held by Voith in the period up to 2019.

Fair value hierarchy for the financial assets and liabilities recognized at fair value listed in the table above:

in € thousands	2017-09-30	Level 1	Level 2	Level 3
Assets				
Securities	13,581	13,581	0	0
Derivative financial instruments	46,588	0	46,588	0
Investments	21,600	0	0	21,600
Liabilities				
Derivative financial instruments	28,282	0	24,782	3,500
Liabilities arising from the acquisition of investment shareholdings	40,181	0	0	40,181

in € thousands	2016-09-30	Level 1	Level 2	Level 3
Assets				
Securities	87,042	87,042	0	0
Derivative financial instruments	56,497	0	56,497	0
Investments	21,400	0	0	21,400
Liabilities				
Derivative financial instruments	43,398	0	38,598	4,800
Liabilities arising from the acquisition of investment shareholdings	7,089	0	0	7,089

The three-level fair value hierarchy divides the input factors used in the measurement techniques to measure the fair value into three levels, as follows.

Level 1:
Input factors quoted in active markets accessible to the Company for identical assets or liabilities on the measurement date.

Level 2:
Other inputs than those at level 1 for which observable market data which relates directly or indirectly to the financial assets or liabilities is available.

Level 3:
Input factors for which there are no observable market data.

No reclassifications were made between the levels of the fair value hierarchy in the 2016/17 fiscal year.

The fair values of derivative financial instruments allocated to level 2 of the fair value hierarchy are taken from the daily observable exchange rates, associated forward rates and yield curves. In addition, fair value measurement includes both the counterparty credit risk and the Group's own credit risk. Input factors that take account of counterparty credit risk can be obtained from observable credit default swaps (CDS) from the banks participating in the respective transaction. At Voith the market CDS rate was used to calculate the Group's own credit risk.

The fair value of the investment allocated to level 3 of the fair value hierarchy was determined by an impartial appraiser on the basis of an income-based measurement technique and contains parameters that cannot be observed on the market. On account of contractual subordination, the economic value of Voith's investment does not correspond to the proportionate market value of the equity. For this reason, the fair value is based on an options pricing model (binomial model), the input parameters used at the reporting date being the business model of the investment of €138.7 million (previous year: €141.7 million), capital market interest rates that reflect the term to maturity and risk profile of 0.02% per annum (previous year: -0.27% per annum) and share price volatilities of a peer group of 26.0% per annum (previous year: 27.5% per annum).

The value of the embedded call option accounted for separately is determined indirectly from the difference in carrying amount of the investment with and without the option. In the event of the call option being exercised by the majority owner, Voith can, depending on the timing of the exercise of the call option, generate a gain on sale of currently €34.9 million up to a maximum of €40.2 million. In economic terms, the call option limits the maximum revenue Voith can generate from the investment to the option's strike price. As of the reporting date, Voith is not aware of any issues that indicate a material change in the fair value of the investment and the option liability since the date of initial measurement.

If the business value of this investment were to increase (decrease), this would lead to an increase (decrease) in the value of the investment and the option liability recorded by Voith. An increase in volatility of the business value of this investment would lead to an increase in the value of the investment and a decrease in the option liability. Increasing (decreasing) interest rates would lead to an increase (decrease) in the value of the investment and the option liability.

The fair values of liabilities from the business combination allocated to level 3 of the fair value hierarchy concern put options held by non-controlling shareholders, and are based on internal planning data. These are measured using the discounted cash flow projections taken from the latest business planning prepared by management. The planning assumptions are adjusted to reflect the current information available. The significant amount recorded as a put option totaling €26 million was calculated based on a formula for the purchase price calculation to be used on exercise of the option which is set out in the respective shareholder's agreement. The amount is calculated as the gross value of the investment (represented by the three-year average EBITDA for the years 2020 through 2022 and a four-year holding period, multiplied by a contractually agreed factor), less the net debt, multiplied by the non-controller's shareholding (40%). This is discounted to the balance sheet date using a WACC appropriate for the term to maturity of 6%.

If the business value of this investment were to increase (decrease), this would lead to an increase (decrease) in the value of the associated liability from the business combination.

The changes in the fair values of the assets and liabilities classified as level 3 in the fair value hierarchy were as follows:

in € thousands	2017-09-30	2016-09-30
Balance, October 1	**9,511**	**-9,398**
Put option – business combinations	-33,367	0
Investments	0	21,400
Call option – investments	0	-4,800
Exercise of put option	0	3,332
Fair value changes recorded in profit and loss	1,300	0
Fair value changes recorded in equity	475	-1,023
Balance, September 30	**-22,081**	**9,511**

The fair values of financial assets and financial liabilities measured at cost or amortized cost, which need to be determined to meet disclosure requirements, are calculated as follows:

Cash and cash equivalents, trade receivables and other financial receivables are subject to floating interest and fall due within one year. For this reason, their carrying amounts approximate their market values on the reporting date.

Because trade payables and other financial liabilities generally have short residual terms, their carrying amounts approximate the market values.

The bond redeemed in the current fiscal year had a market value of €622 million in the previous year, reflecting the nominal value multiplied by the market value on the reporting date (fair value hierarchy level 1).

The market value of the note loan stated at €316 million (previous year: €310 million) and the market values of unlisted bonds, bank loans and other financial liabilities are calculated as the present value of the payments associated with the liabilities, based on the effective yield curve and peer companies' credit spread curve determined for different currencies (fair value hierarchy level 2).

The market value of other financial liabilities totaling €115 million (previous year: €263 million) was based on internal planning data. These are measured using the discounted cash flow projections taken from the latest business planning prepared by management. The planning assumptions are adjusted to reflect the current information available (fair value hierarchy level 3).

Net gains and losses for each measurement category of financial instruments:

2016/17

in € thousands	Impairments	Other net gains/ losses	Total
Loans and receivables (LaR)	-6,101	-62,757	-68,858
Available-for-sale financial assets	-486	-1,636	-2,122
Financial assets held for trading	0	7,108	7,108
Financial liabilities measured at amortized cost	0	11,639	11,639

2015/16

in € thousands	Impairments	Other net gains/ losses	Total
Loans and receivables (LaR)	-12,121	19,427	7,306
Available-for-sale financial assets	-36,644	293	-36,351
Financial assets held for trading	0	-26,609	-26,609
Financial liabilities measured at amortized cost	0	5,784	5,784

Further information on net gains and losses through equity from financial assets included in the available-for-sale category is provided in note 19.

Impairment losses recognized on loans and receivables primarily relate to trade receivables. In the previous year, impairment losses in the category “available-for-sale financial assets” primarily related to securities with a significant decline in fair value.

All interest income and interest expenses for financial assets or financial liabilities relate to those assets or liabilities that are not measured at fair value through profit or loss.

Offsetting of financial instruments

The following table shows the volume that can potentially be offset under master netting agreements. The agreements do not meet the criteria required for net presentation in the balance sheet due to the fact that the Group does not have a present legal right to offset the amounts recognized, as the right to offset is conditional on the occurrence of future events.

in € thousands	Gross presentation balance sheet 2017-09-30	Volume that can potentially be offset under master netting agreements	Potential net amount
Assets			
Derivative financial instruments	46,588	16,103	30,485
Liabilities			
Derivative financial instruments	28,282	16,103	12,179

in € thousands	Gross presentation balance sheet 2016-09-30	Volume that can potentially be offset under master netting agreements	Potential net amount
Assets			
Derivative financial instruments	56,497	25,624	30,873
Liabilities			
Derivative financial instruments	43,398	25,624	17,774

Risk management

Principles of financial risk management

The Voith Group is a global business and is exposed to risks arising from changes in interest rates and exchange rates in the course of its ordinary business activities which affect its liabilities, assets and transactions. These risks could affect its net assets, financial and earnings position. The aim of financial risk management is to manage and limit these risks.

The principles of the Group's financial policy are laid down by the Voith GmbH & Co. KGaA Board of Management and monitored by the Supervisory Board. Voith Finance GmbH, a wholly owned subsidiary of Voith GmbH & Co. KGaA, implements the financial policy and regularly reports to the Chief Financial Officer on the financial position of the Group and current risk exposures. Certain financial transactions require special approval by the Corporate Board of Management. Long-term refinancing is obtained by Voith GmbH & Co. KGaA.

Simple derivative financial instruments are used to limit the risks arising both from operating business and from the resultant financing requirements. These instruments are used in accordance with clearly defined, consistent, Group-wide guidelines. Compliance with these guidelines is verified on an ongoing basis. Hedge transactions and cash investments are placed only with financial institutions that have first-class credit ratings.

Credit risk

The Voith Group does business only with recognized, creditworthy third parties. We verify the creditworthiness of customers who wish to do credit-based business with us.

Cash and cash equivalents:

For the purposes of internal risk management, cash and cash equivalents consist essentially of cash and short-term securities. Counterparty default risks associated with term deposits are limited by selecting solvent banking partners and by spreading cash across multiple counterparties. For banks, a ratings-based limit (derived from credit default swaps/rating) is monitored constantly. In addition, the Voith Group invests in securities and monitors the associated risks of these centrally. Securities may only be traded by Group companies with the approval of Voith Finance GmbH.

Trade receivables:

Credit risk arising from the delivery of goods and services stems from counterparty risks, manufacturing risks and political export-related risks. Handling of these risks is governed by rules that are binding throughout the Voith Group. The maximum risk of default is limited to the carrying amount of trade receivables, which is €713,899 thousand (previous year: €690,632 thousand). The maximum default risk for receivables from construction contracts is €323,929 thousand (previous year: €426,720 thousand). On account of collateral held, the maximum default risk for trade receivables is reduced by €118,114 thousand (previous year: €102,085 thousand) and that for receivables from construction contracts by €58,118 thousand (previous year: €72,400 thousand).

All orders above a defined contract value are subject to general risk assessment requirements. Without special permission from the relevant decision-making bodies, Group companies do not accept unsecured orders from customers whose credit rating is below a defined threshold and who cannot furnish an adequate guarantor.

Political export-related risks classified as Euler Hermes country category 3 or higher must, as a rule, always be hedged, unless approval is issued by the decision-making bodies in individual cases. Further risk assessment is also activated for orders upward of defined contract values. Necessary credit insurance is obtained via export credit agencies (ECAs), on the private insurance market or by means of bank products.

With respect to credit risk arising from the Group's other financial assets, which comprise cash and cash equivalents, available-for-sale financial assets and certain derivative financial instruments, the Group's exposure to credit risk arises from default of the counterparty, with a maximum exposure equal to the carrying amount of these instruments. For details of financial guarantees, please refer to the discussion of contingent liabilities. This kind of loss can occur if individual business partners fail to meet their contractual obligations. As a rule, no collateral exists for such an eventuality.

The Voith Group is not exposed to any material concentration of risks. Corporate policy is to avoid concentration of credit risk in a single financial institution. Instead, the Group invests with a variety of creditworthy financial institutions. The Group's customer structure is not materially concentrated in any particular geographic region. The Group tests doubtful accounts for impairment considering certain customers, historical trends, branches of industry and various other information.

The following credit risks are inherent in financial assets:

2017-09-30 in € thousands	Gross value	Thereof neither impaired nor past due	Thereof not impaired but past due at the reporting date by: less than 90 days	between 90 and 180 days	more than 180 days
Trade receivables	**761,727**	505,323	107,767	59,972	46,928
Other financial assets and securities	**772,226**	665,092			
Other financial receivables	**118,171**	98,816	3,945	170	1,532

2016-09-30 in € thousands	Gross value	Thereof neither impaired nor past due	Thereof not impaired but past due at the reporting date by: less than 90 days	between 90 and 180 days	more than 180 days
Trade receivables	**739,124**	486,522	97,032	53,772	50,575
Other financial assets and securities	**419,346**	153,849			
Other financial receivables	**164,574**	157,141	2,501	516	2,219

The carrying amounts of cash and cash equivalents, receivables from construction contracts and derivatives are neither impaired nor past due.

Liquidity risk

To ensure that it can always meet its financial obligations, the Voith Group has negotiated sufficient cash lines and syndicated credit facilities with its banking partners.

The syndicated loan placed in China in 2012 and extended until 2020 by amendment agreement in 2015 secures the finance for future investments and for the operating business in the same currency on the local market. This loan was drawn on during the year under review as planned. The syndicated euro loan arranged in 2011 and increased to €770 million in 2014 under an amend-and-extend agreement was extended a second time for one year in August 2016 and now runs until 2021 with €715 million available in the final year of the agreement. No financial covenants were arranged. It has not been drawn on and is available as a strategic liquidity reserve if needed, as are available bilateral lines of credit from banks. To safeguard internal and external growth, the Voith Group procures long-term funding on the capital markets by issuing bonds, through private placements and individual bank loans.

The capital market bond with a volume of €600 million was redeemed in full in June of this year from the Group's own resources.

The credit facilities are subject to customary market conditions and contractual terms and conditions based on Voith's rating. As in previous years, all contractual terms and conditions were complied with in the 2016/17 fiscal year. The Ba1 rating given by Moody's was confirmed in February of this year with "outlook stable."

The liquidity of Group companies is ensured by means of cash pools, intercompany loans and the allocation of external bank credit lines to individual operating units. Voith Finance GmbH produces monthly finance status reports for the entire Group. Balances of central bank and cash pool accounts and bank guarantees are available on a daily basis.

The table below lists the undiscounted, contractually agreed cash outflows for financial instruments:

in € thousands	2017-09-30	Cash flows < 1 year	Cash flows 1–5 years	Cash flows > 5 years
Trade payables	509,741	506,260	3,170	16
Bonds/bank loans/notes	437,433	36,793	296,144	153,507
Financial liabilities from leases	858	275	638	0
Other loans and borrowings	176,246	53,547	207	123,069
Sundry financial liabilities	260,775	226,203	34,005	567
Derivative financial instruments	28,282			
· Outflows		193,493	87,581	112
· Inflows		-185,721	-50,467	-108
	1,413,335	**830,850**	**371,278**	**277,163**

in € thousands	2016-09-30	Cash flows < 1 year	Cash flows 1–5 years	Cash flows > 5 years
Trade payables	430,779	413,383	17,647	0
Bonds/bank loans/notes	1,163,388	735,076	372,981	157,285
Financial liabilities from leases	1,085	316	775	78
Other loans and borrowings	146,451	69,321	134	77,586
Sundry financial liabilities	277,408	251,794	25,342	272
Derivative financial instruments	43,398			
· Outflows		252,256	99,382	4,734
· Inflows		-211,754	-70,961	-5,429
	2,062,509	**1,510,392**	**445,300**	**234,526**

Solvency is ensured and liquidity managed using cash equivalents and short-term securities which can be transformed into cash at any time.

Derivatives include cash outflows for derivative financial instruments with negative market values for which gross cash settlement has been agreed. The cash outflows for these financial derivatives are matched by corresponding cash inflows which are shown separately in the table above under inflows and outflows (gross). On the other hand, where a net cash settlement is effected, cash outflows are presented on a net basis.

There are no expectations that cash flows presented in the maturity analysis could be incurred significantly earlier, or that there will be significant changes to the cash flow amounts.

Financial market risk

Foreign exchange risk:
Global production and trading activities expose the Voith Group to risks arising from fluctuations in exchange rates. Foreign exchange risks exist in particular wherever receivables, liabilities, cash and cash equivalents, and orders received (fixed obligations/forecast transactions) are or will be denominated in a currency other than the functional currency of the Group company concerned.

Most currency hedging is undertaken by Voith Finance GmbH and its Regional Treasury and Finance Center. Transaction risks arising from the international delivery of goods and services are mainly limited by forward exchange contracts. In general, all foreign currency transactions at the Voith Group must be hedged. Major balance sheet items and orders upward of a value of USD 1 million are hedged individually within the framework of hedge accounting.

In the project business, both the hedge relationship and the risk management objectives and strategies must be documented in respect of the underlying hedged item or transactions before external hedges are entered into.

Hedges must be highly effective to be in compliance with the Voith Group's risk management strategy. Where hedges are demonstrated to be effective, the transactions qualify for hedge accounting. As a result, fluctuations in the exchange rate do not affect profit or loss, nor do they influence project costing.

In the Voith Group, derivative financial instruments are traded externally by Voith Finance GmbH on behalf of Group companies. Group companies in countries subject to foreign exchange restrictions hedge their currency risks locally. The Group-wide treasury management software tool is used for central scheduling, monitoring and documentation of all foreign currency hedges entered into by Voith Finance or Group companies.

Changes in the US dollar exchange rate are significant for the Voith Group. Based on the balance sheet items described above, the effects on the Group's results and consolidated equity are as follows: if the US dollar rises by 5%, the result before taxes increases by €7,462 thousand (previous year: increase of €6,666 thousand) and equity (including the effect from the result before taxes) by the same amount, as in the previous year. If, on the other hand, the US dollar falls by 5%, the result before taxes decreases by €7,462 thousand (previous year: decrease of €6,666 thousand) and equity (including the effect from the result before taxes) by the same amount, as in the previous year.

Interest rate risk:
The Voith Group's exposure to interest rate risks arising from external refinancing is analyzed and managed centrally by Voith Finance GmbH. Medium- to long-term assets and liabilities with fixed interest rates are the main source of interest rate risks at the Group, as changes in market rates of interest can cause the value of a financial instrument to fluctuate. Risks to the market value of fixed-interest receivables and liabilities are hedged on a case-by-case basis. Risks to market value are hedged by interest rate swaps and combined interest rate and currency swaps, which usually qualify for hedge accounting.

The relevant asset items are essentially cash at banks that is invested in the money market and/or is used to fund the existing cash pools. The Group companies that participate in the cash pool operate a daily zero-balancing policy and therefore have no exposure to external interest rate risks.

On the cost side, interest rate risks arise from a private placement in the United States, a note loan and a variety of bank loans. The fixed interest rate on the US private placement was swapped for a floating rate and the resulting cash flow risk hedged by interest rate caps accordingly. The floating-rate portion of the note loan was swapped for a fixed rate.

The carrying amounts of the Group's significant financial instruments that are exposed to interest rate risks are grouped by their contractually agreed maturities in the following table:

2017-09-30 in € thousands	Less than 1 year	1–2 years	2–3 years	3–4 years	4–5 years	More than 5 years	Total
Floating interest rate							
Cash and cash equivalents	581,947	0	0	0	0	0	**581,947**
Bonds	0	17,935	0	0	0	0	**17,935**
Bank loans	23,948	0	95,229	0	0	0	**119,177**
Fixed interest rate							
Bank loans	0	0	0	152,113	0	147,057	**299,170**

2016-09-30 in € thousands	Less than 1 year	1–2 years	2–3 years	3–4 years	4–5 years	More than 5 years	Total
Floating interest rate							
Cash and cash equivalents	649,672	0	0	0	0	0	**649,672**
Bonds	0	0	59,558	0	0	0	**59,558**
Bank loans	86,659	0	0	120,812	0	0	**207,471**
Fixed interest rate							
Bonds	597,059	0	0	0	0	0	**597,059**
Bank loans	0	0	0	0	151,992	146,976	**298,968**

If the market rate of interest had been 100 bps higher (lower) at September 30, 2017, the result from the significant floating-rate financial instruments would have been €4.4 million higher (lower) (previous year: €3.8 million higher (lower)). Equity would have changed accordingly. This effect chiefly originates from euro-denominated floating-rate financial instruments of €2.5 million (previous year: €3.3 million).

Interest rate swaps have been concluded to hedge the floating-rate portion of the note loan. Taking into account the hedge and a change in interest rates of +100/-100 bps, equity would change by €+5.0 million/€-1.4 million (previous year: €+5.1 million/€-0.9 million).

Risks relating to securities and stock prices:
The Voith Group holds stocks and other securities in the available-for-sale category of €14 million (previous year: €87 million). Stock price risks are reflected in the balance sheet and not in the consolidated statement of income, unless the criteria for impairment are met. A 10% change in the underlying stock prices would cause equity to change by 10% of the carrying amount of the stocks concerned.

It should be noted that all existing stock price risks are analyzed continuously and suitable counteraction is taken accordingly.

Commodity price risk:
The Voith Group is exposed to risks arising from changes in commodity prices, as these also affect most of the semi-finished goods that it needs. Voith's Corporate Purchasing regularly reviews the nature, volume and scheduling of the Group's materials requirements. On request by Corporate Purchasing and in consultation and agreement with Group companies, suitable forward commodity contracts can be arranged by Voith Finance GmbH to limit any latent commodity price risks. The Group had no significant amounts of commodity contracts during the fiscal year.

Hedge relationships:
The following items are used to hedge foreign exchange and interest rate risks:

2017-09-30	Nominal values[1]		Positive market values		Negative market values	
in € thousands	< 1 year	> 1 year	< 1 year	> 1 year	< 1 year	> 1 year
Forward exchange contracts (fair value hedges)	472,785	210,987	19,653	21,082	6,670	1,629
Forward exchange contracts (cash flow hedges)	521	0	0	0	1	0
Interest rate swaps (fair value hedges)	0	16,940	0	1,033	0	0
Interest rate swaps (cash flow hedges)	0	139,000	0	0	0	2,590
Other derivatives	208,749	118,907	4,605	215	5,417	11,975
	682,055	**485,834**	**24,258**	**22,330**	**12,088**	**16,194**

2016-09-30	Nominal values[1]		Positive market values		Negative market values	
in € thousands	< 1 year	> 1 year	< 1 year	> 1 year	< 1 year	> 1 year
Forward exchange contracts (fair value hedges)	599,233	284,771	32,826	13,869	12,876	2,686
Forward exchange contracts (cash flow hedges)	4,212	0	5	0	885	0
Interest rate swaps (fair value hedges)	0	52,758	0	5,841	0	0
Interest rate swaps (cash flow hedges)	0	139,000	0	0	0	3,367
Other derivatives	237,233	110,136	3,634	322	20,346	3,238
	840,678	**586,665**	**36,465**	**20,032**	**34,107**	**9,291**

[1] Nominal value refers to the volume of the hedged transactions in the local currency, translated at the closing rate.

Fair value hedges:
The Group uses fair value hedges primarily to hedge interest rate and foreign exchange risks.

In the 2016/17 fiscal year, a loss of €3,505 thousand was recorded on derivative financial instruments classified as fair value hedges (previous year: a gain of €120,542 thousand). Since the hedges have been classified as highly effective, measurement of the hedged transactions at the reporting date produced an offsetting gain/loss in the same amount.

There were no effects on profit or loss from ineffective hedges in the 2016/17 and 2015/16 fiscal years.

Changes in the value of derivative financial instruments that do not meet the requirements for hedge accounting under IAS 39 are recognized as income or expenses in profit or loss at the reporting date.

Cash flow hedges:
As at September 30, 2017 the Group had interest rate hedges to hedge future cash flows for servicing interest payments on the note loan. The Group also held forward exchange contracts to hedge forecast sales and purchase transactions.

The main terms and conditions of the hedging instruments were negotiated in line with the terms and conditions agreed for the hedged transactions. The transactions underlying the forward exchange contracts are expected to be carried out within one year.

Hedge relationships designed to hedge cash flows from forecast payment transactions for the note loan and forecast sales transactions were classified as highly effective. Accordingly, an unrealized gain of €2,375 thousand (previous year: a loss of €4,247 thousand) was recognized within consolidated equity at September 30, 2017.

No hedged transactions were realized in the course of the year under review by transfer of the relevant accumulated losses from other reserves to profit or loss.

Research and development costs
In the 2016/17 fiscal year, research and development costs totaled € 223,692 thousand (previous year: €207,758 thousand).

Of these, development costs of €13,493 thousand (previous year: €7,081 thousand) were capitalized in the balance sheet. The remaining costs represent activities for non-customer-specific new developments and improvements of €149,395 thousand (previous year: €135,185 thousand) and development activities for customer-specific contracts of €60,804 thousand (previous year: €65,492 thousand).

Transactions with related parties and individuals
In the course of its ordinary business activities, Voith GmbH & Co. KGaA maintains relationships both with the subsidiaries listed in these consolidated financial statements and with other related companies and individuals (family members who are shareholders and members of the Supervisory Board and of the Board of Management).

In the 2007/08 fiscal year, one subsidiary of Voith GmbH (as it was known at the time) was sold to family shareholders in a transaction under common control. That company, JMV GmbH & Co. KG, Heidenheim, is now the ultimate parent company of the Voith Group.

All business transactions with related parties are conducted at arm's length conditions.

Members of the Board of Management of Voith Management GmbH, members of the Supervisory Board of Voith GmbH & Co. KGaA and family member shareholders also serve on the supervisory boards of other companies with which Voith maintains relationships in the course of its ordinary business activities. Any transactions involving these companies are conducted at arm's length conditions.

A total of €1,311 thousand (previous year: €967 thousand) was paid at customary market rates to members of the Supervisory Board and former members of the Board of Management for consulting and other services.

The majority of goods and service transactions with related parties (entities and individuals) are shown in the table below:

in € thousands	2016/17	2015/16
Liabilities to family shareholders	14,849	13,470
Services purchased from associates	1,075	1,208
Services rendered to associates	87	50
Receivables from associates	2,686	3,420
Liabilities to associates	625	852
Services purchased from other investments	3,749	5,216
Services rendered to other investments	11,470	13,304
Receivables from other investments, including advances paid	10,922	11,834
Impairment of receivables from other investments	-1,412	-64
Liabilities to other investments and to Voith Management GmbH	21,361	11,614
Services purchased from joint ventures	4,242	3,456
Services rendered to joint ventures	3,838	474
Receivables from joint ventures	9,539	153
Liabilities to joint ventures	2,808	746
Services purchased from the ultimate parent company	12,515	11,852
Services rendered to the ultimate parent company	1,107	854
Receivables from the ultimate parent company	208	190
Liabilities to the ultimate parent company	7,604	6,337

Liabilities to family shareholders include current floating-rate clearing accounts and pension obligations.

For more information on the profit participation rights granted to family shareholders of €103,400 thousand (previous year: €103,400 thousand) please refer to note 19.

Guarantees in favor of other investees amounted to €1,146 thousand in the 2016/17 fiscal year (previous year: €554 thousand).

The Group has obligations under outstanding orders with the ultimate parent amounting to €4,330 thousand (previous year: €5,399 thousand) and to joint venture companies amounting to €31,777 thousand (previous year: €0).

Capital increases totaling €9,623 thousand were made in favor of joint venture companies (previous year: €0).

Remuneration of governing bodies

The compensation for members of the Board of Management of Voith Management GmbH, including pension expenses, totaled €10,683 thousand in the fiscal year (previous year: €13,469 thousand). Due to the fact that these expenses are recharged by Voith Management GmbH to Voith GmbH & Co. KGaA they are presented in the Voith Group's consolidated statement of income wholly within personnel expenses. This includes short-term benefits totaling €9,143 thousand (previous year: €7,003 thousand), post-employment benefits totaling €1,540 thousand (previous year: €1,175 thousand), and termination benefits pursuant to IAS 24 totaling €0 (previous year: €5,291 thousand).

The compensation for members of the Board of Management under commercial law totaled €8,853 thousand (previous year: €7,003 thousand).

Following the transfer of the Group's Board of Management to Voith Management GmbH, the balance of pension obligations at September 30, 2017 was transferred from Voith GmbH & Co. KGaA to Voith Management GmbH (including deferred compensation amounts) at their fulfillment amount of €19,874 thousand. Plan assets of €9,821 thousand were also transferred. A remaining excess obligation of €12,265 thousand remains with Voith GmbH & Co. KGaA.

The present value of defined benefit obligations of past members of the Board of Management totaled €57,867 thousand (previous year: €52,181 thousand). Of these amounts €3,504 thousand (previous year: €3,779 thousand) are obligations of the former parent of the Group, J.M. Voith GmbH & Co. Beteiligungen KG to past members of the Board of Management.

Plan assets for former members of the Board of Management total €21,917 thousand (previous year: €15,233 thousand).

These amounts are included in note 20.

Pension and other payments to former members of the Board of Management amounted to €3,045 thousand (previous year: €3,109 thousand); of these amounts €551 thousand (previous year: €683 thousand) were paid by the former parent of the Group, J.M. Voith GmbH & Co. Beteiligungen KG.

The members of the Supervisory Board of Voith GmbH & Co. KGaA received (short-term) compensation of €555 thousand (previous year: €527 thousand).

Auditor's fees and services

The following fees (including reimbursement of expenses) were paid to the independent auditor for the services rendered in the 2016/17 fiscal year:

in € thousands	2016/17	2015/16
Annual audit	2,625	3,035
Other assurance or valuation services	42	83
Tax advisory services	165	107
Other services	49	394
	2,881	**3,619**

Subsequent events

There were no significant events after the end of the 2016/17 fiscal year.

Heidenheim an der Brenz, November 29, 2017

The Board of Management of Voith Management GmbH

Dr. Hubert Lienhard
Dr. Toralf Haag
Andreas Endters (since October 1, 2017)
Dr. Uwe Knotzer
Dr. Roland Münch
Bertram Staudenmaier (until September 30, 2017)
Uwe Wehnhardt

The German language consolidated financial statements of Voith GmbH & Co. KGaA as at September 30, 2017 as authorized for issue and the unqualified audit opinion issued thereon by KPMG Wirtschaftsprüfungsgesellschaft, Munich will be published in German at the Bundesanzeiger (Federal German Gazette). They can be viewed at www.bundesanzeiger.de.

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 Group management report 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.

Heidenheim an der Brenz, November 29, 2017

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Uwe Wehnhardt

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