voith.com

VOITH

2019 Annual Report

Voith at a Glance

in € millions	2017/18	2018/19
Orders received[1]	4,285	**4,691**
Sales[1]	4,209	**4,276**
EBIT[1], [2]	193	**215**
Return on sales in %[1]	4.6	**5.0**
Result before taxes from continuing operations[1]	157	**147**
Net result[1]	49	**72**
Cash flow from operating activities	31	**46**
Total cash flow	-216	**66**
Investments[1]	93	**113**
Research and development[1]	222	**213**
in % of sales[1]	5.3	**5.0**
Equity[1]	1,326	**1,245**
Equity ratio in %[1]	28.5	**26.2**
Balance sheet total[1]	4,654	**4,756**
Employees[1], [3]	19,491	**19,410**

1) Previous-year figure restated.
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.

Annual Report 2019

Group

Group Management Report

Consolidated Financial Statements

Group

Page

Ladies and gentlemen, dear business partners of the Voith Group,

In the 2018/19 fiscal year, Voith performed well overall, despite some challenges, in an economically difficult environment. We achieved our Group targets and generated profitable growth in a strained market and competitive environment. We again took a big step towards our objective of viable and competitive profitability over the long term.

As forecast, we succeeded in increasing all key performance indicators in the past fiscal year. Orders received have risen perceptibly, mainly buoyed by strong growth at Voith Hydro. This Group Division won the

“Thanks to its robust financial situation, its increasing earnings power and its excellent market position, Voith is well equipped for the next stage in its development.”

Dr. Toralf Haag

second-largest order in Voith’s 152-year history: Voith Hydro is supplying six reversible pump-turbines for the Snowy 2.0 project in Australia, one of the largest and technologically advanced pumped storage power plants worldwide. At full output, Snowy 2.0 will be able to store sufficient energy to provide three million households with power for one week.

We also achieved a slight increase in Group sales. The central key performance indicators, EBIT and net income, grew at a faster rate, which means that the key profitability indicators also rose. After the good performance in the past fiscal year, the Voith Group’s financial position also remains very sound. The equity ratio, which saw a record level in the previous year, fell only slightly, primarily on account of pension remeasurements. Net liquidity remains at a reassuring level, which means that there are still considerable funds available for further acquisitions. This is still the case even after the successful closing of the acquisition of BTG, a worldwide provider of integrated, highly specialized process solutions for the global pulp and paper industry. BTG is the perfect addition to Voith Paper’s portfolio of offerings, and strengthens the Group Division’s position as a full-line supplier.

Thanks to its robust financial situation, its increasing earnings power and its excellent market position, Voith is well equipped for

“We want to become a driving force and key player in the post-carbon industry of the digital age.”

Dr. Toralf Haag

the next stage in its development. Over the coming years, our first priority is to further reinforce the successful core business and to develop sustainable customer solutions for the post-carbon digitalized industry – true to the motto: “down to earth”. As a contribution to this process, the intention is for further targeted acquisitions to be made.

In addition to the process of strengthening the core business, which stands at the heart of our future growth strategy, one other strategic focus remains on the further expansion of our range of digital products and services. Voith’s strictly customer-oriented digitalization strategy is showing visible signs of success, one example being the sharp increase in demand for OnCumulus, Voith’s proprietary modular IIoT (Industrial Internet of Things) platform. Acquisitions such as Pilotfish and ventures such as TSP OnCare Digital Assets Inc. will also help Voith to further expand its offering of digital products and solutions along the value chain in its core business.

With its strategic initiatives, Voith is pursuing a clear objective: we intend to use our extensive technological expertise and in-depth knowledge of markets as the basis to become a driving force and key player in the post-carbon industry of the digital age. This fundamental concept pervades all Group Divisions and is expressed, for example, in the refinement of hydropower, resource-conserving papermaking or the electrification of mobility, which is one of the focal points of Voith

Turbo's investments for the future. With our products, our expertise and our top-performing team, we want to make an overall contribution to a livable, sustainable future.

This strategic alignment, accompanied by further measures to boost efficiency, backs up Voith's intention to continue its profitable growth again over the current fiscal year. We anticipate a repeat of the stable high level of orders received seen in the past year. Sales are budgeted to rise, as are the operating result and the other profitability indicators. Over the medium term, Voith will not only deliver a significantly higher return, but also increase in size and be in an even better position in terms of technology.

We have exciting times ahead of us, involving a great deal of uncertainty. On the other hand, great opportunities are arising for a company like Voith, specifically in the current environment and in light of the upheavals imminent in our industries. It would be a pleasure for us if you continue to accompany us on this path and retain your confidence in Voith.

Sincerely yours,

Toralf Haag

Dr. Toralf Haag
President and CEO

The Corporate Board of Management

Dr. Roland Münch	**Andreas Endters**	**Dr. Toralf Haag**	**Egon Krätschmer**	**Dr. Uwe Knotzer**	**Uwe Wehnhardt**
Voith Digital Ventures	Voith Paper	President and CEO	Finance and Controlling	Voith Turbo	Voith Hydro

“Strategic focus areas for our future growth strategy are, firstly, reinforcing our core business and, secondly, expanding our range of digital products and services.”

The Corporate Board of Management

Report of the Supervisory Board for the 2018/19 Fiscal Year

Ladies and gentlemen,

The global investment climate deteriorated over the course of the 2018/19 fiscal year on account of ongoing political and economic instability in various countries and regions. The trade conflict between the USA and China, the uncertainties regarding the date of and arrangements for Brexit and the growing geopolitical tensions, that are in some cases expressed in the form of trade sanctions, are curbing global demand for capital goods. World economic growth slowed in comparison to the previous year and stood at a lower level than forecast by economic analysts at the time of publication of our last annual report. A large share of global growth again originated in Asia, albeit with appreciably lower momentum. In China, an important sales market for us, investments, particularly in infrastructure, were cut back, as was expenditure on durable consumer goods, such as cars. South America, most of all Brazil, saw disappointing developments. While the US economy performed comparatively solidly, growth in the euro zone weakened markedly, specifically also in Germany. German mechanical engineering companies were confronted with painful downturns in their orders received.

Measured against the more difficult business environment, the Voith Group's operating business proved to be in a strong condition. We succeeded in generating perceptible growth in the number of orders received. One outstanding achievement in this context was Voith Hydro's winning of a major contract for the Australian pumped storage power plant Snowy 2.0. All in all, we have reinforced our earnings power throughout the Voith Group and have achieved a perceptible rise in our operating result in the reporting year.

One of our ongoing core topics is the expansion of our portfolio of digital offerings. In all of the markets we serve, we achieved clearly visible progress in this respect, driven by our new Group Division Digital Ventures. Voith Digital Ventures itself has grown, and the burden on the Group's results has decreased. Although divergent, developments in the three established Group Divisions were satisfactory overall.

Oversight activities of the Supervisory Board

One essential mainstay of the Supervisory Board meetings of Voith GmbH & Co. KGaA in the 2018/19 fiscal year were the reports by the Board of Management of the personally liable general partner, Voith Management GmbH, on the current business position and financial position of the Group and its Group Divisions as well as the reports on the Group's planning, on the Group's strategy and on material transactions.

The Supervisory Board held a total of four ordinary meetings: on October 11, 2018, on December 5, 2018, on March 29, 2019 and on June 7, 2019; furthermore, an extraordinary meeting of the Supervisory Board was held on March 29, 2019. The meetings of the Supervisory Board in turn permitted an intense and goal-oriented exchange of opinions with the Board of Management of the personally liable general partner.

The first meeting of the Supervisory Board in the 2018/19 fiscal year held on October 11, 2018, focused on the preliminary business figures for the 2017/18 fiscal year, which had then just ended, as well as on the planning for the 2018/19 and 2019/20 fiscal years. At this meeting, the Supervisory Board further addressed the Group's financial, investment and personnel planning.

At the further Supervisory Board meeting held in the 2018/19 fiscal year (on December 5, 2018), the Supervisory Board addressed the 2017/18 financial statements of Voith GmbH & Co. KGaA and of the Group. In accordance with the resolution recommended by the Audit Committee and following in-depth discussion with the independent auditor, KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, the Supervisory Board approved the financial statements and the management report of Voith GmbH & Co. KGaA for the 2017/18 fiscal year, as well as the consolidated financial statements and the Group management report. Following the Supervisory Board's proposal, the financial statements were approved at the Company's subsequent general meeting held the same day. The Supervisory Board further passed resolutions to make proposals to the general meeting on issues including the appropriation of the unappropriated retained earnings and the election of the independent auditor.

The Supervisory Board meeting on March 29, 2019 focused on business development in the first quarter of the 2018/19 fiscal year and the outlook for the whole 2018/19 fiscal year.

By means of a resolution passed in text form between meetings in accordance with § 10 (2) sentence 2 of the Company's articles of incorporation and bylaws on February 4, 2019, the Supervisory Board proposed to the general meeting a resolution to elect Prof. Dr.-Ing. Siegfried Russwurm and Dr. Norbert Kloppenburg to the Company's Supervisory Board to take the place of Prof. Dr.-Ing. Hans-Peter Keitel and Dr. Siegfried Dais, who were stepping down as members of the Supervisory Board.

At an extraordinary meeting of the Supervisory Board held on March 29, 2019, the Supervisory Board elected Prof. Dr.-Ing. Siegfried Russwurm as its Chairman.

At the last meeting of the Supervisory Board in the 2018/19 fiscal year held on June 7, 2019, the Supervisory Board addressed the report by the Board of Management of the personally liable general partner on the first half of the year for the Group and on the expectations for the 2018/19 fiscal year as a whole.

By means of a resolution passed in text form between meetings in accordance with § 10 (2) sentence 2 of the Company's articles of incorporation and bylaws on September 20, 2019, the Supervisory Board elected Ms. Constanze Hufenbecher to the Supervisory Board's Audit Committee.

Between meetings of the Supervisory Board, the Chairmen of the Supervisory Board, Prof. Dr.-Ing. Hans-Peter Keitel (until March 29, 2019) and Prof. Dr.-Ing. Siegfried Russwurm (from March 29, 2019) were kept informed by the Board of Management of the personally liable general partner on material developments and decisions. In each case, they regularly discussed important matters with the Chairman of the Board of Management of the personally liable general partner. All Supervisory Board members attended at least half of the Supervisory Board meetings. There were no potential or actual conflicts of interest in the Supervisory Board.

Report on the work of the committees

The Supervisory Board set up only one committee, namely the Audit Committee; there were no further committees in the 2018/19 fiscal year.

The Audit Committee came together on October 11, 2018, on December 4, 2018 and on June 6, 2019 at a total of three ordinary meetings.

At the Audit Committee's meeting on October 11, 2018, held in the presence of the auditors from KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, the Audit Committee dealt primarily with material issues pertaining to the financial statements for the 2017/18 fiscal year and addressed the financial aspects of the 2018/19 budget.

At its meeting on December 4, 2018, which was held in the presence of KPMG AG Wirtschaftsprüfungsgesellschaft, the Audit Committee conducted a detailed examination of the 2017/18 financial statements of the Group and Voith GmbH & Co. KGaA and the report by the auditor of the financial statements. At this meeting, the committee discussed, in some cases with the auditors, individual issues relating to the suggestions for improvement proposed in the management letter to the financial statements, none of which were deemed relevant to this report. Otherwise, the annual internal audit report for the fiscal year was presented to the Audit Committee by the head of the Internal Audit function and the compliance report was presented by the head of the Compliance Committee; the reports were discussed within this framework.

The Audit Committee meeting held on June 6, 2019, addressed issues including but not limited to the Group's six-month financial statements as at March 31, 2019.

By means of a resolution passed in text form between meetings in accordance with § 10 (2) sentence 2 of the Company's articles of incorporation and bylaws on September 4, 2019, the Supervisory Board proposed Ms. Constanze Hufenbecher for election to the Company's Supervisory Board to replace Dr. Alan Hippe, who was stepping down. The Audit Committee made this proposal outside of a session of the general meeting after having been delegated to do so by the Supervisory Board.

By means of a resolution passed in text form between meetings in accordance with § 10 (2) sentence 2 of the articles of incorporation and bylaws, the Audit Committee of the Supervisory Board elected Ms. Constanze Hufenbecher as its Chairwoman on September 24, 2019.

Change in the Board of Management of the personally liable general partner and on the Supervisory Board

Effective as of October 23, 2018, Mr. Stephan Schaller stepped down as President and CEO and Chairman of the Board of Management of Voith Management GmbH, the personally liable general partner, thus leaving Voith Management GmbH. Dr. Toralf Haag was appointed President and CEO of the personally liable general partner, Voith Management GmbH, effective as of October 24, 2018; as of this point, Dr. Toralf Haag was already CFO of Voith Management GmbH and continued to act as interim CFO, in addition to chairing the Board of Management, until May 1, 2019. With effect from May 1, 2019, Mr. Egon Krätschmer was appointed as a new member of the Board of Management of Voith Management GmbH; he was given responsibility for finances (CFO).

The term of office of Dr. Harald Hubel as member of the Supervisory Board ended on March 1, 2019 pursuant to Sec. 14 (1) No. 2 of the German Codetermination Act (MitBestG), as Dr. Hubel left the Company on this date. Mr. Klaus Lehleiter succeeded him on the Supervisory Board pursuant to Sec. 14 (2)

MitbestG as elected substitute member for the remaining term of office of Dr. Harald Hubel, with effect from March 1, 2019.

Furthermore, Dr. Siegfried Dais, whose term of office ended at the close of the general meeting on March 29, 2019, and Prof. Dr.-Ing. Hans-Peter Keitel, who resigned from his office as member and Chairman of the Supervisory Board at the close of the Supervisory Board meeting on March 29, 2019 in light of the age limit for the Supervisory Board of Voith GmbH & Co. KGaA contained in the articles of incorporation and bylaws, retired from the Supervisory Board.

On March 29, 2019, the Company's general meeting elected Prof. Dr.-Ing. Siegfried Russwurm and Dr. Norbert Kloppenburg as successors to Prof. Dr.-Ing. Hans-Peter Keitel and Dr. Siegfried Dais to the Supervisory Board for a full term of office in both cases.

At the extraordinary meeting of the Supervisory Board held on March 29, 2019, Prof. Dr.-Ing. Siegfried Russwurm was elected successor to Prof. Dr.-Ing. Hans-Peter Keitel as Chairman of the Supervisory Board.

Finally, Dr. Alan Hippe resigned from his Supervisory Board seat with effect from July 6, 2019. The general meeting held on September 9, 2019 elected Ms. Constanze Hufenbecher as successor to Dr. Alan Hippe pursuant to § 9 (2) sentence 4 of the Company's articles of incorporation and bylaws for the remaining term of office of Dr. Hippe.

The Supervisory Board would like to thank the departing members of the Supervisory Board for the consistently good and supportive working relationships. They have shown great dedication in their contribution to the Company's development over many years and supported the Supervisory Board's work with their expertise. Special thanks go out to Prof. Dr.-Ing. Hans-Peter Keitel, who chaired the Supervisory Board for five years in times of numerous challenges and changes and who provided support to Voith as a company with his intense work and well-founded expertise.

KPMG Wirtschaftsprüfungsgesellschaft, Munich, was appointed auditor of the financial statements for the 2018/19 fiscal year at the annual meeting on December 5, 2018. The Supervisory Board accordingly engaged the independent auditor.

The general meeting of Voith GmbH & Co. KGaA held on March 29, 2019 exonerated the personally liable general partner and the Supervisory Board for their activities in the 2017/18 fiscal year.

2018/19 financial statements

The auditor, KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, examined and granted its unqualified audit opinion on the accounting records, the annual financial statements and the management report of Voith GmbH & Co. KGaA and the consolidated financial statements and the Group management report for the Voith Group as at September 30, 2019. The consolidated financial statements were prepared in accordance with International Financial Reporting Standards (IFRS).

At its meeting on December 3, 2019, the Audit Committee examined in depth the annual financial statements of Voith GmbH & Co. KGaA and the Group as well as the respective management reports. After in-depth examination of the financial statements, the consolidated financial statements and the management reports of its own, that did not give rise to any objections, the Supervisory Board at its meeting on December 4, 2019 agreed with the results of the audit on the part of the auditor and approved the financial statements and the consolidated financial statements in accordance with the recommendation of the Audit Committee. The responsible audit partner from KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, took part in the meeting of the Audit Committee held on December 3, 2019; at this meeting he reported on the material results of the audit and provided additional information. The financial statements of Voith GmbH & Co. KGaA were then approved by a resolution of the general meeting on December 4, 2019 with the approval of the personally liable general partner. Furthermore, at its meeting on December 4, 2019, the Supervisory Board followed the proposal of the personally liable general partner made to the general meeting relating to the appropriation of the unappropriated retained earnings.

Finally, the Supervisory Board would like to thank the Board of Management of Voith Management GmbH as the personally liable general partner of Voith GmbH & Co. KGaA and the respective managements of the subsidiaries, the representatives of the workforce, but most of all the employees, for their dedicated service and their successful work over the past fiscal year.

Heidenheim, December 2019

Chairman of the Supervisory Board

Prof. Dr.-Ing. Siegfried Russwurm

The Supervisory Board

Prof. Dr.-Ing. Siegfried Russwurm
Chairman of the Voith GmbH & Co. KGaA Supervisory Board and
Chairman of the Voith Management GmbH Shareholders' Committee
(from March 29, 2019)

Prof. Dr.-Ing. Dr.-Ing. E. h. Hans-Peter Keitel
Chairman of the Voith GmbH & Co. KGaA Supervisory Board and
Chairman of the Voith Management GmbH Shareholders' Committee
(until March 29, 2019)

Gerd Schaible*
Deputy Chairman,
Head of Secretariat of the Corporate Works Council of Voith GmbH & Co. KGaA

Walter Beraus*
Secretary of the Metal Workers' Union (IG Metall), Regional Organization Baden-Württemberg

Constanze Hufenbecher
CFO of Lufthansa Technik AG
(from September 9, 2019)

Dr. Siegfried Dais
Partner in Robert Bosch Industrietreuhand KG
(until March 29, 2019)

Johannes Hammacher
Member of the Executive Board of JMV Management und Verwaltungs SE

Dr. Alan Hippe
Member of the Corporate Executive Committee of F. Hoffmann-La Roche AG
(until July 6, 2019)

Dr. Harald Hubel*
Head of Production at Voith Paper Heidenheim
(until March 1, 2019)

Dr. Norbert Kloppenburg
Former Member of the Board of Management of Kreditanstalt für Wiederaufbau
(from March 29, 2019)

Klaus Lehleiter*
University-qualified Engineer
J.M. Voith SE & Co. KG
(from March 1, 2019)

Thomas Martin*
Innovation Manager/
Chairman of the General Works Council at Voith Paper Heidenheim

Dr. Hubert Lienhard
Former President and CEO of Voith Management GmbH

Martin Schily
Member of the Executive Board of JMV Management und Verwaltungs SE

Ute Schurr*
Chairwoman of the Joint Works Council of J.M. Voith SE & Co. KG

Ralf Willeck*
First Authorized Representative of the Metal Workers' Union (IG Metall), Heidenheim

* Elected by the employees

Group Management Report

I. Background

I.1. Group structure and business activities

Family-owned, global technology group

The Voith Group is a global technology company. With its broad portfolio of systems, products, services and digital applications, Voith sets standards in the markets for energy, oil & gas, paper, raw materials and transport & automotive. With locations in over 60 countries, Voith operates around the globe, maintaining an extensive network of production, service and sales units on every continent on the planet.

Voith GmbH & Co. KGaA, based in Heidenheim an der Brenz, Germany, is the operative head organization and parent company of the Group. The central functions are also performed here.

The Board of Management of Voith Management GmbH is 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.

The operating business is concentrated in four Group Divisions: Hydro, Paper, Turbo and Digital Ventures. These Group Divisions are managed separately and their respective business results are presented transparently as part of the segment reporting.

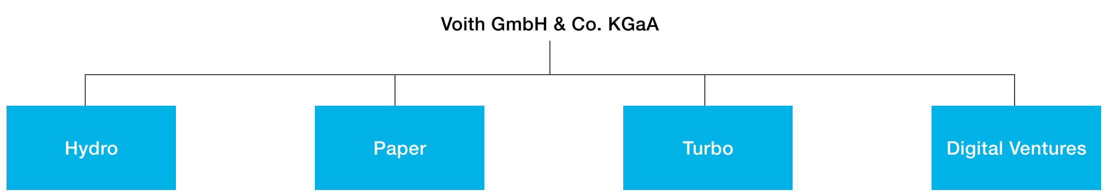
The Group Division Hydro is a leading full-line supplier and trusted partner for equipping hydropower plants. Voith Hydro develops customized, long-term solutions and services for large- and small-hydropower plants all over the world. Its portfolio of products and services covers the entire life cycle and all major components for large and small hydropower plants, from generators, turbines, pumps and automation systems, right through to spare parts, maintenance and training services, and digital solutions for intelligent hydropower.

The Group Division Paper is a leading full-line supplier as well as a pioneer in the paper industry. Through constant innovations Voith Paper is continually optimizing the paper manufacturing process and facilitating resource-conserving production.

The Group Division Turbo is a specialist for intelligent drive solutions, systems and leading-edge services. Customers from highly diverse industries such as oil & gas, energy, rail and commercial vehicles, ship technology, mining and mechanical engineering rely on the advanced technologies and solutions-driven expertise of Voith.

The Group Division Digital Ventures is the vehicle that brings together the Voith Group's many years of automation and IT expertise with the comprehensive know-how from the divisions of hydropower, paper machines and drive technology. Founded in 2016, this Group Division acts as a cross-discipline function for Voith to advance the development of new digital products and services. In order to play a major role in shaping the digitalization taking place in the mechanical and plant engineering industry, Voith is pushing forward the Industrial Internet of Things (IIoT). The Group Division plays a central role in digital innovations and applications for new markets as well as in the development and responsibility for existing and new digital venture activities.

Organizational structure
Voith Group Divisions



I.2. Management system

The key financial performance indicators for the Voith Group are the performance of orders received and sales as well as EBIT (earnings before interest and taxes) and ROCE (return on capital employed).

EBIT is based on an operating earnings indicator derived from external financial reporting, i.e. the operational result. This figure is determined on the basis of operating activities and is calculated from sales less costs before financial result and income taxes. To calculate EBIT, additional non-recurring items are eliminated and other adjustments are made.

The non-recurring items and other adjustments contain individual effects which are shown within the consolidated statement of income as part of the operational result but, in relation to ordinary business activities, should be treated as non-recurring effects. EBIT is adjusted for these amounts in order to come to a better assessment of the operating activities for internal control purposes.

By adding operating interest income to EBIT, the profit from operations is obtained. We define operating interest income 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 receivables from customer-specific contracts.

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

ROCE is calculated by bringing the profit from operations and capital employed into relation with each other. 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. Calculating the ratio of a performance indicator from the statement of income (profit from operations) to a figure 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.

I.3. Group strategy*

Our values

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 history covering more than 150 years, this approach has enabled Voith to overcome numerous obstacles, manage in turbulent times and to write industrial history.

Our DNA: Sustainable technologies for future generations.

The way we see ourselves is expressed in our corporate values.

Innovative:
We turn ambitious ideas into innovative technology. To do so, we listen attentively, have a close look and think in new ways. By doing so, we experience firsthand the way the world and our customers are changing, develop solutions that create value added, and set new standards in our markets.

Reliable:
As Voithians, we constantly strive for the trust of our customers and partners by keeping our promises. This allows us to build productive, long-term relationships.

Fair:
In every interaction, we show respect, sincerity, honesty and modesty. This is not a question of mere compliance with rules and regulations but constitutes our underlying philosophy.

* The voluntary reporting on our medium-term financial objectives was not included in the annual report.

Sustainable:
We are mindful of our responsibility to society and the environment in everything we do. With our technical innovations, we want to make a contribution to growth and prosperity worldwide. As a family-owned company we strive for lasting financial independence.

Ambitious:
We embrace challenges and set ambitious goals that enable us to continuously grow both as individuals and as an organization.

Four strategic basic principles

Information on current innovations at Voith can be found in section II.4. **Business development of the Group Divisions**.

Voith's commercial strength is based on strategic basic principles which have been carefully built up over the decades:

1. Our diversified product and service portfolio
2. Our international footprint and local roots
3. Our innovative drive
4. Our financial independence as a family-owned company

Strategy for profitable growth

Over recent years, Voith has set an important strategic course, consolidated its portfolio and improved its operating earnings power. Now, it is a matter of entering into a phase of sustainably profitable growth.

To achieve these aims, we launched a series of measures and initiatives throughout the Voith Group over the past few years. In the 2018/19 fiscal year, we additionally defined five strategic priorities across all activities:

1. Improved occupational safety:

We continue to attach great importance to occupational safety. Even with Voith being one of the industry-leading companies in this field we will sustain our efforts and continue to place a firm and uncompromising focus on preventing work-related accidents.

2. Superior product quality:

The framework of the Quality@Voith initiative, which is part of our excellence program, is employed to address the interdisciplinary topic of quality across Group Division boundaries. Our ultimate aim is to further increase customer satisfaction and cut quality-related costs.

3. Stronger profitable growth in the established Group Divisions:

There are numerous innovation projects underway in the three established Group Divisions Paper, Hydro and Turbo to round off our portfolio of offerings. Furthermore, in all Group Divisions, we are working towards expanding the service business and increasing its share of sales. In addition, we are evaluating market opportunities for existing products and services in those regions where they have been underrepresented to date or have no presence at all. Alongside organic growth, we are also keeping an eye out for small to medium-sized acquisitions and investments in attractive businesses.

4. Sales growth by tapping into new business segments:
As part of systematic foresight management, we have defined five strategic growth areas and are working towards opening them up for Voith products and services. For this purpose, we have called cross-divisional project groups into life that focus on topics such as energy storage or electric drive systems. In addition to organic growth in the specified areas, smaller to medium-sized acquisitions may accelerate expansion.

5. Increasing operating cash flow:
We intend to achieve this goal by reducing the levels of receivables and inventories, rigorous cost management and by improving our productivity and profitability. In this context, we are building on our Group-wide excellence program that comprises various initiatives.

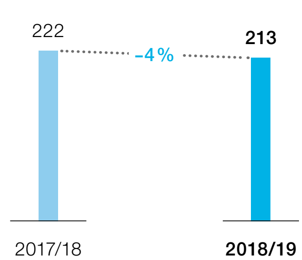
I.4. Research and development

Innovation as the basis of future business success

Research and development has traditionally played a central role at Voith. Our technological expertise and ability to transform this know-how into innovations that provide our customers with added value time and again form the foundation for Voith's strong positioning in the markets and regions we serve. Ever since the Company was founded, our engineers have been writing history with their inventions in the field of technology. This is reflected in the strong patent base: Voith holds several thousand active patents worldwide and several hundred more are registered each year.

We continue to invest consistently in research and development of new solutions – over the past years investment in this field has totaled over €1 billion. R&D expenses developed as follows over the year under review:

Research and development Group*
in € millions



* Previous-year figure restated.

The R&D ratio of the Voith Group, based on Group sales, stood at 5.0%, down on the previous-year figure (5.3%). Of the total R&D expenses of €213 million, €14 million were capitalized (previous year: €13 million). Simultaneously, depreciation and amortization of €5 million, unchanged on the previous year, was recognized on capitalized development costs.

The right selection of development projects is a decisive factor. We apply systematic foresight management throughout all Group Divisions when formulating our R&D strategy. We create a number of consistent future visions and scenarios for all relevant market and technology fields from which we then derive our technology road maps. The aim is to allow us to fully exploit any growth potential and be ideally prepared for any future challenges.

Our latest innovations in the year under review are described in section II.4. “Business development of the Group Divisions”.

I.5. Sustainability

We continue the traditions of the family-owned company Voith based on our understanding of sustainability: the obligation to take ecologically sound and fair actions, and to return a profit over the long term. Our motto is: Sustainable technologies for future generations. An independent body has now confirmed that Voith is one of the leading companies in its sector in the field of sustainable business. In the corporate rating by the renowned rating agency ISS-oekom, our sustainability activities conducted in 2018 were given a C+ grade. This is equivalent to prime status. This means that Voith belongs to the top 20% of the 172 companies from the mechanical and plant engineering industry examined. Step by step we are approaching our aim of becoming the benchmark in our markets for sustainability issues.

The organization, the 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.

The current version of the Voith Sustainability Report is available on the Internet at **http://voith.com/corp-en/about-us/sustainability.html**.

Voith began implementing sustainability management throughout the Group in 2008. Since 2009, Voith has systematically recorded and analyzed environmental data, materials indicators and relevant personnel data. We have published a sustainability report every year since 2011.

Comprehensive figures, data, facts and explanations relating to all the aforementioned fields of action can be found in our Sustainability Report. This report provides information on such issues as environmental employee and social matters as well as respect for human rights and combating corruption.

Furthermore, section I.6. of this management report contains general information on how we fulfill our responsibility towards employees.

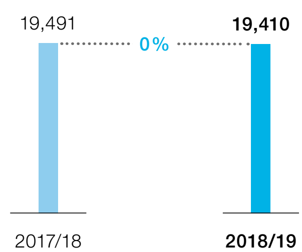
I.6. Employees

Qualified, motivated and dedicated employees are the foundation and motor of our success. For this reason, we make every effort, firstly, to retain experienced employees within Voith and, secondly, to recruit new talent for the Voith workforce. We endeavor to offer employees who meet our high demands challenging tasks, individual development opportunities and an attractive workplace. Occupational safety is one of our top priorities.

Development of the workforce

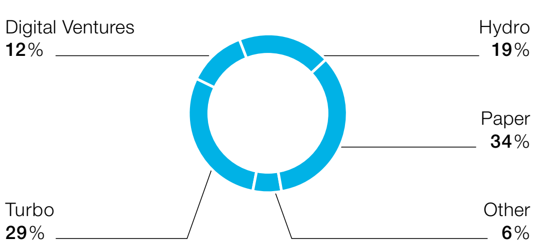
The number of employees in the Voith Group developed as follows in the 2018/19 fiscal year (all figures represent full-time equivalents excluding apprentices, as at September 30), and were distributed across the various Group Divisions and regions as shown:

Employees Group*
Full-time equivalents as at September 30

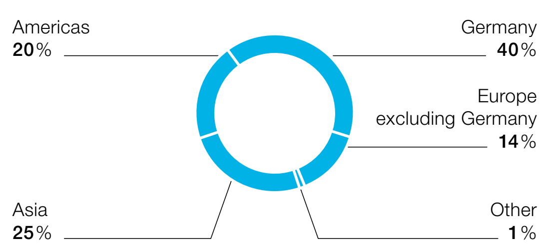


* Previous-year figure restated.

Employees total 19,410
by Group Division



by region



As at the end of the 2018/19 fiscal year, the Voith Group had a headcount of 19,410 employees. This figure does not include the 112 employees (previous year: 136) of the discontinued operations.

On balance, the number of Voith Group employees decreased by 81. Company acquisitions and newly founded companies gave Voith approximately 260 new employees. In contrast, other positions were cut, particularly in the Group Division Hydro.

At Voith Hydro, the number of employees declined by a total of 161 to 3,766, primarily due to capacity adjustments in Brazil resulting from ongoing reluctance to invest in infrastructure projects. Following the takeover of the former joint venture VolgaHydro, around 90 employees were consolidated into the Voith Group and assigned to the Group Division Hydro.

At Voith Paper, the Group Division with the highest headcount (September 30, 2019: 6,646 employees), the number of employees on balance increased by 28 in comparison with the previous year. New jobs were created in particular in the business with consumables and services.

At Voith Turbo, the number of employees rose slightly by 57 to 5,600 as at September 30, 2019. Personnel capacities were built up to handle the increase in the volume of business and to perform the cross-divisional research and development activities. Part of the increase in personnel at Voith Turbo was a result of the internal shift of jobs from the Group Division Digital Ventures.

Information regarding the acquisition of Pilotfish and the founding of the joint venture TSP OnCare Digital Assets can be found in section II.4.4. **Digital Ventures**.

At the end of the year under review, Voith Digital Ventures had a headcount of 2,280 employees, 68 more on balance than one year prior. This figure includes approximately 150 employees from Pilotfish and TSP OnCare Digital Assets, two new ventures that were fully consolidated for the first time in the year under review. Creating the opposite effect, some positions were transferred to other Group Divisions and some administrative positions were cut.

The number of employees in the Corporate Functions & Services Division declined by 73 to 1,118 as a result of an increase in efficiency in administrative functions.

As far as the regions are concerned, the majority of Voith's employees continue to be based in Germany. The second largest region was Asia, followed by the Americas and Europe excluding Germany.

Employee recruitment and personnel marketing

Competition for qualified employees is intensifying in many areas. In the year under review, a special focus was placed on recruiting employees to play a role in shaping the digitalization of our Company and our portfolio of offerings as well as filling field service vacancies, an area in which major growth objectives come into conflict with difficult demographic developments.

Within the framework of our personnel marketing activities, the relaunch of our careers website was followed by rebalancing the channels and measures used in the active search for suitable candidates. As part of this process, we will increasingly deploy social media as part of recruitment in the future.

First-class professional training

In the year under review, we once again provided a large number of young people with career prospects and maintained a high number of apprenticeships. At the close of the 2018/19 fiscal year, 833 apprentices and students were employed at Voith locations around the globe (previous year: 814, +2%).

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. 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 digital transformation, modern information and communications technologies merge with industrial processes. In order to prepare young people appropriately for a changing production landscape, we integrated new digital work contents into the training for technical professions in the 2017/18 fiscal year. These are interdisciplinary skills, such as additive production processes with the aid of 3D printers, using manufacturing execution systems (MES) or using augmented reality (AR).

Lifelong learning

Lifelong learning is a core topic at Voith. Our objective is to develop the innate talents of each and every member of staff and to deploy each employee in accordance with their strengths. Based on our employees' individual training needs, we offer them access to internal and external training and personal development measures that expand their professional, personal and methodology skill sets.

Our leadership calendar forms the operative framework for personnel development. The key elements are two institutionalized meetings which are held with every employee once a year, the performance review and the employee appraisal. The insights gained from these meetings are combined 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.

Businesses are currently facing a range of challenges arising from the enormous speed of change – for example in association with digitalization, but also in other areas. Furthermore, the business environment is characterized by increasing complexity, non-linear cause-effect relationships and a lack of predictability. This gives rise to new challenges for executive managers and employees alike. 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. Our personnel development concepts are intended to help us, as an organization, to prepare for a changing working world and empower our executive managers and employees to actively participate in shaping it. Our medium-term objective is to develop a culture characterized by agility and willingness to embrace change, because change will always be a constant.

In this respect, a key role will be played by our executive managers for whom we set high standards. They take part in development programs intended to create a common understanding of leadership across all Group Divisions and regions. In the future, work will increasingly be defined by self-organized teams. For this reason, our executive managers are encouraged to promote a culture of initiative-taking on the part of their staff and to bolster motivation and commitment.

In 2018, with a view to preparing our employees for the digital transformation, we introduced a comprehensive e-learning platform, developed in collaboration with the Fraunhofer Institute, that is available to all Voith employees.

Work-life balance

At Voith, it is a matter of course to provide fair working conditions and competitive compensation. Younger employees, in particular, increasingly give priority to soft factors. These include, in addition to a meaningful occupation and opportunities for personal development, the desire to achieve a balance between professional and private life. Voith sees itself as a family-friendly company. This perception of ourselves has been defined in our Group-wide guidelines for a flexible and family-oriented work culture. It is our declared objective to offer our employees a working environment that adjusts as flexibly as possible to their particular circumstances. This also includes individual working-time models that employees can sign up to in consultation with their line managers. These models range from a combination of “mobile working” and on-site presence or part-time work and job sharing through to flexible vacation arrangements and sabbaticals. The most recent model in this area is a part-time work/training arrangement. This model combines an active phase, where employees work for reduced pay, with a subsequent passive phase, in which they can study for additional professional qualifications while receiving continued payment. Voith also takes care of retiring employees, those who have become incapacitated or whose employment ends for other reasons, and provides support to the respective groups of people through part-time retirement models, company pension schemes and a mutual benefit fund.

Diversity and equal opportunity

Voith employs men and women who are at different stages of their lives, come from around 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 and Inclusion Program (D&I) to support diversity and equal opportunities. We see the diversity of our workforce as consisting of the five dimensions of gender, age, nationality or ethnic origins, training and professional experience as well as individual differences such as beliefs, physical abilities or sexual orientation. For us, “inclusion” means promoting a culture of appreciation and mutual respect that is the very basis for facilitating the development of individual potential and the contribution of different perspectives, approaches and strategies.

Alongside consistently increasing executive and employee awareness by means of workshops and related campaigns, the D&I program involves the introduction of appropriate measures. Managers have been provided with a D&I toolkit that contains concrete suggestions for how to work in and manage teams. HR processes are regularly reviewed from a D&I perspective and optimized as necessary.

As women are traditionally still underrepresented in technical professions and courses of studies, technology companies, especially in the B2B segment, employ significantly fewer women than men, in general. The proportion of women in the Voith Group's overall workforce stood unchanged at 18% on September 30, 2019 (based on headcount). For this reason, we have made this issue a priority and are working towards increasing the proportion of women, specifically the proportion of female executives within the Company. Firstly, we are making efforts to inspire girls and women to take up STEM professions and also to make Voith more attractive to them; secondly, measures have been introduced relating primarily to the selection process within the recruitment procedure for new employees and internal vacancies. The decisive factors in the selection of suitable candidates will, however, remain the qualifications, performance and personality of the candidates concerned.

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 fundamental 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 throughout 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 one of the leaders 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 1.5 (previous year: 1.5) per one million working hours or a total of 54 (previous year: 52) accidents. In comparison: the average frequency rate for companies in the German Wood and Metal Trades Association is 22. There has also been an appreciable improvement over the long term in what is known as the severity rate – in the year under review it stood at 364 (previous year: 341) hours lost per one million working hours. Our success has also been confirmed by external opinions – for example we achieved a top score of A+ for our occupational safety rate in the 2018 ISS-oekom rating.

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.

II. Economic report

II.1. Overall assessment

Operating business performing well, substantial increase in net income

Voith looks back on a good 2018/19 fiscal year (October 1, 2018 to September 30, 2019) that held some challenges. We achieved our Group objectives and further strengthened our operating earnings power in a demanding market and competitive environment.

As forecast, Voith improved in every key Group performance indicator. Orders received rose perceptibly, buoyed by strong growth in the Group Division Hydro, and stood at €4,691 million (+9%). The Voith Group's orders on hand increased by more than €400 million to €5,630 million, its highest level in seven years. Sales also grew slightly to €4,276 million (+2%), while we succeeded in growing the operating result at an even faster rate. EBIT increased by 12% to €215 million. Correspondingly, the return on sales and the return on capital employed both improved perceptibly.

Once again, Voith's broad-based positioning, both in terms of geography and sectors served, paid off. Voith Hydro stood out with a very strong level of orders received that was marked by a major project involving a contract amount in the three-digit euro millions. After benefiting from a very positive investment climate following its successful restructuring in the past year, the Voith Paper business normalized at a good level. Voith Paper further improved its EBIT and once again made the largest contribution to the operating result of the Voith Group. Voith Turbo saw a robust performance in a demanding environment and has been working intensely towards achieving a more efficient and more effective structure. The youngest Group Division, Digital Ventures, saw further dynamic growth once again in the past year. The losses associated with the build-up costs decreased appreciably as planned.

Bottom line, the group net result amounted to €72 million, equivalent to growth of 49% in comparison to the previous year. Alongside the increased operating result, the lower tax rate and the improvement in the result from discontinued operations were decisive factors in this development.

The net assets and the financial position of the Group remain at a very good level. The cash flow from operating activities increased to €46 million (previous year: €31 million). As at September 30, 2019, Voith had net liquidity of €552 million. The equity ratio stood at 26.2% at the end of the year under review (previous year: 28.5%).

The information on the operating business in the annual report relates to the Voith Group's continuing operations. The activities of Voith Composites SE & Co. KG ("Voith Composites") and merQbiz LLC ("merQbiz") are treated as discontinued operations. The background to this is that we intend to sell the business operations of Voith Composites and to continue merQbiz's activities together with an investment partner who will assume the majority shareholding. This means that the assets and liabilities of the

Further information on this can be found in the section entitled **Discontinued operations in the 2018/19 fiscal year**.

companies concerned are reported separately in the balance sheet. In the context of the consolidated statement of income, the companies' sales and expenses are not shown in the Voith Group's individual income and expense components. Instead, the contribution made by the two companies to the Group's net result is reported as a total in the "net result from discontinued operations" item. The figures for the previous year in the statement of income and the associated notes to the financial statements have been adjusted in the same way.

Further information on this can be found in the section of the notes to the financial statements entitled **Restatements of previous-year figures**.

In addition, the previous-year figures for some line items were adjusted on account of subsequent correction of an accounting error identified in the 2018/19 fiscal year involving measurement of foreign currency receivables from long-term construction contracts. This relates, among other things, to the earnings indicators of the Group Division Hydro and consequently also of the Group in the 2017/18 fiscal year.

II.2. Macroeconomic and industry-specific environment

Faltering global economy

Over the course of the 2018/19 fiscal year, the growth of the global economy began to increasingly lose momentum. In its most recent publication from October 2019, the International Monetary Fund (IMF) forecast global growth of 3.0% for the year 2019, perceptibly down on the previous year and also below the expectations common among economic researchers at the time of the publication of our 2018 annual report. If the forecast is met, it would be the lowest growth rate seen since the global financial crisis.

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

World output	2018	3.6%
	2019	**3.0%**
Advanced economies	2018	2.3%
	2019	**1.7%**
USA	2018	2.9%
	2019	**2.4%**
Euro area[2]	2018	1.9%
	2019	**1.2%**
Germany	2018	1.5%
	2019	**0.5%**
Emerging market and developing economies	2018	4.5%
	2019	**3.9%**
China	2018	6.6%
	2019	**6.1%**
ASEAN-5	2018	5.2%
	2019	**4.8%**
India	2018	6.8%
	2019	**6.1%**
Brazil	2018	1.1%
	2019	**0.9%**
Russia	2018	2.3%
	2019	**1.1%**

Source: International Monetary Fund (IMF); World Economic Outlook, Oct. 2019.
[1] 2018: estimates; 2019: forecasts.
[2] Including Germany.

The main causes for the decrease in global demand were the ongoing trade conflict between the USA and China, geopolitical tensions and the ongoing uncertainty surrounding the UK's exit from the European Union (Brexit). In addition, the financial markets in the industrial nations saw some fluctuation.

Virtually all countries were experiencing a downturn in 2019. While the US economy performed solidly, growth in the euro zone faltered appreciably. The German economy in particular saw a sharp downturn, leading the IMF to reduce the growth forecast for 2019 from +1.9% (IMF October 2018) to the most recent figure of just 0.5%. The main reasons for this were lower demand from abroad and a weakening automotive industry and chemical sector.

The majority of the global growth in the year under review again originated in Asia, albeit with appreciably lower momentum. Regulatory measures to curtail the shadow banking system and the trade tensions with the US both had an inhibiting effect on growth. Domestic investment declined, particularly in infrastructure, as did expenditure on longer-lasting consumer durables, such as cars. Even in India and the ASEAN-5 countries, GDP growth also slowed appreciably in 2019.

The growth rates in South America lagged appreciably behind the global development. The expected recovery in Brazil, the continent's largest national economy, failed to materialize. Domestic demand was hampered by high unemployment figures and uncertainty over political reforms, while exports suffered under the faltering global economy and specifically the recession in Argentina.

Trade sanctions and the lack of structural reforms in Russia continued to dampen growth, as did the drop in oil prices in 2019.

Understandably, the investment climate deteriorated in this environment impeded by economic and political uncertainties. The global economy is currently being carried by consumer spending and the service sector, while global industrial production is declining due to restrained corporate investment and spending on durable consumer goods such as cars. The German mechanical and plant engineering industry reported an appreciable decline in orders received since December 2018 in comparison to the previous-year period, according to data provided by VDMA, the relevant industry association.

Voith markets: divergent developments

The five target markets served by Voith performed disparately in the year under review. Material segments in the transport and automotive market enjoyed ongoing positive conditions in the industry. In the energy market, the volume of contracts awarded in the hydropower segment was perceptibly higher than the low previous-year figure, whereas investments in conventional power plants stabilized. The paper market remained robust, despite a perceptible decrease. The oil & gas markets along with the market for raw materials remained challenging.

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 Group Divisions Hydro and Turbo (division Industry).

Long-term development is characterized on the one hand by rising domestic energy demands, particularly in regions and countries with strong growth, such as China and India, while on the other, the importance of low-emission, and particularly renewable, energy sources for the generation of electricity continues to rise. These long-term trends could be overshadowed in certain years by cyclical developments and short-term volatile events.

According to the most recent figures available, electricity consumption again climbed perceptibly in 2018, reaching another annual high. China, India and the USA were mainly responsible for the increase in demand. This development was driven by sound economic growth and an increase in the electrification of many areas of life. The largest increase came from gas, which is gaining in importance among the fossil fuels, followed by renewable energies. Among the renewable energies, whose share of global electricity generation has now reached almost 10%, wind and solar power are growing at the fastest rate.

The expansion of electricity generation capacities in all renewable energies is generally reflected in the hydropower field as rising investment; market volume may, however, fluctuate sharply from year to year due to the large volumes of investment in individual hydropower projects. The volume of contracts awarded relevant to our Group Division Hydro in the 2018/19 fiscal year was above the low level seen in the previous year. The global market for pumped storage technology grew significantly in light of the expansion of wind and solar energy.

Investment in the market for conventional power plant technology, which is relevant for our Group Division Turbo, stabilized at a low level.

Oil & gas: investment activity remains restrained

The oil & gas market comprises three segments: upstream involving the extraction of crude oil and natural gas, midstream involving transport of raw materials 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 Industry division of the Group Division Turbo supplies all segments in this market with application-specific products and services.

Oil and gas prices determine the earnings position of companies active in the oil & gas market and thus also influence Voith Turbo's business in this sector. The price for a barrel of Brent oil fell from over USD 80 at the beginning of the 2018/19 fiscal year to temporarily come in as low as USD 55. At the end of the year under review it was just over USD 60. Prices were extremely volatile as a result of the tensions in the Middle East. Overall, global oil production outstripped demand for most of the 2018/19 fiscal year.

The price of gas (Henry Hub) briefly rose to a five-year high at the beginning of the year under review (USD 4.84 in November 2018), to subsequently slip under the previous-year level to just USD 2.10 per one million British thermal units. Global demand for natural gas rose due to the unusually cold winter.

Investment activity in the oil & gas market remained subdued overall. US shale oil production continues to grow, but in the conventional area project activities revived only slightly. The focus continues to be on measures to improve efficiency. The trend toward projects with short amortization scales – such as expansion drilling and technologies to increase the life span of oil and gas fields – also continues.

Paper: expected market downturn has arrived

The paper market covers all areas of paper manufacturing: from paper recycling and paper production including surface refinement to calendering, painting and reeling paper webs. The Group Division Paper serves the market with all types of paper – board and packaging paper, tissue, specialty paper and graphic paper, such as newspaper and printing paper. 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.

In Voith's 2018/19 fiscal year, the global production of paper was lower than in the previous year and it is unlikely to climb significantly in the current fiscal year. There is an ongoing decline in graphic paper, driven by the advancing digitalization of everyday life. Growth potential primarily lies with board and packaging paper. Demand is increasing in all regions due to the rise of online retail and endeavors to replace plastic as a packaging material. The use of tissue will also rise in line with the sharp increase in middle-class populations in Asia. In the large Chinese market, paper production has declined perceptibly, primarily due to the scarcity of raw material related to the import ban on recycled paper and unsorted waste.

As expected, the market for new machines and rebuilds, which is of considerable importance to Voith, has slowed down appreciably in comparison with the very high levels seen in the last two years. Demand for consumables and service offerings remained stable.

Raw materials: slow recovery

We define raw materials as ores and minerals extracted from the earth, such as copper, iron ore and coal along with other geological materials, for instance sediments used as building materials. 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 Group Division Turbo (division Industry).

The raw materials market is recovering very slowly from its dramatic collapse at the beginning of the decade. The prices of vital raw materials remained under pressure in the 2018/19 fiscal year. Iron ore was the only raw material to record a perceptible increase. The price of copper remained largely constant year on year, despite some fluctuation over the course of the year. In light of the downturn in global economic growth, the price for power plant coal has fallen to a multi-years low around the world. Overall, investment in mining rose for the second consecutive year in 2019 but remains below the volumes seen before the recession.

Transport & automotive: solid growth overall

The transport & automotive market includes diverse transport routes and the means of transport used on them for moving people and goods. The Group Division Turbo (division Mobility) serves this varied market and supplies drive components and solutions, and brake systems for the commercial vehicle industry, rail sector and marine segment.

The market for heavy trucks remained at a good level in the year under review. Truck manufacturing, which is closely linked to the development of the economy, contracted perceptibly in 2019. The Asian truck market, most of all China, was in an appreciable decline. The EMEA region recorded a sideways development. The production figures for the US truck market continued to see a slight rise. The recovery in South America continued, albeit from a low level. Due to the rising passenger numbers around the world, the bus segment is experiencing long-term global growth. In the 2018/19 fiscal year, global bus production increased slightly, driven by the large Chinese market. Chinese bus manufacturers are expanding their export business and increasingly supplying the markets in Africa and the Middle East. The Brazilian bus market grew dynamically, albeit at a low level. Demand for buses in North America remained stable. Europe recorded moderate growth. Demand for commercial vehicle services developed positively.

The rail sector, which is dominated by state investment in infrastructure, developed well overall in the year under review. Europe and India saw the greatest increases driven by modernization and digitalization of existing networks and expansion in metropolitan areas. Falling investment in the high-speed network in the large Chinese market was compensated for by strong demand in the metro segment. The service business is growing faster than the original equipment business.

The marine market remains under pressure. All in all, global shipbuilding activities were on a low level, with niche fields such as special-purpose vessels offering potential. The German shipbuilding and offshore supplier industry recorded slight growth in orders received in the year under review.

A trend toward electric/hybrid drives and other environmentally friendly technologies as well as digital solutions can be observed in virtually all segments of the transport & automotive market.

II.3. Business development of the Group

II.3.1. Material events

In September 2019, Voith signed a contract for the purchase of the company BTG for a total of €319 million. The transaction is expected to be closed by the end of the fourth calendar quarter of 2019 and is subject to approval from all authorities and other customary conditions being met.

BTG is a global supplier of integrated, highly specialized process solutions for the global pulp and paper industry, and will in the future boost Voith's position in the Group Division Paper as a full-line supplier. The company has a workforce of approximately 600 employees and is profitable.

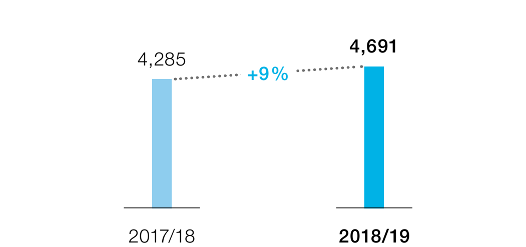
Once the takeover is complete, BTG will be consolidated into the Voith Group and assigned to the Paper segment. The effects of the transaction will be reflected accordingly in the consolidated financial statements for the 2019/20 fiscal year. The figures for the year under review will remain unaffected.

II.3.2. Orders received

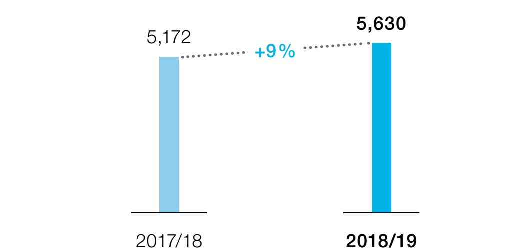
Orders received increased by 9%

In the 2018/19 fiscal year, the Voith Group secured new orders worth €4,691 million. The 9% increase is in line with the forecast published in the 2018 management report (“perceptible rise”). Currency effects had hardly any impact on the year-on-year comparison. The Voith Group’s orders on hand increased by €458 million to €5,630 million.

Orders received Group*
in € millions



Orders on hand Group
in € millions



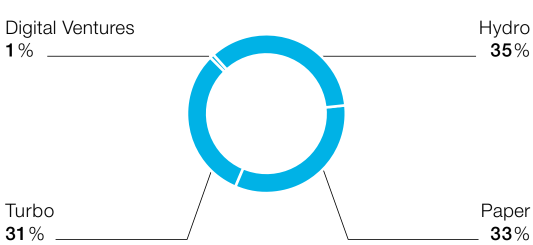
* Previous-year figure restated.

Detailed information on the development of orders received in each Group Division can be found in section II.4. **Business development of the Group Divisions**.

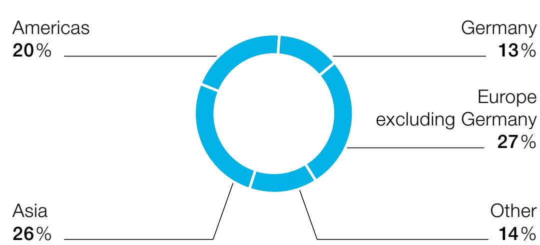
The Group Division Hydro (+89%) made a decisive contribution to this high figure. The Hydro segment’s figure for orders received was dominated by one significant major contract. Voith Turbo also increased its orders received (+5%), specifically through the sound performance in the Mobility division. As expected, Voith Paper recorded a decline (-22%) in comparison with the record figure from the previous year, but remained on a robust level. In the Group Division Digital Ventures orders on hand are not recorded, due to the short lead times; therefore orders received and sales (+53%) are virtually identical.

In the year under review, orders received were distributed as follows among the Group Divisions and regional markets.

Orders received total €4,691 million
by Group Division



by region

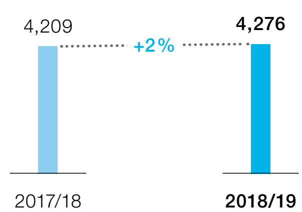


II.3.3. Sales

Group sales up on previous year

At €4,276 million, Group sales were slightly up against the previous-year figure, as forecast. Currency effects also played a negligible role with regard to sales.

Sales Group*
in € millions



* Previous-year figure restated.

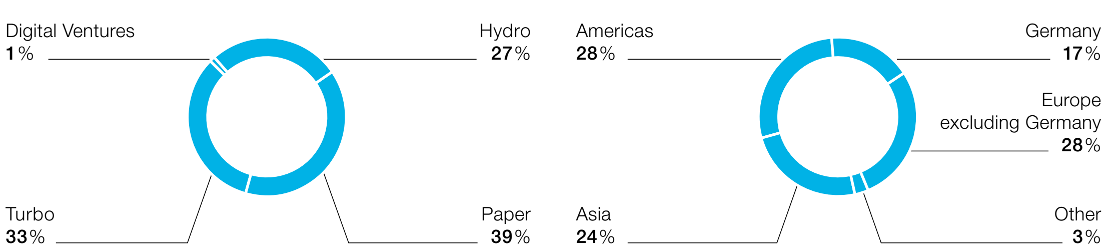
Detailed information on the development of sales in each Group Division can be found in section II.4. **Business development of the Group Divisions**.

Developments in the Group Divisions diverged. While sales sank at Voith Paper (-5%), primarily due to the decline in the China business, the Group Divisions Turbo and Hydro both recorded increases in sales of +7% and +4%, respectively. The young Group Division Digital Ventures recorded the largest increase in sales as a percentage (+53%), based on a low absolute level and driven by acquisitions.

In the year under review, Group sales were distributed as follows among the Group Divisions and regional markets:

Sales total €4,276 million
by Group Division

by region

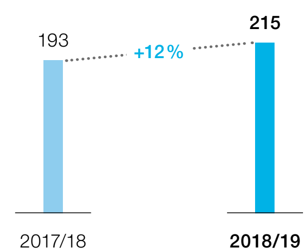


II.3.4. Operating result

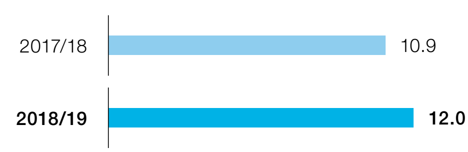
EBIT increased by 12%

The Voith Group's profitability and viability improved in the year under review. We succeeded in growing the operating result at a faster rate than sales. The perceptible increase in Group EBIT corresponds to our forecast in the 2018 management report. Currency effects were also immaterial with regard to EBIT development.

EBIT Group*
in € millions



ROCE Group*
in %



* Previous-year figure restated.

Detailed information on the development of EBIT in each Group Division can be found in section II.4. **Business development of the Group Divisions**.

In addition to the appreciable reduction (-39%) in the build-up costs at the young Group Division Digital Ventures, Voith Paper also contributed to the encouraging earnings figures with higher EBIT (+10%). At Voith Turbo EBIT was on a par with the previous year (0%). In the Group Division Hydro, EBIT decreased (-18%).

Group return on sales increased to 5.0% in the 2018/19 fiscal year from 4.6% in the previous year (restated). As forecast in the previous year's management report, ROCE also saw a perceptible increase.

II.4. Business development of the Group Divisions

II.4.1. Hydro

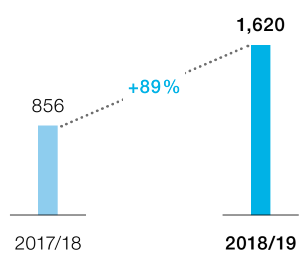
Orders received at outstanding level

The Group Division Hydro performed well overall in the 2018/19 fiscal year, despite a number of challenges. One outstanding achievement was winning a megaproject in Australia, which led to a spike in orders received. Sales were slightly up on the previous year. EBIT and ROCE were down compared with the previous year.

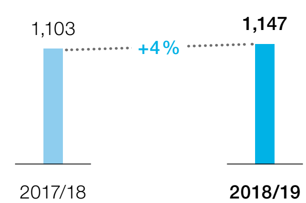
Key figures

The Group Division Hydro's key figures for the 2018/19 fiscal year are as follows:

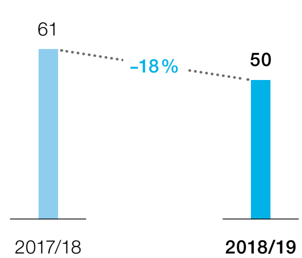
Orders received Hydro
in € millions



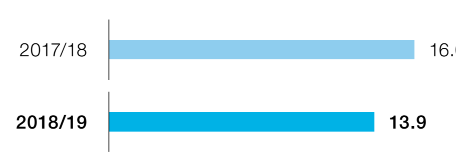
Sales Hydro
in € millions



EBIT Hydro*
in € millions



ROCE Hydro*
in %



* Previous-year figure restated.

Moderate recovery in the hydropower market

The moderate recovery of the hydropower market continued in the 2018/19 fiscal year. Modernization and service projects dominated the business in North and South America as well as Europe, while predominantly new hydropower plants were being planned and tendered in Asia and Africa. In Australia, where the national energy transformation to renewable energies is progressing at a rapid rate, hydropower and pumped storage technology in particular are experiencing an exceptional boom.

Orders received exceed expectations

The 89% increase in orders received exceeded our growth expectations (forecast 2018 management report: “appreciable increase”). This relates to a volatile outlier, primarily resulting from a major contract with a volume in the mid-three-digit million euro range: Voith will deliver the electrical and mechanical components for the Australian pumped storage power plant Snowy 2.0, one of the largest pumped storage power plants in the world. Once completed, Snowy 2.0 is expected to achieve a total output of 2,000 megawatts, providing the Australian electricity market with energy storage capacity of up to 175 hours. This means the plant can make a significant contribution to stabilizing the grid and to the further expansion of electricity generation from renewable sources in Australia. This is the second-largest individual contract that Voith Hydro has ever won, and represents an important reference contract for Voith in this growing market.

In addition to this outstanding contract, other major projects contributed to the good order situation. In Canada, for instance, we were able to secure an extensive modernization contract for the hydropower plant Rapide Blanc, which began operating in the province of Quebec in 1934. In China we were awarded a contract to supply pumped storage technology for the new power plant Xia Men, which will have a total output of 1,400 megawatts. In India we will equip the new hydropower plant Pakal Dul being created in the state of Jammu and Kashmir with turbines, generators and auxiliary equipment. We have also received confirmation for the last contract tranche for the modernization of the Saratovskaya hydropower plant in Russia.

Across the board, too, we realized an appropriate share of the large-hydropower market. Hydro service activities (“HyService”) and our digital solutions business also recorded pleasing growth. The small-hydropower segment (plants with an output of 30 megawatts per unit) again suffered from the fact that operating conditions for small hydropower plants remain difficult due to a lack of grants and financing models in many countries.

Orders on hand increased by €472 million to €3,159 million as at September 30, 2019 (September 30, 2018: €2,687 million).

Sales up 4%

Sales in the Group Division Hydro grew 4% in the 2018/19 fiscal year, outperforming our expectations. In light of the weaker orders received in previous years, we had anticipated a stable development in the year under review. Looking at the regional distribution of sales, North America, Europe and Asia were roughly on a par.

Operating result down on previous year

The decrease in EBIT is primarily attributable to the completion of contracts closed in weaker market phases with higher price pressure. As a consequence, the stable development forecast in the 2018 management report was not achieved. Return on sales and ROCE also decreased as a result of the decline in earnings, but remained at a satisfactory level. Return on sales amounted to 4.4% (previous year: 5.6%, restated). ROCE fell to 13.9%, meaning the forecast slight increase was not achieved.

Material events

In the year under review, Voith Hydro boosted its activities in the Russian hydropower plant market and took over all of the shares in VolgaHydro, which had previously been a joint venture with Russian energy supplier RusHydro. In addition, a new production plant for hydropower turbines was opened after a three-year construction period in Balakovo, Russia, in June 2019.

Innovations

We continually work on the evolution of pumped storage technology, deploying state-of-the-art flow simulators and first-class laboratory technology to do so. Pumped storage technology is the only long-term, technically proven and economically viable form of storing energy on a large scale, and is becoming more important in the wake of the expansion of renewable energies, based on its contribution to grid stability and reliability of supply. In the year under review we successfully developed a high-performance pump-turbine, which led to winning the bid for the Australian megaproject Snowy 2.0. The pump-turbine won the direct model test competition.

Great progress has also been made in the field of Pelton wheels. The lifetime of the buckets in water containing sediment was improved significantly through newly developed forms and special coatings.

In the year under review we established the OnPerformance.Lab at our German headquarters. Here we will combine the expertise of hydropower and plant specialists with the know-how of data scientists and programmers in order to assist the operators of hydropower plants in exploiting the full potential of their data and improve the performance and efficiency of their plants.

II.4.2. Paper

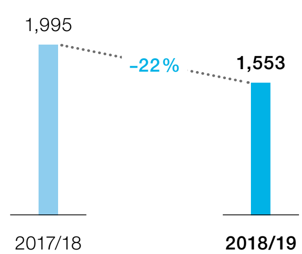
Profitability improved

The Group Division Paper can look back on a successful fiscal year. As forecast, orders received declined due to the normalization of the paper machines market. With a slight decline in sales, we were able to increase the operating result and improve the return on sales and ROCE.

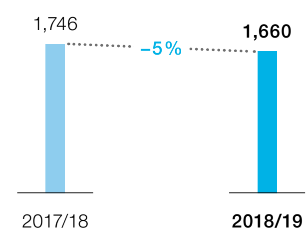
Key figures

The Group Division Paper's key figures for the year under review are as follows:

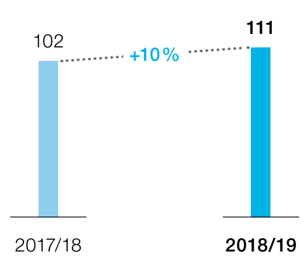
Orders received Paper
in € millions



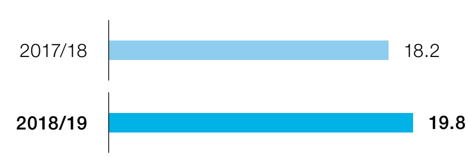
Sales Paper
in € millions



EBIT Paper
in € millions



ROCE Paper
in %



Orders received down on previous year due to market environment

Following two years dominated by high investment and major contracts, the paper machine market normalized during the 2018/19 fiscal year as expected. The level of paper production, which determines demand for our consumables and services, stagnated and thus saw weaker development than anticipated by industry analysts.

Orders received in the Group Division Paper have decreased perceptibly, as forecast, but remained on a satisfactory level. This decrease was attributable to the project business (new machines and major rebuilds), while the business with consumables and services grew contrary to the market trend. Orders on hand in the Group Division Paper stood at €1,344 million at the end of the fiscal year on September 30, 2019 (September 30, 2018: €1,434 million).

Orders received in the project business were dominated by new machines and rebuilds for the production of board and packaging paper. For example, we received a major order from Ilim Pulp, Russia's largest pulp and paper manufacturer, for a Kraftliner packaging paper machine. The XcelLine PM 1 is due to go live by the end of 2021 in the new pulp and board plant in Ust-Ilimsk, Siberia. We received another extensive contract in the field of board and packaging from a major Chinese manufacturer. Although the graphic paper machine segment is experiencing a downturn we noted some success and secured a contract with Chinese paper manufacturer Sun Paper.

Slight fall in sales

The slight decline in sales is mainly due to developments in China, where paper manufacturing decreased as a result of raw material scarcity in connection with the ban on waste imports, and the downturn in the global economy also made itself felt. However, sales remain sound, despite the fact that we were not able to achieve the stable development forecast in the 2018 management report. Our business with consumables and services performed well but was not able to fully compensate for the decline in project business.

The strongest sales region in the year under review was Europe (including Germany). Voith Paper's sales in this region increased perceptibly. In contrast, a decrease was recorded in Asia.

EBIT, return on sales and ROCE all increased

Despite the decline in sales, Voith Paper was able to increase EBIT perceptibly (+10%). This pleasing earnings development, which is in line with our forecast, reflects the successful measures to improve productivity taken in recent years. Return on sales climbed accordingly to 6.7% (previous year: 5.8%). As planned, ROCE saw a perceptible increase, rising to 19.8%.

Material events

Further information on the acquisition can be found in section II.3.1. **Material events**.

In September 2019, Voith signed a contract for the purchase of the company BTG. This acquisition significantly expands the portfolio of offerings in the Group Division Paper: BTG is a well-positioned global supplier of integrated highly specialized process solutions for the global pulp and paper industry. Once the transaction is successfully completed, BTG will strengthen Voith Paper's position as a full-line supplier. The planned takeover of BTG is strategically very important for Voith Paper because BTG's portfolio supplements Voith Paper's products and solutions in a very complementary fashion. With its tools and software solutions, BTG also offers a number of promising interfaces to our Papermaking 4.0 products.

Innovations

Voith Paper brought numerous innovations onto the market in the 2018/19 fiscal year. The product portfolio in the forming section has, for example, been expanded with DuoFormer CBh. The DuoFormer CBh is a cost-effective and space-saving shoe-blade gap former for manufacturing packaging papers at high production rates. It is suitable both for new machines and for rebuilds where space requirements need to be optimized. Following extensive tests on the Voith Paper Technology Center in Heidenheim, the new forming concept has already proved itself in production use at a Dutch manufacturer.

Moreover, we have taken another step on the way to Papermaking 4.0. Our tried-and-true shaking unit DuoShake, which has been on the market for 20 years, received a comprehensive product update in the year under review. The DuoShake Digital Generation offers paper manufacturers a number of new features for convenient operation and smart automation functions. These include real-time data monitoring, modern data visualization, remote monitoring via digital devices and an innovative trend function for troubleshooting and fault analysis. The new digital features increase the availability and thus the overall efficiency of paper machines. The DuoShake Digital Generation can optionally work together with our OnCumulus platform, thus enabling experts to remotely monitor the operating parameters via mobile devices.

With SensorBlade measurement, Voith Paper is offering its customers a new service that ensures high quality and low operating costs in papermaking. The SensorBlade measurement serves to optimize doctor blade settings. Doctor blades are used in various sections of the paper machine. Precisely uniform doctor blade contact pressure over the entire width of the roll means damage to roll covers and web breaks can be avoided. If a paper manufacturer discovers problems, the triggers can be identified by Voith's SensorBlade measurement and rectified based on the measuring results. The new service was introduced in the year under review and has already been used by several paper manufacturers.

In the course of expanding our service business, we also expanded our Voith PaperSchool's range of training courses in the year under review and made these accessible to interested customers via a new website. The PaperSchool provides comprehensive standardized and customized training courses covering all aspects of the paper manufacturing process. The latest methods, such as computer-assisted training or virtual reality, are used and combined with hands-on training on the actual machines and equipment.

II.4.3. Turbo

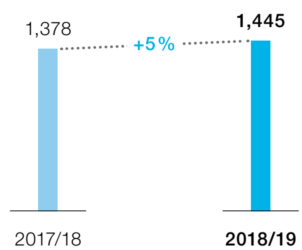
Sound business performance

The Group Division Turbo developed soundly overall in the 2018/19 fiscal year within a market environment that remained challenging in part. Orders received and sales increased. EBIT was only at the level of the previous year, largely due to a change in the allocation of research and development costs between the Group Divisions Digital Ventures and Turbo. The return on capital employed fell slightly.

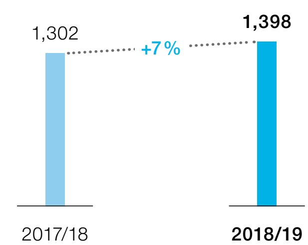
Key figures

The Group Division Turbo's key figures developed as follows in the 2018/19 fiscal year:

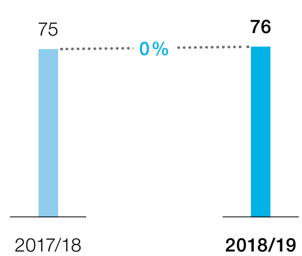
Orders received Turbo
in € millions



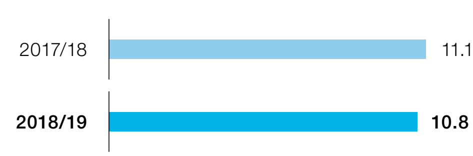
Sales Turbo
in € millions



EBIT Turbo
in € millions



ROCE Turbo
in %



Orders received up by 5%

The positive trend of the two previous years continued in orders received. With an increase of 5%, Voith Turbo was at the upper end of our expectations (forecast in the 2018 management report "slight increase"). The growth came primarily from the Mobility division, while the Industry division's orders received were at the previous year's level. Our business with digital solutions showed encouraging growth in both divisions. Voith Turbo's orders on hand as at the end of the year under review improved to €1,101 million (September 30, 2018: €1,041 million).

The Mobility division continued to perform at a high level in the year under review and was able to perceptibly increase its orders received. The commercial vehicle segment, where we were very successful with retarders for trucks in the Chinese market in particular, and also with DIWA transmissions for buses, was one growth driver. Our business in the rail segment performed just as strongly. In the large Asian market, demand for metro systems was high, whereas investments in the high-speed network remained subdued. In established markets, such as Europe and North America, the growth is driven by the modernization and digitalization of existing networks and the expansion of local public transportation systems in conurbations. A large order by French rail vehicle manufacturer Alstom stood out in the year under review: the exclusive deal includes the delivery of the Voith RailPack 400D, consisting of the Voith Rail Engine in accordance with the Stage V emissions standard and an innovative mechanical transmission, for the regional train platform Coradia Lint over the course of five years. In the still challenging marine market, we were also able to achieve individual order successes in the year under review. Our service business developed positively in all regions because overhauls of commercial and rail vehicles were due at a large number of operators.

In the Industry division, orders received remained stable. Although the markets relevant for Voith have bottomed out, the investment climate remains subdued in many segments. Our growth expectations for the mining sector have not been met. China in particular was disappointing in this respect. Whereas the area of fossil-fuel power stations is in decline, investments in the field of nuclear power increased. There were only a few positive signals coming from the oil & gas market. In the steel industry, trade tensions had a negative effect on investment behavior. Demand from the machine-tool market decreased in view of the reduced orders received from the automotive industry. The Industry division's service business continued to develop positively worldwide.

Sales above expectations

With a 7% increase in sales, we have outperformed our target (forecast in 2018 management report: "remain stable"). The better-than-expected performance resulted from a perceptible growth in sales in the Mobility division, where the EMEA and APAC regions in particular developed very positively. In the Industry division, sales remained stable.

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.

Operating result at previous-year level

In the year under review, a change in the allocation of research and development costs between the Group Divisions Digital Ventures and Turbo led to a negative effect on results at Voith Turbo. EBIT remained at the previous-year level. Adjusted for this effect, the development of EBIT was positive, as forecast (2018 management report: "an increase in EBIT before non-recurring effects"). The return on sales stood at 5.4% (previous year: 5.8%). The return on capital employed fell slightly to 10.8%. It was not possible to achieve the slight increase in ROCE forecast, due to the effect described.

Material events

In the year under review, we formed two joint ventures with China Railway Rolling Stock Corporation (CRRC), the world's largest rolling stock manufacturer. The activities of the two joint ventures will focus on research and development, manufacturing, sales and maintenance of a wide range of products for the rail industry. We expect these joint ventures to decisively strengthen our business in the important Chinese rail market.

Furthermore, Voith and CRRC also want to enter into a strategic cooperation in the field of e-mobility and signed a framework agreement to this end in September 2019. The planned cooperation covers joint research and development in regard to the series production of e-vehicle integrated electric propulsion systems and components and relates not only to rail vehicles, but also to commercial vehicles such as city buses.

Innovations

Voith Turbo's R&D work in the year under review continued to concentrate on the electrification of power trains and on the digitalization of our offering in cooperation with Digital Ventures. In addition, our work in the year under review included increasing the competitiveness of our core products through modularization, standardization and design-to-value measures.

In the year under review, we equipped the first city buses with our fully electrical drive system VEDS (Voith Electrical Drive System). This step marks our entry into the market for electromobility. This innovative product is a drive system for electric buses that can be universally used in any bus from the established manufacturers, and is tailored to the special requirements of local public transportation.

Moreover, we have optimized the LP 560 air compressor regarding lightweight design and operating efficiency. We already received the first major order for this energy-saving and highly efficient new motor component in the 2018/19 fiscal year.

Following successful conclusion of the test phase, our EfficiencyPro software package was deployed by a bus manufacturer in the year under review. EfficiencyPro reduces the fuel consumption of city buses with DIWA.6 automatic transmissions.

Voith also introduced important innovations for rail to the market, for example its CargoFlex Type Scharfenberg automatic coupler. This brings to an end the laborious manual coupling and uncoupling of freight cars that has existed since railroad history began and thus significantly reduces the time needed for coupling. An efficient hybrid coupling has been developed for locomotives as well. A large reference order has already been received.

In the Industry division, we are working intensively on the further development of our tried-and-true anchor products in extensive projects conducted over periods of several years. Building on the reliability and performance of our mechanical products through electrification and digitalization, the aim is to make the possibilities of the Industrial Internet of Things usable for customers. In the year under review, we brought to market the next generation of our Vorecon NX variable speed planetary gear and also the VECO-Drive, a variable speed drive for compressors and pumps. The BeltGenius product family is another focus of development. This is a purely digital product that enables mine operators to optimize the energy efficiency and plant productivity of their conveyor systems. In the 2018/19 fiscal year, we received the first orders for the BeltGenius ERIC, which had been presented in the previous year. We anticipate increasing demand in the field of digital asset management and will accelerate our R&D efforts in this area.

II.4.4. Digital Ventures

Sales increased, operating result improved

The Group Division Digital Ventures, which was founded in 2016, looks back on a good fiscal year. The venture activities were expanded. Moreover, significant progress was made in the development of fundamental IIoT (Industrial Internet of Things) technologies, which – adapted to the relevant fields of application – are used in the Voith markets. In addition, in cooperation with the three established Group Divisions, new digital products and services were developed that are tailored to the specific needs of their respective customer industries. In terms of its financial results, the young Group Division is on track: as forecast, sales, which originate entirely from new ventures, have increased sharply and the shortfall in EBIT has decreased appreciably.

Venture portfolio expanded

The new venture activities in the year under review include Pilotfish, a cloud-based applications provider for local public transportation. Voith acquired 56% of the Swedish company in January 2019 and it has been consolidated in the Voith Group since that date. The company's technology and domain knowledge complement Voith's activities in the mobility sector. The Swedish provider's on-board IT systems and applications have been installed in over 10,000 buses, trains and streetcars in multiple European countries. Pilotfish provides software applications, hardware and consulting services. Through the combination of this know-how with our decades of international experience in the field of public transportation and the vehicle industry, we consider ourselves well-positioned to become a preferred partner for fleet operators in the digital age.

Furthermore, we founded a joint venture with TSP, a world-leading American technology service company, in April 2019. The new joint venture, TSP OnCare Digital Assets Inc., provides services for automation and digital products regardless of the original equipment manufacturer and has been one of the most important providers of services for quality control and monitoring systems for the paper industry in the USA. The joint venture is intended to combine the strengths of the two partners in order to expand its market position in other branches of industry and to expand its activities in the neighboring countries of Mexico and Canada.

Our venture portfolio continues to include digital services provider Ray Sono; FlowLink Systems, a provider of industrial valves and valve components; and Voith Robotics. merQbiz, the marketplace for recovered paper, is reported as a discontinued operation. Initial discussions are taking place with potential investment partners who want to continue merQbiz together with Voith as a minority shareholder.

Group-wide applications and fundamental IIoT technologies

Progress was also made with the development of fundamental technologies for the Industrial Internet of Things (IIoT) in the year under review. These technologies have significance across Group Division boundaries and, for example, concern automation, condition monitoring, digital asset management, performance management, cyber security and artificial intelligence.

In addition, we have developed a central online platform, MyVoith, which brings together the digital services and the business-related information of the whole Voith Group in one location. MyVoith was launched in May 2019 and offers users personalized access to relevant applications, data and services from the Voith world. These include industry-specific webshops, asset management solutions and further self-service applications, as well as the Voith IIoT applications and solutions.

In the course of the past 12 months, we have been approached by companies from the European mechanical engineering environment that are interested in intensified collaboration on digital topics. Promising approaches are being pursued. The aim of any possible collaborations is to provide joint platform services and applications.

Innovations specific to individual Group Divisions

Furthermore, Digital Ventures develops new digital solutions for the three established Group Divisions' specific end-customer markets. These include IIoT applications that help our customers optimize the manufacturing process, i.e. reduce raw-material and energy needs or improve quality. For example, Voith process optimization algorithms have already been installed in production at paper manufacturers in Europe and the Americas, and deliver fiber and starch savings each and every day. In addition to such existing solutions, we started developing new applications on the basis of artificial intelligence (AI) in the year under review. For example, paper breaks can be predicted and avoided in production with the aid of artificial intelligence. Our aim is to develop a corresponding scalable application for the paper industry on the OnCumulus IIoT platform in the 2019/20 fiscal year.

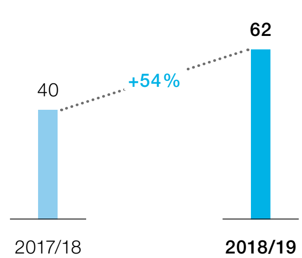
We develop digital solutions for hydropower plants, too. A key development target is to link asset management with smart condition monitoring systems in order to reduce maintenance and servicing work and to facilitate better planning and monitoring of all maintenance work. In the year under review, we succeeded in making the maintenance management system OnCare.Asset, which was originally developed for the paper industry, available for use in hydropower plants and are now also establishing it in the hydro market.

Together with Voith Turbo, work was carried out on the topic of e-mobility. We received an initial extensive order for our SmartAccelerate solution in the year under review. SmartAccelerate is a new smart software configuration for the DIWA transmission that makes significant fuel savings possible for city buses.

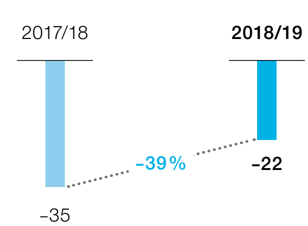
Key figures

Sales and EBIT for the Group Division Digital Ventures developed as follows in the 2018/19 fiscal year:

Sales Digital Ventures*
in € millions



EBIT Digital Ventures*
in € millions



* Previous-year figure restated.

Separate recognition of orders on hand does not take place in the sales generated in the Group Division Digital Ventures – in contrast to customary practice in mechanical and plant engineering – because of the short lead times. Sales and orders received are almost identical.

Sharp increase in sales

As forecast, the Group Division Digital Ventures sharply increased its sales in the 2018/19 fiscal year. The reason for this was largely the first-time full-year consolidation of FlowLink Systems (previous year: six months) and the first-time consolidation of the new ventures Pilotfish (January 2019) and TSP OnCare Digital Assets (April 2019) in the year under review. The remaining venture activities also contributed to the encouraging development with a slight growth.

The digital and automation sales generated in the Group Divisions Hydro, Paper and Turbo with support from Digital Ventures – totaling €286 million in the year under review (restated previous-year figure: €267 million, +7%) – are not included in the sales of the Group Division Digital Ventures. They are presented in the respective Group Divisions in our segment reporting.

EBIT appreciably improved

The operating result for Group Division Digital Ventures has improved appreciably, but remains negative, as forecast, due to the continuing significant research and development expenses and the start-up losses from venture activities. The appreciable reduction of the EBIT deficit is in line with our planning and, in addition to the increased sales, is largely due to successful programs to increase efficiency and to a change in the allocation of research and development costs to the Group Divisions.

The business development of Voith Digital Ventures reflects its start-up situation. With the continuous reduction of build-up costs, we consider the young Group Division to be on the right track.

II.5. Economic position

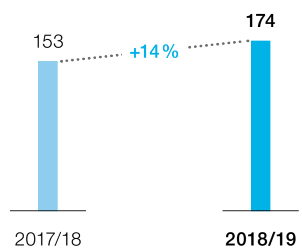
II.5.1. Earnings position

Appreciable increase in operational result and net income

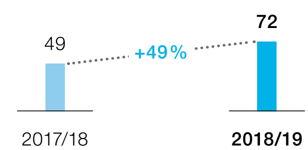
The statement of income for the 2018/19 fiscal year features various structural changes in comparison to previous years. Firstly, as of the 2018/19 fiscal year, the non-recurring effects on earnings are no longer totaled and disclosed as non-recurring result in the consolidated statement of income but are contained in the individual income and expense items (other operating income and expenses, cost of materials, personnel expenses, depreciation and amortization). The corresponding previous-year income and expense items were adjusted in the same way. Secondly, the activities of Voith Composites SE & Co. KG (“Voith Composites”) and merQbiz LLC (“merQbiz”) are treated as discontinued operations, as already stated in Section II.1. of the management report.

There was a sharp increase in net income in the year under review that came about through an increase in the operational result, a reduction in the tax rate as well as an improvement in the result from discontinued operations.

Operational result Group*
in € millions



Net result Group*
in € millions



* Previous-year figure restated.

Total output in the Voith Group stood at €4,285 million (previous year: €4,251 million). The total output (+1 %) thus developed virtually in parallel with sales (€4,276 million, +2 %).

The cost of materials increased to €1,902 million (previous year: €1,888 million, +1 %). The ratio of cost of materials to total output remained unchanged at 44.4 % (previous year: 44.4 %).

Personnel expenses stood at €1,479 million (previous year: €1,441 million, +3 %). This essentially reflects ongoing rises in personnel expenses due to collectively bargained pay rises. The personnel expenses ratio (ratio of personnel expenses to total output) thus rose slightly to 34.5 % (previous year: 33.9 %).

Depreciation and amortization amounted to €119 million (previous year: €121 million, -1 %). The ratio of depreciation and amortization to total output remained unchanged at 2.8 % (previous year: 2.8 %).

The net balance of other operating expenses and income fell to €-610 million (previous year: €-648 million, -6 %). The improvement is attributable, among other factors, to the reduction in expenses for allowances for receivables and the decline in measurement-related expenses in connection with the hedging of exchange rate risks.

Detailed information on the development of EBIT can be found in section II.3.4. **Operating result**.

The operational result increased by 14 % to €174 million (previous year: €153 million). The performance indicator EBIT, which is derived from the operational result and used for internal management purposes, increased by 12 % to €215 million (adjusted previous-year value €193 million).

The fall in the share of profit/loss from companies accounted for using the equity method to €-7 million (previous year: €2 million) was essentially caused by a loss from the remeasurement of a Group company previously accounted for using the equity method that has been fully consolidated since January 2019.

The balance of interest expenses and interest income stood at €-26 million (previous year: €-17 million). Among other factors, the decline stems from a €7 million fall in interest income from the measurement of financial liabilities to €2 million due to termination rights of non-controlling interests.

The other financial result shrank to €5 million (previous year: €19 million, -73 %). The comparatively high value in the previous year mainly resulted from income from the sale of the remaining 20 % investment in the former Group Division Industrial Services (€18 million).

Income taxes totaled €57 million (previous year: €67 million). This means that the tax rate was reduced to 39% (previous year: 43%).

The net result from continuing operations amounts to €89 million (previous year: €90 million).

The net result from discontinued operations improved to €-17 million in the year under review (previous year: €-41 million). This represents the contribution to the Group's net result made by the operations of Voith Composites and merQbiz.

All in all, the Group lifted its net result by 49% to €72 million (previous year: €49 million).

II.5.2. Net assets

Stable level of net assets: the basis for profitable growth

In comparison to September 30, 2018, total assets increased by €102 million to €4,756 million (previous year: €4,654 million, +2%). The increase is essentially due to higher contract assets and liabilities being reported as a consequence of first-time adoption of IFRS 15.

In total, non-current assets were increased by €47 million to €1,843 million (previous year: €1,796 million, +3%). The increase in property, plant and equipment of €25 million to €924 million (+3%) essentially results from first-time full consolidation of VolgaHydro, a group company formerly accounted for using the equity method, over which the Group gained control through the acquisition of further shares in the year under review. The decrease in other financial assets of €32 million to €60 million is essentially due to the change in the fair value of an investment that was recognized directly in equity. The decrease in other financial receivables of €9 million to €53 million is due, among other factors, to the addition of claims for damages in the year under review. The increase in deferred tax assets to €219 million (previous year: €173 million, +27%) is essentially attributable to the increase in deferred tax assets on temporary differences that, in turn, were caused by the increase in pension obligations.

Current assets increased by €55 million to €2,913 million (previous year: €2,858 million, +2%). Within this item, contract assets increased by €199 million to €541 million (+58%) on account of the first-time adoption of IFRS 15 in the year under review. The €262 million reduction in current financial assets to €356 million (previous year: €618 million, -42%) was caused by a decrease in term deposits. Other financial receivables increased by €42 million to €117 million. This increase is essentially due to an increase in cash pool receivables of fully consolidated companies from their external co-shareholders. The rise in other assets to €146 million (previous year: €116 million, +26%) is due to higher VAT receivables. Cash and cash equivalents rose by €76 million to €418 million (previous year: €342 million, +22%), primarily due to the cash flow from operating activities and the repayment of term deposits.

II.5.3. Financial position

Sound financial position

Non-current liabilities increased by €74 million to €1,377 million (previous year: €1,303 million; +6%). The increase in non-current liabilities is mainly due to the increase in provisions for pensions and similar obligations of €122 million to €835 million. This increase is essentially attributable to the fall in discount rates in Germany and the US. The opposite effect came from other provisions with a decrease of €26 million to €130 million. Alongside a €9 million decrease in warranty provisions, this was caused by a reduction in provisions for restructuring of €11 million. Furthermore, bank loans decreased by €38 million.

Current liabilities increased by €108 million to €2,134 million (previous year: €2,026 million, +5%). Due to the first-time adoption of IFRS 15 in the year under review, other liabilities decreased by €606 million, whereas contract liabilities increased by €723 million; this effect was mainly caused by advances received no longer being disclosed in other liabilities as of September 30, 2019, but under contract liabilities. In addition, other provisions decreased by €28 million. This decrease is essentially attributable to a reduction in warranty provisions (€-20 million) and other contract-related provisions (€-10 million).

The net balance of deferred tax assets and liabilities increased by €41 million. This increase is essentially due to a higher level of deferred tax assets on account of measurement effects in pension provisions.

Equity decreased to €1,245 million previous year: €1,326 million, -6%). This was primarily caused by negative effects from measurement-related adjustments mainly in pension provisions and investments. The dividend distribution was responsible for a further reduction in equity. The opposite effect came from the net income and exchange rate effects.

The equity ratio fell to 26.2% (previous year: 28.5%). This means that the material factors in the drop in the equity ratio were measurement-related adjustments in pensions and investments, and the increase in total assets.

Increase in cash flow from operating activities

The main components of the cash flow statement in the year under review were as follows:

Development of cash flow
in € millions

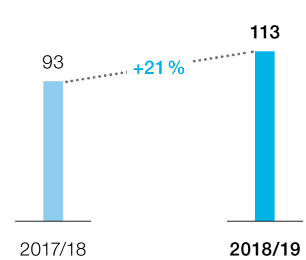
	2018/19	2017/18
Cash flow from operating activities	46	31
Cash flow from investing activities	124	-69
Cash flow from financing activities	-104	-178
Total cash flow	**66**	**-216**

The cash flow from operating activities in the year under review was €15 million up on the previous-year figure, with the positive earnings figures making a significant contribution. The increased level of cash outflow from the change in net working capital was counterbalanced by a lower outflow of cash and cash equivalents from utilization of provisions.

In contrast to the previous year, the cash flow from investing activities was positive and stood at €124 million in the year under review (previous year: €-69 million). Proceeds from the disposal of securities in the 2018/19 fiscal year was the main factor responsible for this figure (€430 million, previous year: €146 million). Payments for investments in 2018/19 primarily related to the acquisition of further shares in VolgaHydro, and the acquisition of shares in Pilotfish Networks AB and TSP OnCare Digital Assets Inc. In the previous year, payments for the acquisition of investments and from purchase price adjustments in connection with the sale of Voith Industrial Services exerted a significant influence on the cash flow from investing activities. The sale of securities mainly relates to the withdrawal of term deposits to further reduce financial liabilities. Net receipts and payments for property, plant and equipment and intangible assets of €-86 million were slightly lower in comparison to the previous year (€-88 million).

In the 2018/19 fiscal year, we invested a total of €113 million in property, plant and equipment and intangible assets. As a percentage of the Group's sales, our investment ratio came to 2.6% in the year under review (previous year: 2.2%).

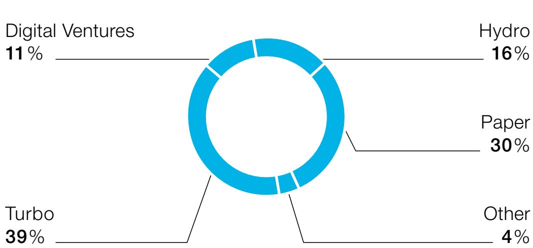
Investments Group*
in € millions



* Previous-year figure restated.

Capital expenditure was increased mainly in order to make improvements to our production sites. Capital expenditure breaks down between the individual Group Divisions as follows:

Investments total €113 million
by Group Division



Further reductions in financial liabilities

The Voith Group's diversified financing structure is designed to safeguard long-term stability. In light of a reassuring net liquidity position, we further reduced our level of debt in the year under review (net reduction: €-52 million, previous year: €-165 million). The syndicated loan placed in China in 2012 was reduced by further repayments of €14 million to a total of €33 million. The revolving loan tranche of the syndicated loan in China was refinanced in June 2019. There is now a credit line of €180 million available in that country until June 2024. This new facility is currently not being utilized. As planned, a sum of €18 million was repaid in August for the last tranche of the US private placement dating from 2004.

After exercising the first renewal option, the existing syndicated euro loan for €550 million was extended to April 2024. The credit line has not been drawn on and, with a further renewal option, is available until 2025. In addition, Voith use free bilateral bank credit lines for low-interest financing of fluctuations in working capital. 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.

Payments for dividends fell to €-33 million (previous year: €-35 million).

This results in a cash flow from financing activities of €-104 million (previous year: €-178 million).

Total cash flow amounted to €66 million (previous year: €-216 million).

Net liquidity remains at a high level

The Voith Group's net liquidity – as the difference between liquid financial assets and interest-bearing financial liabilities – remains at a very high level. At the end of the year under review, it amounted to €552 million.

The net liquidity indicator is not defined under International Financial Reporting Standards (IFRS) accounting policies, which means that its definition and calculation may differ from the practice in other companies. The definition of net liquidity changed during the year under review.

Fundamentals and objectives of financial management

The key objective of liquidity and financial management is to make sure at all times that the Voith Group is able to continue as a going concern and to ensure the financial independence of the family-owned business.

Cash management is the task of the Group's treasury function as well as the related regional 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.

III. Risks and opportunities

III.1. Risk and quality management

Geared 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 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.

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 Corporate Board of Management of those individual risks with a maximum risk impact of >€5 million or a realistic risk 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: Voith has a multitiered set of controlling and reporting tools that help the Corporate Board of Management analyze risks and make well-founded decisions.

III.2. Accounting-related internal control system

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 single-entity 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 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. Amended 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 single-entity 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. Almost 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.

III.3. 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.

III.3.1. 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 development were to fall perceptibly short of expectations, it is highly probable that this would have negative effects on Voith's business position, net assets, financial position and earnings position. It is currently difficult to make economic forecasts on account of the large number of uncertainty factors. We based our planning on the assumption that the global economy will continue its moderate growth. However, there are significant downside risks to the forecast worldwide economic development. Many experts see the most serious risk to the world economy as stemming from unfavorable developments – most of all escalating trade conflicts and also a disorderly Brexit – that would firstly dampen market participants' expectations and consequently put the brakes on investments and, secondly, interrupt global supply chains. Intensification of geopolitical conflicts, specifically in the Middle East, could likewise have a negative impact on global economic development or even trigger shocks.

Various market risks could have a negative impact on Voith's earnings position should they eventuate. The number of market risks has risen in the three established Group Divisions.

It is conceivable that there will be deferments of hydropower projects in Africa and South America, specifically in Brazil. In Africa, such deferments may be triggered not only by the political and macroeconomic situation but also by uncertainties regarding the funding of the projects in question. The low energy prices associated with the ongoing economic weakness in South America are having a negative effect on large-scale hydropower projects.

Due to structural change in certain market segments served by the Group Division Turbo, the first signs of a decline in demand for individual industrial applications over the medium term can be seen. This means that the base of these products installed in the market, and thus the potential for our service business, will contract over the long term. If the change were to take place more rapidly than assumed for our planning purposes, Voith Turbo would find it more difficult to achieve its objectives.

The commercial vehicle market, which is still running at a high level, reacts extremely sensitively to economic developments. Economic stagnation or even a downswing would have a direct impact on truck production and therefore on Voith Turbo's business.

If global paper production were to fail to increase slightly in 2020 and 2021, as anticipated by market analysts, demand for paper machines and sales of consumables would be adversely affected. In addition to the market contraction, competitive and price pressure could detract from the earnings position of the Group Division Paper.

If the technological shift from internal combustion engines to electric or hybrid motors were to take place more rapidly than assumed in our planning, this would negatively impact the earnings position of the Mobility division within the Group Division Turbo.

The power generation market is currently characterized worldwide by uncertainties regarding energy policy, to which the Group Division Turbo and, even more so, the Group Division Hydro, will have to adjust. Hydropower is currently only benefiting to a limited extent from the trend towards renewable energies because solar and wind power are highly subsidized in Europe, which reduces incentives to invest in hydropower.

Management risks

Voith has set itself the aim of playing a major role in digitizing industry and will continue to make considerable investments in the key competencies for the Industrial Internet of Things megatrend over the next few years, both within the Company and through acquisitions. The young Group Division Digital Ventures is intended not only to develop new digital solutions for our established core markets in cooperation with Hydro, Paper and Turbo, but also to open up customer industries not covered by us to date for new applications and business models (incubation). 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 build-up costs for the young Group Division not be covered by corresponding sales in the medium term, this would have a negative effect on the net assets, financial position and earnings 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.

Liquidity and financial risks

Voith's diversified financing structure is designed to safeguard long-term stability. On account of the very high level of liquidity and easy access to borrowed capital from unused lines of credit, Voith is currently not exposed to any concrete liquidity risks and has sufficient liquidity reserves at its disposal to be able to meet all payment obligations at all times.

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 the US dollar but also currencies such as the Chinese renminbi (yuan), Brazilian real or Indian rupee), there are consistent currency management procedures in place 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. 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”.

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 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.

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, assigned to the Group Division Digital Ventures, to ensure that reliable data processing services are provided from our own computer centers. 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.

One of the central challenges for Voith is the ability to always recruit a sufficient number of qualified employees and retain them within the Company. 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. We compete with other international players and act with foresight in order to ensure

Further information can be found in section I.6. **Employees**.

we have a sufficient number of qualified employees. Competitive compensation schemes, a family-friendly HR policy and flexible working models along with international career development prospects enable us to offer an attractive work environment. With a wide range of training and development programs as well as a culture of lifelong learning, we encourage our employees to continually improve their qualifications to meet the demands of a constantly changing working world.

Further information on compliance management in the Voith Group can be found in the Voith Sustainability Report. The current version is available on the Internet at **http://voith.com/corp-en/about-us/sustainability.html**.

At Voith, we base all our actions on trust and integrity. 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. Voith's Code of Conduct contains rules that govern conduct towards third parties such as business partners, competitors, political parties and authorities as well as between employees within the Company. Non-compliant behavior, or even illegal acts committed by employees, can be damaging to our reputation and can lead to sanctions, penalties and ultimately to a fall in earnings. For this reason, we place great value on a well-functioning compliance management. Compliance with these principles is monitored by the Group's Compliance Committee, whose chair reports directly to the President and CEO, and by the compliance officers in the Group Divisions and in each Group company. Each employee is required to report any infringement of the Voith Code of Conduct. Our whistleblower system is also accessible to people outside the Company. In addition, we perform random internal compliance reviews in areas where potential corruption risks have been identified within the scope of the risk management process. Infringements are always met with sanctions. Within the scope of an ongoing audit being performed by an international organization with the active support of the Company, the Company identified in the previous year indirect compensation payments to a representative of one of its subsidiaries made by that subsidiary without the approvals necessary according to the regulations in place throughout the Group. The contract with the representative was terminated, the necessary personnel-related measures were taken.

The business activities of an industrial company generally give rise to risks for people and the environment. Such risks occurring could also result in damages being filed and a loss of reputation. Industrial safety as well as compliance with environmental legislation and corporate policies is a top priority for us. All production processes are subject to the Group directives on health, safety and environmental protection and on quality and risk management. 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. Insurance policies have been taken out or adequate provisions have been recognized for any residual risks. In this respect, we consider environmental and health risks to be well under control with regard to probability of occurrence and amount of potential damage in particular.

III.3.2. Risks to performance

Contractual risks

Long-term contracts, especially for major projects, form a key component of our plant engineering business at the Group Divisions Hydro and Paper. Such contracts are associated with a host of significant risks and we attach great importance to managing them. These firstly include contractual penalties and claims for damages through to withholding of payments and contract terminations arising from unexpected technical problems, unforeseeable developments at the project locations or failure to meet specified deadlines. Secondly, cost overruns or reduction of productivity within the scope of fixed price contracts may lead to a fall in earnings margins. Project management and controlling, as it has been implemented, continuously reviews whether the projects are indeed performing in line with the plans. Any deviations are addressed at an early stage and any risk allowances necessary are recognized. 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.

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 do not work out as planned or fail to 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. Within the scope our strategic foresight management system in place throughout the Group, we are systematically addressing future trends in the market and technology environment and set the priorities for our development projects. Our aim is to get involved in disruptive technologies from the very beginning and take an active role in shaping the future of our markets.

Information on the current focus areas of our R&D activities is provided in section I.4. **Research and development**.

Collaboration with suppliers in the global procurement markets involves risks with regard to potential supply disruptions, unforeseen cost increases and non-compliance with environmental and social standards. To secure our supplies, we have embedded effective measures in the relevant purchasing processes – supplier selection, order processing and delivery date tracking. In addition, we have a multiple source policy in place in order to circumvent the risks of supply outages and supplier insolvency at a global level. Once again in the 2018/19 fiscal year, we additionally used master agreements and long-term price agreements in contracts with significant procurement volumes to prevent any unplanned cost increases. We have integrated compliance with current national environmental and social standards in our General Terms and Conditions of Purchase.

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 €175 million (previous year: €201 million) were recognized in the balance sheet for significant performance risks (maximum risk: €271 million; previous year: €285 million).

III.3.3. 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.

III.4. 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 exceeding 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 our service business

We are generally working towards expanding the service business and increasing its share of sales. In the currently subdued investment climate, spending on new equipment and machines is being postponed in several industries. With respect 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. 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

We are constantly working on developing new technologies, products and solutions as well as improving existing ones. We again launched numerous new products in the market for 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 see opportunities in particular in the new digital offerings and solutions in the area of Industrial Internet of Things, electromobility and digital services.

Opportunities associated with the global economy

If the economic environment in important sales regions proves to be better over the short to medium term than currently assumed, it is likely to have a positive impact on Voith's business position, net assets, financial position and earnings position. Upside potential for global economic development and China as an important sales market could materialize specifically if a lasting solution to the trade conflicts could be found. A solution to the political crisis in Brazil could be a factor that positively influences the economy throughout Latin America. 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 2019/20 fiscal year at the earliest.

Growth through acquisitions

Alongside organic growth, we also strive for growth through business acquisitions and equity investments. Potential acquisition targets are profitable businesses with viable technology and above-average potential for growth, that complement our business in the existing markets or expand it with new activities. We use structured M&A processes to continually screen potential target companies for their suitability. Even in the short term, acquisitions offer opportunities for additional earnings not provided for in the business plan; in the mid-term they can help improve our position in existing markets or tap promising new customer industries for Voith.

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 underrepresented to date or have no presence at all. Africa, for instance, offers great potential, especially for the Group Divisions Hydro and Turbo. As the markets on that continent are proving to be volatile and difficult to predict, however, we have made conservative assumptions in this respect for our business planning. 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 into our business plan.

Increasing investments in the oil & gas market due to a sustained higher oil price

Our planning for the 2019/20 fiscal year is currently based on ongoing oil price volatility and a low level of investment in the oil & gas market compared to the long term. If, in contrast, the oil price were to rise on a permanent basis and perceptibly exceed the USD 70 mark per barrel of Brent oil in the long term, oil companies might increase their investments and expenditure on service activities to a greater degree than we currently assume. This would improve Group Division Turbo's order situation.

IV. Forecast report

IV.1. Business environment

Economic outlook fraught with strong uncertainties

At the beginning of the 2019/20 fiscal year, the macroeconomic environment was characterized by political and economic instability in various countries and regions. Investments and demand worldwide are currently curbed in particular by the trade disputes between the USA and China and continuing uncertainties about the date of and arrangements for Brexit, and the growing geopolitical tensions. Assuming a scenario that is in our view rather optimistic, following a broad downturn in 2019 the IMF expects the economy to pick up again in the following years and forecasts global economic growth of 3.4% in 2020 and 3.6% in 2021.

For more information on the risks and opportunities for the global economy, see sections III.3. **Risks** and III.4. **Opportunities** of this management report.

However, considerable risks threaten this scenario. Furthermore, the IMF took the view that the forecast increase in growth will be subject to a recovery of the strained situation in some economically stressed emerging markets and developing countries as well as the elimination of obstacles to growth that have existed for a long time in Europe, such as outstanding structural reforms and some EU countries' high level of debt.

An overview of the growth rates expected by the IMF in 2020 and 2021 for regions and countries relevant to Voith is presented below:

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

World output	2020	3.4%
	2021	**3.6%**
Advanced economies	2020	1.7%
	2021	**1.6%**
USA	2020	2.1%
	2021	**1.8%**
Euro area[2]	2020	1.4%
	2021	**1.4%**
Germany	2020	1.2%
	2021	**1.5%**
Emerging market and developing economies	2020	4.6%
	2021	**4.6%**
China	2020	5.8%
	2021	**6.0%**
ASEAN-5	2020	4.9%
	2021	**5.2%**
India	2020	7.0%
	2021	**7.7%**
Brazil	2020	2.0%
	2021	**2.2%**
Russia	2020	1.9%
	2021	**1.7%**

Source: International Monetary Fund (IMF); World Economic Outlook, Oct. 2019.
[1] Forecasts.
[2] Including Germany.

According to the IMF, the individual forecasts are fraught with uncertainty. For example, the actual development in China could be weaker than currently forecast by the IMF unless clear progress is made in solving the trade conflict with the USA. In Brazil, the economic recovery expected from 2020 will require the implementation of planned structural reforms and a reduction of sovereign debt.

Whether the economic growth forecast for the euro zone can be realized or not will depend on the outcome of Brexit. After the percentage rate of growth for German gross domestic product reduced to a third from 2018 to 2019, the IMF expects a return to somewhat higher growth rates as of 2020. However, as an export-oriented economy Germany could react particularly sensitively to possible weaknesses in the global economy and growing trade barriers. In the USA, a flattening of the growth rate is expected as of 2020 due to the end of the fiscal stimulus.

We based our planning on the assumption that the global economy will grow moderately in 2020, albeit not as strongly as in the current IMF forecast. In any event, the forecast for our business development is based on the assumption that there will not be any economic or political shocks that send the global economy into a recession.

Cautiously positive outlook for the Voith markets

Our outlook for the five Voith markets is cautiously positive.

As global energy needs continue to rise, electricity-generating capacities will be expanded further, focusing on low-emission, and in particular, renewable energies. As part of this trend, the need for pumped storage power plants to safeguard grid stability and supply reliability is also rising. In the conventional sector, growth is expected in nuclear power generation and gas, whereas coal-fired power plants will take a back seat in the medium and long term. Despite the generally positive outlook for hydropower, the volume awarded may be subject to volatile fluctuations from year to year that are difficult to predict.

In view of political tensions and economic uncertainties, market analysts continue to expect volatile oil prices in the 2019/20 fiscal year. With regard to the gas price, a price rise is anticipated in the next few years due to demand growing globally. Our planning for the 2019/20 fiscal year is based on a minor increase in investments in the oil & gas market.

We continue to view the paper market positively. For the 2019/20 fiscal year, we expect global paper production – and with it also the demand for consumables and service offerings – to grow slightly. We expect investments in new machines and major rebuilds to remain at approximately the same level as in the year under review. Manufacturers' focus is on increasing the efficiency of their equipment.

With regard to the raw materials market, we expect the gradual recovery to continue. Our planning is based on the assumption that the investments in the mining sector, supported by a robust price level for many raw materials, will increase slightly in the 2019/20 fiscal year. As well as urgently necessary replacement investments to maintain production, the focus here is also on investments in new technologies to increase efficiency. The coal segment is excluded from this fundamentally positive trend due to the global move away from fossil energy sources.

We fundamentally continue to be optimistic about the segments of the transport and automotive market that are most important for Voith. However, we assess the growth prospects somewhat less positively than a year ago. This particularly applies to the commercial vehicle segment, where there are signs of slowdown over the short term in light of the very uncertain political and global economic environment. The global rail market is likely to see perceptible growth with clear impetus coming from the service business, although competition remains intense. Our outlook for the marine segment remains subdued. The transport and automotive market will be increasingly characterized by the trend towards e-mobility as well as automation and digitalization.

IV.2. Future development of the Voith Group

Further improvement in profitability

In the past few years, Voith has set an important strategic course and introduced changes that are intended to create a phase of sustainable profitable growth. Core topics for us across Group Division boundaries remain the expansion of our digital portfolio of offerings, the development of further innovative products/technologies and the expansion of our service business.

Our planning for the 2019/20 fiscal year envisages that the Voith Group will improve its probability again.

Our Group forecasts for the four key figures are:

Voith Group	2018/19 in € millions	2019/20 Forecast
Orders received	4,691	Stable development
Sales	4,276	Slight increase
EBIT	215	Perceptible increase
ROCE	12.0%	Perceptible increase

On the basis of the very high level of orders received in the year under review, which was due in part to a megaproject in the area of hydropower, we expect the Voith Group to see stable orders received at an ongoing high level in the 2019/20 fiscal year. The forecast sales growth stems from positive developments in the Group Divisions Paper, Digital Ventures and Turbo. The operating result is expected to increase perceptibly due to our continuing efforts to increase the EBIT margin. ROCE is expected to increase perceptibly. The forecasts are based on the assumption that the acquisition of BTG will be completed as planned in the fourth calendar quarter of 2019 and the company will be fully consolidated from this point onwards.

Our forecasts for the Group Division Hydro are as follows:

Group Division Hydro	2018/19 in € millions	2019/20 Forecast
Orders received	1,620	Perceptible decline
Sales	1,147	Slight decline
EBIT	50	Perceptible decline
ROCE	13.9%	Slight decline

We continue to see a good order situation for Voith Hydro and expect to realize an appropriate share of the total volume awarded in the hydropower market. However, following a year that was very high in investments and shaped by an exceptional major project, we are now preparing for a normalization. Our planning for the Group Division Hydro in the 2019/20 fiscal year therefore envisages a satisfactory, but perceptibly lower figure for orders received than in the year under review. We are hoping for stimulus for growth from the expansion of our global service presence in the past two years and from our new digital offerings, such as the OnCare product family or the OnPerformance.Lab. Sales are expected to fall only slightly based on the high current level of orders on hand. The decrease forecast for the operating result, and consequently in ROCE, is caused not only by the sales effect, but also by the processing of orders that were posted in weaker market phases with higher price pressure.

Our outlook for the Group Division Paper remains positive:

Group Division Paper	2018/19 in € millions	2019/20 Forecast
Orders received	1,553	Perceptible increase
Sales	1,660	Perceptible increase
EBIT	111	Appreciable increase
ROCE	19.8%	Stable development

Voith Paper is planning an increase in orders received, sales and EBIT in the 2019/20 fiscal year. The forecasts include the positive effect from the planned acquisition of BTG. However, our planning also envisages purely operational growth. We particularly expect gross stimulus from the business with consumables and services, while the project business (new machines and rebuilds) is expected to settle at a normal level. ROCE is expected to remain stable, with a rising operating result, as the first-time consolidation of BTG will also cause the capital employed to increase.

The signs are also pointing to growth in the Group Division Turbo in the 2019/20 fiscal year:

Group Division Turbo	2018/19 in € millions	2019/20 Forecast
Orders received	1,445	Slight increase
Sales	1,398	Stable development
EBIT	76	Perceptible increase
ROCE	10.8%	Perceptible increase

We continue to expect a good order situation in the Mobility division and a modest recovery in the Industry division. The increasing market success of our innovative products from the recent past are expected to contribute to Voith Turbo's positive business development. Initial successes from our excellence measures in the areas of engineering, production and administration, and from the planned concentration of German production on fewer and larger facilities will have a positive impact on earnings. Our planning therefore envisions that EBIT and ROCE will both increase perceptibly in the 2019/20 fiscal year while the sales trend remains stable.

The forecasts for Voith Digital Ventures are as follows:

Group Division Digital Ventures	2018/19 in € millions	2019/20 Forecast
Sales	62	Appreciable increase
EBIT	–22	Appreciable improvement, but still negative

We expect a continuing positive sales trend and a corresponding contribution to the Group's net result from our new venture activities. The digital and automation sales that are generated in the Group Divisions Hydro, Paper and Turbo with support from Digital Ventures are attributed to the respective Group Divisions and are not taken into account in the sales forecast for Voith Digital Ventures. The EBIT in the Group Division Digital Ventures will continue to improve appreciably in view of sales increasing, but EBIT will still be negative in the 2019/20 fiscal year due to the up-front costs of innovative digital products and solutions for the Voith Group.

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 III.3. and III.4. 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 entrepreneurial scope 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 into the next 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, 2018 to September 30, 2019

in € thousands	Note	2018/19	2017/18*
Sales	(1)	4,276,490	4,208,983
Changes in inventories and other own work capitalized	(2)	8,322	42,275
Total output		**4,284,812**	**4,251,258**
Other operating income	(3)	396,243	417,330
Cost of materials	(4)	-1,901,813	-1,887,630
Personnel expenses	(5)	-1,479,489	-1,441,479
Depreciation and amortization		-119,271	-120,625
Other operating expenses	(6)	-1,006,146	-1,065,729
Operational result		**174,336**	**153,125**
Share of profit/loss from companies accounted for using the equity method		-6,512	1,610
Interest income		12,316	8,660
Interest expenses		-38,732	-25,513
Other financial result	(7)	5,143	19,019
Result before taxes from continuing operations		**146,551**	**156,901**
Income taxes	(8)	-57,383	-66,690
Net result from continuing operations		**89,168**	**90,211**
Net result from discontinued operations		**-16,715**	**-41,485**
Net result		**72,453**	**48,726**
· Total comprehensive income attributable to shareholders of the parent company		70,711	40,496
· Net result attributable to holders of non-controlling interests		1,742	8,230

* Previous year restated (see section "Restatements of previous-year figures").

Consolidated statement of comprehensive income

for the period from October 1, 2018 to September 30, 2019

in € thousands	2018/19	2017/18
Net result	**72,453**	**48,726**
Components of other comprehensive income that will not be recycled through profit or loss in later accounting periods:		
Remeasurement of defined benefit plans	-125,972	12,804
Taxes on components of other comprehensive income that will not be recycled through profit or loss in later accounting periods	33,032	1,526
Components of other comprehensive income that will be recycled through profit or loss in later accounting periods:		
Gains/losses on available-for-sale investments and financial assets	-45,261	2,596
Gains/losses on cash flow hedges	-764	1,873
Gains/losses on currency translation	30,998	-56,915
Gains/losses on net investment in foreign operations	728	-423
Taxes on components of other comprehensive income that will be recycled through profit or loss in later accounting periods	127	-1,270
Other comprehensive income	**-107,112**	**-39,809**
Total comprehensive income	**-34,659**	**8,917**
· Total comprehensive income attributable to shareholders of the parent company	-38,507	1,124
· Total comprehensive income attributable to holders of non-controlling interests	3,848	7,793
	-34,659	**8,917**

Consolidated balance sheet

as at September 30, 2019

Assets

in € thousands			2019-09-30	2018-09-30*	2017-10-01*
A.	**Non-current assets**				
I.	Intangible assets	(9)	532,813	520,600	515,676
II.	Property, plant and equipment	(10)	923,832	898,764	978,459
III.	Investments accounted for using the equity method	(11)	25,658	21,920	32,006
IV.	Securities	(16)	12,181	11,687	11,734
V.	Other financial assets		60,065	92,008	105,954
VI.	Other financial receivables	(15)	52,804	61,907	89,411
VII.	Other assets	(15)	16,580	15,939	10,749
VIII.	Deferred tax assets	(8)	218,732	172,783	204,538
Total non-current assets			**1,842,665**	**1,795,608**	**1,948,527**
B.	**Current assets**				
I.	Inventories	(12)	599,297	603,516	547,825
II.	Trade receivables	(13)	657,084	687,984	713,899
III.	Contract assets	(14)	541,204	342,215	306,636
IV.	Securities	(16)	355,757	617,974	601,812
V.	Current income tax assets		50,045	49,945	52,263
VI.	Other financial receivables	(15)	116,715	75,114	95,483
VII.	Other assets	(15)	146,398	116,227	110,544
VIII.	Cash and cash equivalents	(17)	417,874	341,691	581,947
			2,884,374	**2,834,666**	**3,010,409**
IX.	Assets held for sale	(18)	28,597	23,411	15,845
Total current assets			**2,912,971**	**2,858,077**	**3,026,254**
Total assets			**4,755,636**	**4,653,685**	**4,974,781**

* Previous year restated (see section “Restatements of previous-year figures”).

Equity and liabilities

in € thousands			2019-09-30	2018-09-30*	2017-10-01*
A.	**Equity**				
I.	Issued capital		120,000	120,000	120,000
II.	Revenue reserves		1,086,916	1,150,429	1,123,748
III.	Other reserves		-109,446	-91,181	-37,664
IV.	Profit participation rights		6,600	6,600	6,600
Equity attributable to shareholders of the parent company			**1,104,070**	**1,185,848**	**1,212,684**
V.	Profit participation rights		96,800	96,800	96,800
VI.	Other interests		44,190	43,002	41,425
Equity attributable to non-controlling interests			**140,990**	**139,802**	**138,225**
Total equity		(19)	**1,245,060**	**1,325,650**	**1,350,909**
B.	**Non-current liabilities**				
I.	Provisions for pensions and similar obligations	(20)	835,049	713,432	747,282
II.	Other provisions	(21)	130,383	156,355	190,611
III.	Income tax liabilities		-100	254	277
IV.	Bonds, bank loans and other interest-bearing liabilities	(22)	290,357	317,385	543,279
V.	Other financial liabilities	(23)	29,747	26,678	35,635
VI.	Other liabilities	(24)	46,364	48,269	58,222
VII.	Deferred tax liabilities	(8)	44,955	40,139	53,744
Total non-current liabilities			**1,376,755**	**1,302,512**	**1,629,050**
C.	**Current liabilities**				
I.	Provisions for pensions and similar obligations	(20)	32,499	30,857	29,319
II.	Other provisions	(21)	250,600	278,575	343,082
III.	Income tax liabilities		19,860	24,450	46,968
IV.	Bonds, bank loans and other interest-bearing liabilities	(22)	109,096	125,779	82,516
V.	Trade payables	(23)	531,647	510,585	509,741
VI.	Contract liabilities	(14)	816,919	93,720	45,623
VII.	Other financial liabilities	(24)	247,898	230,509	234,080
VIII.	Other liabilities	(24)	123,755	730,156	703,493
			2,132,274	**2,024,631**	**1,994,822**
IX.	Liabilities directly associated with assets classified as held for sale	(18)	1,547	892	0
Total current liabilities			**2,133,821**	**2,025,523**	**1,994,822**
Total equity and liabilities			**4,755,636**	**4,653,685**	**4,974,781**

* Previous year restated (see section “Restatements of previous-year figures”).

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
2018-10-01	**120,000**	**1,150,429**	**3,364**	**-1,006**	**-88,742**
First-time adoption of IFRS 15		-7,345			
First-time adoption of IFRS 9		-1,786	-2,637		
2018-10-01	**120,000**	**1,141,298**	**727**	**-1,006**	**-88,742**
Net result		70,711			
Other comprehensive income		-92,584	-44,901	-764	28,303
Total comprehensive income	**0**	**-21,873**	**-44,901**	**-764**	**28,303**
Allocation of profit participation rights		-5,590			
Share of net result attributable to profit participation rights					
Dividends		-19,000			
Non-controlling interests – capital contributions					
Non-controlling interests – put options		-4,976			
Other adjustments		-2,943		1,006	
2019-09-30	**120,000**	**1,086,916**	**-44,174**	**-764**	**-60,439**

					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
2017-10-01	**120,000**	**1,138,763**	**1,708**	**-2,319**	**-32,553**
Restatement in accordance with IAS 8		-15,015			
2017-10-01	**120,000**	**1,123,748**	**1,708**	**-2,319**	**-32,553**
Net result		40,496			
Other comprehensive income		14,145	1,656	1,313	-56,189
Total comprehensive income	**0**	**54,641**	**1,656**	**1,313**	**-56,189**
Allocation of profit participation rights		-5,590			
Share of net result attributable to profit participation rights					
Dividends		-25,000			
Non-controlling interests – capital contributions					
Non-controlling interests – put options		4,622			
Other adjustments		-1,992			
2018-09-30	**120,000**	**1,150,429**	**3,364**	**-1,006**	**-88,742**

			Equity attributable to non-controlling interests			
Net investment in foreign operations	Profit participation rights	Total	Profit participation rights	Other interests	Total	Total equity
-4,797	**6,600**	**1,185,848**	**96,800**	**43,002**	**139,802**	**1,325,650**
		-7,345				-7,345
		-4,423				-4,423
-4,797	**6,600**	**1,174,080**	**96,800**	**43,002**	**139,802**	**1,313,882**
		70,711		1,742	1,742	72,453
728		-109,218		2,106	2,106	-107,112
728	**0**	**-38,507**	**0**	**3,848**	**3,848**	**-34,659**
	363	-5,227	5,227		5,227	0
	-363	-363	-5,227		-5,227	-5,590
		-19,000		-8,218	-8,218	-27,218
				6,552	6,552	6,552
		-4,976		-1,741	-1,741	-6,717
		-1,937		747	747	-1,190
-4,069	**6,600**	**1,104,070**	**96,800**	**44,190**	**140,990**	**1,245,060**

			Equity attributable to non-controlling interests			
Net investment in foreign operations	Profit participation rights	Total	Profit participation rights	Other interests	Total	Total equity
-4,500	**6,600**	**1,227,699**	**96,800**	**41,425**	**138,225**	**1,365,924**
		-15,015				-15,015
-4,500	**6,600**	**1,212,684**	**96,800**	**41,425**	**138,225**	**1,350,909**
		40,496		8,230	8,230	48,726
-297		-39,372		-437	-437	-39,809
-297	**0**	**1,124**	**0**	**7,793**	**7,793**	**8,917**
	363	-5,227	5,227		5,227	0
	-363	-363	-5,227		-5,227	-5,590
		-25,000		-9,756	-9,756	-34,756
				3,792	3,792	3,792
		4,622		-1,985	-1,985	2,637
		-1,992		1,733	1,733	-259
-4,797	**6,600**	**1,185,848**	**96,800**	**43,002**	**139,802**	**1,325,650**

Consolidated cash flow statement

in € thousands	2018/19	2017/18*
Result before taxes from continuing and discontinued operations	129,836	115,416
Depreciation and amortization	122,539	126,446
Interest expenses/income	26,440	16,872
Other non-cash items	5,549	-1,631
Gains/losses from the disposal of property, plant and equipment and intangible assets	-12,884	-557
Gains/losses from investments	-6,482	-24,438
Changes in provisions and accruals	-62,228	-123,749
Change in net working capital	-92,691	-3,669
Interest paid	-19,513	-17,235
Interest received	7,143	10,971
Dividends received	6,609	2,393
Tax paid	-58,156	-70,142
Cash flow from operating activities	**46,162**	**30,677**
Investments in property, plant and equipment and intangible assets	-112,679	-93,633
Proceeds from the disposal of property, plant and equipment and intangible assets	26,921	5,923
Investments in financial assets	-42,303	-62,422
Purchase price payments/receipts in connection with disposal of companies in previous years	0	-16,307
Acquisitions of consolidated subsidiaries minus cash and cash equivalents	-13,935	-5,694
Proceeds from the disposal of financial assets	1,546	113,238
Proceeds from the disposal of securities	429,757	145,540
Payments for the acquisition of securities	-165,425	-155,277
Cash flow from investing activities	**123,882**	**-68,632**
Dividends paid	-33,356	-35,325
Contributions from holders of non-controlling interests	6,552	3,792
New bonds, bank loans and overdrafts	16,756	49,340
Repayment of bonds, bank loans and overdrafts	-68,716	-214,601
Changes in other interest-bearing financial receivables and liabilities	-25,456	18,290
Cash flow from financing activities	**-104,220**	**-178,504**
Total cash flow	**65,824**	**-216,459**
Exchange rate movements and valuation changes	10,359	-23,797
Cash and cash equivalents at the beginning of the period	341,691	581,947
Cash and cash equivalents at the end of the period	**417,874**	**341,691**

* Previous year restated (see section “Restatements of previous-year figures”).

Notes to the consolidated financial statements for the 2018/19 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 Board of Management of Voith Management GmbH (commercial register number 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, 2019 in accordance with IFRS as endorsed by the EU, and a Group management report for the smallest consolidated group of companies. JMV GmbH & Co. KG, as parent of the largest group of companies requiring consolidation, prepares consolidated financial statements as at September 30, 2019 in accordance with 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 27, 2019.

The preparation of the consolidated financial statements for the 2018/19 fiscal year in accordance with IFRS and the interpretations of the International Financial Reporting Interpretations Committee (IFRIC) was undertaken on a voluntary basis because Voith does not participate in capital markets as defined by EU Regulation (EC) No. 1606/2002. In preparing these consolidated financial statements, Voith has applied all pronouncements which are mandatory for listed companies issued by the International Accounting Standards Board (IASB) as well as the additional requirements of German commercial law pursuant to Sec. 315e HGB (German Commercial Code). 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: Hydro, Paper, Turbo and Digital Ventures (until October 1, 2018: “Digital Solutions”). Details of the business activities pursued by the Group’s segments are provided in the explanatory notes on 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 five 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:

	2019-09-30	2018-09-30
Voith GmbH & Co. KGaA and its fully consolidated subsidiaries:		
· Germany	25	32
· Other countries	118	113
	143	**145**
Associates and joint ventures:		
· Germany	3	3
· Other countries	4	5
	7	**8**

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

VZ Voith GmbH & Co. KGaA, Heidenheim, Germany
VZB J.M. Voith SE & Co. KG, 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
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

VPP	Voith Paper Máquinas e Equipamentos Ltda., São Paulo (SP), Brazil
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., Appleton (WI), 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
VTI	Voith Turbo Inc., York (PA), USA
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
VTPA	Voith Turbo Ltda., São Paulo (SP), Brazil
VTGB	Voith Turbo Limited, Croydon, United Kingdom
VTAU	Voith Turbo Pty. Ltd., Smithfield, N.S.W., Australia
DSIF	FlowLink Systems Private Ltd., Coimbatore, India
DSGM	Ray Sono AG, Munich, 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.

Non-controlling interests are held in the following significant subsidiary companies:

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

	2019-09-30	2018-09-30
Non-controlling shareholdings, in %	35	35

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

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

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

in € thousands	2019-09-30	2018-09-30
Sales	1,147,672	1,113,148
Net result	-11,727	8,236
Net result attributable to non-controlling interests	-5,432	769
Other comprehensive income	3,778	-16,866
Total comprehensive income	-7,949	-8,630
Total comprehensive income attributable to non-controlling interests	-4,415	-5,009
Current assets	1,066,576	948,438
Non-current assets	256,690	257,176
Current liabilities	860,667	749,908
Non-current liabilities	284,328	239,429
Net assets	178,271	216,277
Net assets attributable to the non-controlling interests	50,981	63,524
Cash flow from operating activities	-21,045	-24,693
Cash flow from investing activities	-15,079	-13,993
Cash flow from financing activities	47,532	18,430
Total cash flow	**11,408**	**-20,256**
Net foreign exchange difference	3,261	-8,771
Net increase/decrease in cash and cash equivalents	14,669	-29,027

Business combinations in the 2017/18 fiscal year

The shareholding in FlowLink Systems Private Ltd. was increased from 50% to 80% in April 2018. This company, headquartered in Coimbatore, India, manufactures industrial valves and valve components that are used in the oil & gas market, in mining, in power plants and in the area of sewage treatment. The company is increasingly focusing on digital solutions with its product portfolio. The company has been fully consolidated since April 1, 2018, and is allocated to our Group Division Digital Solutions. In the past, the 50% shareholding was accounted for using the equity method.

Under the terms of the business combination, Voith agreed to acquire the remaining 20% of the FlowLink shares on March 31, 2021, or at a later date assuming mutual agreement by the parties to the contract. This gives rise to an obligation of €5.4 million that is disclosed in financial liabilities. This obligation is measured on the basis of the contractually agreed terms.

The remeasurement of the 50% shareholding in FlowLink previously accounted for using the equity method gave rise to a loss of €942 thousand that was recognized in the statement of income of the Group. The remeasured 50% shareholding and the purchase price for the 30% shareholding acquired in the 2017/18 fiscal year are listed in the table shown below.

The business combination is presented using the anticipated acquisition method in combination with the full goodwill method.

Intangible assets totaling €2.1 million were identified within the framework of the purchase price allocation. These are included in the schedule of development of intangible assets presented in note 9 in the category “Business combinations”. The purchase price allocation similarly identified hidden reserves of €5.1 million from the fair value revaluation of land, most of which has been developed.

The difference between the purchase price and the acquired net assets revalued to their respective fair values amounting to €2.4 million has been reported as goodwill, and represents the potential synergy effects to be gained by the Voith Group. 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.

Since April 1, 2018, FlowLink has contributed an additional €10.8 million to the Group’s sales. In the same period, its share of the net result for the year totaled €1.0 million (after including amortization of €0.4 million after tax recorded on the intangible assets determined within the purchase price allocation).

If FlowLink had been included in the Group for the whole fiscal year, it would have generated additional sales of €9.3 million and a net result for the year of €75 thousand.

Balance sheet item

in € thousands	Acquisition date fair value
Intangible assets	2,118
Property, plant and equipment	14,787
Financial assets	806
Inventories	4,428
Receivables	5,847
Other assets	2,888
Cash and cash equivalents	57
Other liabilities and accruals	-12,778
Forward liability for 20% shareholding	-5,200
Net fair value	**12,953**
Goodwill	2,383
Fair value of the 80% shareholding held by Voith	**15,336**
thereof: fair value of the 50% shareholding already held	9,585
Purchase price of the 30% shareholding newly acquired	**5,751**
Cash and cash equivalents	-57
Cash outflows	**5,694**

The purchase price for the acquisition of the 30% shareholding has already been paid.

Business combinations in the 2018/19 fiscal year

Pilotfish Networks AB

55.98% of the shares in Pilotfish Networks AB were acquired in January 2019.

This company with its headquarters in Gothenburg, Sweden, is one of Europe's leading providers of onboard IT systems and applications. Pilotfish has installed its systems in more than 10,000 buses, trains and streetcars in a number of countries. The company offers applications, hardware and consulting in one portfolio, Eco-Driving, a vehicle communication platform based on open standards, tachograph downloads, automatic error messages, navigation as well as automatic transfer of vehicle data directly into cloud-based analysis processes.

Within the scope of the business combination, Voith undertook an obligation to purchase the remaining 44.02% of the Pilotfish shares at a later date. The non-controlling shareholders have been provided with fixed exercise periods in which they are able to sell their shares to Voith. This gives rise to an obligation of €2.8 million that is disclosed in financial liabilities. This obligation is measured on the basis of the contractually agreed terms.

The company has been fully consolidated since January 1, 2019, and is allocated to our Group Division Digital Ventures.

The business combination is presented using the anticipated acquisition method in combination with the full goodwill method.

The difference between the purchase price and the acquired net assets revalued to their respective fair values amounting to €6 million has been reported as goodwill, and represents the future economic benefit of acquired assets that cannot be identified individually and reported separately.

Since January 1, 2019, Pilotfish has contributed an additional €3.1 million to the Group's sales. The share in net result for the same period amounted to €-0.6 million.

If Pilotfish had been included in the Group for the whole fiscal year, it would have generated additional sales of €1.0 million and a net result for the year of €-0.4 million.

Balance sheet item

in € thousands	Acquisition date fair value
Intangible assets	1,521
Property, plant and equipment	16
Financial assets	1,339
Inventories	880
Receivables	1,959
Cash and cash equivalents	316
Other liabilities and accruals	-1,917
Liabilities to banks	-2,919
Option – financial liability	-2,800
Net fair value	**-1,605**
Goodwill	6,015
Purchase price of the interests purchased	**4,410**
Cash and cash equivalents	-316
Cash outflows	**4,094**

VolgaHydro OOO
Voith has acquired the remaining 40% of the shares in VolgaHydro OOO. RusHydro, Voith's partner in this joint venture in Russia, pulled out of the cooperation arrangement for strategic reasons.

With the plant in Balakovo, Voith Hydro will serve the Russian hydropower market.

The remeasurement of the 60% shareholding in VolgaHydro OOO previously accounted for using the equity method gave rise to a loss of €8.0 million that was recognized in the Group's statement of income in the item "Share of profit/loss from companies accounted for using the equity method". The remeasured 60% shareholding and the purchase price for the 40% shareholding acquired in the 2018/19 fiscal year are listed in the table shown below.

The company has been fully consolidated since January 1, 2019 and is allocated to our Group Division Hydro. Until December 31, 2018, the 60% shareholding was accounted for using the equity method.

The negative difference between the purchase price and the acquired net assets revalued within the scope of the business combination amounting to €7.9 million (bargain purchase) was realized in the statement of income in accordance with IFRS 3, in the item "Share of profit/loss from companies accounted for using the equity method". The negative difference is due, among other factors, to the new strategic focus of the business activities at RusHydro.

Since January 1, 2019, VolgaHydro has contributed an additional €3.9 million to the Group's sales. The share in net result for the same period amounted to €-2.6 million.

If VolgaHydro had been included in the Group for the whole fiscal year, it would have generated additional sales of €3.1 million and an additional net result for the year of €-1.1 million.

Balance sheet item

in € thousands	Acquisition date fair value
Property, plant and equipment	28,750
Receivables	2,216
Other assets	50
Cash and cash equivalents	1,385
Other liabilities and accruals	-9,400
Net fair value	**23,001**
Negative goodwill	-7,866
Fair value of the 100% shareholding held by Voith	**15,135**
thereof: fair value of the 60% shareholding already held	9,081
Purchase price of the 40% shareholding newly acquired	**6,054**
Cash and cash equivalents	-1,385
Cash outflows	**4,669**

TSP OnCare Digital Assets Inc.

On April 15, 2019, Voith and TSP, a leading US technology service provider, started a new joint venture with a combined start-up capital of €5,746 thousand (USD 6.5 million).

The start-up capital was used to purchase a business sector from TSP, in a transaction that was structured as an asset deal. A significant portion of the net assets purchased, amounting to €47 thousand, comprises property, plant and equipment. A goodwill of €5.7 million arose on the asset deal transaction.

The company has been fully consolidated since April 15, 2019, and is allocated to our Group Division Digital Ventures.

The new Voith/TSP joint venture reinforces Voith's presence in North America in the important field of automation and digital services.

Both Digital Ventures and TSP will be represented on the management of the new company, TSP OnCare Digital Assets, in which Voith has a 90% shareholding.

The strategic position of TSP OnCare Digital Assets in providing support for all digital systems of our customers' complex plant and equipment reduces customers' expenses and risks involved in the maintenance of their digital assets. In addition, it has a lean, flexible service organization and powerful training and recruitment expertise.

TSP Oncare Digital Assets will combine the strengths of the two companies and continue to focus on offering all customers excellent services for all their systems from a wide range of automation providers.

Since April 15, 2019, TSP OnCare Digital Assets has contributed an additional €6.1 million to the Group's sales. The share in net result for the same period amounted to €21 thousand.

If TSP OnCare Digital Assets had been included in the Group for the whole fiscal year, it would have generated additional sales of €7.3 million.

Disposal of shares in the 2017/18 fiscal year

Within the scope of the disposal of the Industrial Services segment in the 2015/16 fiscal year, a 20% interest was retained in the Industrial Services entities sold. In addition, the majority owner was granted the right to acquire all shares retained by Voith. This call option was accounted for separately from the interest and was exercised by the majority owner in the first half of the 2017/18 fiscal year. The purchase price of €36 million was counterbalanced by the investment's carrying amount of €22 million and a liability from the call option of €4 million. Consequently, the disposal gave rise to a gain on sale of €18 million in the 2017/18 fiscal year.

Discontinued operations in the 2018/19 fiscal year

In the second half of the 2017/18 fiscal year, the decision was taken to sell the business operations of Voith Composites SE & Co. KG. Due to the fact that a sale of these business operations is expected to take place over the short term, they are classified in the year under review as held for sale and treated as discontinued operation, as was already the case in the previous year.

Furthermore, the decision was made in the second half of the 2018/19 fiscal year to relinquish control of merQbiz LLC and to continue the associated business activities as a non-controlling shareholder with a different partner.

The following items were disclosed in the statement of income in the net result from discontinued operations relating to Voith Composites SE & Co. KG and merQbiz LLC (the previous-year figures relating to merQbiz LLC were adjusted accordingly in the statement of income and are therefore of limited comparability only):

in € thousands	2018/19	2017/18
Income	11,325	9,897
Expenses	-28,040	-51,382
Operational result before taxes	**-16,715**	**-41,485**
Income taxes	0	0
Net result	**-16,715**	**-41,485**

The expenses in the year under review do not contain any impairment losses (previous year: €19,428 thousand) as a consequence of applying IFRS 5.15).

Cash flow from discontinued operations:

in € thousands	2018/19	2017/18
Cash flow from operating activities	-18,617	-19,127
Cash flow from investing activities	-458	-739

The carrying amounts of the assets and liabilities held for sale attributable to Voith Composites SE & Co. KG and merQbiz LLC are presented in note 18.

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, which represents an asset or liability, are recognized either in profit or loss or in other comprehensive income in accordance with IAS 39. 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/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 reporting 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 the 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.

Exchange rate gains or losses resulting from long-term loans and liability balances, both between Group companies and on external balances, as well as valuation effects arising from their associated hedging instruments, are reported within financial results in the statement of income.

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

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.

Sales

In accordance with IFRS 15, revenue is recognized upon transfer of control of the goods or services to the customer. The amount of revenue is determined on the basis of the transaction price taking account of variable consideration. The latter is only included in determining the transaction prices if it is highly probable that there will be no subsequent sales reversals. The “most likely amount” method is generally chosen for estimating such variable consideration. The performance obligations identified are realized both over time and at a point in time.

Specifically with construction contracts for customer-specific plant and equipment at Voith Paper and Voith Hydro, revenue is recognized over time if the transaction meets the criteria of IFRS 15.35. Such contracts are consequently 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”). 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, with the contract costs being recognized immediately and in full in the period in which they are incurred. Expected losses on such contracts are based on recognizable risks. In the case of contracts that are presented using the PoC method, there is essentially only one performance obligation. In addition, revenue is recognized over time in the case of service contracts and customer-specific products from the Group Divisions Turbo and Paper. In the latter case the criteria of no alternative use will, in some instances, only be met at a later point in time, therefore recognition over time is not performed until this criterion is met.

For all other products, revenue is recognized at the point in time at which the customer obtains control. This is generally the case when merchandise has been delivered or services performed and the risk of ownership has been transferred to the customer. If, in the case of consignment warehouse agreements, control has already been transferred upon warehousing at the customer's premises, revenue is recognized at this point in time.

Voith uses the practical expedients pursuant to IFRS 15.129 and does not adjust transaction prices for significant financing components, as the period between transfer of the goods or provision of the service and payment by the customer is less than one year. Furthermore, the costs to obtain a contract are not capitalized and amortized over the life of the contract as the amortization period would be less than one year. In the case of contracts with a term of less than one year, the transaction prices for obligations not yet fulfilled are not disclosed in accordance with the practical expedients of IFRS 15.

In the previous year, sales were posted in accordance with IAS 11 and IAS 18, adjusted for customer bonuses, discounts and rebates, as soon as the products or goods were delivered or the services rendered and the risk of ownership had been transferred to the customer. In the case of long-term contracts, which are particularly relevant for Voith Paper and Voith Hydro, sales were recorded in accordance with the percentage-of-completion (PoC) method.

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

Other income and expenses

Interest expenses and income are recorded as they arise (using the effective interest method, i.e. the effective interest rate with which the estimated future cash flows from the asset are discounted to the assets net book value).

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 measurement classes recognized in accordance with IFRS 9, 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 under 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 to essentially 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 Hydro, Paper and Turbo as relevant groups of cash-generating units. In previous years, goodwill was created in the young Digital Ventures segment stemming from the acquisition of Ray Sono AG and the increase in the FlowLink Systems Private Ltd. shareholding. Additional goodwill was generated in the year under review through the acquisition of shares in Pilotfish Networks AB and assets and liabilities of TSP OnCare Digital Assets Inc. Due to the start-up situation in the new segment, this goodwill is tested for impairment on a stand-alone basis at the level of the respective unit.

The Voith Group generally determines whether goodwill is impaired by reference to the fair value less costs to sell. 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:
After a strong rise in orders received as a result of winning a major contract in the year under review, a perceptible decline in orders received is anticipated for the 2019/20 fiscal year. For the 2019/20 fiscal year, we expect sales performance at Voith Hydro to decline slightly, whereas a moderate increase in sales is anticipated over the following years.

Voith Paper:
After a decline in the year under review, a perceptible rise in orders received is expected for the 2019/20 fiscal year. The Group Division Paper anticipates a perceptible rise in sales for the 2019/20 fiscal year and the following years.

Voith Turbo:
After a perceptible rise in orders received in the year under review, a slight increase in orders received is expected for the 2019/20 fiscal year. Voith Turbo anticipates stable sales for the 2019/20 fiscal year and rising sales over the subsequent years.

Ray Sono AG:
Perceptible growth consistent with trends in the digital market is expected for orders received and sales over the planning years.

FlowLink Systems Private Ltd.:
Slight increases in orders received and sales are anticipated for the planning years.

Pilotfish Networks AB:
Perceptible increases in orders received and sales are anticipated for the planning years.

TSP OnCare Digital Assets Inc.:
Perceptible increases in orders received and sales are anticipated for the planning years.

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 (Ray Sono AG six). Cash flows for periods after the fifth (Ray Sono AG sixth) 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 business segments in which the corresponding cash-generating unit operates.

The discount rates are arrived at by determining the weighted average cost of capital, which is 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 6.1% for Voith Hydro (previous year: 6.5%), 7.1% for Voith Paper (previous year: 7.7%), 7.3% for Voith Turbo (previous year: 7.0%), 7.3% for Ray Sono AG (previous year: 6.5%), 7.3% for FlowLink Systems Private Ltd. (previous year: 7.1%) and 7.3% for Pilotfish Networks AB and TSP OnCare Digital Assets Inc. The rates extrapolated from the pre-tax rates for which IAS 36 disclosures are required are 8.6% for Voith Hydro (previous year: 11.5%), 10.4% for Voith Paper (previous year: 10.6%), 10.0% for Voith Turbo (previous year: 9.9%), 9.5% for Ray Sono AG (previous year: 8.6%), 9.7% for FlowLink Systems Private Ltd. (previous year: 10.5%), 8.8% for Pilotfish Networks AB and 9.1% for TSP OnCare Digital Assets Inc.

The potential changes in the discount rate of +1 percentage point and in the anticipated future cash flow of -5% assumed by the management for the three segments and for FlowLink Systems Private Ltd., for Pilotfish Networks AB and for TSP OnCare Digital Assets Inc. do not give rise to any impairment. For Ray Sono AG an increase in the discount factor or a decrease in the anticipated cash flow would result in the recoverable amount being lower than the carrying amount.

Property, plant and equipment

Property, plant and equipment are stated at cost less depreciation and after deduction of any impairment losses. The production 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 under 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 recorded for the first time on the trading date and recognized in the consolidated balance sheet when Voith is a contract party to a financial instrument.

For the classification of financial instruments, the Group distinguishes between the following measurement categories: measured at amortized cost (AC), measured at fair value through other comprehensive income (FVOCI) and measured at fair value through profit or loss (FVTPL).

Financial assets (debt instruments) – measured at amortized cost (“AC”)
The Group recognizes debt instruments at the date they are originated. Such assets are initially recognized either at fair value plus directly attributable transaction costs or, in the case of trade receivables, at the transaction price. Subsequent to initial recognition, they are measured at amortized cost (AC) to the extent that the objective of the business model is to hold the financial assets in order to realize the contractual cash flows. In this respect, the cash flow condition (“SPPI criterion”) is met when the contractual terms of the financial asset give rise to cash flows at determined points in time that constitute solely payments of principal and interest (SPPI).

Financial assets (equity instruments) – measured at fair value through other comprehensive income (“FVOCI”)
Generally speaking, equity instruments are to be measured at fair value through profit or loss upon initial recognition. During first-time recognition, it is possible to exercise an irrevocable option of classifying equity instruments as measured at fair value through other comprehensive income. Equity instruments may be classified as measured at fair value through other comprehensive income only if they are neither held for trading nor constitute contingent consideration as part of a business combination (OCI option). Voith exercised the OCI option for equity instruments held as a strategic investment in order to supplement the Group’s business operations. They are measured at fair value through other comprehensive income. Furthermore, the Group holds financial assets to cover future pension obligations. These pension funds are not held for trading. Consequently, Voith also exercised the OCI option for these instruments, with the underlying financial assets being measured at fair value through other comprehensive income (FVOCI). There is no intention to generate short-term gains on disposal of any material amount from such instruments. For this reason, fluctuations in the measurement of investments and the financial assets used for securing pensions should not have any effect on the statement of income. Changes in the market value arising from subsequent measurement and accumulated gains/losses in the event of derecognition at a later date are posted directly in equity and are never reclassified with an effect on profit or loss.

Financial assets (equity instruments) – measured at fair value through profit or loss (“FVTPL”)
Voith decided not to exercise the OCI option for financial assets that are not held as a strategic investment. These equity instruments are held with a view to generating income from the financial instruments. For this reason, gains and losses from the disposal of shares and fluctuations in the measurement of the investments are to be recorded in the statement of income.

Financial liabilities – measured at amortized cost (AC)
Non-derivative financial liabilities are measured on initial recognition at fair value less attributable transaction costs. Subsequent to initial recognition, the Group classifies them as other financial liabilities measured at amortized cost.

Derivative financial instruments – measured at fair value through profit or loss ("FVTPL")
All derivative financial instruments are recognized at fair value on the trading date. The derivative financial instruments are classified as held for trading and thus assigned to the measurement category "FVTPL" (measured at fair value through profit or loss) unless they are designated as being a hedging instrument and are effective as such.

The following accounting policies pursuant to IFRS 7 in conjunction with IAS 39 were applied for financial instruments in the previous year:

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. Customary purchases and sales are accounted for on the trading date. Subsequent to initial recognition they are 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 as profit or loss 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. The Group continues to use the provisions of IAS 39 for the recognition of hedges.

At the inception of a hedge relationship, the Group formally designates and documents both the underlying transaction and the hedging instrument as well as 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. Currency hedges are used in line with the contracts in question (term, volume). 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 or 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 for the period. Changes in fair value of the hedging instrument are also recognized in the profit or loss for 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 profit or loss for the period. When the hedging instrument expires, is sold, terminated, or is exercised without a hedging instrument being replaced or rolled over into another hedging instrument or when the Group ceases to designate a hedging instrument as such, the amounts previously recorded remain as a separate item in equity until the planned transaction occurs. If the planned transaction is no longer expected to occur, the amount is recognized in profit or loss.

Embedded derivatives

Pursuant to IFRS 9, embedded derivatives where the underlying is a financial asset covered by the standard are never accounted for separately. Instead, the hybrid financial instrument as a whole is assessed with regard to classification.

In the event of there being embedded derivatives for which separate recognition is required, such derivatives are classified as held for trading and thus assigned to the measurement category “FVTPL” (measured at fair value through profit or loss). 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

Raw 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.

Contract assets and contract liabilities

Contract assets constitute an entity’s right to consideration in exchange for goods already transferred or services already performed. In the Voith Group, contract assets essentially consist of long-term projects at Voith Hydro and Voith Paper, which are recognized over time in accordance with IFRS 15.35. Contract assets are disclosed at the percentage of completion to be recognized less any customer payments already received. The customer payments are contractually agreed and are generally dependent on project progress and/or predetermined milestones.

If customer payments exceed the performance already completed, the resulting balance is disclosed under contract liabilities. Furthermore, contract liabilities include advances received from customers for products where revenue is recognized at a specific point in time.

Receivables and other assets

Receivables and other assets (with the exception of derivatives) are assigned to the measured at amortized cost ("AC") measurement category and are initially recognized either at fair value plus directly attributable transaction costs or, in the case of trade receivables, at the transaction price. Subsequent to initial recognition they are measured at amortized cost. They are regularly tested for impairment on an individual basis. Where objective evidence of a potential 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. Furthermore, the estimated aggregate credit losses are calculated using a forward-looking credit risk management system based on CDS spreads. In doing so, the receivables are segmented according to common default risk features. A decline in the volume of receivables brings about a corresponding decrease in such provisions 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 classified as 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 inflows 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 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 inflows 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 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 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

Profit participation rights amounting to €103,400 thousand are reported as a separate component of the Group’s equity, 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 expenses 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 of third-party shareholders in limited partnerships based on termination rights of non-controlling shareholders 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 result 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).

Amounts reclassified from equity to financial liabilities totaled €35,852 thousand in the 2018/19 fiscal year (previous year: € 25,537 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 changed from the 2015/16 fiscal year onwards. The liability continues to be measured in a similar manner at amortized cost. It is no longer treated as a component of equity during the year under review. As of this point in time, 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 or 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 position 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 recognized in accordance with the percentage of completion: determining the percentage of completion
- 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 over time in the case of long-term projects

Specifically in the case of long-term projects involving customer-specific plant and equipment, revenue is recognized over time using the PoC method, if the criteria of IFRS 15.35 are met.

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 operating subsidiaries review all estimates that are needed for revenue recognition over time using the PoC method on an ongoing basis and make adjustments as and when necessary.

Such examinations are part of management's normal accounting activities at operating level. We refer to notes 1 and 14 for details of the carrying amounts.

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 and future economic trends and an examination of historic default scenarios. We refer to note 13 for details of the carrying amounts.

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 9 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 9 for details of the carrying amounts.

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 for details of the carrying amounts.

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 for details of the carrying amounts.

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 8 for details of the carrying amounts.

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 2018/19 fiscal year.

Standard/interpretation	Amendment/new standard or interpretation
Amendments to IFRS 2: Classification and Measurement of Share-based Payment Transactions	Clarification of the classification and measurement of transactions involving share-based payments.
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.
IFRS 9 Financial Instruments	Regulations for the classification and the measurement, impairment and hedge accounting of financial instruments.
IFRS 15 Revenue from Contracts with Customers	Combination of revenue recognition rules previously contained in various standards and interpretations.
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.
Amendments to IAS 40: Transfers of Investment Property	Clarification relating to transfers to or from the portfolio of investment properties.
IFRIC 22 Foreign Currency Transactions and Advance Consideration	IFRIC 22 clarifies the accounting for transactions involving the receipt or payment of consideration in a foreign currency.
Improvements to IFRS (2014-2016)	Amendments to standards IFRS 1 and IAS 28.

The changes from first-time adoption of IFRS 9 and IFRS 15 are explained below. All other IAS and IFRS standards applied for the first time had no significant effect on the net assets, financial position and earnings position of the Group.

IFRS 9 – Financial Instruments

IFRS 9 Financial Instruments replaces the existing requirements of IAS 39 Financial Instruments: Recognition and Measurement, and restructures the classification and measurement, impairment and general hedge accounting for financial assets and liabilities. For mandatory first-time adoption, the amended accounting methods are generally to be applied retrospectively. With regard to the amendments to the classification and measurement (including impairment), Voith made use of the exemption contained in IFRS 9 and, where possible, did not make any adjustments to comparative information for previous periods (known as the modified retrospective approach). Differences between the carrying amounts of the financial assets and financial liabilities arising from the first-time adoption of IFRS 9 were reported in the revenue reserves and the other reserves at the time of first-time adoption.

IFRS 9 introduces a new approach to the classification and measurement of financial assets. The criteria for classification consist of the cash flow characteristics and the business model according to which the assets are managed. Voith has examined the financial assets for compliance with the cash flow condition and assigned them to the corresponding business models. Trade receivables and other financial assets will continue to be measured at amortized cost. Exceptions to this are equity instruments that could be measured at amortized cost pursuant to IAS 39.46(c) and which are to be recognized at fair value pursuant to IFRS 9. In the case of equity instruments held as a strategic investment, and pension funds not held for trading, Voith exercised the OCI option and assigned them to the category "FVOCI" (fair value through other comprehensive income). Changes in the fair value arising from first-time adoption, subsequent measurement and accumulated gains/losses in the event of derecognition at a later date were posted directly in equity and are never reclassified with an effect on profit or loss.

The carrying amounts of equity instruments held for strategic purposes as at September 30, 2018 correspond to their fair values as at October 1, 2018. Financial investments that are not held as strategic investments are assigned to the measurement category "FVTPL" (fair value through profit or loss). Future changes in value are fully reflected through profit or loss in the statement of income. As at the effective date, there were no differences between the carrying amounts as at September 30, 2018 and the fair values as at October 1, 2018 with regard to the investments in the "FVTPL" measurement category.

IFRS 9 has to a great extent taken on the classification and measurement of IAS 39 Financial Liabilities. Voith continues to measure financial liabilities at amortized cost; there are no financial liabilities that were modified in the past. In this respect, first-time adoption of IFRS 9 does not have any implications.

We refer to the section entitled "Additional information on financial instruments" for the transition of the classification and measurement from IAS 39 to IFRS 9.

The requirements on reporting impairment losses that are now no longer exclusively based on losses that have already occurred but on a model of losses that can be expected are fundamentally new. For current and non-current trade receivables and contract assets, Voith uses the simplified impairment model under which the credit losses anticipated over the entire term are recorded. The general impairment model is employed for other financial assets, specifically cash and cash equivalents, that are not classified at fair value through profit or loss. With this model, allowances are determined for the credit losses anticipated over the next 12 months unless the credit risk has significantly increased since initial recognition. In the event of a significant increase in the credit risk, allowances are to be determined in the amount of the credit defaults anticipated over the remaining term. The impairment models are based on specific probabilities of default taking account of forward-looking data. A model suitable for determining the anticipated credit losses was implemented and is described in detail in the section on risk management. First-time adoption of IFRS 9 gave rise of an adjustment effect relating to the measurement of trade receivables and contract assets that reduces equity by €6,120 thousand. The remeasurement of financial assets likewise resulted in a reduction in equity of €1,202 thousand.

In its first-time adoption of IFRS 9, Voith is exercising the option not to apply the new requirements in its treatment of hedge accounting. Hedges continue to be accounted for according to the provisions of IAS 39. The new, more comprehensive, disclosure requirements pursuant to IFRS 9, specifically on the recognition of hedges, on credit risk and expected credit losses, are presented in the section entitled "Additional information on financial instruments".

IFRS 15 – Revenue from Contracts with Customers

IFRS 15 has been applied by the Voith Group since October 1, 2018. The standard replaces the previous revenue recognition standards IAS 18: Revenue and IAS 11: Construction Contracts and the associated interpretations.

For first-time adoption, Voith has chosen the modified retrospective approach where the previous-year figures were not adjusted but the cumulative effects of first-time adoption of the standard as at October 1, 2018 is recorded in the revenue reserves. This gives rise to a reduction in revenue reserves of €7,345 thousand as at October 1, 2018. In this context, the option relating to simplified first-time adoption is exercised, and IFRS 15 is only applied to those contracts that had not been fulfilled by the time of first adoption. In addition, the practical expedient pursuant to IFRS 15.C5 d) is exercised and statement of the transaction price for remaining obligations for all reporting periods prior to the date of first-time adoption presented is dispensed with.

The effects of application of IFRS 15 for the fiscal year ending on September 30, 2019 are presented below.

		2019-09-30		
in € thousands		As reported	Adjustments	Without application of IFRS 15
A.	**Non-current assets**			
VIII.	Deferred tax assets	218,732	-404	218,328
	Other	1,623,933	0	1,623,933
Total non-current assets		**1,842,665**	**-404**	**1,842,261**
B.	**Current assets**			
I.	Inventories	599,297	64,157	663,454
II.	Trade receivables	657,084	81,783	738,867
III.	Contract assets	541,204	-168,282	372,922
	Other	1,115,386	0	1,115,386
Total current assets		**2,912,971**	**-22,342**	**2,890,629**
Total assets		**4,755,636**	**-22,746**	**4,732,890**
A.	**Equity**			
II.	Revenue reserves	1,086,916	-8,565	1,078,351
III.	Other reserves	-109,446	454	-108,992
	Other	267,590	0	267,590
Total equity		**1,245,060**	**-8,111**	**1,236,949**
B.	**Non-current liabilities**			
IV.	Bonds, bank loans and other interest-bearing liabilities	290,357	-419	289,938
VI.	Other liabilities	46,364	3,637	50,001
VII.	Deferred tax liabilities	44,955	-2,470	42,485
	Other	995,079	0	995,079
Total non-current liabilities		**1,376,755**	**748**	**1,377,503**
C.	**Current liabilities**			
II.	Other provisions	250,600	6,837	257,437
VI.	Contract liabilities	816,919	-800,215	16,704
VII.	Other financial liabilities	247,898	977	248,875
VIII.	Other liabilities	123,755	777,018	900,773
	Other	694,649	0	694,649
Total current liabilities		**2,133,821**	**-15,383**	**2,118,438**
Total equity and liabilities		**4,755,636**	**-22,746**	**4,732,890**

	2018/19		
in € thousands	As reported	Adjustments	Without application of IFRS 15
Sales	4,276,490	-70,416	4,206,074
Changes in inventories and other own work capitalized	8,322	39,770	48,092
Other operating income	396,243	2,272	398,515
Cost of materials	-1,901,813	531	-1,901,282
Other operating expenses	-1,006,146	-1,734	-1,007,880
Interest expenses	-38,732	7,145	-31,587
Income taxes	-57,383	6,522	-50,861
Other	-1,587,813	0	-1,587,813
Net result from continuing operations	**89,168**	**-15,910**	**73,258**

The changes mainly originate from the following issues:

In the case of individual construction contracts previously recognized in accordance with the percentage-of-completion method, the criteria for revenue recognition over time according to IFRS 15.35c are not met due to there not being an enforceable right to payment for performance completed to date. Consequently, revenue recognition is delayed until the time of acceptance.

In contrast, revenue is now recognized over time for individual Voith Turbo and Voith Paper product lines, whereas previously revenue was not recognized until delivery or performance was completed or upon transfer of risk of ownership. In addition, revenue is also recognized at an earlier stage in consignment warehouse transactions because of the new concept regarding transfer of control.

Furthermore, Voith previously generated progress billings upon completion of handover in the case of construction contracts with only one performance obligation for which revenue is recognized over time. According to IFRS 15, payments received on the basis of such progress billings will in the future be accounted for as advances received or contract liabilities until completion of the respective performance obligation. This gives rise to reclassifications within current assets and current liabilities and, in individual cases, to a balance sheet contraction.

IFRS 15 additionally introduces the stand-alone balance sheet items “Contract assets” and “Contract liabilities”. These items contain the “Receivables from customer-specific contracts” and “Liabilities from customer-specific contracts” disclosed in previous years. In the future, customer advances will be disclosed within current liabilities in the balance sheet item “Contract liabilities”, instead of under “Other liabilities”, which was the case to date.

The adoption of the following revised and newly issued IFRS and IFRICs was not yet mandatory in the 2018/19 fiscal year, and/or they had not yet been endorsed by the European Commission for adoption in the European Union.

Standard/interpretation	Amendment/new standard or interpretation	Mandatory effective date
Revised conceptual framework and amendments to the references to the conceptual framework in IFRS standards	This includes revised definitions of assets and liabilities and new guidelines on measurement and derecognition, disclosure and notes.	Periods beginning on or after January 1, 2020
Amendments to IFRS 3: Business Combinations	"Definition of a Business" The new provisions offer a framework for determining whether a business or a group of assets has been acquired.	Periods beginning on or after January 1, 2020
Amendments to IFRS 9: Financial Instruments	The amendments relate to premature repayment options with negative early repayment compensation.	Periods beginning on or after January 1, 2019
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 establishes principles for the identification recognition, measurement, presentation and disclosure in the notes of insurance contracts.	Periods beginning on or after January 1, 2021
Amendments to IAS 1: Presentation of Financial Statements and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors	The amendment standardizes the definition of materiality in the standards themselves and in the conceptual framework. Furthermore, the definition of "material" has been sharpened up.	Periods beginning on or after January 1, 2020
Amendments to IAS 19: Plan Amendment, Curtailment or Settlement	According to this amendment, in the event of amendment, curtailment or settlement of a defined benefit plan, it is now mandatory that the current service cost and the net interest for the period used for the required remeasurement of the net liability are determined again using the actuarial assumptions currently made. In addition, amendments were included to clarify the effect of a plan amendment, curtailment or settlement on the requirements regarding the asset ceiling.	Periods beginning on or after January 1, 2019
Amendments to IAS 28: Investments in Associates and Joint Ventures	According to this amendment, long-term interests that in substance form part of the net investment in an entity accounted for using the equity method are to be accounted for and measured pursuant to IFRS 9.	Periods beginning on or after January 1, 2019
IFRIC 23 Uncertainty over Income Tax Treatments	IFRIC 23 supplements the provisions of IAS 12 regarding accounting treatment of uncertainties in connection with the income tax treatment of issues and transactions.	Periods beginning on or after January 1, 2019
Improvements to IFRS (2015–2017)	Amendments to standards IFRS 3, IFRS 11, IAS 12 and IAS 23.	Periods beginning on or after January 1, 2019

The significant effects of revised and newly issued IFRS and IFRICs subject to mandatory adoption from the 2019/20 fiscal year onwards are explained below. Furthermore, no significant impact on the net assets, financial position and earnings position of the Voith Group is anticipated. The impact of revised or newly issued standards and interpretations that will be subject to mandatory adoption by the Voith Group at a later date is currently being investigated.

IFRS 16 Leases replaces the previous requirements of IAS 17 Leases, and does away with the previous classification, on the part of the lessee, of leases into operating and financial leases. The lessee will report most leases and the associated rights to use and lease liabilities in the balance sheet in the future. There are exceptions for low-value leased assets and for short-term leases. The right to use is amortized over the term of the lease. In contrast, the lease liability is accreted applying the effective interest method and taking account of the lease payments. The accounting treatment by lessors is not materially different from the provisions of IAS 17.

In the past, Voith had only operating leases and immaterial financing leases as lessee. The first-time adoption of IFRS 16 is expected to give rise to a low single-digit percentage increase in total assets. In addition, an immaterial increase in EBIT is anticipated. The effects on cash flow consist of an increase in cash flow from operating activities in the low to mid-double-digit millions (€) and a decrease in cash flow from financing activities of the same amount. For the transition, Voith has chosen the modified retrospective approach and will make use of the simplifications for short-term leases and low-value leased assets. With regard to existing leases, the assessment to date used to identify leases (grandfathering clause) will be carried forward. Intercompany leases are not likely to be presented in the internal reporting according to IFRS 16 and consequently will not give rise to any changes in the segment reporting pursuant to IFRS 8. Voith furthermore anticipates an increase in the qualitative and quantitative disclosures in the notes relating to leases.

At present, the Voith Group does not plan to early adopt the new or amended standards and interpretations.

Restatements of previous-year figures

1) Restatement of previous year in accordance with IAS 8
On account of the accounting error in connection with the measurement of foreign currency receivables from long-term construction contracts identified in the first half of the 2018/19 fiscal year, the previous-year figures for the balance sheet items affected by this were adjusted.

2) Discontinued operations merQbiz LLC
Due to merQbiz LLC being reported as a discontinued operation, the previous-year figures in the consolidated statement of income are adjusted correspondingly.

3) Non-recurring result
As of the 2018/19 fiscal year, the non-recurring result is no longer presented in the consolidated statement of income. The previous-year figures are adjusted correspondingly.

Impact on the individual items of the consolidated balance sheet:

	2017-10-01				
in € thousands	Before adjustments	Adjustment (1)	Adjustment (2)	Adjustment (3)	After adjustments
Current assets					
Contract assets	323,929	-17,293			306,636
Other financial receivables	101,289	-5,806			95,483
Equity	**1,365,924**	**-15,015**			**1,350,909**
Non-current liabilities					
Bonds, bank loans and other interest-bearing liabilities	551,363	-8,084			543,279

	2018-09-30				
in € thousands	Before adjustments	Adjustment (1)	Adjustment (2)	Adjustment (3)	After adjustments
Current assets					
Contract assets	346,729	-4,514			342,215
Other financial receivables	93,168	-18,054			75,114
Equity	**1,340,319**	**-14,669**			**1,325,650**
Non-current liabilities					
Bonds, bank loans and other interest-bearing liabilities	325,284	-7,899			317,385

Impact on the individual items of the consolidated statement of income:

	2017/18				
in € thousands	Before adjustments	Adjustment (1)	Adjustment (2)	Adjustment (3)	After adjustments
Sales	4,209,057		-74		4,208,983
Other operating income	391,131		-5	26,204	417,330
Cost of materials	-1,887,634		4		-1,887,630
Personnel expenses	-1,446,885		5,406		-1,441,479
Depreciation and amortization	-120,602		1,154	-1,177	-120,625
Other operating expenses	-1,017,569	-4,333	3,099	-46,926	-1,065,729
Non-recurring result	-21,899			21,899	0
Interest expenses	-25,327	-186			-25,513
Net result from continuing operations	85,146	-4,519	9,584	0	90,211
Net result from discontinued operations	-31,901		-9,584		-41,485
Net result	**53,245**	**-4,519**	**0**	**0**	**48,726**
· Net result attributable to shareholders of the parent company	**45,015**	**-4,519**			**40,496**
· Net result attributable to holders of non-controlling interests	**8,230**				**8,230**

Impact on the individual items of the consolidated statement of comprehensive income:

	2017-10-01 to 2018-09-30		
in € thousands	Before adjustments	Adjustment (1)	After adjustments
Net result	**53,245**	**-4,519**	**48,726**
Items that will be recycled through profit or loss in later accounting periods			
Gains/losses on currency translation	-61,781	4,866	-56,915
Total of the income recorded directly in equity	**-44,675**	**4,866**	**-39,809**
Total comprehensive income	**8,570**	**347**	**8,917**
· Total comprehensive income attributable to shareholders of the parent company	**777**	**347**	**1,124**

Notes to the consolidated statement of income

01. Sales

in € thousands	2018/19 Over time	2018/19 At a point in time	2018/19 Total	2017/18* Over time	2017/18* At a point in time	2017/18* Total
Voith Hydro	994,860	151,848	1,146,708	1,069,904	33,390	1,103,294
Voith Paper	891,682	768,733	1,660,415	1,115,557	630,558	1,746,115
Digital Ventures	14,758	46,755	61,513	8,017	32,048	40,065
	1,901,300	**967,336**	**2,868,636**	**2,193,478**	**695,996**	**2,889,474**

The sales of €1,398,350 thousand (previous year €1,302,004 thousand) at Voith Turbo and the other sales of €9,504 thousand (previous year: €17,505 thousand) were mainly recognized at a point in time.

Sales of €1,653,069 thousand are expected in future periods from currently not, or only partially, completed performance obligations.

02. Changes in inventories and other own work capitalized

in € thousands	2018/19	2017/18
Changes in inventories of finished goods and work in progress	252	37,555
Other own work capitalized	8,070	4,720
	8,322	**42,275**

* Previous year restated (see section “Restatements of previous-year figures”).

03. Other operating income

in € thousands	2018/19	2017/18*
Income from the utilization of contract-specific provisions	125,827	143,801
Income from the reversal of provisions and accruals	80,360	78,511
Foreign exchange gains	66,925	76,972
Recovered bad debts	10,690	13,607
Gains on the disposal of intangible assets and property, plant and equipment	14,844	1,555
Rental and lease income	3,088	2,180
Income from insurance indemnification payments	20,207	20,908
Other income	74,302	79,796
	396,243	**417,330**

04. Cost of materials

in € thousands	2018/19	2017/18*
Cost of raw materials and supplies and of purchased merchandise	1,515,711	1,521,282
Cost of purchased services	386,102	366,348
	1,901,813	**1,887,630**

05. Personnel expenses

in € thousands	2018/19	2017/18*
Wages and salaries	1,219,965	1,189,271
Social security, pension and other benefit costs	259,524	252,208
	1,479,489	**1,441,479**

* Previous year restated (see section "Restatements of previous-year figures").

Number of employees

	Annual average		As at the reporting date	
	2018/19	2017/18	2019-09-30	2018-09-30
Direct production employees	9,974	9,570	10,000	9,750
Administration staff/indirect production	9,647	9,652	9,522	9,877
	19,621	**19,222**	**19,522**	**19,627**
Apprentices and interns	837	818	837	818
	20,458	**20,040**	**20,359**	**20,445**

Number of employees by region

	Annual average		As at the reporting date	
	2018/19	2017/18	2019-09-30	2018-09-30
Germany	7,925	7,815	7,885	7,944
Europe excluding Germany	2,676	2,670	2,709	2,642
Americas	4,081	4,413	3,975	4,133
Asia	4,768	4,152	4,788	4,732
Other	171	172	165	176
	19,621	**19,222**	**19,522**	**19,627**

06. Other operating expenses

in € thousands	2018/19	2017/18*
Increase in provisions and accruals	198,854	192,561
Other selling expenses	269,782	280,869
Other administrative expenses	245,249	240,246
Foreign exchange losses	71,639	77,675
Rent for buildings and machinery	47,149	49,103
Bad debt allowances	12,841	22,479
Losses on the disposal of intangible assets and property, plant and equipment	1,937	993
Other expenses	158,695	201,803
	1,006,146	**1,065,729**

* Previous year restated (see section "Restatements of previous-year figures").

07. Other financial result

in € thousands	2018/19	2017/18
Gains/losses from investments	6,482	24,438
Impairment of other investments and loans	-1,924	-1,590
Income from securities and loans	339	441
Currency gains on long-term financing positions	17,090	23,880
Currency losses on long-term financing positions	-7,422	-36,692
Measurement of derivatives used to hedge financial transactions	-9,422	8,542
	5,143	**19,019**

Gains/losses from investments and impairment of other investments and loans relate to financial instruments in the “at fair value through profit or loss” (FVTPL) measurement category.

The currency gains and losses on long-term financing positions result from currency gains and losses on long-term intragroup and external loans and liability balances. The measurement effects of derivatives used to hedge financial transactions relate to the hedging instruments associated with these long-term financing positions.

08. Income taxes

in € thousands	2018/19	2017/18
Current taxes	-56,206	-56,627
Deferred taxes	-1,177	-10,063
	-57,383	**-66,690**

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 prevailing in the respective countries. The deferred tax expense from temporary differences amounted to €11,886 thousand (previous year: tax expense of €16,194 thousand).

The deferred tax income from unused tax losses amounted to €10,709 thousand in the 2018/19 fiscal year. This primarily includes the impairment of deferred tax assets of €10,381 thousand which were recognized in the 2017/18 fiscal year, a reduction of deferred tax assets on unused tax losses of €1,020 thousand as a result of adjustments of unused tax losses from the previous year, income of €1,957 thousand from the initial recognition of deferred tax assets on unused tax losses, expenses of €2,762 thousand from the utilization of tax losses recognized in the previous year and income of €22,852 thousand from the initial recognition of previously unrecognized tax losses.

The deferred tax income from unused tax losses amounted to €6,131 thousand in the 2017/18 fiscal year. This primarily includes the impairment of deferred tax assets of €7,190 thousand which were recognized in the 2016/17 fiscal year, a reduction of deferred tax assets on unused tax losses of €86 thousand as a result of adjustments of unused tax losses from the previous year, income of €10,910 thousand from the initial recognition of deferred tax assets on unused tax losses, expenses of €4,416 thousand from the utilization of tax losses recognized in the previous year and income of €7,262 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 €169 thousand (previous year: €337 thousand).

As at September 30, 2019, no deferred tax assets were recognized on German trade tax losses of €641,403 thousand (previous year: €687,011 thousand), German corporate income taxes of €520,383 thousand (previous year: €406,418 thousand) or on interest expenses currently not deductible under German tax law of €80,344 thousand (previous year: €112,752 thousand) as it is not likely that the unused tax losses can be utilized in the near future.

In addition, no deferred tax assets were recorded on unused tax losses for foreign federal tax of €153,306 thousand (previous year: €107,149 thousand) or foreign state taxes of €130,519 thousand (previous year: €99,579 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.

in € thousands	2019-09-30 Deferred tax assets	2019-09-30 Deferred tax liabilities	2018-09-30 Deferred tax assets	2018-09-30 Deferred tax liabilities
Intangible assets	9,928	51,474	11,950	49,748
Property, plant and equipment	4,013	34,180	1,908	33,616
Financial assets and securities	4,027	4,369	706	6,101
Inventories and receivables	41,803	59,483	40,059	19,089
Other assets	15,176	16,162	9,313	26,240
Pension provisions	144,963	1,576	111,068	1,119
Financial liabilities	5,532	5,546	2,883	2,991
Other provisions and liabilities	99,536	684	71,406	2,792
Tax effect on distributable earnings of Group companies		5,480		4,837
Impairment of deferred tax assets on temporary differences	-20,284		-6,928	
Unused tax losses	48,037		36,812	
Netting	-133,999	-133,999	-106,394	-106,394
	218,732	**44,955**	**172,783**	**40,139**

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	2019-09-30	2018-09-30
Balance, October 1	**132,644**	**150,794**
thereof: deferred tax assets	172,783	204,538
thereof: deferred tax liabilities	-40,139	-53,744
Deferred tax income/(expense) reported in the statement of income in the reporting period	-1,177	-10,063
Deferred tax income/(expense) reported in other comprehensive income in the reporting period	33,159	256
Business acquisitions and disposals	414	-2,927
First-time adjustment effects from IFRS 9 and IFRS 15	6,653	0
Currency	2,084	-5,416
Balance, September 30	**173,777**	**132,644**
thereof: deferred tax assets	218,732	172,783
thereof: deferred tax liabilities	-44,955	-40,139

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 prevailing rates in the countries concerned. The expected tax expense was calculated based on a tax rate of 29.84% (previous year: 29.84%) that takes into account the legal structure of the Voith Group relevant for tax purposes.

in € thousands	2018/19	2017/18*
Result before income taxes	146,551	156,901
Expected tax expense (+)/tax income (-)	43,731	46,819
Deviations from expected tax rates	-3,119	2,957
Effect of changes in tax rates	497	-3,084
Tax-free income	-5,867	-20,092
Non-deductible expenses	21,758	28,322
Taxes relating to other periods	1,000	-11,139
Change in impairments of deferred tax assets	-1,004	23,210
Other tax effects	387	-303
Income taxes	**57,383**	**66,690**
Effective tax rate (in %)	**39.2**	**42.5**

No deferred tax was recorded on temporary differences on investments in subsidiaries of €1,174,254 thousand (previous year: €1,105,912 thousand) as the criteria specified in IAS 12.39 were met.

When distributions by foreign subsidiaries are made in Germany, 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.

* Previous year restated (see section "Restatements of previous-year figures").

Notes to the consolidated balance sheet

09. Intangible assets

Development of intangible assets from 2017-10-01 to 2018-09-30

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 2017-10-01	**207,609**	**494,667**	**135,908**	**94**	**838,278**
Business combinations	2,118	2,383	0	0	4,501
Currency translation differences	-1,529	-19	37	0	-1,511
Additions	7,038	0	12,862	105	20,005
Disposals	-1,578	0	-1,021	0	-2,599
Other adjustments	0	-35	0	0	-35
Transfers	84	0	0	0	84
Reclassification to assets held for sale	-598	0	-3,746	0	-4,344
Cost 2018-09-30	**213,144**	**496,996**	**144,040**	**199**	**854,379**
Accumulated amortization and impairment 2017-10-01	**-157,569**	**-54,179**	**-110,854**	**0**	**-322,602**
Currency translation differences	1,209	0	26	0	1,235
Depreciation	-10,881	0	-4,413	0	-15,294
Impairment losses	0	0	-247	0	-247
Disposals	1,253	0	1,020	0	2,273
Reclassification to assets held for sale	336	0	520	0	856
Other adjustments	0	0	0	0	0
Accumulated amortization and impairment 2018-09-30	**-165,652**	**-54,179**	**-113,948**	**0**	**-333,779**
Carrying amounts 2018-09-30	**47,492**	**442,817**	**30,092**	**199**	**520,600**

Development of intangible assets from 2018-10-01 to 2019-09-30

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 2018-10-01	**213,144**	**496,996**	**144,040**	**199**	**854,379**
Business combinations	0	11,713	1,521	0	13,234
Currency translation differences	1,862	-300	240	0	1,802
Additions	3,466	0	13,615	0	17,081
Disposals	-6,186	0	-468	-5	-6,659
Other adjustments	3,040	0	0	0	3,040
Transfers	460	0	0	-194	266
Reclassification to assets held for sale	0	0	-5,567	0	-5,567
Cost 2019-09-30	**215,786**	**508,409**	**153,381**	**0**	**877,576**
Accumulated amortization and impairment 2018-10-01	**-165,652**	**-54,179**	**-113,948**	**0**	**-333,779**
Currency translation differences	-1,320	0	-52	0	-1,372
Depreciation	-9,461	0	-4,652	0	-14,113
Impairment losses	0	0	0	0	0
Disposals	6,067	0	0	0	6,067
Reclassification to assets held for sale	0	0	1,479	0	1,479
Other adjustments	-3,045	0	0	0	-3,045
Accumulated amortization and impairment 2019-09-30	**-173,411**	**-54,179**	**-117,173**	**0**	**-344,763**
Carrying amounts 2019-09-30	**42,375**	**454,230**	**36,208**	**0**	**532,813**

10. Property, plant and equipment

Development of property, plant and equipment from 2017-10-01 to 2018-09-30

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 2017-10-01	**813,982**	**1,432,061**	**511,262**	**30,316**	**2,787,621**
Business combinations	9,180	14,607	1,005	0	24,792
Currency translation differences	-11,319	-22,793	-3,834	-437	-38,383
Additions	3,998	19,139	26,821	23,670	73,628
Capitalized interest	5	0	0	21	26
Disposals	-1,306	-30,355	-23,919	-768	-56,348
Transfers	2,153	10,627	1,380	-14,245	-85
Reclassification to assets held for sale	-17,639	-35,476	-8,584	-96	-61,795
Other adjustments	338	-17	-888	-156	-723
Cost 2018-09-30	**799,392**	**1,387,793**	**503,243**	**38,305**	**2,728,733**
Accumulated depreciation and impairment 2017-10-01	**-364,903**	**-1,046,512**	**-397,747**	**0**	**-1,809,162**
Business combinations	-1,305	-7,932	-768	0	-10,005
Currency translation differences	3,356	14,473	3,148	0	20,977
Depreciation	-17,899	-56,283	-30,830	0	-105,012
Impairment losses	-118	-1,036	-73	0	-1,227
Disposals	904	27,031	23,194	0	51,129
Transfers	0	-68	68	0	0
Reclassification to assets held for sale	7,312	10,475	4,551	0	22,338
Reversal of impairment losses	0	0	22	0	22
Other adjustments	98	32	841	0	971
Accumulated depreciation and impairment 2018-09-30	**-372,555**	**-1,059,820**	**-397,594**	**0**	**-1,829,969**
Carrying amounts 2018-09-30	**426,837**	**327,973**	**105,649**	**38,305**	**898,764**

Development of intangible assets from 2018-10-01 to 2019-09-30

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 2018-10-01	**799,392**	**1,387,793**	**503,243**	**38,305**	**2,728,733**
Business combinations	15,621	3,937	668	8,605	28,831
Currency translation differences	14,281	29,082	4,010	2,532	49,905
Additions	11,897	29,718	29,717	24,266	95,598
Capitalized interest	0	0	0	71	71
Disposals	-11,350	-23,911	-28,523	-6,674	-70,458
Transfers	6,073	19,235	4,008	-29,583	-267
Reclassification to assets held for sale	-1,402	-1,777	-633	0	-3,812
Other adjustments	112	116	-12	-67	149
Cost 2019-09-30	**834,624**	**1,444,193**	**512,478**	**37,455**	**2,828,750**
Accumulated depreciation and impairment 2018-10-01	**-372,555**	**-1,059,820**	**-397,594**	**0**	**-1,829,969**
Business combinations	0	0	-9	0	-9
Currency translation differences	-5,078	-21,404	-3,030	0	-29,512
Depreciation	-18,343	-53,878	-31,221	0	-103,442
Impairment losses	-1,192	-111	-413	0	-1,716
Disposals	10,025	22,578	25,911	0	58,514
Transfers	0	-2	2	0	0
Reclassification to assets held for sale	0	1,102	181	0	1,283
Reversal of impairment losses	0	0	4	0	4
Other adjustments	25	-31	-65	0	-71
Accumulated depreciation and impairment 2019-09-30	**-387,118**	**-1,111,566**	**-406,234**	**0**	**-1,904,918**
Carrying amounts 2019-09-30	**447,506**	**332,627**	**106,244**	**37,455**	**923,832**

Of the total impairment losses of €1,716 thousand recognized on property, plant and equipment in the 2018/19 fiscal year, an amount of €1,712 thousand was attributable to the Paper segment. These impairment losses are included in the consolidated statement of income item “Depreciation and amortization”.

An interest rate of 2.1% was used to calculate capitalized interest (previous year: 2.2%).

The prepayments and assets under construction include buildings of €1,371 thousand (previous year: €6,250 thousand), plant and machinery of €33,282 thousand (previous year: €29,219 thousand) and non-production-related equipment of €2,802 thousand (previous year: €2,836 thousand).

11. 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	2019-09-30	2018-09-30
Carrying amount of the investments in associates	21,939	1,457
Share of:		
Net result of continuing operations	-4,660	92
Other comprehensive income	-478	0
Total comprehensive income	**-5,138**	**92**

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	2019-09-30	2018-09-30
Carrying amount of the interests in joint ventures	3,719	20,463
Share of:		
Net result of continuing operations	-1,714	2,459
Other comprehensive income	-517	-2,014
Total comprehensive income	**-2,231**	**445**

In some cases, the companies accounted for using the equity method have 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 position and net assets.

12. Inventories

in € thousands	2019-09-30	2018-09-30
Raw materials and supplies	233,512	216,416
Work in progress	153,211	173,550
Finished goods and merchandise	130,322	133,484
Prepayments	82,252	80,066
	599,297	**603,516**

Write-downs of inventories recognized as expenses amounted to €9,671 thousand (previous year: €7,038 thousand). Obligatory reversals of write-downs totaling €6,253 thousand (previous year: €6,739 thousand) were made. These amounts are recognized in the cost of materials.

13. Trade receivables

Trade receivables consist of the following items:

in € thousands	2019-09-30	2018-09-30
Trade receivables	709,390	739,647
Bad debt allowances	-52,306	-51,663
	657,084	**687,984**

Trade receivables are classified as current assets. As at September 30, 2019, the volume of receivables that is not expected to be realized within one year is €11,095 thousand (previous year: €13,212 thousand).

Movements in the allowance account for the impairment of trade receivables were as follows:

in € thousands	2019-09-30	2018-09-30
Impairment at the beginning of the fiscal year	**-51,663**	**-47,828**
Additions	-12,706	-22,145
Utilization	1,752	7,078
Reversal	10,548	10,547
Changes in consolidated group/exchange differences	-811	678
Reclassification to assets held for sale	0	7
Expected credit losses (thereof first-time application of IFRS 9: €-1,211 thousand)	574	0
Impairment at the end of the fiscal year	**-52,306**	**-51,663**

The total reversal of €10,548 thousand (previous year: €10,547 thousand) consists of reversals of specific bad debt allowances of €10,019 thousand (previous year: €10,547 thousand) and expected credit losses of €529 thousand (previous year: €0). Additions of €12,706 thousand (previous year: €22,145 thousand) include additions to specific bad debt allowances of €12,706 thousand (previous year: €21,962 thousand) and expected credit losses of €0 (previous year: €183 thousand).

14.

Contract assets and contract liabilities

Notes on material changes in contract assets and contract liabilities:

in € thousands	Contract assets*	Contract liabilities
2018-10-01	**444,971**	**753,700**
Exchange rate differences	10,275	18,099
Sales included in contract liabilities at the beginning of the period	-	-432,662
Increase as a result of customer payments received less figure recognized as sales over the period	-	459,225
Change as a result of project progress, taking account of customer payments received	178,974	-
Reclassification from contract assets to trade receivables	-85,642	-
Impairments (thereof first-time application of IFRS 9: €-4,909 thousand)	-6,694	-
Other changes	-680	18,557
2019-09-30	**541,204**	**816,919**

15.

Other financial receivables and other assets

Other financial receivables

in € thousands	Current	Non-current	2019-09-30	Current	Non-current	2018-09-30*
Derivatives used to hedge operational transactions	9,041	2,872	11,913	7,206	3,773	10,979
Derivatives used to hedge financial transactions	437		437	356	1,445	1,801
Financial receivables	40,417	310	40,727	8,019	158	8,177
Sundry financial assets	66,820	49,622	116,442	59,533	56,531	116,064 [1]
	116,715	**52,804**	**169,519**	**75,114**	**61,907**	**137,021**

[1] Includes assets totaling €26,625 thousand (previous year: €29,657 thousand) which are not financial instruments and which are accordingly excluded from the disclosures made in the section "Additional information on financial instruments".

* Previous year restated (see section "Restatements of previous-year figures").

Other assets

in € thousands	Current	Non-current	2019-09-30	Current	Non-current	2018-09-30
Prepaid expenses	31,157	6,689	37,846	27,019	6,733	33,752
Other taxes (without income tax)	115,241	9,891	125,132	89,208	9,206	98,414
	146,398	**16,580**	**162,978**	**116,227**	**15,939**	**132,166**

16.

Securities

Current securities of €355,757 thousand (previous year: €617,974 thousand) contain term deposits of Voith GmbH & Co. KGaA of €300 million (previous year: €575 million) at selected banking partners with original maturity dates of more than 90 days that had residual terms of up to 367 days as at the reporting date.

Further information on securities can be found in the section “Additional information on financial instruments”.

17.

Cash and cash equivalents

in € thousands	2019-09-30	2018-09-30
Checks	81	229
Cash on hand	470	447
Cash equivalents	980	3,484
Cash at bank	416,343	337,531
	417,874	**341,691**

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 classified as held for sale

As at September 30, 2019, this item includes the assets and liabilities of Voith Composites SE & Co. KG and merQbiz LLC, which are intended for sale as part of the planned disposal of the business operations and the planned surrender of control. In addition, the item contains the property, plant and equipment of the Group Division Hydro in Brazil and of the Group Division Paper in the US. The disposal of these assets and liabilities is planned for the 2019/20 fiscal year. The assets held for sale of €28,597 thousand (previous year: €23,411 thousand) are other intangible assets and property, plant and equipment of €23,931 thousand (previous year: €20,880 thousand), inventories of €1,307 thousand (previous year: €1,382 thousand), trade receivables of €3,149 thousand (previous year: €925 thousand) and other assets of €210 thousand (previous year: €224 thousand). The liabilities directly associated with assets classified as held for sale of €1,547 thousand (previous year: €892 thousand) consist of trade payables and other liabilities.

19. Equity

Issued capital

The share capital of Voith GmbH & Co. KGaA of €120,000 thousand comprises 108,000 thousand ordinary shares with an arithmetical share of €1.00 each and 12,000 thousand preference shares with an arithmetical share of €1.00 each.

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 on 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	2018/19	2017/18
Remeasurement of defined benefit plans	**-125,972**	**12,804**
· Gains/losses in the current period	-125,972	12,804
Gains/losses on available-for-sale investments and financial assets	**-45,261**	**2,596**
· Gains/losses in the current period	-45,261	2,796
· Transfers to profit and loss	0	-200
Gains/losses on cash flow hedges	**-764**	**1,873**
· Gains/losses in the current period	-764	0
· Transfers to profit and loss	0	1,873
Gains/losses on currency translation	**30,998**	**-56,915**
· Gains/losses in the current period	28,424	-56,915
· Transfers to profit and loss	2,574	0
Gains/losses from the currency translation of net investments in foreign operations	**728**	**-423**
· Gains/losses in the current period	728	-423
· Transfers to profit and loss	0	0
Tax on components of other comprehensive income	**33,159**	**256**
Other comprehensive income	**-107,112**	**-39,809**

Deferred taxes on the components of other comprehensive income are as follows:

	2018/19			2017/18		
in € thousands	Before taxes	Deferred taxes	After taxes	Before taxes	Deferred taxes	After taxes
Remeasurement of defined benefit plans	-125,972	33,032	-92,940	12,804	1,526	14,330
Gains/losses on available-for-sale investments and financial assets	-45,261	127	-45,134	2,596	-836	1,760
Gains/losses on cash flow hedges	-764	0	-764	1,873	-560	1,313
Gains/losses on currency translation	30,998	0	30,998	-56,915	0	-56,915
Gains/losses from the currency translation of net investments in foreign operations	728	0	728	-423	126	-297
Other comprehensive income	**-140,271**	**33,159**	**-107,112**	**-40,065**	**256**	**-39,809**

Profit participation rights

Profit participation rights with a nominal volume of €103,400 thousand (previous year: €103,400 thousand) qualify as Group 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 thousand 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 2018/19 fiscal year.

Non-controlling interests

The majority of non-controlling interests are held by the co-owners of the subsidiaries Shanghai CRRC Voith Transmission Technology Co., Ltd., China, Rif Roll Cover Srl, Italy, Voith Fuji Hydro K.K., Japan, Voith IHI Paper Technology Co., Ltd., Japan, Voith Hydro Shanghai Ltd., China and Voith Paper Fabrics India Ltd., India. Of the profit participation rights totaling €103,400 thousand, €96,800 thousand is attributable to non-controlling interests.

Appropriation of retained earnings at Voith GmbH & Co. KGaA

The Board of Management proposes to pay a dividend of €0.17 per share (€20,000 thousand in total) out of the unappropriated retained earnings of Voith GmbH & Co. KGaA and to carry forward the remaining amount. Of the total dividends proposed, €2,000 thousand is attributable to preference shares. Dividend payments in the fiscal year amounted to €19,000 thousand (previous year: €25,000 thousand). The distribution per share in the fiscal year amounted to €0.16 per share (previous year: €0.21 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	2019-09-30	2018-09-30*
Equity	1,245,060	1,325,650
Interest-bearing financial liabilities	399,453	443,164
	1,644,513	**1,768,814**

Equity fell by 6.1% compared to the previous year. This movement was primarily due to the negative measurement effects in pensions and available-for-sale financial assets. Interest-bearing financial liabilities decreased by 9.8%. 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.

* Previous year restated (see section "Restatements of previous-year figures").

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 €100,204 thousand for the Voith Group as a whole (previous year: €92,829 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 benefit payments 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 contrast 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 2018G 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, which 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 applicable 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	2019-09-30	2018-09-30	2019-09-30	2018-09-30	2019-09-30	2018-09-30
Germany and Austria	856,772	744,464	-24,398	-24,135	832,374	720,329
USA and Canada	192,787	169,413	-169,577	-155,258	23,210	14,155
Other	35,905	30,849	-23,941	-21,044	11,964	9,805
	1,085,464	**944,726**	**-217,916**	**-200,437**	**867,548**	**744,289**

Movements in the net liability from defined benefit plans:

	2019-09-30			2018-09-30		
in € thousands	Present value of defined benefit obligations	Fair value of plan assets	Total	Present value of defined benefit obligations	Fair value of plan assets	Total
Balance, October 1	**944,726**	**-200,437**	**744,289**	**961,068**	**-184,467**	**776,601**
Current service cost	16,198	-	16,198	15,866	-	15,866
Past service cost from plan curtailments	-456	0	-456	-206	0	-206
Interest expenses (+) / interest income (-)	22,722	-7,195	15,527	21,253	-5,468	15,785
Remeasurements:						
Losses (+) / gains (-) from changes in demographic assumptions	1,929	-	1,929	8,550	-	8,550
Losses (+) / gains (-) from changes in financial assumptions	131,046	-	131,046	-19,348	-	-19,348
Losses (+) / gains (-) from experience adjustments	2,178	-	2,178	-2,185	-	-2,185
Remeasurement of plan assets (without amounts included in interest result)	-	-13,310	-13,310	-	1,282	1,282
Employer contributions to the fund	-	-3,253	-3,253	-	-25,191	-25,191
Employee contributions to the fund	-	-428	-428	-	229	229
Benefits paid	-45,029	15,642	-29,387	-41,788	14,374	-27,414
Change to the Group's structure	-1,636	0	-1,636	-865	-401	-1,266
Other	3,163	434	3,597	154	591	745
Currency translation differences on foreign plans	10,547	-9,369	1,178	1,309	-1,386	-77
Addition to termination benefits in accordance with IAS 19.159 et seq.	76	-	76	918	-	918
Balance, September 30	**1,085,464**	**-217,916**	**867,548**	**944,726**	**-200,437**	**744,289**

Movements in the net liability from defined benefit plans in Germany and Austria:

Germany and Austria

in € thousands	2019-09-30 Present value of defined benefit obligations	2019-09-30 Fair value of plan assets	2019-09-30 Total	2018-09-30 Present value of defined benefit obligations	2018-09-30 Fair value of plan assets	2018-09-30 Total
Balance, October 1	**744,464**	**-24,135**	**720,329**	**748,167**	**-23,340**	**724,827**
Current service cost	14,866	-	14,866	14,203	-	14,203
Past service cost from plan curtailments	-738	0	-738	-657	0	-657
Interest expenses (+)/interest income (-)	15,140	-496	14,644	14,549	-459	14,090
Remeasurements:						
Losses (+)/gains (-) from changes in demographic assumptions	2,364	-	2,364	9,123	-	9,123
Losses (+)/gains (-) from changes in financial assumptions	107,088	-	107,088	-12,316	-	-12,316
Losses (+)/gains (-) from experience adjustments	1,659	-	1,659	-448	-	-448
Remeasurement of plan assets (without amounts included in interest result)	-	-375	-375	-	-235	-235
Employer contributions to the fund	-	-727	-727	-	-1,289	-1,289
Employee contributions to the fund	-	0	0	-	0	0
Benefits paid	-30,326	1,335	-28,991	-28,034	1,188	-26,846
Change to the Group's structure	-1,636	0	-1,636	-1,215	0	-1,215
Other	3,815	0	3,815	174	0	174
Currency translation differences on foreign plans	0	0	0	0	0	0
Addition to termination benefits in accordance with IAS 19.159 et seq.	76	0	76	918	0	918
Balance, September 30	**856,772**	**-24,398**	**832,374**	**744,464**	**-24,135**	**720,329**

Movements in the net liability from defined benefit plans in USA and Canada:

USA and Canada

in € thousands	2019-09-30			2018-09-30		
	Present value of defined benefit obligations	Fair value of plan assets	Total	Present value of defined benefit obligations	Fair value of plan assets	Total
Balance, October 1	**169,413**	**-155,258**	**14,155**	**181,245**	**-139,729**	**41,516**
Current service cost	699	-	699	1,019	-	1,019
Past service cost from plan curtailments	0	0	0	0	0	0
Interest expenses (+)/interest income (-)	6,628	-6,065	563	5,844	-4,453	1,391
Remeasurements:						
Losses (+)/gains (-) from changes in demographic assumptions	-507	-	-507	-1,211	-	-1,211
Losses (+)/gains (-) from changes in financial assumptions	19,523	-	19,523	-6,612	-	-6,612
Losses (+)/gains (-) from experience adjustments	331	-	331	-1,185	-	-1,185
Remeasurement of plan assets (without amounts included in interest result)	-	-10,874	-10,874	-	903	903
Employer contributions to the fund	-	-1,172	-1,172	-	-22,777	-22,777
Employee contributions to the fund	-	-428	-428	-	229	229
Benefits paid	-13,276	13,276	0	-11,669	11,669	0
Other	-374	391	17	-169	675	506
Currency translation differences on foreign plans	10,350	-9,447	903	2,151	-1,775	376
Balance, September 30	**192,787**	**-169,577**	**23,210**	**169,413**	**-155,258**	**14,155**

Costs for defined benefit plans break down as follows:

in € thousands	2019-09-30	2018-09-30
Current service cost	16,198	15,866
Past service cost	-456	-206
Interest expenses from pension obligations and plan assets	15,526	15,785

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 actuarial interest rate 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	2019-09-30	2018-09-30	2019-09-30	2018-09-30	2019-09-30	2018-09-30
Equity instruments	10,595	44,870	0	0	10,595	44,870
Debt instruments	158,325	103,172	741	525	159,066	103,697
Real estate	378	4,122	428	2,102	806	6,224
Cash and cash equivalents	1,750	1,793	251	449	2,001	2,242
Other[1]	4,053	5,324	41,395	38,080	45,448	43,404
	175,101	**159,281**	**42,815**	**41,156**	**217,916**	**200,437**

The calculation of pension provisions was based on the following assumptions:

	Germany and Austria		USA	
in %	2019-09-30	2018-09-30	2019-09-30	2018-09-30
Discount rate	1.00	2.08	2.82	3.97
Pension increases	1.60	1.70	0	0

The inputs used in the calculation of the defined benefit obligation (DBO) include assumed discount rates, wage and salary trends, as well as mortality rates. These vary depending on the state of 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:

		2019-09-30		2018-09-30	
		in € thousands	in %	in € thousands	in %
Discount rate	up 0.50% points	-78,373	-7.2	-63,053	-6.7
	down 0.50% points	88,735	8.2	70,958	7.5
Pension increases	up 0.25% points	18,822	1.7	16,279	1.7
	down 0.25% points	-17,964	-1.7	-15,545	-1.6
Life expectancy	+ 1 year	37,294	3.4	28,808	3.0

[1] Primarily employer's pension liability insurance.

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

The treasury guidelines of the Voith Group rule out any speculative transactions. The funded pension plans in the United States therefore 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 €3,791 thousand are expected to be paid into the plans in the next reporting period.

The weighted average term of the DBO is 15 years.

21. Other provisions

The provisions consist of the following:

in € thousands	At 2018-09-30	IFRS 15 First time adoption	Change in the consolidated Group	Utilization	Additions	Reversals	Transfers	Discounting effect	Currency translation differences	At 2019-09-30
Personnel-related provisions	79,552	0	0	-9,400	16,602	-10,839	-343	210	192	75,974
Other tax provisions	4,318	0	0	-1,207	1,824	-575	7	0	222	4,589
Warranty provisions	183,977	0	24	-80,338	75,787	-28,452	788	0	2,507	154,293
Other contract-related provisions	117,669	-8,656	0	-23,634	54,646	-39,913	160	0	674	100,946
Other provisions	49,414	0	0	-18,889	17,100	-3,210	465	0	301	45,181
	434,930	**-8,656**	**24**	**-133,468**	**165,959**	**-82,989**	**1,077**	**210**	**3,896**	**380,983**

	2019-09-30		2018-09-30	
in € thousands	< 1 year	> 1 year	< 1 year	> 1 year
Personnel-related provisions	15,608	60,366	15,701	63,851
Other tax provisions	3,937	652	3,613	705
Warranty provisions	108,578	45,715	128,814	55,163
Other contract-related provisions	96,880	4,066	107,259	10,410
Other provisions	25,597	19,584	23,188	26,226
	250,600	**130,383**	**278,575**	**156,355**

Other provisions include restructuring provisions and provisions for personnel adjustments totaling €29.1 million (previous year: €39.6 million).

Refund claims totaling €8.9 million (previous year: €6.9 million) associated with other provisions were capitalized.

Personnel-related provisions mainly comprise the phased retirement scheme ["Altersteilzeit"] 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	2019-09-30	Current	Non-current	2018-09-30*
Bonds	0	0	0	17,574	0	17,574
Bank loans	67,524	160,784	228,308	59,771	198,363	258,134
Financial liabilities from leases	178	259	437	213	438	651
Notes payable	853	0	853	1,405	0	1,405
Derivatives used to hedge financial transactions	856	9,025	9,881	57	1,772	1,829
Other loans and borrowings	39,685	120,289	159,974	46,759	116,812	163,571
	109,096	**290,357**	**399,453**	**125,779**	**317,385**	**443,164**

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	2019-09-30	2018-09-30
Euro	161,986	160,860
Chinese renminbi	32,735	45,136
Japanese yen	18,709	3,429
Norwegian krone	10,355	16,118
US dollar	73	17,648
Canadian dollar	4	21,108
Other currencies	4,446	11,409
	228,308	**275,708**

* Previous year restated (see section “Restatements of previous-year figures”).

23. Trade payables

Trade payables of €114 thousand (previous year: €7,616 thousand) are due after more than one year.

24. Other financial liabilities/other liabilities

Other financial liabilities

in € thousands	Current	Non-current	2019-09-30	Current	Non-current	2018-09-30
Derivatives used to hedge operational transactions	18,156	6,985	25,141	20,683	8,179	28,862
Personnel-related liabilities	99,182	11	99,193	93,218	62	93,280
Sundry financial liabilities	130,560	22,751	153,311	116,608	18,437	135,045
	247,898	**29,747**	**277,645**	**230,509**	**26,678**	**257,187**

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	2019-09-30	Current	Non-current	2018-09-30
Tax liabilities	54,525	12,713	67,238	52,537	12,292	64,829
Advances received	0	0	0	605,138	0	605,138
Prepaid expenses	1,337	2,583	3,920	7,609	5,989	13,598
Other liabilities	67,893	31,068	98,961	64,872	29,988	94,860
	123,755	**46,364**	**170,119**	**730,156**	**48,269**	**778,425**

Tax liabilities principally relate to sales taxes (VAT). As of the 2018/19 fiscal year, advances received are disclosed in contract liabilities.

Notes to the consolidated cash flow statement

			Non-cash changes				
in € thousands	2018-10-01	Cash changes	Changes arising from the acqui-sition/disposal of companies	Changes due to currency effects	Changes in fair values	Other effects	2019-09-30
Bonds	17,574	-17,926	0	649	-331	34	0
Bank loans	258,134	-34,034	2,620	1,478	0	110	228,308
Financial liabilities from leases	651	-231	0	0	0	17	437
Notes payable	1,405	-676	0	124	0	0	853
Derivatives used to hedge financial transactions	1,829	0	0	-198	8,250	0	9,881
Other loans and borrowings*	163,571	-3,687	3,397	623	-3,382	-548	159,974
	443,164	**-56,554**	**6,017**	**2,676**	**4,537**	**-387**	**399,453**
Other financial receivables	-28,200	-20,862	0	-3,225	1,098	76	-51,113
	414,964	**-77,416**	**6,017**	**-549**	**5,635**	**-311**	**348,340**

			Non-cash changes				
in € thousands	2017-10-01	Cash changes	Changes arising from the acqui-sition/disposal of companies	Changes due to currency effects	Changes in fair values	Other effects	2018-09-30*
Bonds	17,935	0	0	337	-702	4	17,574
Bank loans	418,347	-165,262	4,964	-419	0	504	258,134
Financial liabilities from leases	858	-207	0	0	0	0	651
Notes payable	1,151	240	0	14	0	0	1,405
Derivatives used to hedge financial transactions	19,341	0	0	-1,511	-16,001	0	1,829
Other loans and borrowings	176,247	10,103	121	-446	-19,193	-3,261	163,571
	633,879	**-155,126**	**5,085**	**-2,025**	**-35,896**	**-2,753**	**443,164**
Other financial receivables	-29,172	8,153	-219	1,864	1,368	-10,194	-28,200
	604,707	**-146,973**	**4,866**	**-161**	**-34,528**	**-12,947**	**414,964**

* Previous year restated (see section “Restatements of previous-year figures”).

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 Management GmbH.

The demarcation between segments differs from the most recent annual report with regard to the Digital Ventures Group Division, which was reported as Digital Solutions up to and including September 30, 2018, and 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 Group Division Digital Ventures mainly originates from transactions with the entities Ray Sono AG, FlowLink Systems Private Ltd. and with the Group's own IT service provider with external customers. Sales with other segments relates to digital support for the established Group Divisions. Digital Ventures' sales with third parties included in the established Group Divisions are stated in the segment information by business segment. The EBIT of the Group Division Digital Ventures reflects to a great extent the start-up costs for this new Group division.

EBIT adjusted for non-recurring items replaces profit from operations presented in previous years as the central performance indicator for the operating results. Reconciliation of EBIT adjusted for non-recurring items to result before taxes from the Group's continuing operations contains effects which are, as a rule, shown as other operating income and expenses in the consolidated statement of income on account of their operating nature. In the course of calculating EBIT, these items are adjusted as non-recurring effects in order to facilitate a better assessment of the segments' business operations.

As the business operations of Voith Composites SE & Co. KG and merQbiz LLC are treated as discontinued operations and as a consequence of the accounting error in the previous year that was subsequently identified, these issues were eliminated in the segment report and the previous-year figures adjusted accordingly; see section "Restatements of previous-year figures". 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, 2018.

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 profit from operations is obtained by adding operating interest income to EBIT.

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 receivables from customer-specific contracts.

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, 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, the Group Division **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 hydropower plants: from generators, turbines, pumps, automation systems and digital solutions for smart hydropower 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 in the paper industry, the Group Division **Paper** provides technologies, products and services for the entire paper manufacturing process, all from a single source. A constant stream of innovations allows the technology group to optimize the paper manufacturing process on an ongoing basis. Voith Paper focuses on developing resource-saving products which reduce the consumption of energy, water and fibers. Furthermore, the Group Division Paper offers a broad service portfolio for all sections of the paper manufacturing process. Furthermore, the Company's Papermaking 4.0 concept allows papermakers to link up their equipment in the best possible way and improve their competitiveness through effective and secure use of the data generated.

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

Voith **Digital Ventures** 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 in the 2016/17 fiscal year, develops innovative products and services with existing and new customers to advance the Industrial Internet of Things (IIoT) and to play a major role in the digitalization of plant and mechanical engineering. Digital Ventures plays a central role in digital innovations and applications for new markets as well as in the development and responsibility for existing and new digital venture activities.

Segment information by business segment

in € millions	Hydro 2018/19	Hydro 2017/18	Paper 2018/19	Paper 2017/18	Turbo 2018/19	Turbo 2017/18
Sales with third parties	1,147	1,103	1,660	1,746	1,398	1,302
· thereof attributable to Digital Ventures	112	101	104	98	70	68[5]
Sales with other segments	2	8	20	17	9	12
Segment sales, total	1,149	1,111	1,680	1,763	1,407	1,314
EBIT	50	61	111	102	76	75
Depreciation and amortization of property, plant and equipment and intangible assets[2]	19	21	45	45	36	38
Capital spending[3]	18	13	34	34	44	22
Segment goodwill	15	15	222	222	141	141
Average capital employed	469	454	624	627	706	681
ROCE	13.9%	16.0%	19.8%	18.2%	10.8%	11.1%
Employees[4]	3,766	3,927	6,646	6,618	5,600	5,543

[1] Sub-total of the segments Hydro, Paper and Turbo.
[2] Depreciation and amortization does not include depreciation and amortization recorded in the non-recurring result as it is not included in EBIT.
[3] Without additions due to business combinations and financial assets.
[4] Statistical headcount on reporting date.
[5] Previous year restated.

Total Core Business[1]		Digital Ventures		Reconciliation		Total	
2018/19	2017/18	2018/19	2017/18	2018/19	2017/18	2018/19	2017/18
4,205	4,151	62	40	9	18	4,276	4,209
286	267[5]	62	40	0	0	348	307[5]
31	37	216	163	-247	-200	0	0
4,236	4,188	278	203	-238	-182	4,276	4,209
237	238	-22	-35	0	-10	215	193
100	104	13	11	6	4	119	119
96	69	12	20	5	4	113	93
378	378	69	58	7	7	454	443
1,799	1,762	130	91	102	137	2,031	1,990
14.7%	14.9%	-16.7%	-39.4%			12.0%	10.9%
16,012	16,088	2,280	2,212	1,118	1,191	19,410	19,491

The other adjustments mainly consist of effects in the previous year from the handling of a warranty from previous periods.

Reconciliation of EBIT to the Group's result before taxes from continuing operations:

in € millions	2018/19	2017/18
EBIT	**215**	**193**
Non-recurring result	-41	-22
Other adjustments	1	-18
Share of profit/loss from companies accounted for using the equity method	-7	2
Interest income/expense	-26	-17
Other financial result	5	19
Result before taxes from continuing operations	**147**	**157**

Segment information by region

External sales (registered office of customer)

in € millions	Hydro 2018/19	Hydro 2017/18	Paper 2018/19	Paper 2017/18	Turbo 2018/19	Turbo 2017/18	Digital Ventures 2018/19	Digital Ventures 2017/18	Reconciliation 2018/19	Reconciliation 2017/18	Total 2018/19	Total 2017/18
Germany	20	22	316	209	337	315	28	4	8	13	709	563
Foreign countries	1,127	1,081	1,344	1,537	1,061	987	34	36	1	5	3,567	3,646
thereof Europe	275	260	422	472	480	435	7	18	0	0	1,184	1,185
thereof Americas	521	490	498	388	171	176	23	9	0	4	1,213	1,067
thereof Asia	279	281	408	664	341	299	4	9	0	0	1,032	1,253
· of which China	142	122	261	508	186	148	1	2	0	0	590	780
thereof others	52	50	16	13	69	77	0	0	1	1	138	141
	1,147	1,103	1,660	1,746	1,398	1,302	62	40	9	18	4,276	4,209

Non-current assets

in € millions	2019-09-30	2018-09-30
Germany	668	667
Foreign countries	789	752
thereof Europe	183	146
thereof Americas	263	259
· of which USA	198	192
thereof Asia	340	344
· of which China	276	285
thereof other	3	3
	1,457	**1,419**

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 in connection with the recognition of transfer prices outside Germany amounting to €5 million (previous year: €5 million) and risks from legal disputes of €84 million (previous year: €42 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 their economic situation.

Owing to the ongoing tax field audit of German companies, further changes may be made to tax items.

For information on obligations in connection with future business combinations, we refer to the section entitled “Subsequent events”.

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	2019-09-30	2018-09-30
Guarantee obligations	1,039	3,044
Warranties	0	451
Provision of collateral for third-party liabilities	500	1,000
	1,539	**4,495**

Most of the guarantee obligations expire in 2020.

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	2019-09-30	2018-09-30
Purchase commitments for capital expenditures	14,956	19,243
Obligations arising from non-cancelable operating leases	118,894	120,472
Other	80,699	86,696
	214,549	**226,411**

Assets leased under operating leases led to cash outflows totaling €47,149 thousand (previous year: €49,417 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	2019-09-30	2018-09-30
Nominal value of future minimum lease payments		
· due in less than one year	51,652	51,231
· due between one and five years	61,346	64,118
· due in more than five years	5,896	5,123
	118,894	**120,472**

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.

in € thousands	IFRS 9 measurement category	Carrying amount 2019-09-30	Amount recognized in the balance sheet in accordance with IFRS 9			Amount recognized in the balance sheet in accordance with IAS 17	Fair value 2019-09-30
			Amortized cost	Fair value through equity	Fair value through profit or loss		
Assets:							
Cash and cash equivalents	AC	417,874	417,874				417,874
Trade receivables	AC	657,084	657,084				657,084
Contract assets	n.a.	541,204	541,204				541,204
Other financial assets and securities		428,003					
· Financial investments	AC	354,051	354,051				354,051
· Loans	AC	9,261	9,261				9,261
· Investments (strategic)	FVOCI	20,627		20,627			20,627
· Investments (financial investments)	FVTPL	30,409			30,409		30,409
· Securities	FVOCI	13,655		13,655			13,655
Derivative financial instruments		12,350					
· Forward exchange contracts	FVTPL	1,373			1,373		1,373
· Forward exchange contracts (fair value hedges)	n.a.	10,977			10,977		10,977
Other receivables		130,544					
· Financial receivables	AC	40,727	40,727				40,727
· Sundry financial assets	AC	89,817	89,817				89,817
Liabilities:							
Trade payables	AC	531,647	531,647				531,647
Bonds/bank loans/notes	AC	229,161	229,161				236,597
Financial liabilities from leases	n.a.	437				437	
Derivative financial instruments		35,022					
· Forward exchange contracts	FVTPL	13,761			13,761		13,761
· Forward exchange contracts (fair value hedges)	n.a.	20,497			20,497		20,497
· Forward exchange contracts (cash flow hedges)	n.a.	764		764			764
Other loans and borrowings	AC	159,974	110,885	31,914	17,175		286,993
Sundry financial liabilities	AC	252,504	252,504				252,504

in € thousands	Carrying amount 2018-09-30*	IAS 39 Measurement category	IAS 39 Recognition method	IFRS 9 Measurement category	IFRS 9 Recognition method	IFRS 9 adjustment	Carrying amount 2018-10-01[1)]	Fair value 2018-09-30*
Assets:								
Cash and cash equivalents	341,691	LaR	Amortized cost	AC	Amortized cost		341,691	341,691
Trade receivables	687,984	LaR	Amortized cost	AC	Amortized cost	-1,211	686,773	687,984
Contract assets (until 2018-09-30: receivables from construction contracts)	342,215	LaR	Amortized cost	n.a.	Amortized cost	-4,909	337,306	342,215
Other financial assets and securities	721,669						721,669	
· Financial investments	616,154	LaR	Amortized cost	AC	Amortized cost		616,154	616,154
· Loans	8,628	LaR	Amortized cost	AC	Amortized cost		8,628	8,628
· Investments (strategic)	61,955	AfS	Cost	FVOCI	Fair value through equity		61,955	
· Investments (financial investments)	21,425	AfS	Fair value through equity	FVTPL	Fair value through profit or loss		21,425	21,425
· Securities	13,507	AfS	Fair value through equity	FVOCI	Fair value through equity		13,507	13,507
Derivative financial instruments	12,780						12,780	
· Forward exchange contracts	4,058	FAHfT	Fair value through profit or loss	FVTPL	Fair value through profit or loss		4,058	4,058
· Forward exchange contracts (fair value hedges)	8,391	n.a.	Fair value through profit or loss	n.a.	Fair value through profit or loss		8,391	8,391
· Interest rate swaps (fair value hedges)	331	n.a.	Fair value through profit or loss	n.a.	Fair value through profit or loss		331	331
Other receivables	94,584						93,382	
· Financial receivables	8,177	LaR	Amortized cost	AC	Amortized cost		8,177	8,177
· Sundry financial assets	86,407	LaR	Amortized cost	AC	Amortized cost	-1,202	85,205	86,407
Liabilities:								
Trade payables	510,585	FLAC	Amortized cost	AC	Amortized cost		510,585	510,585
Bonds/bank loans/notes	277,113	FLAC	Amortized cost	AC	Amortized cost		277,113	291,736
Financial liabilities from leases	651	n.a.	IAS 17	n.a.	IAS 17		651	
Derivative financial instruments	30,691						30,691	
· Forward exchange contracts	6,561	FLHfT	Fair value through profit or loss	FVTPL	Fair value through profit or loss		6,561	6,561
· Forward exchange contracts (fair value hedges)	24,130	n.a.	Fair value through profit or loss	n.a.	Fair value through profit or loss		24,130	24,130
Other loans and borrowings	163,571	FLAC	Amortized cost	AC	Amortized cost		163,571	186,148
Sundry financial liabilities	228,325	FLAC	Amortized cost	AC	Amortized cost		228,325	228,325
IAS 39 measurement categories:								
Loans and receivables (LaR)	2,091,256	LaR						
Available for sale (AfS)	96,887	AfS						
Financial assets held for trading (FAHfT)	4,058	FAHfT						
Financial liabilities measured at amortized cost (FLAC)	1,179,594	FLAC						
Financial liabilities held for trading (FLHfT)	6,561	FLHfT						

* Previous year restated (see section "Restatements of previous-year figures").
[1)] Without first-time adoption of IFRS 15.

Fair value hierarchy for the financial assets and liabilities recognized at fair value listed in the table above:

in € thousands	2019-09-30	Level 1	Level 2	Level 3
Assets				
Securities	13,886	13,886	0	0
Derivative financial instruments	12,350	0	12,350	0
Investments	50,805	0	0	50,805
Equity and liabilities				
Derivative financial instruments	35,022	0	35,022	0
Liabilities arising from the acquisition of investment shareholdings	49,089	0	0	49,089

in € thousands	2018-09-30	Level 1	Level 2	Level 3
Assets				
Securities	13,507	13,507	0	0
Derivative financial instruments	12,780	0	12,780	0
Investments	21,425	0	0	21,425
Equity and liabilities				
Derivative financial instruments	30,691	0	30,691	0
Liabilities arising from the acquisition of investment shareholdings	37,612	0	0	37,612

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 is no observable market data.

No reclassifications were made between the levels of the fair value hierarchy in the 2018/19 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 the term structure of interest rates. 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.

€30 million (previous year: €21 million) of the investments allocated to level 3 of the fair value hierarchy relate to those held by the Group as investments with a view to generating income. These investments are therefore measured at fair value through profit or loss (FVTPL). The fair values of the investments as at September 30, 2018, were determined by firstly calculating the fair value for each investment resulting in each case from the total of the shares held and cash and cash equivalents available as at the measurement date. The equity value of the respective investment is determined on the basis of a market-oriented measurement approach, the multiplier method, and is calculated in each case from the total value of the Company less the net financial position. In the present case, multipliers derived from representative external transactions are used, taking account of current developments up to the measurement date. These multipliers are multiplied by the average of operating results (EBITDA) achieved in the past in relation to the total enterprise value. In a second step, the fair values of the investments attributable to Voith are calculated in accordance with the existing ownership structure.

The Group intends to hold investments of €21 million (previous year: €62 million) allocated to level 3 of the fair value hierarchy over the long term for strategic purposes and has exercised the OCI option for these equity instruments. They are consequently measured at fair value through other comprehensive income (FVOCI). Until September 30, 2018, these investments were classified as available for sale and measured at amortized cost on the basis of the exception contained in IAS 39.46(c). No dividends were recognized in profit or loss from the equity investments designated as FVOCI in the 2018/19 fiscal year.

This essentially relates to an investment of €10 million (previous year: €55 million) in the Digital Ventures business segment. The fair value of this investment was determined on the basis of current planning applying the discounted cash flow method. The planning assumptions are adjusted to reflect the current information available. A risk-adjusted discount rate (WACC) was used for discounting.

A rise (fall) in the projected figures or falling (rising) interest rates give rise to an increase (decrease) in the fair value of the investment.

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 as well as contractually agreed purchase price installments from future acquisitions of shares. The fair values were determined on the basis of the current planning prepared by management using the discounted cash flow method. The planning assumptions are adjusted to reflect the current information available. A risk-adjusted discount rate (WACC) was used for discounting. Agreements concluded under company law generally contain a fixed formula for calculating the purchase price in the event of the put options being exercised. In this respect, the purchase prices result from the gross business values of the investments determined using the multiplier method in accordance with a contractually agreed definition, minus the net debt, multiplied by the non-controllers' shareholdings. If the put options can be exercised only at a later date, the purchase prices are discounted to the reporting date using an interest rate (WACC) appropriate for the term involved.

If the business value of the underlying companies were to increase (decrease), this would lead to an increase (decrease) in the liabilities from the acquisition of investment shareholdings.

The changes in the fair values of assets and liabilities classified as level 3 in the fair value hierarchy were as follows:

in € thousands	2019-09-30	2018-09-30
Balance, October 1	**-16,187**	**-22,081**
Change in valuation policy according to IFRS 9	61,956	0
Acquisition of investments	16,181	0
Disposal of investments realized	-248	-21,600
Put options from business combinations	-3,397	0
Change in valuation policy	0	20,378
Exercise of call option	0	3,500
Liabilities from acquisition of investments	0	-5,200
Fair value changes of the investments recorded in the financial result	-1,886	-1,590
Fair value changes in liabilities from the acquisition of investment shareholdings recorded in the financial result	-1,678	3,600
Fair value changes in the investments recorded in other comprehensive income	-45,183	2,637
Fair value changes in liabilities from the acquisition of investment shareholdings recorded in other comprehensive income	-6,402	4,169
Currency effects and other adjustments	-1,440	0
Balance, September 30	**1,716**	**-16,187**

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 market value of the note loan of €168 million (previous year: €175 million) is calculated in the same way as the market values of unlisted bonds, bank loans and other financial liabilities as the present value of the payments associated with the liabilities, based on the effective yield curve and Voith GmbH & Co. KGaA's credit spread curve determined for different currencies (fair value hierarchy level 2).

The market value of other financial liabilities totaling €178 million (previous year: €94 million) was determined 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 recognized in profit or loss for each measurement category of financial instruments:

2018/19

in € thousands	Impairment	Other net gains/losses	Total
Financial assets measured at amortized cost (AC)	-2,151	34,200	32,049
Financial assets measured at fair value through other comprehensive income (FVOCI)	0	330	330
Financial assets measured at fair value through profit or loss (FVTPL)	-1,893	-14,215	-16,108
Financial liabilities measured at amortized cost (AC)	0	-22,622	-22,622

2017/18

in € thousands	Impairment	Other net gains/losses	Total
Loans and receivables (LaR)	-8,872	15,015	6,143
Available-for-sale financial assets	-1,801	742	-1,059
Financial assets held for trading	0	6,145	6,145
Financial liabilities measured at amortized cost	0	-37,648	-37,648

For details of net gains and losses from financial assets recognized in other comprehensive income we refer to note 19.

Impairment losses recognized on financial assets measured at amortized cost (AC) (in previous year: "loans and receivables" category) mainly relate to trade receivables. In the previous year, impairment losses in the category "available-for-sale financial assets" primarily related to investments that have seen a significant decline in fair value.

All interest income and interest expenses for financial assets or financial liabilities relate to those assets or liabilities measured at amortized cost.

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 2019-09-30	Volume that can potentially be offset under master netting agreements	Potential net amount
Assets			
Derivative financial instruments	12,350	8,531	3,819
Equity and liabilities			
Derivative financial instruments	35,022	8,531	26,491

in € thousands	Gross presentation balance sheet 2018-09-30	Volume that can potentially be offset under master netting agreements	Potential net amount
Assets			
Derivative financial instruments	12,780	7,983	4,797
Equity and liabilities			
Derivative financial instruments	30,691	7,983	22,708

Collateral

As at the reporting date, the financial assets include non-current securities totaling €8,312 thousand (previous year: €8,955 thousand) that are used to cover future pension obligations. Furthermore, €251 thousand of the sundry financial assets (previous year: €163 thousand) has been provided 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.

Assets of €1,612 thousand (previous year: €3,905) have been provided as collateral for financial liabilities.

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 position 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. Corporate Finance, a corporate department 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 its current risk exposures. Certain financial transactions require special approval by the Corporate Board of Management. Long-term refinancing is also obtained by Voith GmbH & Co. KGaA.

Simple derivative financial instruments are used to limit the currency and interest rate 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. The low credit risk exemption is applied in this context. Voith allocates cash investments to business partners with investment grade ratings. In addition, all counterparties are continually monitored using a risk management system based on CDS rates.

Trade receivables:

Credit risk arising from the delivery of goods and services stems from counterparty risks, manufacturing risks and political default risks. Management of these risks is governed by rules that are binding throughout the Voith Group. The maximum default risk is limited to the carrying amount of trade receivables, which is €657,084 thousand (previous year: €687,984 thousand). The maximum default risk for contract assets is €541,204 thousand (previous year adjusted: €342,215 thousand). Based on the collateral held, the maximum default risk for trade receivables is reduced by €110,875 thousand (previous year: €89,677 thousand) and that for contract assets by €44,819 thousand (previous year: €12,002 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 default risks with a Euler Hermes Country Risk Level of 3 or higher must, as a rule, 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), in the private insurance market or by means of bank products.

The new impairment model in IFRS 9 involves a risk allowance for expected credit losses (ECL), which constitutes a shift away from recognition on the basis of losses incurred, as was previously the case. This means that the accounting method moves closer to forward-looking credit risk management and necessitates a model for measuring expected credit losses on trade receivables and, most recently, also for contract assets that take account of macroeconomic factors ("forward-looking information"). IFRS 9 does not contain any regulations on the specific design of the model.

IFRS 9 does not permit mere extrapolation of credit losses observed in the past, which means that a certain likelihood of default exists even for customers who have always had a first-class rating.

Voith uses a simplified evaluation model in which determination of the ECL is based on probabilities of default observable in the capital market and that are applied in each case to the portfolio of receivables and the contract assets (exposure) for each individual region and Group Division. In this context, allocation of total exposure to the relevant regions is derived from the regional distribution of sales in the past fiscal year. Market-orientated probabilities of default for the relevant regions and Group Divisions are derived on the basis of the corresponding credit default swap (CDS) rates that reflect the future expected credit losses. CDSs are credit derivatives where the risk of default of loans or bonds are traded. Any impaired and hedged receivables still contained in the exposure are taken into account as necessary.

In principle, expected credit losses should be determined at the level of individual instruments, but, for the purpose of simplification, clustering is deemed permissible and is customary in practice. With regard to clustering, it should be noted that the clusters must be comprised of financial instruments with homogeneous characteristics. In this respect, the assumption is made that each of the outstanding receivables have similar risk features and are thus subject to similar default probabilities. Voith performs clustering according to the Group Divisions Hydro, Paper, Turbo, Digital Ventures and Others, and according to geographical regions.

The following structure of external default risk rating classes is derived from the ECL model:

2019-09-30 in € thousands	External rating	Breakdown receivables	Gross carrying amount[1]	Impairment loss	Net carrying amount	Loss rate
Low risk	**AAA to BBB-**	88%	1,160,331	-3,348	1,156,983	0.29%
Medium risk	**BB+ to BB-**	9%	114,131	-594	113,537	0.52%
High risk	**B+ to B-**	3%	38,044	-11,067	26,977	29.09%

The impairment model applied is based on an event of default of the receivable after a maturity of 365 days.

Prior to application of the model at Group level, the Voith companies examined the portfolio of receivables with regard to objective evidence of impairment, such as delayed payment on the part of the debtor for no apparent reason, significant levels of debt or breach of contract. The gross carrying amount of the impaired receivables from customers is ultimately derecognized when the debtor has become insolvent and insolvency proceedings have been opened.

With respect to credit risk arising from the Group's other financial assets, which comprise cash and cash equivalents, other 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.

In the previous year, financial assets contained the following credit risks:

2018-09-30			thereof not impaired but past due at the reporting date by:		
in € thousands	**Gross value**	thereof neither impaired nor past due	less than 90 days	between 90 and 180 days	more than 180 days
Trade receivables	**739,647**	518,319	98,983	62,330	24,724
Other financial assets and securities	**773,386**	712,442			
Other financial receivables	**121,150**	107,026	2,618	512	1,740

[1] Gross carrying amount less individual impairments and without deduction of provisions on the assets side.

In contrast, the carrying amounts of cash and cash equivalents, receivables from construction contracts and derivatives were 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 euro loan of €770 million was refinanced in April 2018 and adjusted to €550 million. It remains available until 2024, with one further renewal option until 2025. 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 syndicated loan in China was refinanced in 2019 and matures in 2024. It secures the finance for the operating business on the local market in the same currency as business operations. No funds were drawn from this facility over the year under review.

The credit facilities are subject to the 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 full in the 2018/19 fiscal year. The ratings given by the rating agencies Moody's, S&P and Scope remain unchanged at Baa3, BBB- and BBB, respectively, with a stable outlook in each case.

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. Corporate Finance 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	2019-09-30	Cash flows < 1 year	Cash flows 1–5 years	Cash flows > 5 years
Trade payables	531,647	531,558	25	234
Bonds/bank loans/notes	229,161	72,665	146,909	22,258
Financial liabilities from leases	437	189	265	0
Other loans and borrowings	159,974	39,690	25,108	95,133
Other financial liabilities	252,504	229,739	22,678	84
Derivative financial instruments	35,022			
· Outflows		270,792	175,357	14,939
· Inflows		-251,081	-163,817	-16,262
	1,208,745	**893,552**	**206,525**	**116,386**

in € thousands	2018-09-30*	Cash flows < 1 year	Cash flows 1–5 years	Cash flows > 5 years
Trade payables	510,585	502,969	7,775	0
Bonds/bank loans/notes	277,113	84,317	188,438	22,887
Financial liabilities from leases	651	229	455	0
Other loans and borrowings	163,571	47,280	18,120	98,725
Other financial liabilities	228,325	209,826	17,926	573
Derivative financial instruments	30,691			
· Outflows		293,178	112,955	305
· Inflows		-273,658	-98,077	-339
	1,210,936	**864,141**	**247,592**	**122,151**

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 Corporate Finance 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 are hedged. Major balance sheet items and orders are hedged individually within the framework of hedge accounting (full fair value method). Based on this, the foreign currency risk essentially corresponds to the nominal value of the forward exchange contracts.

* Previous year restated (see section “Restatements of previous-year figures”).

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. The Group uses the dollar offset and critical term match method to assess whether the derivative designated in each hedge will probably be effective and has been effective. As a result, fluctuations in the exchange rate do not affect profit or loss, nor do they influence project costing.

Main causes for these hedges being ineffective can be firstly the impact of the credit risk of the counterparties and the Group on the fair value of the forward exchange contracts that are not reflected in the change in the fair value of the hedged cash flows and that are attributable to the change in the exchange rates, and secondly changes in the timing of the hedged transaction.

In the Voith Group, derivative financial instruments are traded externally by Corporate Finance on behalf of Group companies. Group companies in countries subject to foreign exchange restrictions hedge their currency risks locally. A Group-wide treasury management software tool is used for central scheduling, monitoring and documentation of all foreign currency hedges entered into by Corporate 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 net result and consolidated equity are as follows: if the US dollar falls by 5%, the result before taxes increases by €10,512 thousand (previous year: increase of €6,442 thousand) and other comprehensive income decreases by €1,579 thousand (previous year: €0). If, on the other hand, the US dollar rises by 5%, the result before taxes decreases by €10,512 thousand (previous year: decrease of €6,442 thousand) and other comprehensive income increases by €1,579 thousand (previous year: €0).

Interest rate risk:
The Voith Group's exposure to interest rate risks arising from external refinancing is analyzed and managed centrally by Corporate Finance. 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 note loan and a variety of bank loans.

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:

2019-09-30 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	417,874	0	0	0	0	0	**417,874**
Bank loans	67,524	0	0	0	0	0	**67,524**
Fixed interest rate							
Bank loans	0	101,905	0	37,931	0	20,948	**160,784**

2018-09-30 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	341,691	0	0	0	0	0	**341,691**
Bonds	17,574	0	0	0	0	0	**17,574**
Bank loans	59,771	37,690	0	0	0	0	**97,461**
Fixed interest rate							
Bank loans	0	0	101,823	0	37,910	20,940	**160,673**

If the market rate of interest had been 100 basis points higher (lower) at September 30, 2019, gains/losses from the significant floating-rate financial instruments would have been €3.5 million higher (lower) (previous year: €2.3 million higher (lower)). This effect chiefly originates from euro-denominated floating-rate financial instruments of €1.4 million (previous year: €0.6 million).

Risks relating to securities and stock prices:
The Voith Group holds securities in the "at fair value through other comprehensive income" (FVOCI) measurement category (previous year: available for sale) of €14 million (previous year: €14 million). 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 Corporate Finance to limit any latent commodity price risks. The Group had no commodity contracts during the fiscal year.

Hedge relationships:
The following items are used to hedge foreign exchange and interest rate risks:

2019-09-30	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)	433,653	295,591	8,211	2,766	13,297	7,200
Forward exchange contracts (cash flow hedges)	17,290	0	0	0	764	0
Other derivatives	170,395	37,793	1,267	106	4,951	8,810
	621,338	**333,384**	**9,478**	**2,872**	**19,012**	**16,010**

2018-09-30	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)	394,499	210,029	4,662	3,729	16,347	7,783
Interest rate swaps (fair value hedges)	17,270	0	331	0	0	0
Other derivatives	195,676	59,420	2,569	1,489	4,393	2,168
	607,445	**269,449**	**7,562**	**5,218**	**20,740**	**9,951**

Positive market values are disclosed at the reporting date as other financial assets and negative market values as financial liabilities (in the case of financial transactions) or as other financial liabilities (in the case of operational transactions).

[1] Nominal values refer to the volume of the hedged transaction in the local currency, translated at the closing rate.

The market values of the forward exchange contracts were determined as present values of the cash flows taking account of the respective contractually agreed forward rates and the forward rate on the reporting date. The average rates of the forward exchange contracts entered into for material currency pairs are as follows as at September 30, 2019:

	Average hedged rates	
	< 1 year	> 1 year
EUR/USD	1.2209	1.2766
EUR/BRL	4.4461	6.4411
EUR/CNY	8.3182	8.5960
USD/BRL	4.0911	4.2979
USD/CNY	6.8844	7.1067
USD/INR	72.4805	76.3600

Fair value hedges:
The Group uses fair value hedges primarily to hedge interest rate and foreign exchange risks.

In the 2018/19 fiscal year, a gain of €5,888 thousand was recorded on derivative financial instruments classified as fair value hedges (previous year: a loss of €48,877 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.

The following table presents the measurement effects of the underlying hedged transactions ("firm commitments") and the change in the value of the underlying transactions that are used as a basis for determining whether the hedge is ineffective. The change in the value of the hedging instruments that were used as a basis for determining whether the hedge is ineffective corresponds to the change in value of the underlying hedged transactions.

	Balance sheet item		
2019-09-30 in € thousands	Sundry financial assets	Financial liabilities/ sundry financial liabilities	Change in the value of the underlying hedged transactions that were used as a basis for determining whether the hedge is ineffective
Firm commitments	16,471	6,926	9,520

There were no effects on profit or loss from ineffective hedges in the 2018/19 and 2017/18 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, 2019, there were cash flow hedges in place (previous year: none) that are subject to currency risks.

Hedge relationships designed to hedge cash flows from forecast sales transactions were classified as highly effective. Accordingly, an unrealized loss of €764 thousand was recognized within consolidated equity in other reserves as at September 30, 2019.

The following table presents the measurement effects of the underlying hedged transactions ("forecast transactions") and the change in the value of the underlying transactions that are used as a basis for determining whether the hedge is ineffective. The change in the value of the hedging instruments that were used as a basis for determining whether the hedge is ineffective corresponds to the change in value of the underlying hedged transactions.

2019-09-30 in € thousands	Change in the fair values of the underlying transactions	Hedge reserve	Change in the value of the underlying hedged transactions that were used as a basis for determining whether the hedge is ineffective
Forecast transactions	-923	-764	-923

There were no effects on profit or loss from ineffective hedges in the 2018/19 and 2017/18 fiscal years.

Over the course of the 2018/19 fiscal year no hedged transactions were realized by transfer of the relevant accumulated gains and losses from other reserves to profit or loss (previous year: loss of €1,873 thousand). €159 thousand (previous year: €0) was taken into account in the cost of inventories.

Research and development costs

In the 2018/2019 fiscal year, research and development costs totaled €212,674 thousand (previous year: €225,359 thousand).

Of this amount, development costs of €13,615 thousand (previous year: €12,862 thousand) were capitalized in the balance sheet. The remaining costs represent activities for non-customer-specific new developments and improvements of €141,266 thousand (previous year: €161,527 thousand) and development activities of €57,793 thousand (previous year: €50,970 thousand) capitalized for customer-specific contracts.

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 €651 thousand (previous year: €772 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	2018/19	2017/18
Liabilities to family shareholders	11,786	16,320
Services purchased from associates	556	1,447
Services rendered to associates	116	95
Receivables from associates	2,581	2,625
Liabilities to associates	636	718
Services purchased from other investments	4,053	4,146
Services rendered to other investments	10,258	12,947
Receivables from other investments, including advances paid	8,929	8,609
Impairment of receivables from other investments	-385	-1,723
Liabilities to other investments and to Voith Management GmbH	25,363	22,692
Services purchased from joint ventures	4,016	9,952
Services rendered to joint ventures	1,097	2,313
Receivables from joint ventures	729	15,208
Liabilities to joint ventures	656	741
Services purchased from the ultimate parent company	14,399	13,672
Services rendered to the ultimate parent company	1,367	1,246
Receivables from the ultimate parent company	7	333
Liabilities to the ultimate parent company	9,207	9,049

Liabilities to family shareholders include current floating-rate clearing accounts and pension obligations.

For more information on the profit participation rights of €103,400 thousand (previous year: €103,400 thousand) granted to family shareholders, please refer to note 19.

In the 2018/19 fiscal year, guarantees of €1,021 thousand (previous year: €2,999 thousand) were issued in favor of other investments.

The Group has obligations under outstanding orders with the ultimate parent amounting to €255 thousand (previous year: €4,518 thousand). There are no obligations under outstanding orders with joint ventures in the current fiscal year (previous year: €14,718 thousand).

Capital increases totaling €25,685 thousand were made in favor of associates (previous year: €0).

Compensation of governing bodies

The compensation for members of the Board of Management of Voith GmbH, including pension expenses, totaled €18,862 thousand in the fiscal year (previous year: €12,359 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 amount includes short-term benefits totaling €6,842 thousand (previous year: €11,248 thousand), post-employment benefits of €1,114 thousand (previous year: €1,111 thousand) and termination benefits pursuant to IAS 24 of €10,906 thousand (previous year: €0).

The compensation for members of the Board of Management under commercial law totaled €6,220 thousand (previous year: €10,242 thousand).

As a consequence of bringing together the Corporate Board of Management at Voith Management GmbH, the pension commitments to this group of individuals existing prior to their appointment to the Voith Corporate Board of Management was transferred to Voith Management GmbH at the respective fulfillment amount under commercial law. On this basis, a further fulfillment amount of €1,648 thousand was transferred in the 2018/19 fiscal year.

The present value as at September 30, 2019 of the defined benefit obligations to the Corporate Board of Management at Voith Management GmbH amounted to €16,194 thousand (including entitlements from deferred compensation). There are plan assets totaling €3,126 thousand.

The present value of defined benefit obligations toward past members of the Board of Management total €86,902 thousand (previous year: €78,774 thousand). Of these amounts, €3,509 thousand (previous year: €3,387 thousand) relates to obligations on the part of the former parent of the Group, J.M. Voith SE & Co. KG, toward past members of the Corporate Board of Management.

Plan assets for former members of the Board of Management total €34,128 thousand (previous year: €34,128 thousand).

These amounts are included in note 20.

The compensation for past members of the Board of Management totaled €5,136 thousand (previous year: €4,850 thousand). Of this amount, €512 thousand (previous year: €561 thousand) relate to compensation for the members of the Board of Management of 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 €379 thousand (previous year: €470 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 2018/19 fiscal year:

in € thousands	2018/19	2017/18
Annual audit	2,729	2,767
Other assurance or valuation services	43	10
Tax advisory services	637	1,737
Other services	33	15
	3,442	**4,529**

Subsequent events; members of the Board of Management who have resigned

In October 2019, we announced that we are planning to concentrate production in the Group Division Turbo to a smaller number of larger locations. In particular, the planning provides for the closure of three locations in Germany and for the existing production capacities to be transferred to other locations. This will involve, on balance, the loss of 230 jobs, around 370 further jobs are to be relocated to other facilities. The objective is to create centralized, more efficient locations that bring together substantial shares of production. The background to this decision is the fact that the Group Division Turbo is increasingly faced with competitive and margin pressure. At the same time, there is, not least due to a technological and structural shift in the mobility and industry markets, increasing need for investment to safeguard our position as technology and innovation leader in the industries served by Voith Turbo. We are currently holding negotiations with the employees' representatives and are planning to implement the measures by the end of 2020.

Dr. Roland Münch, Chairman of the Management Board of Voith Digital Ventures and member of the Corporate Board of Management, resigned from both positions as of October 31, 2019. Matthias Lindemann, to date Chief Financial Officer of Digital Ventures, will assume the role of Chairman of the Management Board on an interim basis until a suitable successor has been found for the position.

On September 18, 2019, Voith signed an agreement for the purchase of BTG for a total of €319 million. BTG is a multinational provider of integrated, highly specialized process solutions for the global pulp and paper industry. With some 600 employees, it will strengthen Voith's position as a full-line supplier in the future. Following approval by the antitrust authorities granted in November 2019, the transaction will be closed in December 2019. In the future, BTG will be fully consolidated in the financial statements.

No additional significant developments have occurred since the close of the 2018/19 fiscal year.

Corporate Board of Management

The following were appointed members of the Board of Management of Voith Management GmbH in the 2018/19 fiscal year and later:

Dr. Toralf Haag
Egon Krätschmer
Andreas Endters
Dr. Uwe Knotzer
Dr. Roland Münch (until October 31, 2019)
Uwe Wehnhardt

Heidenheim an der Brenz, November 27, 2019

The Board of Management of Voith Management GmbH

Dr. Toralf Haag
Egon Krätschmer
Andreas Endters
Dr. Uwe Knotzer
Uwe Wehnhardt

The German language consolidated financial statements of Voith GmbH & Co. KGaA as at September 30, 2019, as authorized for issue and the unqualified audit opinion issued thereon by KPMG Wirtschaftsprüfungsgesellschaft, Munich will be filed 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 27, 2019

The Board of Management of Voith Management GmbH

Dr. Toralf Haag
Andreas Endters
Uwe Wehnhardt
Egon Krätschmer
Dr. Uwe Knotzer

Contact

Voith Group
Phone: +49 7321 37 0
Fax: +49 7321 37 7000
E-mail: info@voith.com

Group Communications
Phone: +49 7321 37 2864
Fax: +49 7321 37 7107
E-mail: info@voith.com

Investor Relations
Phone: +49 7321 37 2332
Fax: +49 7321 37 7010
E-mail: info@voith.com

Imprint

Publisher
Voith Group
Voith GmbH & Co. KGaA
St. Pöltener Str. 43
89522 Heidenheim, Germany
Phone: +49 7321 37 0
Fax: +49 7321 37 7000

Editing/Text
Seipp Kommunikationsberatung,
Köln

Typography
G2 Printmedienmanufaktur GmbH,
Grafing bei München

Photo Credits
Thomas Dashuber,
München

Printing
Eberl Print GmbH,
Immenstadt

Environmentally friendly production

FSC®
The paper used for the Voith Annual Report, ProfiBulk 1.1 FSC MIX Credit, has been certified according to the international FSC® standard. Materials from FSC® certified forests and controlled sources are used in its production. At least 70 percent of the material used in this context is FSC® certified.

Carbon compensation
Voith records all CO_2 emissions produced in the course of printing and processing the annual report. By making a proportionately equal investment in a Gold Standard climate project, the corresponding CO_2 emissions will be saved in the future and the carbon footprint left by the annual report compensated for in this way.

FSC
www.fsc.org
MIX
Paper from responsible sources
FSC® C002727

carbon neutral
natureOffice.com | DE-141-992224
print production

This annual report is also available in German. Both versions, as well as other information, can be downloaded at www.voith.com.

Printed in Germany

VOITH

Inspiring Technology
for Generations