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VOITH

2020 Sustainability Report

Contents

Foreword

Dear Readers,

We look back on an eventful and very challenging fiscal year. The COVID-19 pandemic affected all of our lives and Voith's business activities were no exception – hardly any business sector has escaped its impacts. The crisis presented Voith, like many other companies, with completely new challenges which overall we have mastered well.

At the onset of the COVID-19 pandemic it was necessary to react quickly and pragmatically to the new situation, and create safe working conditions in all areas of the company. We had to develop operational hygiene concepts and fundamentally change the way we work – in production, in our service organization, and in our offices. Particular attention was required to secure our global supply chains.

While the battle to counter the impacts of the pandemic still determines our day-to-day business, we are keeping our long-term strategy firmly in view. After all, it is important to make Voith fit for the future, especially for the post-pandemic period. Sustainability is the key to achieving this – in all areas of business activity.

We want to create sustainable technologies for future generations. This ambition shapes our self-understanding as a company. Renewable energy from hydropower, resource-saving paper production, and drive technology for efficient and environmentally friendly mobility: In each of our business areas, we aim to be a pioneer and performance leader and to be among the leaders in terms of sustainability. Last but not least, we keep a watchful eye on our supply chains and continuously evaluate our suppliers' performance and sustainability standards.

We have been working consistently for many years to improve sustainability performance within our company itself. With the aim of making Voith CO_2-neutral as early as 2022, we are once again setting an example and at the same time defining the benchmark for our future actions. We are well on track to achieving this goal: From 2022 onwards, no Voith site worldwide will have a CO_2 footprint.

Maintaining the highest occupational safety and health standards is a matter of course for us. We are already one of the leading companies in our sector today in this regard. By taking responsibility for our employees in these areas we are increasing the resilience of our company, especially during the current pandemic. Here too, sustainability is future-proofing.

This Sustainability Report offers numerous examples of our commitment and the current status of our activities. It shows once again that even in difficult times, we stand by our ambition to make Voith the industry leader in sustainability. Despite all the challenges, we achieved a great deal in the 2019/20 fiscal year. You may rest assured that although our efforts to counter the effects of the pandemic are currently the dominant topic, Voith is pursuing its charted course on sustainability. With our broad technological know-how and deep market expertise, we want to become a driving force and co-creator of a decarbonized industry in the digital age – and thereby actively shape our own future.

"We want to become a driving force and co-creator of a decarbonized industry in the digital age."
Dr. Toralf Haag

I am delighted that you are accompanying our company on this journey, and wish you an informative and stimulating read!

Sincerely yours,

Dr. Toralf Haag
President and CEO

01 Strategy & Integrity

1.1 Our Profile

The Voith Group is a globally active technology group and at the same time is one of Europe's largest family-owned companies. Through our broad portfolio of production plants, products, industrial services, and digital applications, we set standards in the Energy, Oil & Gas, Paper, Raw Materials, and Transport & Automotive markets. At Voith we define business success as a constant, long-term undertaking. From our company's very beginning, the way we conduct business has always been geared towards sustainable, profitable growth. Our shareholders, the Supervisory Board, and the Voith Corporate Board of Management are jointly committed to developing the company in an economically, environmentally, and socially sustainable way. Clearly defined values serve as our compass, and sustainability is one of them.

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We develop sustainable technologies to preserve the fundamental viability of future generations. At the same time, we secure the long-term future of Voith by ensuring our stability and independence through profitable growth, thus reconciling our business success with our responsibility towards society and the environment.

Overview of the Group

Voith is represented at locations in over 60 countries and maintains a comprehensive network of production, service, and sales units on every continent. Voith GmbH & Co. KGaA, headquartered in Heidenheim an der Brenz, Germany, is the operative management holding company as well as parent company of the Group. The Group's core corporate functions are also concentrated within it. The Corporate Board of Management of Voith Management GmbH is responsible for the strategic and operational management of the Voith Group. Voith Management GmbH, which like Voith GmbH & Co. KGaA is 100 % family-owned, manages the businesses of Voith GmbH & Co.

The General Managers of Voith Management GmbH are appointed by the Shareholders' Committee of Voith KGaA as the personally liable shareholder. The Supervisory Board is the supervisory body of Voith GmbH & Co. KGaA.

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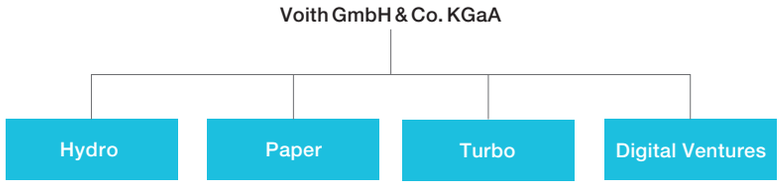
Voith's operating business is organized into three Group Divisions:

- The Group Division Voith Hydro is a leading full-line supplier for equipping hydropower plants, providing customized, long-term solutions and services covering the entire plant lifecycle and all major components for large and small hydropower plants.
- The Group Division Voith Paper is a leading full-line supplier and a pioneer in the paper industry. Thanks to constant innovation, Voith Paper continually optimizes the paper production process and enables resource-efficient production.
- The Group Division Voith Turbo provides intelligent drive components, systems, and tailored services to customers from highly diverse industries such as oil & gas, energy, mining and mechanical engineering, ship technology, as well as rail and commercial vehicles.

The Group Function Voith Digital Ventures combines the Voith Group's long-standing development, digitalization, and IT expertise with the Group's comprehensive know-how in hydropower, paper machines, and drive solutions. As a cross-disciplinary function for Voith, this Group Function drives the development of new digital products and services, as well as the digitization of internal business processes. In order to play a decisive role in shaping the digitalization of mechanical and plant engineering, Voith is driving the Industrial Internet of Things (IIoT). Voith Digital Ventures takes on a central role in digital innovations and applications for new markets; it also drives development and takes responsibility for existing and new digital venture activities.

Organizational structure
Voith Group Divisions



Management System

The key financial performance indicators used by the Voith Group are the development of orders received and sales revenue, as well as Earnings before Interest and Taxes (EBIT) and Return on Capital Employed (ROCE).

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Business Development 2019/20

The Voith Group looks back on a particularly challenging fiscal year 2019/20, which was overshadowed by the outbreak of the COVID-19 pandemic and the global recession this triggered. Voith nevertheless proved robust during the crisis: Thanks to its broad sectoral and geographical positioning, regional supply chains and solid balance sheet, the company has survived the crisis comparatively well so far, very largely maintaining its business operations and production in the reporting year.

Incoming orders in the 2019/20 financial year amounted to € 4,036 million. This is 14 % below the very high figure for the previous year, which was influenced by winning a major hydropower project. Sales revenue also fell to € 4,173 million (–3 %) against the backdrop of the global recession.

Voith continued to operate profitably despite the pandemic restrictions, even though all earnings key figures are lower than in the previous year. EBIT fell by 33 % to € 139 million, with return on sales (3.3 %, previous year 4.8 %) and ROCE (7.5 %, previous year 11.5 %) also showing a corresponding decline. Group net income after taxes was further burdened by restructuring, increased depreciation, and a higher tax rate; after all deductions, net income was € 6 million (previous year € 72 million).

The Voith Group's financial situation continues to be very sound. Despite intensive corporate acquisition activity, net liquidity remains positive: As at the balance sheet date, this amounted to € 71 million (previous year € 552 million). In the 2019/20 fiscal year Voith invested a total of € 131 million in property, plant and equipment, and intangible assets (previous year € 113 million). The investment ratio, as a percentage of Group sales, was 3.1 % in the reporting year (previous year 2.6 %).

Fact Base Economic Indicators, International Focus

Annual Report 2020 p. 44 ff. and 60 ff.

1.2 Strategy and Organization

Sustainability as a Core Objective

In the tradition of a family-owned company we are especially committed to environmentally friendly, fair and long-term business success. We want to make a measurable contribution to the sustainable development of our company, society, and the environment, and be the sector benchmark for sustainable business practices. In our core business we are already addressing the global megatrends of digitalization, decarbonization, and the circular economy – in further developing hydropower as a renewable energy source, in resource-saving paper production, and in the electrification

“We want to make a measurable contribution to the sustainable development of our company, society, and the environment, and be the sector benchmark for sustainable business practices.”

of mobility. Based on our broad technological expertise and deep knowledge of our markets, we intend to become the driving force and co-creator of a decarbonized industry in the digital age.

We have derived a clear strategic claim from this vision: We want to take the top three positions in each of our Divisions’ industrial sectors. In this effort, four strategic pillars provide the foundation for Voith’s long-term, profitable growth.

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Our engagement is viewed increasingly positively by external parties. The Prime status confirmed by the Institutional Shareholder Services (ISS) in Environment Social Governance (ESG) in the reporting year, for example, enables us to obtain more favorable terms on the capital market. At the same time, this rating marks the successful implementation of our strategic approach.

High-performance Sustainability Organization

Voith sees sustainability as a cross-functional task shared by our Corporate Board of Management, central functions and Group Divisions. The central function Corporate Sustainability & HSE (Health, Safety, Environment) agrees the framework for Voith’s strategic focus on how we organize sustainability. It reports directly to the Group President and CEO, and defines the necessary tools and methods used within our Group to measure and steer our sustainability activities, such as our sustainability database and associated reporting tools. Additionally, this central function is responsible for the Sustainability Office.

To ensure that essential sustainability requirements for the company are identified and transferred to the organization, the Sustainability Office applies benchmarking and environment analyses, and maintains intensive dialog with stakeholders. Together with the specialist departments, the Sustainability Office works out strategies and measures to raise Voith’s sustainability performance, and monitors their implementation. It is also responsible for internal and external reporting, and for the coordination of sustainability-related communication tasks. Green Controlling and our further strategic development with regard to sustainability are also anchored here. In addition, the Sustainability Office’s experts form the central point of contact for customer enquiries and rating agencies focusing on sustainability.

The Sustainability Office developed the sustainability strategy further in the 2019/20 fiscal year and agreed the respective goals with the Corporate Board of Management. Our core aim here is to make continuous and measurable improvements in the areas of environmental, social, and corporate governance to add economic value for the company. To make our progress towards this goal measurable, the Sustainability Office evaluated the results of the stakeholder dialog and carried out a detailed positioning analysis of Voith in the field of sustainability. The corresponding optimization potentials within the strategic fields of action were then identified in workshops with the specialist departments.

In the 2019/20 financial year, the Quality & HSE/Sustainability Board was established as a new committee at Voith. This Board defined a new Group Directive in 2020 that comprises the Integrated Management System (IMS) for Quality, Risk, Environmental Protection, and Occupational Health and Safety; this was adopted by the Board in the same year. The Head of HSE and Sustainability attends the Board’s meetings. The officer reports directly to the CEO; all other Quality & HSE/Sustainability Board members also report directly to a member of the Group’s Corporate Board of Management.

Sustainability Approach with Five Fields of Action

Our systematic approach to implementing Voith's Sustainability Strategy rests on five fields of action. Practicing sustainable corporate governance and our pursuit of profitable growth are just as much a part of these five fields as our responsibility towards our products, our supply chain, the environment, and our employees. We ensure maximum transparency by regularly communicating our goals and activities within these fields of action, and documenting our progress.

Informing our employees and raising their awareness is a high priority. For instance, our internal quarterly reports contain a detailed list of measures outlining the tasks, responsibilities, and deadlines for each operational level. We use online communication channels to inform our employees about our sustainability activities, and offer them open dialog on these. In the 2019/20 fiscal year our sustainability website was revised to improve communication with external stakeholders and provide them with brief, concise information on our sustainability fields of action and current measures.

Fact Base Employee Sustainability Training

Intensive Stakeholder Dialog

Maintaining ongoing dialog with stakeholders is vital for a global group such as Voith, and we have pursued this for many years. Our key dialog partners include shareholders, supervisory committees, rating agencies, employees, the Works Council, our customers, suppliers, investors, communities neighboring our company sites, trade associations, academia, government agencies, and policy-makers. We also focus on NGOs, such as the World Wide Fund for Nature (WWF), as well as the broader interested public.

Fact Base Memberships and Associations

We have published our Sustainability Report annually since 2011 to keep all our stakeholders updated on our progress. In this report we concentrate on the material fie lds of action for our company and stakeholders. The report is published on our website, together with a supplementary Fact Base. To complement this, we have also explained our sustainability activities in our Annual Reports for many years now.

Stakeholder Survey and Materiality Analysis

We carry out a regular stakeholder survey as a basis for analyzing feedback from our various stakeholders and compiling a comprehensive overview of their opinions. We analyze their feedback in detail, then incorporate the findings into our company's decisions. We survey key stakeholders such as employees, customers and job applicants on their expectations towards Voith's management and request an assessment of how they perceive its performance. The results of our most recent survey in the fall of 2018 were taken into account in our sustainability engagement from the 2018/19 fiscal year onwards, as well as in the underlying materiality analysis: This tool helps us prioritize our sustainability activities and define the material aspects for our company. In 2019 we used our stakeholders' feedback to align the focus areas in the specialist departments and in our sustainability reporting, and to adjust these focus areas where necessary. The stakeholder dialog 2018/19 also included an impact analysis: According to this, Voith has the greatest impact on the economy, society and environment in the Products (30 %), Sustainable Corporate Governance (24 %), Employees (21 %), Environment (15 %), and Supply Chain (10 %) fields of action.

In future, a new stakeholder survey concept is intended to better reflect the differing expectations of our stakeholders and also to take the often very heterogeneous regional requirements better into account. The frequency of interviews is also to be increased once again, to enable a timelier reaction to our stakeholders' proposals. After the necessary conceptual redesign of the stakeholder dialog, it will be possible to include qualitative elements such as interviews, and to leverage the possibilities of social media more fully.

Stakeholder Survey Results
Three Key Aspects per Field of Action

Sustainable Corporate Governance
1. Legally compliant, value-aligned company management
2. Long-term oriented business development
3. Transparency regarding business practices

Environment
1. Efficient use of resources
2. Reduction in greenhouse gas emissions
3. Minimizing environmental impacts

Employees
1. Strategic personnel development and further training
2. Ensuring safe working conditions
3. Promoting work-life balance

Products
1. Innovative, high-quality products and services
2. Product resource efficiency
3. Partnership-based collaboration with customers on product development

Supply Chain
1. Building and maintaining cooperative long-term supplier relationships
2. Securing market-superior quality, service, and profitability
3. Controlling mechanisms for compliance with laws and environmental and social standards in the supply chain

1.3 Values and Compliance

How We See Ourselves

Voith unites the tradition of a family-owned company with the diverse needs and culture of a global group. Clear values define the way we conduct our business: We are innovative, reliable, fair, sustainable, and ambitious. Our values, and the guidelines derived from them, help ensure that Voith acts in alignment with a unified set of business principles worldwide and lives by this consistent philosophy.

Our Company Values

- **Ambitious:** We embrace challenges and set ambitious goals that enable us to continuously grow both as individuals and as an organization.
- **Innovative:** We turn ambitious ideas into innovative technology. To do so, we listen attentively, have a close look and think in new ways. We thereby, 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.
- **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.

Code of Conduct Binding for All Employees

Voith's core business principles have remained unchanged for almost 100 years. Back in 1927, Hanns Voith stipulated that "In the business world one must be ethical, decent, and honest. If a contracting party or competitor behaves unfairly, this does

not give us the right to deviate from this principle." These principles still govern the way we conduct business today. The Voith Code of Conduct (CoC) defines the way we act towards customers and business partners, as well as how our employees behave towards one another within the company. It is freely accessible online and provides information on correct conduct and points of contact. We require every single one of our employees to comply fully with prevailing legislation and our company's own internal regulations (compliance) – right across our global Group and at all hierarchical levels. This obligation is formally established in writing on signing the employment contract, and any breaches are met with disciplinary measures. We constantly update our rules and procedures, and adapt them to meet current requirements. In addition, our values play a central role in the Voith Academy training programs, and our Start-up Leadership Program for prospective executives.

"In the business world one must be ethical, decent, and honest. If a contracting party or competitor behaves unfairly, this does not give us the right to deviate from this principle."

The Voith Code of Conduct sets out clear standards that are aligned with established external charters and principles. The key principles include:

- Observance of the rules of fair competition
- No anti-competitive agreements
- No corruption or bribery, neither offering, granting, or demanding bribes, or accepting unfair advantages
- Transparency on donations and sponsorship
- Safeguarding our own patents, intellectual property and business secrets, and respecting those of other organizations
- No undue preferential treatment of suppliers and service providers
- Respect for human rights, fair working conditions, and rejection of child and forced labor
- Tolerance and equal opportunity

Code of Conduct

Compliance Organization at Voith

The Voith Compliance Committee establishes, further develops, and coordinates our Compliance Program, revises compliance regulations, and coordinates training. This committee meets monthly and comprises the Head of Group Legal Affairs (Chairperson) as well as the respective Heads of the Group Human Resources Management and Group Audit Departments. The Voith Compliance Committee Chairperson reports directly to the Corporate Board of Management of Voith GmbH & Co. KGaA and to the Audit Committee of the Supervisory Board. The CFOs of the Group Divisions and the individual Group companies serve as the Compliance Officers in their units. There is a Compliance Officer in each Group company; the respective CFO generally has this additional role. Within their area of responsibility, our Compliance Officers are responsible for implementing our Code of Conduct and also serve as Group-wide points of contact. This is also aligned with the rest of our Risk Management organization.

Regular Further Training on Compliance Topics

All Voith employees with personal access to the company IT network are required to update their knowledge of compliance issues and our Code of Conduct via our e-learning programs every three years. Through their successful participation, employees also explicitly document that they are fully aware of our Code of Conduct and have understood the appropriate regulations. Approximately 95 % of our employees with a computer workstation completed our programs on Anti-Corruption and Antitrust Law, as well as on Leadership and Employees, as at the end of 2020. Employees who do not have a computer workstation are trained by their line manager to ensure their knowledge stays up to date. In the reporting year we continued to hold face-to-face

courses, which are assigned automatically to employees: 155 employees, mainly Sales and Purchasing managers and employees, took part in 26 training events (previous year 29 events, with 604 participants). The decline versus the previous year is due to restrictions resulting from the Corona pandemic. Separate, exhaustive and highly detailed training courses were provided to Compliance Officers.

Fact Base Compliance Training

Group-wide Information and Complaints Reporting System

In principle, any stakeholder, naturally including our own employees, can report complaints to Voith, or notify us of abuse or breaches of the Voith Code of Conduct. They are free to report these instances to a variety of points of contact: Their direct line manager, the competent HR representative, the Group company's or Division's Compliance Officer, or any member of the Compliance Committee, as well as via any one of the four Group-wide Helpdesks. Details on how to get in touch with these points of contact are provided to employees in an appropriate way throughout the Group, including via the Compliance intranet page.

Fact Base Escalation Paths

An employee who reports a suspected breach of the Code of Conduct on the basis of firm evidence will not suffer any detriment. This right is laid down in our Code of Conduct. If necessary, Voith will take measures in each individual case to protect the employee reporting the suspected breach against any such detriment. To the extent possible and permissible under law, Voith will maintain confidentiality regarding the identity of employees reporting a breach of the Code of Conduct, or a suspected breach of its guidelines. The same applies to the identity of employees investigating a breach or suspected breach of the Code of Conduct. We also follow up on complaints submitted anonymously via our Group-wide whistleblower system, with the number and type of breaches documented centrally. This whistleblower system can also be accessed by external parties at any time via our company website and is thus also available to all our business partners and suppliers. Any type of complaint on any subject can be reported. As a matter of principle, to ensure the strictest confidentiality is maintained, information concerning the number, type, and nature of complaints is not disclosed to external parties.

Fact Base Breaches of Compliance Regulations

Reports relating to environmental protection can also be submitted to the local Environmental Officer. The exact complaints process and escalation paths are set out in our HSE Group Directive and its annex, Environmental Incidents. Complaints are communicated based on their severity along disciplinary and functional reporting lines.

Continual Compliance Reviews Guarantee Effectiveness

The Group Internal Audit Department examines observance of all compliance regulations in a routine risk assessment involving around 35 operating units annually. We ensure that our business partners comply with our regulations by means of a Supplier Self-assessment (SSA). In addition, all representatives and advisors are checked at the start and at regular intervals thereafter. The audit also covers topics such as corruption and blacklisting, and draws its comparative information from the database of an external service provider, among others. This is laid down in the corresponding Group Directive. Finally, compliance also forms part of our General Purchasing Conditions (GPC).

We work tirelessly to optimize our Compliance organization and adapt it to meet new standards and requirements. For example, in January 2017 we implemented the principles of the UK Modern Slavery Act in our company. In light of this, among other things we also published our Management Board Declaration on Human Trafficking, Forced Labor and Child Labor.

Management Board Declaration

Statement on the UN Global Compact

Voith shares the values contained in the Principles of the UN Global Compact (UNGC). Together, the Voith Code of Conduct and the Voith values cover all areas addressed by the UNGC. Voith shares the criticism of many NGOs that companies can misuse the UNGC initiative as an instrument of "greenwashing," which is why Voith is not a signatory to this initiative. We at Voith are strongly convinced that our individual commitment as a company is the right approach. We have developed this over a century and a half, anchored it in our Code of Conduct, and it clearly reflects our company values.

No Compromise Against Corruption

For Voith, taking rigorous action against corruption is a matter of course. This is why all Compliance Officers are required to keep a Risk Control Matrix, which includes potential corruption risks for their specific Group unit, and to name and assess the identified risks. This structured process covers all Voith locations worldwide; the results of all Group Divisions are aggregated, and form the basis of centralized risk monitoring and internal compliance audits, among other measures. Our risk assessment is based on many factors, including the Corruption Perception Index (CPI) published annually by Transparency International. This index ranks virtually all countries by their perceived levels of corruption on a scale from 1 to 100. As our company maintains business relationships all over the world, special precautionary measures apply to high-risk countries, whereby the respectively responsible Risk Manager decides on the most appropriate measures.

Human Rights

As a global group, Voith observes human rights as a matter of course. The framework for this is set out in the Voith Code of Conduct, which is binding for all employees via a corresponding Group Directive. Through our General Purchasing Conditions we also ensure that our suppliers and business partners are involved in upholding human rights. As part of this, we incorporate the assessments of our internal management systems, such as the Risk Country List, into our action planning activities. Voith rejects all and any forms of human trafficking, forced labor and child labor, and has issued a corresponding Declaration in accordance with the UN Universal Declaration of Human Rights 1948, the California Transparency in Supply Chains Act 2010, and the UK Modern Slavery Act 2015. This Declaration is freely available on the company website.

Confidential Treatment of Information

Information security and the protection of personal data are a top priority at Voith. Both topics are governed by corresponding Group Directives. Every employee is expected to show appropriate awareness of security and a sense of responsibility. There were no notifiable breaches of data security in the reporting period. The processes implemented at our Data Center in Heidenheim are certified according to the international standard ISO/IEC 27001.

Taxation Compliance

At Voith we see compliance with all statutory taxation requirements and fulfilling our tax obligations as a matter of course. Our Group's taxation strategy is aligned with our company's values and commits us to cooperating with tax authorities in a fair and transparent manner. In the 2018/19 reporting year Voith began to develop its internal tax controlling system towards becoming a Tax Compliance Management System that is thoroughly integrated in the Group's Compliance Management System. Transfer prices within the company are always based on the "arm's length" principle and are lawful. This is clearly regulated in our Group's corresponding guidelines. Voith follows the OECD standard and avoids implementing artificial structures purely for tax purposes. Voith has no subsidiaries in countries that are on the EU list of non-cooperative countries and territories for tax purposes. A complete list of the companies and countries included in Voith's consolidated financial statements is set out therein.

Fact Base Taxes

1.4 Responsibility for Society

We see ourselves as a company that plays an active social role – something that has been part of our DNA ever since we were founded. We focus on the areas of sports, education, social affairs, and culture, which we support either through direct financial contributions or in-kind benefits. In doing so, we always ensure strict compliance with our Code of Conduct and applicable laws.

Our societal engagement is managed by Voith GmbH & Co. KGaA, headquartered in Heidenheim. Within the company, responsibility for Donations and Sponsorship is coordinated by Corporate Communications. The Head of Corporate Communications updates the Corporate Board of Management once a year on how funds have been allocated across the entire Voith Group. Individual Group Divisions and local Voith companies can also launch and run their own assistance and sponsorship projects, provided these comply with our Group Directive and are approved in accordance with the process it specifies.

On their own initiative, many of our employees volunteer their spare time to assist people in need. We support them by granting temporary paid release from work and providing materials or equipment that is no longer required.

We also support numerous initiatives and projects in coordination with the Hanns Voith Foundation. Through its activities, this independent foundation regularly engages in numerous local and cross-regional initiatives, and also provides financial support in the form of annual donations to various projects.

Hanns Voith Foundation

Group Directive Sets the Framework

Ever since 2008, our Group Directive on Donations and Sponsorship has set out the type and scope of our commitment. It also outlines the financial frameworks of our donations. Unless otherwise determined by the Corporate Board of Management, the budget is based on the previous year's Earnings Before Tax (EBT) and is limited to a maximum of 1 % of EBT or at least two-thirds of the volume of funding in the year before last. This ensures that we can provide consistent support, irrespective of any volatility in our company's development. Internal controlling systems log and monitor our donations and sponsorship activities, worldwide and across all Voith business units.

In selecting projects to support, Voith applies clear criteria: We must above all be convinced of the recipient's integrity, and that their project is worthy of assistance. We also take into consideration the project's regional relevance as well as its appropriateness to our business segments, company values, and corporate culture. Furthermore, we consider the frequency and volume of our previous contributions, ensuring these are distributed as widely as possible. Irrespective of this, in humanitarian emergencies where urgent action is demanded we provide help quickly and directly. Our sponsorship activities always focus on the appropriateness of the contribution and the benefit to Voith in return. This is because we follow additional, mainly communicative goals besides providing sponsorship. Irrespective of this, it is highly important to us that our sponsorship partnerships engage in worthy, reputable causes too.

Our Engagement Activities in the Reporting Period

In the reporting year we invested around € 2.04 million in social engagement activities (previous year € 2.27 million). Of this, we provided € 0.62 million in the form of donations, while € 1.42 million was used for sponsorship measures. We spent the greatest share on sports (58 %) and education (21 %), followed by social projects (13 %) and cultural projects (8 %). In the reporting year no political parties or political organizations received any financial contributions from Voith, nor did they in the year before.

Fact Base Donations and Sponsorship, Donations and Sponsorship for Political Parties and Party-political Organizations

Engaging for Sports with a Local Focus

We believe that supporting local initiatives is an investment in the attractiveness of the region that benefits the region's citizens – and naturally also our employees. Through this, we intend to increase the attractiveness of the location for our employees and make it a more appealing place for them to spend their free time. This is why Voith sponsors professional as well as amateur sports, assisting various sports clubs and supporting events worldwide, albeit with a focus on Heidenheim. In the reporting year we invested € 1.17 million in this area (previous year € 0.88 million). Voith is a long-standing supporter of the professional soccer club 1. FC Heidenheim 1864 e. V. In addition, we sponsor the Fencing Center at the Heidenheimer Sportbund 1846 e. V. (HSB – Heidenheim Sports Association) as well as the local HSB baseball team and Athletics Department. In the reporting year, together with the sponsor partners of the Heideköpfe and HAKRO Merlins Crailsheim baseball clubs, and the sponsor partners of the Heidenheim Fencing Center, Voith sponsored three professionally managed vacation camps for the children of Voith employees.

Multifaceted Educational Involvement

We support kindergartens, schools, and universities around the world, as we firmly believe that only a good education and training can give people the right basis for optimal personal development. We are thus continuing the tradition of Hanns Voith. Since way back in 1946, Voith has dedicated itself to preparing disadvantaged young people in its home State of Baden-Württemberg for vocational training schemes and the world of work. What initially started as a vocational preparation and training course has since become an institution, and has been recognized since 2004 as the Sonderberufsfachschule Hanns Voith (Hanns Voith Special Vocational College).

Furthermore, for 17 years now Voith has supported the Germany-wide business@school education initiative of the Boston Consulting Group (BCG). This initiative gives senior high school students the opportunity to gain hands-on experience with business topics over the course of a full academic year.

Voith's vocational training is also rooted in the region. In the last fiscal year, our apprentices were engaged in a special project to repair a listed hydropower plant in the Swabian Alps. Since July 2020 this plant has once again been producing six kilowatts of environmentally friendly electricity – enough to supply the Bad Urach Town Museum.

Promoting Culture at our Heidenheim Location

We want to give as many people as possible access to cultural life. In this reporting period we once again provided financial support to various institutions in Heidenheim, including a € 125,000 donation to the Opera Festival. However, due to the Corona pandemic the Festival could not take place as usual in 2020, therefore the city of Heidenheim developed an alternative program: Among other things this included folding chair concerts, which were held in the open air in accordance with the distancing and hygiene rules.

Engagement for Integration

For many years, Voith has committed to societal engagement around the world that improves people's living conditions and promotes intercultural exchange. For instance, Voith is one of the initiators of the German industry integration initiative "Wir Zusammen" (We Together), which is dedicated to helping refugees integrate in Germany. We provide places on a vocational training course for young refugees, once they have successfully completed a one-year preparatory vocational course for job starters at Voith.

In addition, together with AFS Intercultural Encounters e.V., Voith aims to encourage young people to gain intercultural experience at an early stage. For this reason, Voith will once again award partial scholarships for a stay abroad for the 2021/22 academic year, preferably in Brazil, China, or the USA. The scholarship holders will spend the academic year in a volunteer host family. With the support of the Hanns Voith Foundation, Voith will contribute up to € 4,500 per scholarship holder.

02 Environment

2.1 Environmental Management Approach

As an industrial company Voith is required to comply with numerous national, regional, and industry-specific environmental laws, regulations, and guidelines. In addition, we see it as our responsibility towards our employees and neighbors to prevent environmental risks and use resources responsibly. We are therefore particularly focused on energy and resource management. We are committed to continually reducing our energy consumption and corresponding Greenhouse Gas Emissions (GHG), making efficient use of both direct and raw materials, and minimizing waste. The continual reduction of our water withdrawal and wastewater volumes is one of our core objectives in this area.

We have taken a consistent approach to organizing our operational environmental protection activities – combined with our occupational health and safety activities – in a uniform business partner structure that is aligned as closely as possible with the Group's Shared Services system. At all Voith locations, our operating units are responsible for implementing health, safety, and environmental activities locally. Proven experts accompany the processes, helping to continuously improve HSE, leverage synergy potentials, and thus optimize service costs. As skilled partners, they help to identify risks and systematically reduce these through continual improvement processes. Our hse+ software provides technical support that can be accessed from anywhere in the world.

Our activities are anchored within the organization at two points:

- Eco Standards provides strategic and operational support to our divisions and locations in complying with and implementing environmental regulations as well as internal environmental protection policies. All requirements and obligations arising from approvals are available in our central hse+ database. In 2019, we installed an environmental risk analysis tool which has so far been used to conduct around 250 risk analyses. Both the number and quality of incident reports have increased continuously.
- Ecological Business Management (EBM) improves energy and resource efficiency at our locations. We are also making progress in this area. In the reporting year, we pressed ahead with generating our own energy at our locations: In addition to the large photovoltaic systems in Crailsheim (Germany), St. Pölten (Austria), and Vadodara (India), in 2020 we brought a system onstream in Faridabad (India). Alongside these measures we are evaluating further renewable energy generation options and will implement them wherever economically feasible.

2.1.1 Operational Environmental Protection

Through our approach to operational environmental protection we aim to minimize the environmental impacts of our operational activities, also by embracing the latest production processes and technologies. To ensure that environmental regulations are upheld, one focus of our actions is strategic and operational control; this includes the analysis of potential environmental risks and their appropriate communication within the company. We categorize the potential environmental risks into risk classes according to their probability and impact. As part of our fundamental analysis we investigated all relevant locations for potential risks. Our analysis takes into account the effects of climate change, including heavy rain, flooding, storms, and other natural forces such as seismic activity (Japan, Italy), volcanic eruptions (Indonesia), and forest fires (Australia). In 2019 we carried out an extensive assessment of the opportunities and risks posed by climate change for Voith as part of our Carbon Disclosure Project (CDP). This also covered strategic approaches and measures to counter risks identified. The results are freely accessible on the CDP website.

Highly Effective Environmental Protection Unit

A central approval process ensures that our environmental protection processes and procedures are organized as uniformly as possible. In addition, this process targets a reduction in the volume and number of materials used at Voith. Our HSE Group Directive sets out specific requirements on how environmental protection is to be organized at a local level, with every Voith location required to appoint an Environmental Officer. Their tasks cover a wide range of topics including immission control and water protection, waste management, hazardous materials and goods, and preventing environmental incidents. They also advise operations managers on

plant newbuilds and modifications as well as approval processes, and conduct regular site inspections and audits. Environmental experts in our Group Divisions ensure that Group companies are provided with systematic support. Direct onsite support at our locations as well as the documentation and tracking of measures in our hse+ system have proved effective, as evidenced by the positive feedback from the locations.

IT System as a Central Information Source

Our Group-wide hse+ IT system supports the work of our environmental experts. With its ability to store and manage all relevant processes, documents, and analyses centrally, the system forms the basis for efficient operational environmental protection and matrix certifications. In the reporting year, the tool's coverage for ISO 14001 certification decreased slightly, and currently stands at 79 % based on headcount.

Fact Base Certifications

hse+ also enables all employees equipped with a PC to access a central legal database that contains all relevant HSE laws and regulations applicable to Voith in each country and region. Current legislative texts are available there, including summaries and comments in the respective national languages. The legal obligations derived from the legislation are assigned to the officer responsible via the system; this officer is then responsible for ensuring the obligations are met. The same applies to Voith standards, approvals, and requirements. Furthermore, hse+ is used to perform location-related environmental risk analyses, and to assign, document and control implementation responsibilities and deadlines for the measures derived. We check and update the system regularly to include new locations, among other data.

Group-wide Reporting System to Record and Analyze Environmental Incidents

At Voith we record and analyze all environmental incidents centrally each month using a Group-wide reporting system based on standardized criteria. The Corporate Board of Management is informed about the results of the analysis on a quarterly basis. We use existing occupational health and safety categories to evaluate and rate incidents across topic areas according to the same standards. Awareness of our Group-wide standardized process is increasing and so is its use, while the larger database is increasing the conclusiveness of the analyses. We are also raising our employees' awareness by means of targeted communication measures. No environmental incidents requiring public reporting were registered in the reporting year.

Targeted Hazardous Materials Management Increases Safety

In its production processes Voith uses hazardous materials such as paints, lacquers, thinners and solvents, adhesives, resins and hardeners, lubricants, cleaning agents, and industrial chemicals. With our management of hazardous materials, we want to make sure critical materials are handled as safely as possible.

Through our Group-wide hazardous materials approval process, we want to promote the replacement of particularly harmful materials with harmless substitutes, and to advance the harmonization of safety standards across the Group. A central hazardous materials database allows us to perform uniform global analyses of the environmental, health, and safety risks of work and hazardous materials, providing us with a valuable decision-making basis. Since 2014 around 9,500 materials have been recorded centrally, about 1,000 of which have been either disapproved or blocked for future use. In the reporting year we processed 914 applications for new and existing materials, of which approximately 7 % were rejected; around one third of these were rejected because they contained banned or critical materials, while the remaining rejections were returned with a request to select a suitable substitute from our list of materials already approved.

The topic of reducing hazardous materials increased in priority in the reporting period, so the working groups grew to include a wider circle of active participants. With greater involvement from the participating Divisions, Voith's Standards Department, and Purchasing, a strategy is currently being developed to ensure a consistent and effective response across the Group. A restrictive approval process is planned which, amongst other things, will involve the organization seeking approval making a direct

contribution to costs. This should lead to a further reduction in new applications for hazardous materials. At the same time, we constantly monitor our basket of goods and try to reduce the number of hazardous materials through possible substitutions. In doing this, our focus is not only on the number of materials but also on reducing particularly hazardous materials. Therefore, in the reporting period we also completed a first categorization of the hazardous materials into application groups, in order to prevent an increase in the number of new hazardous materials in use at Voith, and to support the phase-out of redundant materials. This lays the foundation for further measures in the future.

Fact Base Work Materials and Hazardous Materials Approval Process

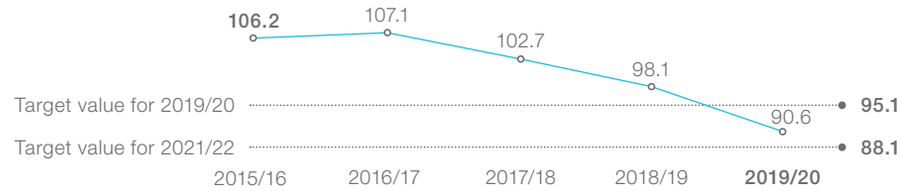
In future we also intend to include materials with an acute toxicity category of 1 to 3 in our system, so they are covered by our approval process. This could enable us to further reduce the number of materials used at Voith. The internal specifications have already been drawn up and discussions are underway with the software supplier regarding the implementation in our systems.

The range of materials to be captured in the database and the inclusion of additional sites present us with particular challenges. The consolidation will therefore take longer than originally expected at the launch of the project in 2011. In order to speed up the process in the USA in particular, a service provider there will migrate the relevant data to our systems.

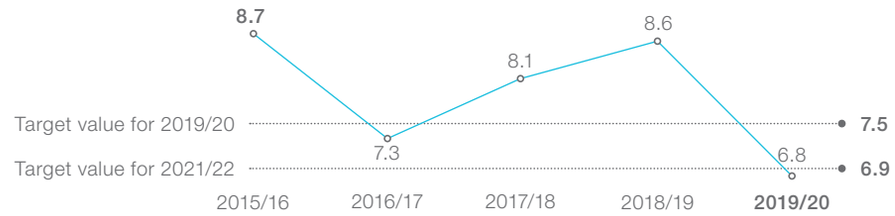
2.1.2 Efficient Use of Resources

Voith's Ecological Business Management enables us to identify ecological and economic potentials for improving our production processes, and to leverage these by performing process-, system-, and component-level analyses. Our individual locations are supported by the EBM managers from the Group Divisions, with our central function Corporate Sustainability & HSE coordinating the overall effort.

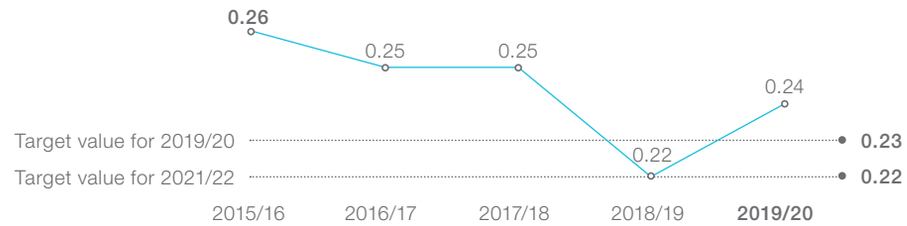
Production-related Energy Consumption
Specific value in MWh/€ million revenues



Waste
Specific value in t/€ million revenues



Freshwater Consumption
Specific value in m³/€ thousand revenues



Ambitious Environmental Goals

Our activities focus on the areas of energy, waste, and freshwater, for which our Corporate Board of Management set specific targets, taking the 2011/12 fiscal year as the benchmark. The 2018/19 fiscal year marked the start of our next target period, with our targets carried over based on the 2011/12 fiscal year. The three main drivers – energy, water withdrawal, and waste – remain the focus of our attention. By the end of the 2021/22 fiscal year we aim to reduce our energy consumption by 30 %, our waste volumes by 35 %, and our water withdrawal by 40 %.

Fact Base Environmental Goals

We also intend to make an additional contribution to climate protection by achieving specific CO_2 targets. These take the 2016/17 fiscal year values as the benchmark and follow a scientific approach. We thus intend to make our contribution to achieving the goals of the Paris Climate Agreement that came into force in 2016 – in particular, its consensus goal of keeping global warming below 2 °C. To set our targets we employed a forecasting method that considers both our internal changes, such as the development of Industry 4.0, and external factors such as the change in the energy mix in different regions.

“We intend to make an additional contribution to climate protection by achieving specific CO_2 targets.”

In a first step, by the end of the 2021/22 fiscal year we aim to achieve a 25 % reduction in our CO_2 emissions from our electricity consumption by optimizing our grid mix. By the end of 2024/25 we aim to reduce the total CO_2 emissions of our value-adding activities at our locations by 35 %. Our goal is to achieve a 90 % cut by the end of 2049/50. We will set additional interim targets and milestones for our CO_2 targets from 2024/25, taking our business development into account.

To achieve our grid mix target for 2021/22 and the interim target for 2024/25, Purchasing is developing an electricity procurement strategy that takes into account the very different conditions for the procurement of eco-friendly electricity. The focus will initially be on the German and US markets, as the Chinese eco-electricity market is still at a very early stage of development. In the reporting period, we were able to continue the positive development from the previous year regarding our next interim targets for 2021/22.

Additional Goal: Climate Neutrality by 2022

At the end of the 2018/19 fiscal year we decided to make all Voith locations around the world CO_2-neutral as of 2022. Our previous targets and interim targets remain in force and we will continue to report on them. To help us achieve our goals, in the reporting year we initiated a Climate Neutrality Steering Group.

To achieve CO_2 neutrality as soon as possible, Voith will purchase CO_2-neutral electricity in the near term and compensate for unavoidable CO_2 emissions through offsetting measures. We currently cover 44.3 % of our electricity requirements from renewable sources and plan to increase this share progressively, both through self-generation and by increasing the amount we purchase. In addition, we aim to invest € 5 million per annum in energy-efficiency measures, including power self-generation at our locations. This will lead to a much faster reduction in our emissions in Scope 2, even making a greenhouse gas budget achievable within the framework of a 1.5 °C goal, provided that social and economic conditions continue to allow this.

Green Controlling Process Delivers Maximum Transparency

Our resource management activities are intended to deliver both economic and environmental added value. A four-stage Green Controlling process creates transparency about the pipeline of measures, shows our progress towards implementing the measures it maps out, and depicts their impact on the development of indicators. This allows us to manage the target-achievement process actively.

Hot-spot Analyses Leverage Further Potential
Hot-spot analyses serve to address both specific and cross-location topics. For efficiency reasons, we focus on the greatest consumption drivers in each case. At Voith Hydro and Voith Turbo these are the buildings, machine tools, and test stands (Turbo), while at Voith Paper most energy is consumed by the heat-setting process.

Initially, our analyses showed that we were moving away from facility infrastructure topic areas (lighting, compressed air, heating, ventilation, and air conditioning) and towards process-specific topics (such as the use of steel grit, the heat-setting process etc.). However, in the reporting year, this trend appears to be reversing: We are now once again focusing more and more on infrastructure topics and projects with medium-term breakeven periods.

Due to the pandemic, only five on-site hot-spot analyses could be carried out at our locations in the reporting period. Where possible, remote analyses and self-assessments were carried out instead.

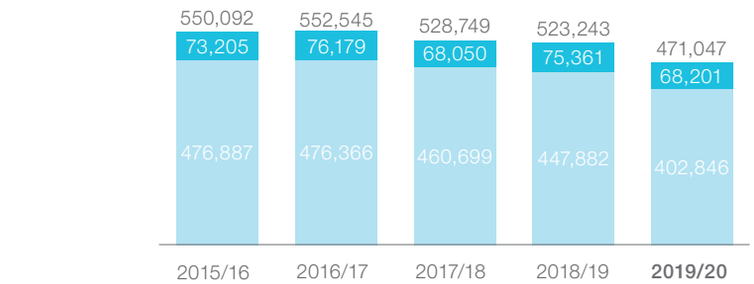
Fact Base Hot-spot Analysis Methodology

2.2 Performance in the Reporting Period

We expanded our external reporting in 2018 to include the CDP report, and want to develop this further. For instance, in the reporting year we already broadened the scope of our CDP reporting to include “Total Energy Consumption”. So far, we have focused on a coverage rate of 85 %, which corresponds roughly to the 70 largest Voith locations and a substantial part of our energy consumption and CO_2 emissions.

To gain even deeper insights into all aspects of our resource consumption and to fulfill our commitment to climate neutrality, we integrated the assessments of our smaller locations into the reporting system; these are for the most part service or sales locations. On the basis of random data sampling, we determined per-capita resource consumption rates at the smaller of these locations. The comparatively larger of these sites were integrated into our regular reporting.

Total Energy Consumption
(Scope 1 and 2) in MWh at almost 100% coverage



[1)] See explanation in text on smaller locations

To simplify the assessment of developments over time, we have aligned the previous years’ data on energy consumption and greenhouse gas emissions with this new degree of coverage in the rest of this chapter as well as in the Fact Base.

2.2.1 Energy Efficiency and Greenhouse Gas Emissions

Production-related Energy Consumption Falls Slightly
In the reporting period, a slight decline in sales further reduced our absolute energy consumption. In the reporting year our production-related energy consumption stood at 378,307 MWh (previous year 420,040 MWh). 90.6 MWh of energy was needed per € million in sales revenue, a fall of 7.7 % versus the previous year (98.1 MWh per € million in sales). This drop is due to several factors: The closure of our foundry in São

Paulo (Brazil) contributed to a reduction in energy use, as did the pandemic-related restrictions to manufacturing. In addition, with respect to the highly energy-intensive production of paper-machine clothing and roll coatings, energy-moderate mechanical engineering changed the business for the better.

In the reporting period the identified potential for actions in the pipeline rose from 135.3 GWh to 140.3 GWh (+3.7 % versus the previous year). The completion of efficiency measures in the reporting year enabled a further 6.5 GWh of energy to be saved, primarily in the areas of building heating and air conditioning, lighting, and pressurized air. This resulted in total energy savings from implemented measures of 130.4 GWh. Taking the figures of the 2011/12 fiscal year as our benchmark, we improved by 28.1 %. In doing so, we achieved our interim target for energy consumption for 2019/20 and are well on track to realize our target of a 30 % reduction by 2021/22.

Fact Base GHG Emissions Recording Methodology, Energy-Saving Measures and Further Potentials

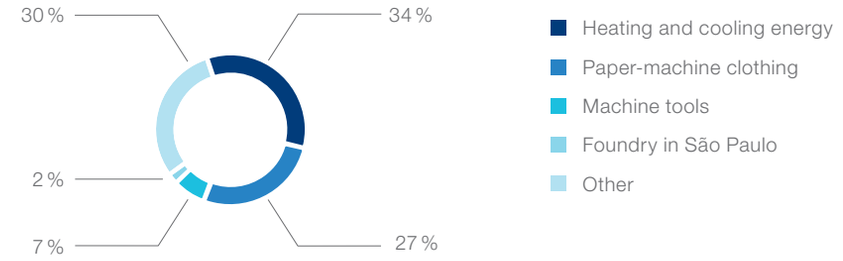
Regular exchanges between our EBM experts serve to identify further potentials, compare processes, set benchmarks, and implement the best solutions in each case by sharing best practices.

Besides heating and cooling, which account for around 34 % of our energy consumption, the production of papermachine clothing remains the key driver of our production-related energy use – accounting for around 27 % of our global consumption in the 2019/20 fiscal year. Weaving processes and heat-setting are also especially energy-intensive, particularly in felt production. The operation of machine tools consumes 7 % of the energy used at Voith. With utilization falling due to its gradual closure, our foundry in São Paulo accounted for only 2 % of production-related energy consumption in 2019/20.

Fact Base Total Energy Consumption

Main Sources of Energy Consumption

In %



Main Energy Sources 2019/2020

The proportion of direct energy increased in the reporting period to 35.1 %, mainly due to the fall in electricity consumption caused by the closure of the foundry (previous year 35.0 %; indirect energy in the previous year 65.0 %). With a share of 86 %, natural gas remains the key energy source for our direct production-related energy consumption, followed by Liquified Petrol Gas (LPG), diesel, and heating oil with percentage shares in single digits. Among other purposes, we use these fuels for heating and heat-intensive thermal processes. Diesel is primarily used to operate backup generators as well as for thermal processes in São Paulo and Ipoh (Malaysia).

Fact Base Direct Energy Consumption: Scope 1, Production-related Energy Consumption

Energy Mix Unchanged

In the reporting year 23.9 % of the energy we consumed came from renewables, with 76.1 % from non-renewable energy sources. This is broadly in line with the previous year's level (previous year 24.9 % from renewables; 75.1 % from non-renewables). All energy sources of production-related energy consumption are taken into account in the calculation. Given our new CO_2 targets and the associated ramp-up of our CO_2 management activities, we expect our energy mix to improve in the coming years.

Electricity Consumption Falls Again

In the reporting period Voith consumed 237,994 MWh of electricity (previous year 269,223 MWh), a drop once again thanks to the improved efficiency of our production plants and processes. In terms of our electricity mix, the share of energy sources supplied by external providers was 44.3 % from renewables (previous year 44.7 %) and 55.7 % from non-renewable resources (previous year 55.3 %). We achieved significant improvements in our consumption of non-renewable resources, with a drop in coal-fired generation of 16 % and in electricity generated from natural gas of 7 %. Our purchase of nuclear power fell by 7 %.

Our newly formulated CO_2 targets provide a particular incentive to further increase the share of renewables. Various regenerative power generation projects are already in implementation, or are at an advanced planning stage. Among them, projects for self-generation of solar and hydropower at Crailsheim and Sonthofen (Germany), St. Pölten (Austria), and Vadoodara and Faridabad (India) are already contributing towards this improvement with 1.7 GWh/a (675 t CO_2e/a), while in the year under review the amount of self-generated renewable electricity once again doubled versus the previous year. So, in the reporting year, a total of 2,767 MWh of self-generated renewable electricity was added to our electricity mix. We continually examine at which locations it would be possible and economically feasible to implement additional photovoltaic projects, either now or in the future. In this regard, we are considering the facilities we operate as well as those operated by third parties.

As many of our locations have a relatively low demand for electricity compared to other company groups, long-term Power Purchase Agreements (PPAs) currently still do not present a significant alternative, owing to their high transaction costs. However, we are increasingly examining the possibilities of focusing our purchase of electricity more on renewable energy sources through bundled or unbundled guarantees of origin. At our Shanghai location, we implemented a PPA on our roof surfaces with a scope of 1.0 GWh/a. In the current fiscal year we plan to implement further PPAs with an overall scope of 1.5 GWh/a at our Austrian locations in Frankenmarkt, Laakirchen, and Wimpassing.

In the reporting year we once again achieved a significant increase in the generation of “green electricity” on our factory premises. As supply contracts expire, we will continue to achieve significant improvements on our path to climate neutrality in the coming years.

Fact Base Electricity Mix

Climate Protection as a Corporate Goal

We aim to minimize the impact of our business activities on climate change and continuously improve our energy efficiency. Our newly formulated environmental goals, our determination to achieve our CO_2 reduction target, and above all our aspiration to achieve net climate neutrality all reflect this intention (see also section 2.1.2: Efficient Use of Resources). Our energy-saving measures alone achieve annual GHG savings of around 3,300 t; however, differences in national electricity mixes as well as shifts in the mix of direct energy sources are causing the energy and GHG emissions indicators to diverge. This means that energy savings at individual locations, or even production relocations, vary in their impact on GHG emissions.

“We aim to minimize the impact of our business activities on climate change and continuously improve our energy efficiency.”

In the 2019/20 fiscal year our facilities’ GHG emissions fell by 11.8 % to 140,318 t CO_2e (previous year 159,094 t CO_2e). The share of direct GHG emissions fell by 9.6 % to 33,814 t CO_2e (previous year 37,398 t CO_2e), while indirect GHG emissions also decreased by 12.5 % to 106,504 t CO_2e (previous year 121,696 t CO_2e).

Fact Base Total GHG Emissions, Air Pollutants

2.2.2 Material Efficiency and Waste

At Voith we manage our use of working and raw materials across the Group centrally, to make our processes as resource-efficient as possible. Nevertheless, special challenges arise due to the broad scope of our product portfolio and our equally diverse

process landscape. Added to this are differing project business requirements at Voith Hydro and Voith Paper, compared to serial production at Voith Turbo.

Material Efficiency Increased Once Again

In the reporting period Voith purchased approximately 187,000 t of materials from suppliers, around 5 % less than in the previous year (198,000 t). Of the materials we purchased, 55 % were semifinished products (previous year 54 %), 31 % were raw materials (previous year 32 %), 11 % were for packaging (previous year 11 %), and 2 for % auxiliaries (previous year 2 %). The share of renewable materials remained stable year-on-year at 11 % (previous year 11 %).

In the 2019/20 fiscal year around 31 % of the materials we used were recycled (previous year 42 %). The recycled proportion was 51 % for auxiliaries (previous year 60 %), 24 % for raw materials (previous year 44 %), 25 % for semifinished products (previous year 33 %), and 79 % for packaging (previous year 80 %). Hot-spot or "Ishikawa" analyses help us to optimize our material efficiency continuously. We apply these analyses in alignment with our Excellence program, which provides us with key approaches for identifying product development and engineering improvement potentials.

Fact Base Materials Used

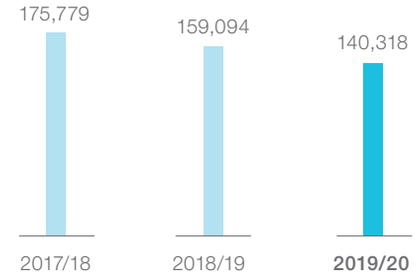
Waste Volume Declines Due to Lower Capacity Utilization

In total, Voith generated 28,504 t of waste in the reporting period (previous year 36,766 t), which is 8,262 t or 22.5 % less than in the previous year. The decline is mainly due to the closure of the foundry in São Paulo. In the 2019/20 financial year, the volume of waste thus shrank more than sales revenue – the corresponding indicator fell to 6.8 t/€ million in sales versus 8.6 t/€ million in sales in the previous year. This enabled us to achieve not only our interim target of EUR 7.5 t/million in sales for 2019/20, but also our waste target for the financial year 2021/22. We want to maintain this level until the target year.

Fact Base Waste Volume

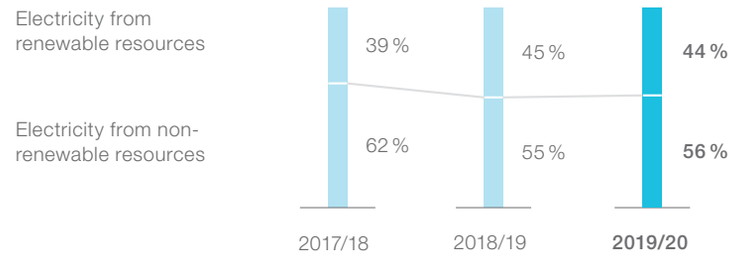
GHG Emissions within the Organization

Total in t CO_2e



Electricity Consumption by Type of Resource

In %



In the reporting year, the gains from measures already implemented rose from 8,808 t to 8,855 t (+0.5 %). Process improvements enabled us to avoid using cooling lubricant emulsion, which had a positive effect on the overall result. As major waste reduction measures are almost exclusively achievable as part of complex product re-qualification

measures, the switchover effort typically involved must always be balanced precisely against the resulting benefit. The identified potential for action in the pipeline therefore decreased by –3.3 % to 8,886 t in the reporting period.

Fact Base Waste-saving Measures and Further Potentials

Wood, paper, and cardboard waste generally account for a high proportion of our waste. A major factor here is the packaging of one-off production pieces and securing them for transportation. Owing to the size of these components, it is not economically viable to transport empty packaging back for reuse – and it is also questionable from an environmental perspective, given the transport-related emissions involved. Additionally, in view of the high proportion of one-off and custom-made products made by Voith, it is often not economically viable to use individually material-optimized packaging. Nevertheless, we succeeded in reducing hazardous waste in the reporting period at our Shanghai location by a further 16 t/a through switching from non-returnable to reusable oil containers.

Avoiding waste is a priority at Voith as early as the product design phase, since this is where materials are selected and production processes are defined. In the subsequent production stages, savings can only be achieved through lowering tolerances, reducing oversizes, and improving quality.

The operational targets for reducing waste volumes and improving material efficiency through EBM management are set in the Group Divisions, together with their locations. Here, specific targets depend on local focus areas and the parameters that can be influenced at the location itself. With oil- and water-based cooling lubricant emulsions for instance, parameters for defining the moment of partial or full replacement of the emulsion can include the planned service life of the respective system. Alongside established methods such as workshops on recycling and waste management, in the 2018/19 reporting year we initiated a detailed material flow cost analysis for a production area in Heidenheim. The analysis confirmed our prior assumptions regarding the environmental impact of a planned process modification. In addition, it enabled us to eliminate pressurized air leaks and improve energy monitoring of the process.

Share of Hazardous Waste Decreased Significantly

In the 2019/20 fiscal year Voith reported a clear reduction of 5,360 t in non-hazardous waste and a 2,902 t drop in hazardous waste versus the previous year. Approximately 86 % of our waste was classified as non-hazardous and 14 % as hazardous. The closure of the foundry at our São Paulo location, where a large proportion of Voith's hazardous waste was produced, was a major factor in this positive trend.

Voith does not transport any waste itself. The collection of hazardous waste at Voith is regulated by internal guidelines, with disposal performed by external disposal and recycling companies. We follow up guideline violations thoroughly, and if confirmed these lead to a termination of the business relationship. We regularly audit our disposal and recycling contactors; these audits include onsite inspections of their locations and disposal/recycling facilities. We also gather proofs of disposal and associated documentation. In the reporting period we were not notified of any violations of the law in relation to the disposal of waste by our external disposal and recycling service providers.

Fact Base Hazardous Waste

2.2.3 Water

Water, and therefore also wastewater, play a minor role in our production processes compared to other industries. Nevertheless, we analyze and manage our water withdrawal in the same way as our energy and material consumption. Our minimum standards fulfill the respective legal requirements. In this, we differentiate between boiler feedwater, groundwater, and surface water. We try above all to reduce boiler feedwater consumption, also in order to relieve the local supply. Currently, our local water withdrawal activities have no impact on the environment or on our stakeholders. If there were to be any, we would respond through our environmental incident reporting process, resulting in a thorough root cause analysis and resolution.

Slightly Higher Freshwater Withdrawal

In the reporting period our freshwater withdrawal rose by 58,594 m³ or 5.8 % to 1,014,214 m³. In relation to sales revenue, our freshwater withdrawal also rose year-on-year by 8.8 % to 0.24 m³ per € thousand in sales. Among other factors, this increase can be attributed to a defective cooling water system, and above-plan consumption of an environmental heat-based building air conditioning system, both at German locations. In the reporting period we increased the volume of identified potential for action in the pipeline by 1.4 % to 817,939 m³ of freshwater. In the same period, however, the gains from pipeline measures already implemented remained virtually unchanged at 799,153 m³ of freshwater. We have thus achieved an overall reduction of 35.1 % since the base year (target 40 % reduction by 2021/22).

Fact Base Water Withdrawal, Freshwater-saving Measures and Further Potentials

At Voith it is our stated goal to achieve further reductions in freshwater withdrawal. However, following years of constant improvement – since 2011 we have already successfully reduced our overall freshwater withdrawal by 41 % – the marginal utility of our efforts to further reduce water withdrawal is increasingly declining. We have always paid particular attention to the development of water withdrawal at Voith facilities located in regions suffering water stress. To analyze water risks at Voith locations we use the World Resources Institute (WRI) Aqueduct database as well as the WWF Water Risk Filter. We are currently examining how this risk assessment can be combined with an operational target for freshwater efficiency. The analysis comprised all location-specific criteria available in the tools. The criteria of water quality and quantity were taken into account, along with regulatory framework conditions. The analysis results showed that water stress is currently highest at our Indian sites. This is followed by Voith locations in China and Indonesia, then Dubai and São Paulo.

In view of the analysis results, we are examining whether, and if so how, we need to shift the focus of our actions. After the situation in São Paulo eased further in the reporting period, the location is now at the bottom of the list of high water-stress sites compared to the first study carried out in 2011, according to the data available. Wherever technically and economically feasible, the local management team continues to strive to reuse as much water as possible with the help of our reprocessing plant. For the Indian sites, it should be borne in mind that these currently only have a low single-digit share of Voith's overall freshwater withdrawal. By contrast, the share of Chinese and Indonesian locations is about a quarter of our total consumption. However, numerous measures have already been implemented there. In addition, the affected sites are subject to regular wastewater quality controls. Given that the withdrawal of freshwater has already been reduced by 37 % in absolute terms since 2011, identifying further potentials appears to remain an ambitious goal.

Wastewater Volume Sees Corresponding Rise

In parallel to our increased freshwater withdrawal, Voith also generated more wastewater in the reporting period. At 855,260 m³ the volume of wastewater we generated was 4 % higher than in the previous reporting period (821,902 m³). Around 50 % (previous year 49 %) was discharged into rivers, lakes, or the soil, while 49 % (previous year 52 %) was discharged into the sewage system. We use recycled water in our processes wherever it is appropriate economically, environmentally, and socially. This includes cooling processes (São Paulo), as well as processes in closed cooling water circuits (e.g. Garching, Summerville, Kunshan). We also operate our own wastewater treatment plants at our locations in São Paulo, Garching, and West Monroe, USA. We work consistently to close water cycles wherever it is economically feasible and have now achieved this objective in most cases.

Fact Base Wastewater by Method of Discharge and Quality

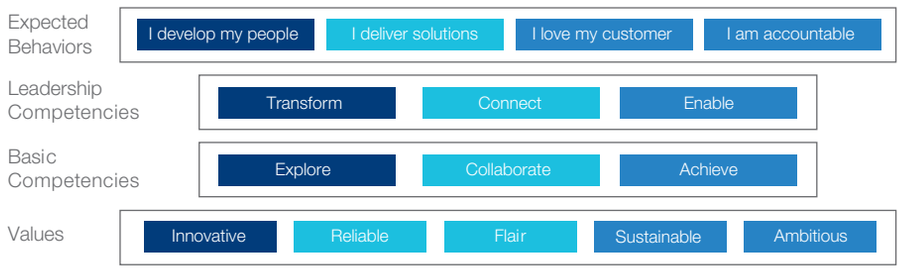
In direct comparison to other industrial companies, our production processes only have a minor impact on natural bodies of water. Measurements of water quality are therefore rarely necessary, with only a small number of locations required to take continuous or repeated monitoring measurements. However, the overall burden of BOD, COD, TSS, heavy metals, nitrogen, and phosphorus cannot be derived reliably, owing to the low sampling requirements. In the reporting period we identified that our Springfield location in the USA exceeded a heavy metal (lead) threshold value. We took immediate steps to correct the water treatment process and sampling methodology.

03 Employees

3.1 Our Management Approach to Employees

Our company's greatest strength lies in our employees' competencies and motivation. This is why we will continue to take a targeted approach to developing Voith's corporate culture to enable our employees to develop their potential even more fully. We aim to create an environment that is highly innovative and agile, and is focused on customers and results as well as reliability and strong cooperation, so that we can meet today's challenges and the future developments of the various markets in which we operate. Our managers' behavior plays a central role in the development of the Voith culture. This is why we consider the topics of leadership and culture as a single entity, and have developed a corresponding framework to guide our employees and managers, as illustrated in the diagram below.

Sustainable technologies for future generations



Our corporate culture is based on the Voith values. The competencies we require and encourage in our company are derived from these values. Fundamental competencies such as personal responsibility and the ability to accomplish objectives (Achieve), generating ideas and solving problems together (Collaborate), and the willingness to break new ground and learn from mistakes (Explore) go hand in hand with core leadership skills. It is each manager's responsibility to create an environment in which employees can succeed (Enable) and where transparency and openness (Connect) prevail. It is also important to promote the willingness to initiate and implement change in order to facilitate innovation (Transform). These competencies are intended to enable our managers and employees to behave in accordance with our expected behaviors, the implementation of which is expected of each individual – and may be expected of others.

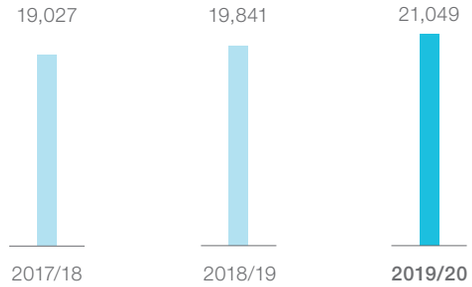
The Acid Test: Coronavirus

In the reporting year the COVID-19 pandemic presented us with completely new challenges in terms of proven work processes and established forms of cooperation. As a result, managers in particular were asked to explore new approaches to maintaining employee performance and reducing risks to the company's success. With hardly any advance notice, we were challenged to enable the majority of our global workforce in non-production business areas to work remotely and manage this change successfully. In peak periods, up to seven times as many employees worked remotely compared to the usual level during routine business. This meant our business operations could continue at all times without restrictions and smooth cooperation with internal and external contacts was ensured without endangering the health of our employees. Our managers and employees have succeeded in continuing to perform at a high level even under these new conditions. We intend to build on this experience and continue to implement proven working methods as well as digital and virtual collaboration processes even after the pandemic has passed.

3.2 Voith as an Employer

Voith's business model is geared towards the long term – a principle that also includes our employment policy. As a dependable employer, we intend to live up to our responsibility as a family-owned company and offer our employees security and prospects at a time when especially the external conditions for their employment are subject to a wide range of changes.

Number of Employees
In individual people



Fact Base Employee Structure, Employees by Employment Type

This is exemplified by our agreements to safeguard Voith locations in Germany, namely in Heidenheim, Crailsheim, and Garching. In the tradition of a family-owned company, we are implementing necessary headcount reductions as socially responsible as possible, by avoiding operational redundancies. We make use of natural employee turnover while also relying on tools such as early retirement, semi-retirement, or mutually agreed termination agreements. Use of these tools is agreed with employee representatives and unions. We also use interim employment companies and vocational training measures. If work has to be transferred between locations, the employees concerned always receive offers for continued employment at other Voith locations. At our international locations we also strive, wherever possible together with the employee representatives, to safeguard employment, avoid redundancies, and make any necessary staff reductions as socially responsible as possible, based on the tried-and-tested practice in Germany.

Fact Base Measures for Socially Responsible Restructuring and Job Security

Sustainable Organization of HR Services

A large part of the operational HR work at Voith is distributed across four regional HR Global Business Services (GBS), where transactional processes and programs are concentrated. These HR services are provided in accordance with the regional statutory and operational regulations, and are coordinated by Group Human Resources. We are driving the digitalization of HR services in all regions to achieve efficiency gains in addition to improved service quality. A milestone in the 2019/20 fiscal year was the redesign of the Voith&Me employee portal, a global platform for all location-specific HR services. Building on this, a project planned for the next three fiscal years will further automate a large part of the HR services provided by the service centers and offer these as self-services via an Enterprise Service Management (ESM) platform.

Performance-based Market-competitive Remuneration

At Voith we always remunerate employees in line with market standards and rely on an internationally standardized job evaluation system for guidance, among other things. We use country-specific salary benchmarks to ensure market-based remuneration and salary development. The analyses currently available to us, especially for our core countries of Germany, the USA, China, and Brazil, confirm this. Individual remuneration is also independent of gender and is based exclusively on the requirements of the position, professional qualifications and performance.

Fact Base Expenditures for Employees

Upholding Employee Rights

Voith provides its employees with fair working conditions that comply with all statutory requirements. We reject all forms of forced labor and child labor. We also commit ourselves in our Code of Conduct and the corresponding Group Directive not to obstruct lawful employee representation in any form (e.g. obstruction of the freedom of association and collective bargaining agreements). We view trusting collaboration with employee representatives as a key prerequisite for our company's long-term success. As such, we always involve employee representatives in discussions between the Corporate Board of Management, local HR departments, and employees. Within the individual countries, labor relationships are structured in accordance with national laws, collective wage agreements, and company agreements. The Voith Compliance Organization ensures that agreements made are adhered to.

In the 2019/20 fiscal year, 67 % of all employees worldwide (previous year 72 %) were covered by a collective agreement. The decrease compared with the previous year is due to changes in the organizational structure, such as the acquisition of new companies.

Our Corporate Board of Management or the local management team communicate fundamental changes to employees at Voith locations in a timely and early manner. We achieve this through a range of communication channels, particularly our intranet, video and telephone conferencing facilities, and notices. In Germany, the decision-making process in the event of fundamental company changes is subject to the provisions of the Works Constitution Act. Implementation of the measures adopted is supported by the respective location's Works Council.

Diversity and Equal Opportunity

Our workforce comprises people of all genders and numerous ethnicities who are at different stages in their lives and can contribute their own unique experiences to our company. We believe they should all have the same opportunities at Voith, which is why we signed the German Diversity Charter in October 2018, committing ourselves to create a working environment free from prejudice and to promote a culture of appreciation in our company. This aspiration is supported by our Diversity & Inclusion (D&I) program, which we introduced across our Group back in 2012/13. We understand diversity as recognizing and embracing the uniqueness of our employees in the aspects of gender, age, nationality and ethnic origin, education and professional experience, as well as personal differences such as beliefs, physical abilities, or sexual identity. At Voith, we understand inclusion as the aforementioned culture of appreciation and respectful cooperation that enables everyone to develop their potential freely and contribute different perspectives, ways of thinking, and approaches. The D&I mindset is also integrated in our new competency model and supported by our range of digital tools and formats to promote exchange and networking across hierarchies, regions, and divisions.

Internationality – More Than an Aspiration for Voith

Our company's international nature is also reflected in our employee structure. Employees from 97 different nations work for Voith, and the Voith Senior Management Circle also has an international composition, with 80 members from eleven countries. Voith deliberately promotes cultural diversity, thereby enhancing international cooperation at all levels of our company. In the fiscal year there were around 100 international secondments, enabling employees from different regions and of different nationalities to enrich their international careers. And to further increase mutual understanding, tolerance, and communication skills, we offer our employees intercultural training and language courses.

Fact Base Diversity in the Management Team and in the Workforce

As an internationally active company, Voith can only be successful if our working environment is underpinned by equal opportunity and mutual respect. In our Code of Conduct we take a clear stand against all forms of discrimination, with the Voith Compliance Organization monitoring the implementation and enforcement of our Code of Conduct.

Clear Statement Against Discrimination

Extract from the Voith Code of Conduct

"As a company with a global reach, we work with employees and business partners of many different nationalities, cultures and customs. We do not tolerate unequal treatment (discrimination), harassment or degradation in violation of the law. In particular, we do not tolerate discrimination on account of race, ethnic origin, gender, religion or worldview, political opinions, age or gender identity."

As a signatory to the Diversity Charter, Voith has held an annual Diversity Day at the company since 2019. In the reporting year, various digital formats such as moderated online discussions and interviews were made available as part of the global event and supplemented by local activities.

Our D&I program applies to all sites and includes not only the consistent sensitization of employees but also the implementation of appropriate measures. Group Human Resources coordinates the program and defines globally applicable standards, ensuring we take a uniform approach across the Group, share best practice approaches, and consider the varied challenges we face worldwide.

An important element of our D&I program is the optimization of our processes to deal with unconscious bias. Among our activities in this area, we plan to ensure that standardized and objectified procedures accompany the selection and promotion of employees in the recruitment phase and as part of talent development. The pilot phase is scheduled for the 2020/21 fiscal year, with a global rollout to follow. We have already set a range of priorities for the recruitment process and adapted these to local circumstances. In North America, for example, application documents are anonymized to minimize the risk of unconscious bias. In addition, our new D&I Visual Identity, which is composed of the portraits of different employees from all regions, is intended to sharpen awareness of differences and at the same time strengthen the feeling of togetherness.

We keep our employees up to date through global communication campaigns on the subject of D&I and make relevant information available online. Managers also have a toolkit available to them on our company's own SharePoint platform that provides ideas for measures and activities to make D&I part of daily working life and teamwork, as well as to help them reflect on their own management style. In addition, mandatory workshops for the upper four – in some regions, five – management levels help to continuously raise awareness among managers throughout the Group regarding D&I and draw attention to specific topics such as unconscious thought patterns. A mandatory training module on D&I has also been introduced for prospective managers in all regions. In the 2019/20 fiscal year we held D&I training courses with around 100 participants. In addition, in the reporting period we made optional workshops available to all employees in Europe and developed an e-learning course on unconscious bias that is accessible globally.

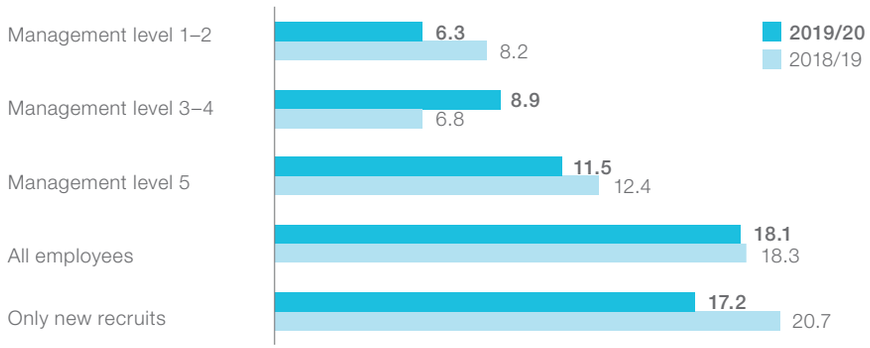
"As an internationally active company, Voith can only be successful if our working environment is underpinned by equal opportunity and mutual respect."

Since women are still underrepresented in technical apprenticeship occupations and higher education courses, Voith is committed to a large number of measures around the world with the aim of increasing girls' and young women's interest in technical professions. For example, we have been participating in Girls' Day for many years and are involved in the state initiative Women in MINT Professions (MINT = mathematics, information technology, natural sciences, technology) run by the State Ministry of Baden-Württemberg for Economic Affairs, Labor and Housing. The initiative aims to encourage more girls and women to take up MINT professions and to increase career opportunities for women, including those returning to work.

As at September 30, 2020 the proportion of female employees in the workforce stood at 18.1 % (previous year 18.3 %). In the Voith Senior Management Circle, the proportion of women currently stands at 6.3 % (previous year 8.2 %). In our middle

management circle, the proportion of female managers fell to 11.5 % (previous year 12.4 %). These declines are mainly due to the structures taken over from newly acquired companies. We would like to increase the proportion of women in the workforce, especially in management positions, and build further on the positive changes we have achieved so far. Various measures, such as internal mentoring programs or training courses, are available specifically to women, and are intended to attract more women to management positions.

Percentage of Women by Management Level
In %



Balancing Work and Private Life

Voith sees itself as a family-friendly company – an understanding that is embedded in our Group-wide guidelines to provide a flexible and family-conscious work culture. We work to familiarize all our managers with the necessity of this working culture through ongoing communication measures. After all, our stated goal is to offer our employees an attractive working environment. This also includes flexible working models that are compatible with their respective life situations. Indeed, 69 % of our employees are largely free to organize their working time flexibly. In consultation with their supervisors, they can agree personal models, ranging from the use of flextime, part-time work, job sharing, and sabbaticals, to remote working.

In 2020, against the backdrop of the COVID-19 pandemic, the flexibilization of working hours in terms of time and place was further advanced in several regions and set out in framework regulations. Where not yet in place, specific agreements on mobile working were made.

Fact Base Flexible Working Time Models, Parental Leave

Employee Satisfaction

The employee turnover rate in the Voith Group rose in the reporting period to 11.5 % (previous year 9.9 %). 3.3 % of this fluctuation (previous year 3.9 %) was due to employees terminating the employment relationship. We investigate the reasons for this in order to identify potential for improvement.

Fact Base Employee Turnover, New Hirings

We are convinced that one of the keys to employee motivation and satisfaction lies in the exchange between managers and employees. This is why we intend to establish an ongoing dialog in our company on skills and interests, event-related feedback, and a constructive no-blame culture. The aim is to give all employees the opportunity several times a year to speak to their managers in a structured manner about their performance, changes in behavior, and what support options are available to them. To go beyond simply agreeing on goals as a part of performance objectives, we intend to focus even more on how these goals can be achieved in particular.

“We are convinced that one of the keys to employee motivation and satisfaction lies in the exchange between managers and employees.”

In order to further expand leadership competencies in the company in a targeted manner, we began to adapt our leadership tools in 2020. Following the successful completion of the development phase in the reporting year, the test phase started with a pilot group from the Corporate Board of Management, the Senior Management Circle, and representatives from selected business areas. The new leadership tools focus more on event-driven, ongoing discussions between managers and employees and less on the previous, highly formalized discussions. Global rollout will commence in the 2020/21 fiscal year. The employee representatives will be involved throughout the process with the aim of reaching an agreement that regulates the IT-based use of leadership tools.

3.2.1 Attracting and Promoting Talent

Competition for suitably qualified employees is getting tougher in many areas – also for Voith. However, by taking a more differentiated approach to our personnel marketing activities, we are working to make our efforts even more successful. In the reporting year, for example, we developed a global employer branding concept. In addition, we created a competency-based interview guide to help us find the best candidate for each position. And against the backdrop of the COVID-19 pandemic, we strengthened our presence at virtual career fairs and events in the reporting period.

Voith offers numerous promotion and development schemes for talents, such as the Hydro Development Program: This international program offers short international secondments, thereby promoting global networking. This year's participants come from China, Japan, South and North America, and Europe. With the Voith Paper Talent Board, emerging talents from across the world can work together on specific, highly strategic project tasks that are either set by the Corporate Board of Management or proposed by the emerging talents themselves, reflect on the results with the Corporate Board of Management, and in doing so prepare for future management and leadership responsibilities. Personal mentoring as well as the opportunity to attend a leading business school round off the program. At Voith Turbo, talent is promoted through targeted collaboration in strategic, mostly international, cross-functional projects. Job rotation, international secondments, and in-depth mentoring also support the development of high-potential employees.

Leadership Training

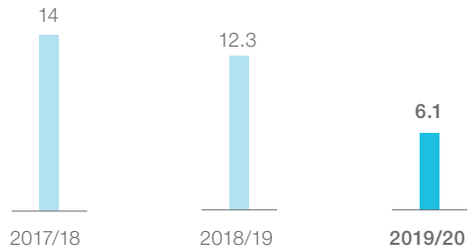
The development of our executives is of great significance within the overall strategy of our training and education measures. Special development programs establish a uniform understanding of management within our company across Group Divisions and regions. These programs are mandatory for all executives with supervisory roles. By the summer of 2021 we aim to align executive training courses around the world with our new competency model before the new leadership tools are then used throughout the company.

Fact Base Training and Education & Career Development

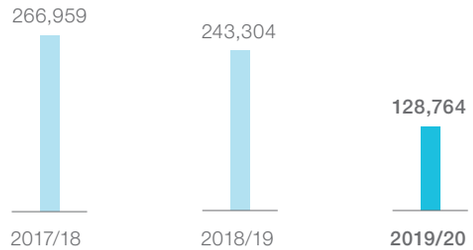
The three leadership skills – Enable, Connect, and Transform – form the framework for our approach to leadership development. We pay particular attention to the emotional bond and adaptability of our employees, by which we mean those aspects that are more influenced by intrinsic motivation than subject-specific abilities and skills. With training courses on specific leadership challenges and topics such as agile leadership in projects, remote leadership, and leadership and health, we are meeting the highly complex challenges posed by modern leadership.

Our DRIVE platform, developed by external and internal partners as well as the Works Council, is at the center of our activities to optimize internal training and development at Voith. Conceived as a learning community, DRIVE helps employees of all ages to overcome possible fears regarding digitalization in the working world and to develop curiosity about job profiles of the future. This is achieved by taking a playful, hands-on look at the digital changes in the employee's own area of responsibility. The platform is now available in four languages and offered to external customers.

Average Hours of Continuing Education



Total Hours of Continuing Education



Voith offers its employees a wide range of training programs in the areas of leadership and social skills, as well as methodological and specialist knowledge to enhance their professional competence. This includes both functional training models for Sales and Product Management as well as programs for specific Group Divisions such as the PaperSchool. The Sales School, which is based on the DRIVE learning platform, now includes around 70 individual training courses. With train-the-trainer formats, we create a high level of internal participation in the transfer of skills. We offer the full range of classroom and e-learning formats.

In the 2019/20 fiscal year our employees completed an average of 6.1 hours of training and further education (previous year 12.3). The significant decline is due to the fact that classroom training was largely dispensed with during the pandemic. However, we have succeeded in creating a new and cutting-edge training mix through online offerings and clear content-related focus, which relies more on internal knowledge transfer and less on external trainers.

We work tirelessly to improve our training program. This is why we ask participants about their experiences after each training course, and provide the findings to the trainers and the HR area. In addition, the supervisor's assessment is obtained as a means to evaluate the success of a measure from the perspectives of everyone involved.

High Aspiration – High Level of Training

By tradition we are committed to providing world-class vocational training, and this commitment has remained steadfast for over 100 years. At the same time, inter-disciplinary learning and the integrated provision of social and specialist expertise are especially important. Voith trains employees around the world, and to do so we utilize our own training centers in Heidenheim, and Kunshan (China). Our international locations also deliver vocational training that, while based on the dual-study system practiced in Germany, also incorporates cultural and country-specific considerations as well.

In the course of the digital transformation, modern information and communication technologies are merging with industrial processes. To adequately prepare young people for the changing production landscape, we already started to integrate new digital work content into the training of technical professions at Voith in the 2017/18 fiscal year. Thanks to comprehensive digital offerings, trainees were able to continue their vocational training via a learning management system without any significant restrictions despite the Corona pandemic in 2020.

The Baden-Württemberg Cooperative State University (DHBW) has been a strong partner of ours in the academic training of emerging talent for over 40 years now. The program offering includes ten different courses at five different university locations. The training links theory and practice, and is combined with a secondment abroad or an inter-location assignment. The range of courses offered by DHBW is an important pillar for securing our future management and leadership pipeline.

Fact Base Vocational Training

3.2.2 Occupational Health and Safety

Occupational health and safety are a top priority at Voith. By taking a responsible approach to designing workplaces and processes, we work to prevent accidents and work-related illnesses as far as we can. Our established HSE organization provides the best basis for this. In addition, our systematic approach to implementing the Shared Services structure ensures that individual locations and regions receive the most comprehensive support possible. Many of our sites have also implemented an occupational safety management system certified to ISO 45001 (formerly OHSAS 18001). This currently covers almost 80 % of our employees.

Fact Base Certifications

In the previous reporting year we converted the organization to a decentralized structure to reach our employees even better. The activities are concentrated in the central Quality & HSE/Sustainability Board, in which the HSE managers in the Group Divisions coordinate their activities. They continue to report functionally to the Global Head of HSE and Sustainability. In addition to a greater on-site presence, the aim is to offer specialist support with a stronger product focus. Established processes serve to identify dangers and risks in occupational health and safety. These are accessible to everyone involved, and all information can be called up via a system so experiences can be transferred easily between the business areas.

Fact Base Approach to Preventing and Dealing with Negative Health and Safety Impacts

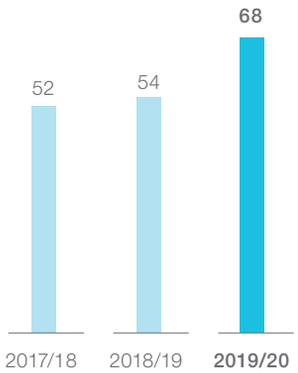
A Group Directive sets out the requirements and responsibilities for effective occupational health and safety, and lays down binding minimum requirements and standards for the Group. It also includes all Standard Operating Procedures (SOP) on HSE at Voith. In principle, while all locations are covered by this Directive, the more stringent provision in each case is always applied when reconciling the regulations with regional requirements. As a third step, customer agreements are binding if they impose stricter or more specific requirements. We are currently reviewing and, where necessary, amending all Group Directives to ensure that their contents are up to date and consistent with the new organizational structure.

We use our Group-wide hse+ IT system to manage HSE, which is now also used in smaller organizational units. As a fundamental principle we attach great importance to the early involvement of Data Protection Officers in all issues relating to HSE reporting, controlling, and communication. All occupational health and safety policies are accessible globally via this system, just like our environmental protection regulations. Moreover, the majority of countries can enter relevant laws and regulations directly into the system and assign the resulting responsibilities to those accountable.

In 2019 we rolled out a new Environmental Risk Assessment tool, in parallel to the risk assessments for people, activities, and business areas. This allows for the objective identification of the diverse hazards at our locations as well as their daily documentation. As with the other risk assessments, actions can also be assigned and their implementation tracked. In the reporting year this tool was rated very positively in internal and external audits. Continuous optimization in the reporting year also made it possible to record more incidents in the nonconformities area, thus creating an important prerequisite for a successful transition to the new tool.

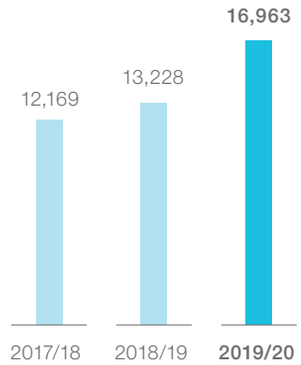
Frequency Rate
Specific figure in accidents per 1 million working hours

Number of accidents



Severity Rate
Specific figure in lost hours per 1 million working hours

Number of lost hours



Joint Task of Occupational Health and Safety

Company agreements on occupational health and safety, and on preventing addiction, complement the regulations embedded in our HSE Group Directive. A monthly Safety Committee Meeting brings together employee and employer representatives at each production location to develop the annual occupational safety program and decide on its implementation.

Fact Base Employee Representation in Committees

Occupational Safety

In 2009 we anchored accident frequency and severity reduction in our corporate goals. Over the past few years we have made constant improvements in this area, making Voith one of the world's leading companies in occupational safety across all industrial sectors. This is confirmed by the Accident Frequency Rate (AFR – the number of notifiable accidents per 1 million working hours), which we calculate according to the international standard. Accordingly, our AFR decreased very significantly from 12.6 in the 2008/09 fiscal year to 1.8 in the reporting year (previous year 1.5). This corresponds to 58 notifiable accidents (previous year 54) – still a particularly low figure compared to other industries. By comparison, the average AFR of companies in the Professional Association of Plant and Mechanical Engineering in Germany is 22. However, in the reporting year we again suffered an increase in the Accident Severity Rate (ASR): With 454.8 working hours lost per million (previous year 364). Still, we suffered no fatal accidents in the reporting year.

Fact Base Occupational Accidents

Extensive Occupational Safety Program

Our occupational safety program includes every employee. We also involve service providers in occupational safety activities through our "Coordination of Visitors and Contractors" Occupational Safety Directive. Executives with supervisory roles have a particular responsibility in this regard: They are responsible for risk assessments,

as they are best acquainted with the technical requirements as well as the level of education and experience of their employees. Furthermore, they have a clear duty to ensure that information and targets are cascaded as prescribed, right from the Board of Management, through the respective executives, all the way down to employee level. Employee training and satisfactory communication of key developments also fall within their area of responsibility. Employees must be given documented instruction at least once a year, with centrally prescribed training documents supporting this process. Besides annual instruction, brief information on the subject of HSE is published regularly – in some cases also on a daily basis – and information sheets are available for selected topics.

The use of our HSE software for online instruction continues to gain in importance, even if it cannot replace personal instruction by the supervisor. Individual business areas conduct training courses online that are precisely tailored to their respective needs. These have proved particularly effective in communicating information globally and in a timely manner to both office-based and Field Service staff. We work to raise our production employees' awareness through five- to ten-minute, high-impact presentations. Beyond the annual instruction we provide, these presentations on current topics keep aspects of occupational safety firmly in employees' minds as they carry out their daily work. We document instruction sessions that are required by law.

We place particular emphasis on the training of our experts in the regional HSE organization. They have already been rigorously trained on the use of hse+: We have used this online system at Voith since the 2015/16 fiscal year to display information globally, uniformly, and transparently on audit planning and audit results, as well as key information on hazardous materials, compliance, and risk assessments. Over the next two years we plan to make sure that our people at our largest locations use as many modules as possible and equally intensively. Furthermore, we intend to further expand the documentation and follow-up of measures derived, particularly in the area of hazardous substances.

Fact Base Occupational Safety Training

Special Responsibility with Field Service

When on construction sites or service calls, Voith Field Service employees often take responsibility for compliance with occupational safety and environmental protection, whether as supervisors without authority over other service providers, or by taking full construction-site responsibility that includes authority over subcontractors.

Documenting, Analyzing, and Preventing Accidents

At Voith we record all accidents centrally so the direct supervisor is reliably informed and the notifications can be published on the intranet. This also ensures that the Corporate Board of Management is informed within 24 hours in the event of serious incidents. Investigation teams, comprising stakeholders, supervisors, and safety experts, review and document the accidents. Especially serious accidents are examined separately once again at our Center of Competence HSE. Our hse+ IT platform plays a key role in this regard, allowing us to further improve the transparency of our pipeline of measures and implement measures in a more targeted way. In the last reporting year, together with the respective software supplier we continued to work towards establishing a uniform quality level throughout the Group. Our activities focused on improving accident reporting and the corresponding reporting forms, which provide us with detailed accident statistics. These allow us to analyze incidents based on the type of injury, its severity, or the cause of the accident. A detailed description of accident definitions is given in our Group Manual; these are then presented in a way that makes them comparable internationally with other companies.

Our eVAP app involves employees actively in accident prevention. With clear icons to facilitate user interaction, the app enables them to log potential accident causes quickly and easily on the spot. It then sends this information to a central database, where the data is analyzed automatically and then published in target group-specific internal media along with corresponding instructions. This allows us to raise our employees' awareness of unsafe actions and situations before accidents occur. Furthermore, even more targeted prevention work is made possible thanks to the improved data quality across sectors and countries. Our HSE experts received an average of 448 (previous year 423) reports per month in the 2019/20 fiscal year. Accident analyses,

audits, and other measures allow us to ensure we are always up to date in terms of HSE and can take immediate action in response to serious accidents, or if specific accident types occur more frequently. We intend to perform more audits and further improve the quality of the content. Our global HSE Flash News on the accident/incident focus areas in occupational health & safety and environmental protection enables us to inform affected employees immediately and directly.

Routine Communication on Security Issues

We employ several communication channels to keep every employee across our Group updated on changes and developments. These include the Safety Steering Team's fortnightly conference calls on safety topics; these topics also play a central role in the QHSE Board's meetings. Following this, meetings are held at a regional level to communicate the points discussed. This information is then shared with the individual locations in the monthly occupational safety working groups. The local experts are also responsible for translating the guidelines and standards into their respective languages. Centrally produced publications, such as the regular HSE and EBM Newsletters, complement our information offering.

Occupational Health

Regardless of where our employees work, we want them to stay fit for work and retire healthily at the end of their professional lives. To comply with legal requirements and recognize cultural differences at our locations in different countries, we always take a regional approach and set different priorities in occupational health management. In this way further improvements in occupational health care were achieved at our German and individual international sites in the reporting period. In Brazil, for example, former employees continue to receive medical assistance through Voith for the first six months after the end of their employment.

The Corona pandemic required our full attention in the 2019/20 reporting year. A crisis team comprising the heads of Corporate Security, Occupational Health, Communications, HSE, and HR met regularly. One focus of the work was to review international recommendations for action, to assess the relevance of events for the Group, and to derive appropriate actions. The channels we used to inform our employees included a special SharePoint on the subject of Corona and how to protect themselves. Employees could also call our occupational health service hotline and seek advice from our HSE experts.

We plan to produce a concept and then establish an overarching health management organization. Specific activities will then be defined for the agreed fields of action. In the reporting year we also concluded a location survey, and in connection with this we compiled a list of all current measures in Germany.

Our focus remains on communication between individual teams as well as between managers and employees. To systematically drive relevant topics, we establish health working groups comprising management, HR, Occupational Safety, and Occupational Health experts. A higher-level central steering group with representatives from Occupational Health, HR, and the Works Council acts as a provider of stimuli and builds a network between the Health working groups at our locations.

Furthermore, thanks to our cooperation with an external service provider, our employees in Germany can obtain information and support relating to the care of family members and childcare.

04 Products & Supply Chain

4.1 Product Responsibility

4.1.1 Management Approach

With its products and industrial services, Voith is represented in five markets around the world: Energy, Oil & Gas, Paper, Raw Materials, and Transport & Automotive. As these markets have different requirements, we ensure the solutions our company provides are just as varied.

Our Responsibility – Our Fields of Action

Given the diversity of our product portfolio and the very different market requirements we face, our Group Divisions are confronted with a broad spectrum of challenges regarding product responsibility. To identify these demands systematically and evaluate their materiality, we draw on the results of our stakeholder survey from the fall of 2018. We have also evaluated external benchmarks, including those of the German Institute for Ecological Economy Research (IÖW) and ISS ESG.

In conjunction with our Group Divisions' evaluations and assessments, we define the material fields of action for our company with regard to product responsibility as follows:

- Quality and reliability of our products and services
- Guarantee of maximum product safety
- Long service life of products
- Product resource efficiency
- Minimizing products' environmental impacts

Orientation Toward Megatrends

Led by the Divisions' respective Chief Technology Officers (CTO), we developed future scenarios for water, paper, mobility, and the environment extending right through to 2040. Key technologies and potential business segments were identified and prioritized. In this process, the megatrends of decarbonization, digitalization, and the circular economy play a central role, shaping the future scenarios derived in each of the Group Divisions, and thus flow into each Division's definition of its strategic objectives.

- **Megatrend Decarbonization:** Voith wants to make a contribution to decarbonization and to achieving the Paris Climate Agreement goals. To this end, we are focusing on the promotion of hydropower as a renewable energy source with low CO_2 emissions, deliver paper production facilities that make efficient use of resources, and work on systematic drivetrain electrification as well as alternative drives to facilitate eco-friendly mobility.
- **Megatrend Digitalization:** Voith views digitalization as an opportunity and combines its long-standing automation and IT expertise with hydropower, paper machine and drive technology know-how. In our core business we develop customer-oriented solutions that drive forward the digital transformation in key global industries, enabling a reduction in energy expenditure and resource consumption as well as extending the life of the equipment that we supply.
- **Megatrend Circular Economy:** We drive innovations that contribute to closing cycles in our industries and thus promote resource conservation.

Research and Development

Our success largely relies on our technological expertise and our ability to constantly apply our know-how in innovations that generate added value for our customers. This is why Research and Development (R&D) has traditionally been a high priority at Voith and why we continuously invest in our future: in total, over the last five years we invested over € 1 billion in R&D activities. We made a conscious decision to continue our commitment in this fiscal year, despite the Corona crisis. We have therefore not reduced our R&D budget as part of our Corona crisis management; R&D projects were neither stopped nor reduced in scope to save on costs. However, some customer-specific projects had to be postponed due to pandemic-related project delays, resulting in lower overall R&D expenditure in the reporting year than originally planned. As a result, the Voith Group's R&D expenditure in the 2019/20

fiscal year fell below the previous level to € 189 million (previous year € 213 million). At 4.5 %, the share of our Group's sales dedicated to R&D was slightly below the previous year's level (5.0 %). Voith holds several thousand active patents around the world, with hundreds of new ones added to our portfolio in the reporting year.

Annual Report 2020 p. 24 f., Research and Development

Fact Base R&D Expenditure

Customer Dialog

Maintaining close customer relationships and a deep understanding of customers' needs has always been one of Voith's strengths. All divisions are in constant contact with their customers, who also play an important role in trend analyses. In joint working groups with customers, current and future trends are identified and joint projects are subsequently defined and implemented. This contact also includes targeted surveys, for instance on customer satisfaction or future requirements on our products' capabilities. Development collaborations with selected customers have also proven effective in jointly developing solutions that offer the highest added value on both the customer and supplier side.

4.1.2 Reliable and Safe Products

Voith is renowned the world over for the safety, quality, and reliability of its products. We are fully aware of the value of this important competitive advantage, so we have set out the principles of our quality and technical risk management processes in a Group Directive that applies worldwide to all Voith companies. Following extensive revision, the Corporate Board of Management implemented the current version in May 2020. Our Group Divisions and their companies then expand on the Group Directive and supplement it with additional guidelines. This provides a clear and binding Group-wide framework for the management and objectives of quality, risk, as well as environmental, occupational and health protection.

Uniform KPIs across the Group enable benchmarking within both the company and the relevant industrial sectors. The corresponding performance indicators are regularly reported to the Corporate Board of Management. Our measures are reviewed in internal and external audits, in which our suppliers are also closely involved.

Fact Base Quality Targets

We document and certify our activities according to the international ISO 9001, IATF 16949, and ISO/TS 22163 Quality Management (QM) standards, as well as ISO 14001 for environmental protection and ISO 45001 (previously OHSAS 18001) for occupational safety; we also supplement these with many of our own QM methods. Virtually all Voith locations are certified to at least one of these standards, while at Voith Hydro, all locations meet all three of the standards mentioned.

Fact Base Certifications

Voith products always meet the statutory and regulatory requirements of the countries we supply. EU Directives, such as the Machinery Directive 2006/42/EG, provide the basis for the minimum requirements for product safety worldwide. Our Group Divisions are responsible for implementation, while the relevant Quality Assurance Departments ensure process compliance. Our Quality Management system also defines how to fulfill the respective statutory product documentation requirements and how products are to be labeled. Besides internal technical documentation, operating instructions provide information on the intended use of our products and on how to handle them in a technically and environmentally safe way. Our QM system also outlines procedures for decisions that entail risks.

Product Safety in the Group Divisions

Voith Hydro always provides its customers with safe equipment – throughout its service life. This aim is a top priority for us and applies to all products and services of the Group Division. We use the Failure Mode and Effects Analysis (FMEA) method for risk analysis. At Voith Hydro, all products must at least meet the safety, health, and environmental requirements of the relevant EU Directives, irrespective of the

market area. Risk Assessment Sheets are available for all machines and products, in relation to the European Directives or any national directives that exceed the EU requirements, for example Machinery Directive 2006/42/EG. The construction rules for all Voith Hydro components and products are defined in design manuals. Safety tests are always carried out, both during the manufacturing process and during installation and commissioning. For all components and products, an Inspection and Test Plan defines the specific test criteria, responsibilities, and documentation requirements.

In line with its Business Management System, Voith Hydro continues to monitor its products during the utilization phase with regard to potential safety risks and major machine damage. We always adhere to product liability law and its specifications regarding the active product monitoring obligation. In case of a safety risk or safety-relevant event, Voith Hydro informs customers immediately and always in accordance with legal requirements. To ensure our customers and their facilities enjoy a maximum level of protection, all safety information on Voith Hydro products is also documented in operating manuals.

The principles of **Voith Paper's** Quality Management are documented in guidelines, process descriptions, and work instructions. Necessary checks and the corresponding documentation are controlled via internal Enterprise Resource Planning (ERP) systems. Possible impacts on the environment, health, and safety are taken fully into account. Various tools are used in order to continuously improve processes, such as Ishikawa analyses, FMEA, and A3 and 8D reports.

Specially trained employees carry out risk assessments as early as the design process. Virtual walk-throughs are performed on detailed 3D designs to uncover any safety deficiencies. Standard products and components are tested as prototypes in industrial applications before being launched on the market as part of the Stage Gate development process. For example, all Roll Cover and QualiFlex jackets under development undergo extensive durability and load tests. In addition to verifying performance, the focus is on safe operation, which is ensured during the use phase by means of a clearly defined process for product monitoring. On roll test stands, thermography systems and vibration-measuring devices monitor flawless operation around the clock and precisely document potential fault causes. In addition, service and sales staff regularly visit many customers to measure the performance of wearing products such as fabrics and roll covers. They also create a comprehensive record of product and facility safety.

All Voith Paper products are delivered with extensive operating manuals that contain detailed safety notes. All wearing products are supplied with the relevant safety data sheets. Customers can also obtain detailed documentation on request, such as REACH compliance certificates, which are in place for all Voith products.

Voith Turbo places the highest demands on the quality of its products and has documented this in its Safety Policy. The Group Division sets corresponding targets and closely monitors their achievement. Product safety is an integral part of all processes, while preventive methods such as FMEA are also anchored there. Quality Management reviews the achievement of safety targets annually, assesses safety-relevant incidents, and takes appropriate measures where needed.

Voith Turbo inspects all products regarding safety and potential health impact. We consider a large number of relevant criteria here, from functional safety, through explosion and fire protection, to electrical safety and electromagnetic compatibility. Throughout their service life, all products are also monitored for safety and reliability. Depending on the applicable contractual, legal, or official requirements, systems such as Entity in Charge of Maintenance (ECM) are applied. In addition, some products are monitored online, such as the DIWA drives in a fleet of over 1,000 vehicles in Dubai and Abu Dhabi. This enables proactive maintenance, and therefore helps to avoid unexpected downtime. Online remote monitoring can also be implemented for Voith Schneider Propellers (VSP) via an extended sensor system. Work is currently underway on a corresponding Condition Management System (CMS) that will provide for ongoing monitoring.

Voith Turbo provides its customers with all relevant safety information. This can be found for example in Material Safety Data Sheets, product declarations (REACH, IMDS, etc.), fire protection certificates for materials, or safety requirement specifications

for risk assessments (CE, etc.). In addition, customers receive information about possible risks in the operating instructions for drive units, which also explain the correct handling of working materials from a safety and environmental perspective.

Wherever necessary, Voith Turbo supports its customers when it comes to authorization and approval of its products and delivers the required documentation and registration papers. The Division's experts are involved in the creation of safety concepts as early as the product development phase and check their implementation, right through to joint validation with the customer. If the need arises, the components are taken into operation with the customer in their production.

Training

Voith Hydro trains both its employees and its customers in how to apply the relevant specifications and deal with the respective framework conditions and regulations. These are available via Group-wide databases and internal communication channels. We also offer training to our customers, either at our Training Center or directly onsite.

Skilled specialists with many years of experience in Voith HydroSchool courses, as well as comprehensive on-the-job training, ensure that our customers' employees can implement the specifications for safe conduct in the daily operation of the machinery. Since the start of 2020, the Voith HydroSchool has also provided online training courses to its customers. This enables location-independent learning and also means individual webcasts can be repeated, making long-term knowledge retention easier.

The topic of safety has particular significance in the Voith HydroSchool customer training courses. This includes in particular:

- Safety-by-design Principles and Case Studies: in this one-day seminar we train customers on the fundamental safety requirements of hydropower plants and discuss combined case studies on damage and accidents.
- Application and Fulfillment of EU Directives on Machine and Plant Safety: in this seminar, we share our expertise and provide practical examples to prepare our customers for the complex process of CE marking.
- Training programs tailored for individual customers that can be repeated regularly.
- Mentoring and train-the-trainer programs for sustainable knowledge building.

Voith Paper conducts extensive training for all operating personnel at customer facilities. Usually, training is delivered as a group course as well as directly at the facility. Virtual reality, webinars, and digital training methods developed as part of the PaperSchool are also utilized. In addition, Voith Paper carries out required training directly at the paper machines during scheduled service visits. This kind of training is particularly efficient because it takes place directly where the product is used. Experts are also available to Voith Paper customers to answer questions and for joint problem-solving via the OnPerformance.Lab and other remote connections.

At **Voith Turbo**, all employees are also trained on quality issues and ensure learnings are thoroughly implemented. Extensive training courses on safe operation of products complement this area. Several quality programs are currently running to increase product and service reliability even further throughout the lifecycle. At the same time, Voith Turbo consistently seeks a close relationship with customers to allow experiences from daily system operation to be incorporated into its product development activities.

Requirements for Suspect and Hazardous Substances

All Voith Group Divisions comply with the relevant rules and regulations for the handling and exclusion of suspect and hazardous materials.

For **Voith Hydro**, EU Directives such as the candidate list, the list of substances subject to authorization (Annex XIV) and the list of restricted substances (Annex XVII) according to REACH regulation are applied. The centrally managed Group Standardization Department is responsible for the implementation of and compliance with

guidelines. The central Technical Department has identified substances that will be banned by REACH in the future; appropriate replacement options are currently being worked out in a development project.

During modernization projects, old machines containing asbestos may be found. Voith complies fully with applicable rules and regulations when handling these and commissions specialized companies with their proper disposal.

“The constant development of our products makes them more environmentally and resource-friendly throughout their lifecycle. In doing so, we meet our customers’ demands, statutory requirements, and last but not least our own aspiration.”

The REACH regulation applies to **Voith Paper** as well. All free chemical substances included in the REACH list are categorically excluded. When new substances are added to the list, Voith Paper reviews their use and, where necessary, identifies a harmless substitute which is then tested and introduced.

For **Voith Turbo** products, the regulations for the handling and categorical exclusion of suspect and hazardous substances are numerous. For example, EU regulations such as the REACH regulation, the RoHS Directives and German Battery Law (BattG) apply. In addition, there are railroad fire protection standards, the Group’s own specifications on hazardous materials, specific customer requirements, and guidelines from associations such as the Rail Industry Substance List and the globally standardized IMDC exchange and management system for material data in the automotive industry. Hazardous materials are avoided or replaced by other materials as early as the engineering phase, wherever technically and economically feasible.

4.1.3 Product Responsibility by Group Division

The constant development of our products makes them more environmentally and resource-friendly throughout their lifecycle. In doing so, we meet our customers’ demands, statutory requirements, and last but not least our own aspiration. The primary aim of all Group Divisions is therefore to conserve resources and to minimize the environmental impact of our products. To achieve this we follow a decentralized management approach.

We predominantly supply components that, as part of an overall system, have differing energy and material footprints. We employ a range of tools to gain an even more detailed picture of our products’ energy and raw-material efficiency: we conduct product Life Cycle Assessments (LCAs) in accordance with ISO 14040 and 14044. However, as Voith products are often not serially produced, LCAs are not carried out for every product. With projects, as a matter of principle the respective sustainability impacts are critically analyzed as part of the internal risk assessment before the submission of tenders.

Voith Hydro

The Group Division Voith Hydro develops customized, long-term solutions and services for hydropower plants across the globe. Its broad portfolio of products and services covers the entire lifecycle and all essential components of hydropower plants of all sizes – from generators, turbines, pumps, and automation systems to spare parts, maintenance and training services, and digital solutions for intelligent hydropower plants.

21 % of Voith Hydro’s orders in the last fiscal year came from countries in which only part of the population can be supplied with electricity and the degree of electrification is in some cases well below 100 %. An inadequate power supply hinders economic and social development. Access to electricity is therefore one of the basic prerequisites for regional development and a reduction in poverty.

Product Group	Share of Revenue of Group Division (%)
Components for large hydro (including refurbishments)	47 %
Components for small hydro (including refurbishments)	20 %
HyService	25 %
Automation (including digital products)	8 %

Shaping the Future with Hydropower

Voith Hydro is active in hydropower, the largest renewable energy source for power generation worldwide. As a proven, mature, predictable, and competitive technology, it combines an unrivaled level of efficiency with an extremely long and reliable plant service life as well as low CO_2 emissions.

The significance of hydropower can be demonstrated by the commonly used energy indicators Energy Payback Ratio (EPR) and Energy Return on Investment (EROI). These are calculated by dividing the electricity output during the normal service life of a system by the energy required for its construction, maintenance, and operation. A high EPR is an indicator of a highly energy-efficient system. Scoring 267 (for run-of-river plants) and 205 (for storage plants), hydropower has the highest EPR of all methods of power generation. In comparison, fossil fuels achieve a value of 3 to 11, large wind farms 39, and nuclear power 16.

“Voith is convinced of the benefits of hydropower and intends to further strengthen its role in the energy transition. As a flexible and grid-stabilizing energy source, hydropower enables the integration of wind and solar power into the grid.”

Voith is convinced of the benefits of hydropower and intends to further strengthen its role in the energy transition. As a flexible and grid-stabilizing energy source, hydropower enables the integration of wind and solar power into the grid. It is therefore essential to achieve the global and local CO_2 reduction targets set by policymakers.

In this light, consistent future scenarios for energy and water were formulated with the help of scenario techniques and retropolation (gap analysis). Alongside the large hydro sector, the focus is also on the growth areas of small hydro, services, and digitalization. In the 2018/19 fiscal year the findings were discussed with our customers and business partners, and compared with their own assessments. In the 2019/20 fiscal year, we were able to convince first customers of our solutions and are now in a position to design a digital and sustainable future. Above all, the three global megatrends of decarbonization, digitalization, and the circular economy shaped the analysis in the Hydro Group Division. While digitalization played a pronounced role in all scenarios, decarbonization and the circular economy were observed differently in the individual scenarios. Together with the structure of world trade (open vs. protectionist) and global economic growth, decarbonization and the circular economy are the key differentiating factors of the scenarios. As a result, they also directly influence the key technologies relevant in these scenarios.

Among others, the following trends emerged:

1. With their high number of full load hours and low generation costs, hydropower plants are perfectly suited to the production of synthetic fuels and chemicals essential for decarbonization. Adapted hydropower plants optimized for the production of synthetic fuels offer an opportunity here, with a particular focus on the concepts of power-to-gas and power-to-liquid. No risks through decarbonization have currently been identified, since the demand for both renewable energy and energy storage systems will increase. Also, existing reservoirs are needed to assure the supply of drinking water and flood control.

2. Voith supplies highly efficient pumped storage plants which can store large quantities of renewable energy with a high level of efficiency. The use of water as the storage medium, as well as the almost complete recyclability of the materials used, makes pumped storage the ideal storage system for renewable energy. Today, over 90 % of the storage systems for electrical energy are based on pumped storage. Pumped storage power plants that work with a completely closed water cycle and are therefore not reliant on extracting water from natural reservoirs are currently being planned.
3. Reservoir sedimentation has also been identified and evaluated as a key issue for the future: This led to plans for the expansion of our service portfolio. Voith Service is developing partnerships and solutions to respond to this topic.
4. However, for Voith Hydro, increased digitalization poses an additional challenge regarding plant security. This is because large-scale hydropower plants count as systemically important infrastructure in many countries, so they need to meet more stringent requirements – particularly in the area of cybersecurity.

Voith technologies play a decisive role in minimizing the environmental impact of hydropower plants – from improving water quality through aerating turbines, through oil-free hubs that prevent water contamination, to innovative runners that improve fish passage through rotors. Voith Hydro also works tirelessly to further minimize the remaining environmental impacts.

In a cooperative project, Voith is therefore researching and developing individual assessment methods and technologies for more sustainable and fish-friendly hydropower utilization. These assessment methods can be applied during the design phase of hydro turbines for newbuild and modernization projects. The knowledge gained enables an optimized hydraulic design with improved fish passage. Tests on the Voith turbine installed at Ice Harbor Dam on Snake River in Washington State, USA, have shown that the new design has achieved a 98.25 % survival rate for fish passing through the turbine. This is a significant improvement over similarly sized installations of conventional Kaplan turbines, which typically have survival rates of just over 90 %.

In June 2020, all three units of the Russian Verkhnebalkarskaya small hydropower plant were successfully commissioned, connected, and synchronized with Russia's energy grid. Voith supplied the main equipment for the hydropower plant. Great care was taken to protect the environment. The design provides for completely oil-free operation of the turbines, with electric actuators for slide valve operation and turbine inlet valves, as well as water-lubricated guide bearings, protecting the environment and reducing maintenance requirements.

Voith Hydro also aims to install new hydropower plants at existing dams and weirs to generate renewable energy growth without further environmental impact on the immediate surroundings. Using our StreamDiver solution, small-scale hydropower plants can be installed at existing irrigation dams even where strict environmental regulations apply, as the necessary lubrication of the plant is not provided by oil but exclusively by water. Launched in Europe in 2013, our StreamDriver has since become established worldwide.

Megatrend Decarbonization – Energy Efficiency and Greenhouse Gas Emissions
On the journey towards climate neutrality we are continuously working on bringing products with an ever-smaller CO_2 footprint to market. To contribute, Voith Hydro is constantly improving the efficiency – and therefore the energy efficiency and carbon footprint – of its products. Efficiency optimization is continually in focus in product development across the full Voith Hydro product spectrum. While plant energy consumption is an important cost factor in hydropower generation, it is of only minor significance when these plants are in operation.

The generation efficiency of our plants is the dominant criterion in our customers' evaluation process. As a result, the continuous optimization of energy efficiency is essential to ensure our products remain competitive. To this end, Voith operates test rigs in the Brunnenmühle in Heidenheim that are among the best of their type worldwide. At the same time, Voith Hydro's development teams have access to state-of-the-art supercomputers, enabling them to carry out advance development.

As essential components of hydropower plants, our products help to cut greenhouse gas emissions. An analysis has quantified Voith Hydro's contribution to decarbonization, and will be updated annually in the future. The hydropower plants for which Voith Hydro has supplied turbines or generators since 2000 achieve annual savings of 241 million t CO_2e during the customers' utilization phase. This is based on the CO_2 savings of hydropower compared to fossil power plants. Our share of the CO_2 emissions saved was calculated via the share of Voith Hydro sales in the hydropower plants; based on conservative assumptions, this amounts to 24 million t CO_2e annually, which is the equivalent of the annual emissions of Munich and Hamburg combined.

Megatrend Digitalization – Towards the Intelligent Hydropower Plant

Models for predictive maintenance as well as the repair, overhaul, upgrading, and retrofitting of products throughout their lifecycle help to conserve resources while increasing efficiency. Residual life calculations are applied here that allow the degree of wear and the residual service life to be determined by analyzing the mode of operation and performing specific system measurements. This means that maintenance and servicing work does not have to take place at fixed intervals, but on the basis of the degree of wear, making better use of materials.

Against the backdrop of advancing digitalization, Voith Hydro sees the development of sensor technology as a prerequisite for enhanced interconnectivity on the journey to making the networked digital power plant a reality. In 2018 Voith Hydro founded the OnPerformance.Lab: here, Hydro specialists analyze operating data from hydropower plants and provide specific action recommendations for improving productivity, avoiding unplanned shutdowns, and optimizing plant security. Numerous hydropower plants already use analysis services such as remote support and Asset Health Assessments from the OnPerformance.Lab. The evaluation is performed by aggregating several hundred operating signals and derived characteristics into standardized diagnostic ratios, making it possible to display the current technical "health status" of a plant simply and clearly. In addition, initial individual optimization approaches are defined within the scope of co-development projects, according to the plant type. The high level of interconnectivity offered by the individual systems permits automated analysis – a unique design feature. The combination of new IIoT solutions such as our acoustic monitoring system and data analytics transforms the system into an intelligent hydropower plant.

Long Service Life, Repairability and Recyclability

A decisive quality characteristic of machines and systems in the Group Division Voith Hydro is their long service life – and this is also an integral part of plant specification. Hydropower plants are designed for a specific number of operating cycles, which generally guarantee a service life of at least forty years.

As part of our HyService activities, we support power plant operators in maximizing the useful life and availability of their facilities. During inspections and repairs (e.g. cavitation repairs or generator rewinds), we take care to recondition all existing components for further use wherever possible. In the case of modernizations, which are generally due after 30 to 40 years, we plan to achieve the best possible improvement in plant efficiency together with our customers, while preparing operation-critical parts of the plant for further usage.

In order to raise resource efficiency even further and improve the repairability and therefore longevity of products, our Group Division Voith Hydro will in future employ an increasing number of modular mechanical engineering models as well as the targeted use of components constructed for and proven in earlier projects. Through this new mechanical engineering approach, business processes relating to product responsibility also need to be adapted. The objective of the new processes is to design products and machine components for multiple uses. In addition, a modified product release process allows us to react much earlier to project-related machine rebuilds. Consequently, we ensure that our products are modularized by using as many identical components as possible and by ensuring the best possible qualification of our supply chain partners, thus guaranteeing optimal product quality. Not least because of their very long operating times, the recycling of the materials in a

hydropower plant is a cross-generational topic. The majority of the materials used in a hydro plant can be very easily recycled, since these are predominantly steel and copper. Thanks to the plant's long service life, the energy consumption required for recycling is only of minor significance in the total energy footprint.

Examples of the service life of hydropower plants being extended significantly through modernization are the works at the power stations in Dębe (Poland) and in Valdecañas and Torrejón (Spain):

- The Dębe power plant in the east of Poland was commissioned in 1963 and has produced electricity for the Polish population continuously ever since. In 2018, the state-owned utility company put out a tender to modernize the plant in order to regain the efficiency lost over the years and digitalize the power plant. This is scheduled to be completed by the end of 2022, so that the power plant can once again remain on the grid for 50 years or more.
- The two power plants in Valdecañas and Torrejón have also been in operation since the 1960s. At the time, the machine sets of both plants were designed so that they could also be used as pumped storage. However, this function has been used less and less over the years. With the upcoming modernization, both power plants should again be able to temporarily store the renewable but highly fluctuating electricity from solar and wind power in order to contribute to Spain's CO_2 reduction.

Fact Base Further Information on Social and Environmental Impacts – Voith Hydro

Voith Paper

As a pioneer in the paper industry, the Group Division Voith Paper aims to optimize the paper production process and enable the efficient use of resources in production. As a full-line supplier, Voith Paper delivers an integrated product portfolio from a single source. Its products and components reflect its experience as a process provider, helping to increase the capabilities and efficiency of the entire paper production process while boosting our customers' productivity and profitability through reduced resource consumption. Thanks to Papermaking 4.0, paper manufacturers can optimally interconnect their equipment and raise their competitiveness through the effective and secure use of the data generated.

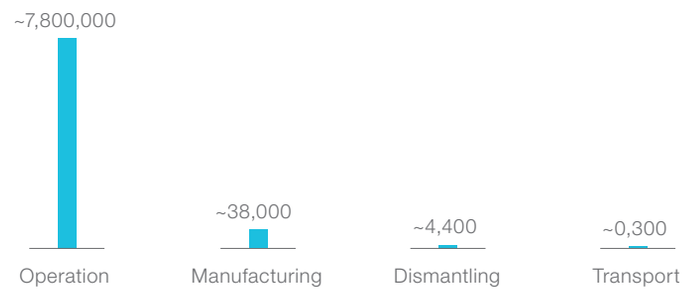
Voith paper machines are designed to make optimum use of resources in the manufacture of paper products. In order to satisfy this aspiration, we conduct Life Cycle Analyses on our products – from the manufacture of raw materials and transportation, through the production process, to use and end-of-life recycling. As the average operating lifetime of a paper machine is around 40 years, even minor improvements in equipment efficiency can have a major impact: by comparison, the actual process of manufacturing a machine has only a negligible environmental impact.

Product Group	Share of Revenue of Group Division (%)
Projects • New facilities – Paper machine • New facilities – Stock preparation • Modifications to facilities	40 %
Roller shells and clothing • Paper machine clothing • Roll shells • Press sleeves	30 %
Products & Services • Spare parts • Performance-enhancing components • Services: Maintenance and repairs, training, and audits • Smaller modifications to facilities	30 %

Therefore, when planning new products, the developers focus above all on reducing the resources consumed in the utilization phase, in combination with the goal of closing loops and recycling materials wherever possible.

In the reporting period, for example, concepts were developed further to integrate wearing parts even better into the circular economy, and work on renewable raw materials was given a much broader footing. Close cooperation with the chemical supply industry and our own research and development activities make it possible to work on at least one specific project in each relevant product segment that reduces the carbon footprint of the products and is backed by significant resources. Voith has developed special yarns that save energy by completely or partially omitting certain heat-setting processes, for example. In addition, this specially woven fabric enabled Voith's in-house production in 2020 to reduce the production time of this fabric by 20 %. The development of new yarns also shows that by switching to renewable raw materials, products not only have a lower carbon footprint but also offer better performance properties than their petroleum-based counterparts.

CO_2 Emissions
Per Lifecycle in t CO_2



Trend Analyses – Strategy for a Sustainable Product Portfolio

The megatrends of decarbonization, digitalization, and the circular economy are key components of the future scenarios for the Voith Paper business segment that were developed as part of the Voith-wide Scenario Foresight Project. Voith Paper has transposed these into strategic goals for 2025 and defined further objectives through to 2040. Accordingly, Voith Paper aims to offer sustainable and efficient paper production technologies from a single source, and to enable process and technology advances for new low-carbon paper mills. We intend to continue further reducing the environmental impacts of paper production while increasing plant cost-effectiveness. The digitalization of highly complex paper production processes will determine competitiveness in the future: decisive factors will be first and foremost the efficiency of the machines used, followed by the optimization of paper production processes.

Voith Paper aims to generate the greatest added value for its customers through maximum resource-friendliness in operation and efficiency in plant design. To Voith Paper, resource conservation means above all reducing the specific consumption of freshwater as well as electrical and thermal energy per tonne of paper produced. It also means reducing fiber loss and wastewater.

"Voith Paper aims to offer sustainable and efficient paper production technologies from a single source, and to enable process and technology advances for new low-carbon paper mills."

As an example, Voith Paper has already identified the following reduction potentials for containerboard with an average basis weight of 130 g/m² by 2025 and intends to harness these potentials as best as possible:

1. Reduction in energy consumption by 10 %
2. Reduction in CO_2 emissions by 25 %
3. Reduction in freshwater consumption by more than 50 %

Moreover, Voith Paper is always looking for opportunities to increase the recycling rate of its own production processes. This objective applies to all new products developed by the Group Division Voith Paper. To further optimize the operational reliability of our customers' own paper facilities we are also working on the automation of manual process interventions in hazardous areas.

Sustainability Criteria Already Considered in Development

The product development process in the Group Division Voith Paper follows the stage-gate process. In the development phase, every product undergoes an assessment that examines the following key sustainability parameters: water, energy, fibrous raw material, quality, and efficiency. The new Voith Paper strategy focuses on six further key business segments: new facilities, spare parts, wearing parts, services, digitalization, and rebuilds. This will enable us to maintain an even better view of the complete product lifecycle in the development stage in future. Safety, efficiency, and sustainability are key differentiation criteria, and are of paramount importance in generating customer benefit. We are driving these topics forward in joint development partnerships with our customers to assure high sustainability and safety standards. This approach also provides the basis for modifications and improvements that help our customers save resources in paper and cardboard production while minimizing the loss of fibrous raw materials. We are also working on avoiding production disruption at paper manufacturing facilities resulting from adhesive contamination of reused waste paper. A further focus is developing the ability to manufacture high-value, robust packaging from recycled fibers with minimal fresh fiber input.

Megatrend Decarbonization – Energy Consumption and Greenhouse Gas Emissions

Worldwide, the paper industry is facing the challenge of significantly reducing CO_2 emissions. This applies especially to Europe where, in its Roadmap 2050, the Confederation of European Paper Industries (CEPI) aims to achieve a reduction in CO_2 emissions of 80 % in comparison with 1990 levels – an enormous challenge for the entire paper value chain. The Green Deal agreed by the EU envisages CO_2 neutrality in the EU by 2050, and recently proposed amendments to the EU's 2030 Climate Target Plan stipulate a 55 % reduction in greenhouse gases versus 1990 emission levels by 2030. Voith Paper wants to contribute to mastering this challenge and adjusted its strategy in the reporting period: in future, the aim is only to develop products and services that have a positive effect on customers' energy efficiency and production costs.

In four defined focus areas, technologies and processes will be developed or optimized with the clear goal of cutting CO_2 emissions and conserving resources in paper production:

1. **Process Improvements and Technologies:** The ongoing further development of products and technologies is aligned with our goal of lowering energy consumption and is thus already making an important contribution to reducing CO_2 emissions. For instance, innovations in roll covers reduce energy consumption in paper production. The development of a new industrial cleaning product is also playing its part: the completely new design reduces energy consumption by 30 % while enabling a significant increase in throughput – without any adverse effect on cleaning performance.

2. **Digital Solutions:** Digitalization solutions and smart, AI-based process controls are already delivering efficiency and availability improvements at paper production facilities. In future these will make an even greater contribution to reducing CO_2 emissions and conserving resources.

3. **Renewable Energies and Energy Storage:** A further key focus area providing great strategic leverage is the use of energy from renewable sources, as well as from residues and production wastewater. Today, Voith is already using anaerobic reactors to purify water and generate biogas, reducing the share of energy from fossil fuels and contributing to the decarbonization of paper production. Energy storage technologies create an opportunity to minimize energy losses further

and to produce cost-effectively – even in difficult operating conditions, such as fluctuations in the availability or price of renewable energies. Although still in the early stages of development, CO_2 storage technologies (Carbon Capture & Storage) can also make an important contribution to reducing CO_2 emissions in the future.

4. **Innovations Set the Course in Paper Production:** Last but not least, even the very mature industrial process of paper production offers the potential for significant reductions in energy consumption, and therefore also in the quantity of CO_2 emitted. To do so, fundamental and possibly also disruptive new developments will be required. As an example, Voith Paper is an active partner in a project for a model factory in the town of Düren in North Rhine-Westphalia. This project was initiated by the paper industry, supplier industries and by universities and institutes, in order to research CO_2-neutral paper production and put the findings into practice at pilot-plant scale.

Megatrend Digitalization – An Opportunity for Differentiation

Digitalization offers Voith Paper the opportunity to use its core strengths to differentiate itself even more clearly from the competition. In the project business, through incorporating digital thinking early, Voith Paper wants to set benchmarks in constructing plant required for the scaling and sustainable implementation of digitalization. The focus here is on the development of smart products and cloud-based data analysis techniques. Under the banner of Papermaking (PM) 4.0 Ready, the aim is to prepare both instrumentalization and automation for the digital age. For instance, Voith Paper is working on increasing the availability of paper machines as well as improving process efficiency. This also includes predictive maintenance solutions: one example is the Talking Roll. Here, sensors are used to measure operating data on rolls, which is then used to determine the safe operating window for predictive maintenance using cloud-based data analysis techniques. In addition, the system indirectly serves to complete the higher-level data sets required for the efficient management of paper production processes. A further driving force of the digital portfolio in the Paper Division are the OnEfficiency products that can help customers save fiber, chemicals, water and further raw materials when operating their facilities.

Megatrend Circular Economy – Using Resources Efficiently

The paper value chain currently enjoys high stability and offers a high recycling rate – over 72 % in Germany today. In order to increase this percentage further and to continue to close the cycle, we are pursuing appropriate technologies for feedstock preparation. It is thereby important to develop additional process steps or to customize processes in order to safeguard the use of recycled paper in paper production. A particular challenge regarding recyclability is the loss of large amounts of graphic paper used in the printing of newspapers and magazines, for example. In order to offset the resulting lower strength potential of the used-paper mix and to contribute to maintaining the recycling loop, Voith Paper is working on new solutions to improve resource efficiency, and more specifically material efficiency. This includes hard nip sizing for instance, which enables a reduction in the required starch spray application and thus the use of fewer raw materials and less drying energy. Furthermore, the control module OnEfficiency.Strength allows lower fiber consumption without affecting the properties of the product.

Voith Paper has had many decades of market success with recycling technology for waste paper as a raw material for paper production, for waste water, and for rejects. Today, the Group Division leads the market in feedstock preparation solutions and is working further on developing processing technologies as well as concepts for improving fiber yield and quality. The target is to develop the necessary machine-based solutions in order to be able to produce these papers and cardboard boxes at competitive costs.

Voith Paper products are developed so as to achieve both low fiber loss and a reduction in reprocessing chemicals. The area of plastic packaging provides an opportunity to replace plastic packaging with paper and cardboard products, which are highly attractive due to their very good recycling properties. This requires the further development of paper and cardboard boxes so that they can assume the barrier function of plastics, repelling water, fat and gaseous substances while at the same time retaining their recyclability. The application of such barriers as a continuous thin film is a major challenge that we are working to meet, together with our customers. To this end, Voith has made substantial investments of several million euros in pilot

facilities for paper calendering as well as for the application and drying of barrier layers on the paper. These map the industrial process 1:1. With the help of these pilot facilities and together with our customers, we are seeking the optimal process engineering concepts and setup parameters for the different barrier formulations. We are also evaluating the recyclability of the barrier-coated papers.

Besides energy use, water withdrawal is the key factor in the papermaking process, from both an environmental as well as an economic standpoint. Compared with standard technology, the HydroSeal currently in use can save more than 27.5 million m^3 of water annually. This is roughly equivalent to the annual consumption of 620,000 people in Germany and thus almost that of all the inhabitants of Düsseldorf.

The concept of the Zero Effluent Mill Process is of particular importance for progress towards a circular economy. This project, in which Voith Paper is involved together with other manufacturers of packaging papers, is expected to show that a paper facility can operate without any resulting wastewater and with a minimal freshwater input of under 2 m^3 per tonne of paper produced. In comparison with state-of-the-art technology for this type of paper, this is a reduction of over 4 m^3 per tonne or more than 60 %. With an annual plant production output of 750,000 t of paper, this equates to annual freshwater savings of around 3 million m^3.

Long Service Life of Products through Upgrading, Retrofitting and Repairing
With regard to a circular economy, it is essential to ensure our plants can be repaired and upgraded to keep them working reliably and efficiently for decades. Together with our customers, we take great care early on during plant installation to ensure optimal operating conditions in this respect. Special service audits offer the opportunity to check individual machine components and even entire systems, and so to improve operating conditions also in terms of energy and raw material consumption. Regular maintenance and the appropriate documentation deliver an overview of plant condition, also contributing to the optimal operation and improved service life of the plant. Innovative products such as the OnCare.pmPortal and ID tagging enable Voith as a service partner as well as a spares and wearing parts supplier – and equally the customers themselves – to optimize asset management (rolls, QualiFlex sleeves and fabrics). Logically, this helps prevent plant downtime due to the failure of components that are inadequate or have been serviced too late. As a result, Voith Paper's concept is designed holistically and can also integrate competitors' assets, thus enabling the efficient use of resources in wearing-parts logistics.

Fact Base Selection: Technologies for Improved Social and Environmental Impact

Voith Turbo
The Group Division Voith Turbo specializes in intelligent drive solutions, systems, and pioneering service solutions. Customers from numerous sectors such as oil & gas, energy, mining and mechanical engineering, marine technology, as well as rail and commercial vehicles rely on Voith's cutting-edge technologies and comprehensive expertise.

Voith Turbo primarily supplies components that have differing impacts on energy and material footprints within an overall system. In order to be able to evaluate our products' energy and raw-material efficiency, we have been conducting Life Cycle Analyses for some years now; these are carried out for all new products. Due to the long service life of Voith Turbo products, the environmental impact during the process of manufacturing a machine is minimal compared to its impact in the utilization phase. As a result, even small optimizations have a positive impact on product efficiency. Comprehensive information about the resulting measures for operational start-up, operation and disposal of the respective Voith products is provided in the operating manual.

Product Group	Share of Revenue of Group Division (%)
VT Mobility	67 %
VT Industry	30 %
VT Others	3 %

Strategy for a Sustainable Product Portfolio

After the successful conclusion of the Foresight project, in the reporting year Voith Turbo further developed its scenarios for mobility, water, and environmental technologies. Strategic search areas for innovations and technologies were derived from the findings of the project, also in the fields of alternative drives, artificial intelligence, and the use of new and hybrid materials. Specific technology roadmaps for the electrification of powertrains and further digitalization of product lines were also developed.

Voith Turbo aims to offer its customers increasingly energy-efficient and eco-friendly product generations, and to ensure this drives a continual improvement process in which customers are also involved. Here we always focus on the impact of using a Voith component on the Total Cost of Ownership (TCO). Energy costs account for by far the largest share, so reducing these takes top priority for all business areas at Voith Turbo. At present, further improvements in energy efficiency and the climate footprint are being made for 80 % of the products in the Group Division Turbo.

“Voith Turbo set itself the goal of reducing the use of materials with negative impact on people and the environment to an absolute minimum.”

Guideline for Sustainable Product Development

Voith Turbo set itself the goal of reducing the use of materials with negative impact on people and the environment to an absolute minimum. The product development process already incorporates this requirement right from the initial stages, with harmful materials replaced by other materials as early as the engineering phase wherever technically and economically feasible.

Voith Turbo has established a guideline for implementing sustainable product development and improved energy efficiency and climate footprint, which covers all phases of the product development process (from developing ideas, through the definition, feasibility and development phase, to the validation phase). The three steps, Green Design, EcoDesign, and Sustainable Design, describe all material sustainability criteria and define specific requirements. For example, Green Design encompasses aspects of material selection, ingredients, packaging, reparability, and end-of-life considerations. EcoDesign explains the principles of Life Cycle Assessment according to ISO 14040 and 14044. Sustainable Design adds social and legal aspects such as fair competition and ethical conduct in business relationships.

Megatrend Decarbonization – Focus on Energy Efficiency

For Voith Turbo, decarbonization and the path towards e-mobility are still the key megatrends. These once again accelerated during the reporting period as a consequence of significantly more demanding emissions targets. Reducing CO_2 emissions further will be even more important for operating companies and vehicle manufacturers in future, as the EU’s Clean Vehicles Directive lays down binding quotas for the procurement of low-emission and emission-free buses. These are to be achieved in two steps by 2025 and 2030 respectively.

Consequently, Voith Turbo sees opportunities above all in decarbonization. The fields of action for reducing CO_2 emissions are divided into four areas.

1. **Process Improvements and Technologies:** Voith Turbo is driving forward the optimization of its products’ energy efficiency and is conducting Life Cycle Assessments for selected products. To meet the growing demands worldwide regarding climate protection and CO_2 reductions, our continuous further development of products and technologies to reduce energy consumption is supplemented by developments in the area of electric drives in all segments in which Voith Turbo is active: commercial vehicles, rail, shipping, and mining.

   With AeroMaxx, for example, Voith Turbo’s Industry Division offers the opportunity to reduce energy losses and oil requirements of power generation systems’ gearboxes by up to 30 %, by using new types of slide bearings and separating the lubricating fluid from the cooling oil. Further VT Mobility is developing DIWA NXT, a new type of transmission for city buses that will enable fuel savings of 7 %

(mechanical optimization) and an additional 9 % thanks to the optional mild-hybrid system (recuperation unit). Overall, this achieves a 16 % reduction in consumption compared to the previous transmission generation.

2. **Digital Solutions:** Products and solutions from the VT Mobility und VT Industry Divisions are leveraging digitalization and smart process controls to contribute to more efficient energy use and longer service life for products across all markets served by Voith Turbo. One example is BeltGenius, developed in the VT Industry Division: this is an innovative digital system for simulating entire conveyor systems in the mining sector. Efficient monitoring, comparison, and optimization of belt conveyors and conveying systems enable reductions in plant downtimes and energy savings of up to 10 %. Also, VT Mobility's Pilotfish system is a cloud-based analysis process for optimized fleet management that reduces fuel consumption, thus enabling additional CO_2 reductions and extending vehicles' lifespan thanks to lower wear.

3. **Renewable Energies and Mobility Transformation:** Voith Turbo is preparing the way for e-mobility. Voith Turbo Mobility is addressing this challenge by developing hybrid transmissions and a fully electric drive. The aim here is the market launch of uniquely efficient systems in the competitive environment. To this end, extensive projects have already been launched. In the reporting year 2018/19, six city buses with electric drive systems were put into operation in Schwäbisch Hall and Heidenheim; by the end of 2020 they had already covered 320,000 km, saving around 400 t of CO_2 in comparison with conventional diesel engines. In addition, Heidenheimer Verkehrsgesellschaft mbH began operating a further three e-buses equipped with Voith Electrical Drive System (VEDS) drivetrains, in February 2020 in Heidenheim. The Solaris Urbino 12 e-buses are equipped with VEDS. Sophisticated control algorithms make 100 % of torque available on start-up.

   With the delivery of the first automated freight train couplers to Swiss Federal Railways (SBB), Voith is contributing to strengthening rail freight transport, which can make a substantial contribution to lowering CO_2 emissions.

4. **Groundbreaking Innovations:** In the industrial and mobility sector, Voith Turbo is preparing for the expansion of the hydrogen economy. Here, the Group Division wants to make an important contribution to the efficient liquefaction and compression of hydrogen. Turbo also intends to supply components for hydrogen storage.

Megatrend Digitalization – Efficient Systems to Develop Optimization Potentials

Voith Turbo continues to focus on the digitalization of its product portfolio to enable even greater resource efficiency. To this end, in the reporting period Voith Turbo worked on various systems for the status monitoring of components and systems. This is intended to avoid critical operating conditions and support the reliability and long service life of products.

One example of this is the Fingerprint Project: its purpose is to fit our equipment with intelligent monitoring systems and sensors at such an attractive price as to maximize the number of applications for which they can be used. The project is currently being trialed by various customers on universal joint shafts used in steel mills, for instance, on a Vorecon and on a VECO-Drive. All test facilities are fully operational; we are receiving the signals and will initially use these within a Condition Monitoring System (CMS). The focus is on gathering and evaluating critical signals to learn more about the load profile of drive components, as well as their predicted service life; this enables appropriate forecasting in order to avoid premature failures. In a second phase of the project, we plan to develop opportunities for performance improvement based on the data gathered.

Megatrend Circular Economy – Contribution of Long Service Life and Reparability

Long service life is a key quality of Voith Turbo's products and at the same time means they consume fewer resources. Our service promise is based on supporting systems and components over a very long period with spare parts and therefore avoiding early scrapping. This remanufacturing is resource-efficient since it prolongs the products' lifecycle, while our customers benefit from lower total cost of ownership due to the longer life span.

We are now also able to restore spare parts with low resource consumption thanks to newly developed Additive Manufacturing processes – these eliminate the need to cast new parts, for example. Digitalization in service and production also supports the overhaul of returned bus gearboxes and leads to design improvements, an intelligent spare parts supply, and significantly optimized gearbox service life. As part of modularization and value analysis, we are working on further increasing the recyclability, upgradeability, and reparability of our products. This is enabled by intelligently designing component interfaces, for instance, so that individual modules can be swapped out quickly and easily without having to replace the entire product.

Fact Base Further Information on Social and Environmental Impacts – Voith Turbo

4.2 Responsibility in the Supply Chain

In the 2019/20 fiscal year we once again purchased a broad spectrum of goods and services worth almost € 2 billion from our external suppliers and service providers. Measured by overall invoicing volume, the purchase of complete plant systems was the largest item of expenditure. As a fundamental principle we work to build long-term relationships with our business partners, and therefore closely monitor the economic sustainability of our requirements on them. In this regard, mutual fairness is the core element in establishing and maintaining a long-term, trust-based business relationship.

Fact Base Procurement Markets

Managing Sustainability in the Supply Chain

For the most part, responsibility for sustainability topics within Voith's purchasing activities lies with our Corporate Strategic Purchasing (CSP) Department. Besides reporting, this also includes supplier-specific compliance activities. Current topics are coordinated with representatives of the Group's divisions in cross-divisional Purchasing Committees and translated into appropriate measures. Our fundamental principles on resource conservation as well as environmental and social responsibility are anchored in our Purchasing Strategy and General Purchasing Conditions, together with our Code of Conduct. In our purchasing activities we pay particular attention to legal compliance, including those laws relating to occupational health, safety and environmental protection, and the prohibition of child and forced labor.

GPC General Purchasing Conditions

In a Declaration of Principles by the Management Board, Voith has committed to the 1948 UN Universal Declaration of Human Rights, the 2015 UK Modern Slavery Act, and the 2010 California Transparency in Supply Chains Act, thus stipulating clear rules for prohibiting forced labor and human trafficking in the supply chain.

Management Board Declaration on Human Trafficking, Forced Labor and Child Labor

Our CoC is the core guide for all our purchasing activities. Together with our GPC, the CoC defines our understanding of partnership-based collaboration and sets out guidelines on dealing with issues regarding compliance as well as environmental and social standards. Voith rejects all forms of discrimination, forced or child labor, as well as the obstruction of legitimate employee representation. If a supplier violates these rules, we reserve the right to terminate the business relationship. In addition, the GPC contain requirements for the declaration of hazardous substances and the handling of substances of concern and conflict materials.

Our CoC and GPC are freely accessible online. They serve as the basis for the contractual agreement with our suppliers, who are encouraged to pass on the requirements to their

"Our fundamental principles on resource conservation as well as environmental and social responsibility are anchored in our Purchasing Strategy and General Purchasing Conditions, together with our Code of Conduct."

subcontractors. Furthermore, during the assessments and audits carried out by Quality Management, attention is paid to compliance with social and environmental standards in accordance with our Code of Conduct. By drawing up country-specific versions of our GPC we ensure that our Purchasing organization takes national particularities into account, for instance with regard to payment conditions, environmental requirements, and customs regulations. In the reporting period, specific versions were put in place for two additional countries, while eight were updated. This means that a total of 35 country-specific GPC are available, either in the national language or in English, and in most cases even in both languages.

In China, we also conducted a survey of the 200 suppliers with the highest purchasing volumes and obtained written confirmation of their compliance with the CoC. The corresponding document (Commitment of Honest Cooperation) will in future be requested from every new supplier in China and is available online for download.

Commitment of Honest Cooperation

Supplier Management via a Central IT System

Voith SLM & eSourcing (SLM = Supplier Lifecycle Management) is a central system for supplier management used by Voith Purchasing globally. Regular software updates correct and eliminate redundant and obsolete datasets. Suppliers can log into Voith SLM & eSourcing as users directly via the Voith homepage, update their details themselves, complete survey questionnaires, upload certificates, and respond to calls for tender. The system also comprises further supplier management aspects; in addition to the Compliance and Sustainability Checks and Supplier Evaluations these aspects include a document database for contracts and contractually related documents such as Non-disclosure Agreements (NDA), as well as a certificate database that includes quality certifications.

A further function of this uniform IT system is eSourcing, which enables a greater degree of transparency in purchasing processes. This makes it possible for suppliers to process requests online via a unified platform that additionally interfaces with the Voith SAP system. Price negotiations on individual tenders can also be carried out online: this eliminates the need to travel to negotiate in person on site and reduces the burden on the environment. A transparent and fair contract award process for all parties, internal award specifications for auctions, and eAuction Golden Rules also ensure that compliance requirements are met at all times.

Extensive Training Programs

We take all possible care to ensure that our people are always fully up to date on legal compliance requirements, adherence to standard purchasing processes, usage of our IT systems, and our supplier negotiation rules. To this end, we encourage our employees to take part in Voith's global further education offer and make use of the comprehensive training program specially developed for our Purchasing organization that covers all core purchasing processes. Our further education measures include compulsory one-day, onsite training modules on Compliance, and the regular New Buyer Academy for recently hired Purchasing employees. In the onsite courses, local trainers also present key elements of the respective market culture and characteristics. Webinars and e-learning offers additionally ensure training content is globally available and constantly up to date. Seminars and webinars are delivered in all Voith regions around the world.

In the reporting year, almost all Purchasing employees once again took part in training or e-learning courses. Overall, Purchasing employees received 6,125 (previous year 9,397) training hours in the year under review. The decline in the total number of training hours received is due to the COVID-19 pandemic. Nevertheless, in Strategic Purchasing, training effort was maintained at the previous year's level of around 2,500 hours.

Ongoing compliance training was also carried out regularly in the reporting year. These mandatory events for Purchasing employees focused on the rules of the Code of Conduct, the relevant anticorruption laws, competition law, and occupational safety

regulations. All relevant information on the topics of compliance and sustainability, the Voith Code of Conduct, the GPC, and documents on packaging and logistics guidelines, empty container requirements, etc. are publicly available on the Voith website within the supplier ecosystem.

Fact Base Scope of Training

Consistent Response to Violations

If a supplier violates applicable laws, or the Voith Code of Conduct, or loses its creditworthiness, our Purchasing organization will carry out an in-depth investigation or terminate the business relationship immediately, and the supplier concerned will be placed on the Group's central blacklist. Violations of Voith's occupational safety, health, and environmental protection standards can also trigger Group-wide blacklisting. Such procedures also take place in coordination with the Voith Legal Department in order to be able to assess the violation from a legal and compliance perspective.

In the course of such action, a process is used that has been specifically drawn up for the purpose: this defines the appropriate threshold levels and also sets out specific reporting structures on local and central levels. Violations are reported differently depending on their severity: while minor violations are reported to the local Compliance Officers, with major incidents the Compliance Officers of the respective Group Division are consulted. In cases of corruption or particularly serious incidents, the central Compliance Committee is called in.

The actual blacklisting is then carried out by Voith's central Master Data Governance Department, which has had organizational representation in all Voith regions since 2019 and has assumed technical responsibility there. To this end, a central Master Data Governance System is being introduced to support the processes technically. This project started in the 2018/19 fiscal year and is now being progressively implemented.

Suppliers as well as all other external stakeholders can also report violations of sustainability standards in the supply chain on their own initiative. The Voith whistleblower hotlines (Whistleblower Scheme and Compliance Helpdesk) are available to them, just as they are to our own employees. The Compliance Helpdesk is divided into five local Compliance Helpdesks; staffed by local multilingual contacts and present in all key Voith regions – China, North America, South America, Austria, and Germany – this system is available to both internal and external whistleblowers. The Compliance Helpdesk and the Whistleblower Scheme are also available via the Voith website. The anonymity of whistleblowers is always assured.

Compliance Helpdesk und Whistleblower Scheme

Checks Prior to Business Relationships

Led by the Master Data Governance Department and supported by Purchasing staff, various upstream Compliance and Sustainability Checks are carried out as soon as potential new creditors (suppliers) are created, even before a business relationship is established. The first step is to determine whether the supplier in question comes from a risk country (Critical Country Check) or is even blocked (Blocked List Check). The supplier-data consistency check, including their banking records, is carried out according to the dual control principle. In addition, Purchasing conducts an integrity check when a new creditor with a purchasing volume of more than € 25,000 is created. At the same time, checks are carried out with the aid of publicly available data to determine whether compliance incidents have occurred in the past.

Self-assessments Help Reduce Risks

To minimize risks in the overall purchasing process we require regular Compliance and Sustainability Self-assessment documentation from our suppliers. The Group-wide standardized Supplier Questionnaires ensure that the relevant data are collated and processed in a logical and optimally coordinated way. As at the end of the reporting period the system already contained a valid Compliance and Sustainability Check

for over 6,405 Voith suppliers. The suppliers assessed thus represented 64 % of our overall supplier expenditure in the 2019/20 fiscal year. Alongside material-specific questionnaires, the Supplier Self-assessment on HSE complements our Supplier Self-assessment initiatives.

Fact Base Supplier Self-assessment

Our employees in the specialist departments work together with our Purchasing staff to assess our active suppliers, complementing their Supplier Self-assessments. A standardized procedure with transparent criteria ensures cross-Group comparability of the results. We are gradually switching to case- and classification-based assessment. In the 2018/19 fiscal year we reviewed the criteria for production material, simplified these further, and standardized them across the worldwide Group. This increases the transparency and improves the comparability of the results. There are currently over 1,128 individual evaluations for 963 defined suppliers, which can be viewed worldwide in the system. The topic area of sustainability is also included as a criterion in this supplier evaluation; the weighting differs depending on the overall scope of the criteria set. In addition to working conditions and occupational safety standards, occupational health and environmental protection are also assessed.

Furthermore, the Sustainability Ratio shows our specialists' subjective assessment of our suppliers regarding compliance with environmental and social standards. The business partners we assessed in the reporting period reached an average ratio of 83.2 %, which broadly matches the ratio achieved in the previous year.

The uniform supplier classification methodology established in the 2018/19 fiscal year was further implemented in the IT system; Purchasing staff classify suppliers at least once a year regarding their significance in the supply chain.

Fact Base Supplier Evaluation, Supplier Compliance, Supplier Risk Assessment

2020

GRI Index

General Disclosures

Disclosures		Comment	Reference
Organizational profile			
102-1	Name of the organization		5
102-2	Activities, brands, products, and services		5–6
102-3	Location of headquarters		5
102-4	Location of operations		5 AR 2020: 94–95
102-5	Ownership and legal form		5
102-6	Markets served		Fact Base: International Focus (69)
102-7	Scale of the organization		6 Fact Base: Economic Indicators (69) Fact Base: Employee Structure (81–82) AR 2020: 76-77
102-8	Information on employees and other workers		28 Fact Base: Employee Structure (81–82) Fact Base: Employees by Employment Type (82–83)
102-9	Supply chain		54 Fact Base: Procurement Markets (94)
102-10	Significant changes to the organization and its supply chain		AR 2020: 26
102-11	Precautionary Principle or approach	As a family-owned company with a long-term focus, Voith is committed to a precautionary approach. This is anchored in our management and Group Directives, for example in the Health, Safety & Environmental Protection (HSE) Group Directive.	
102-12	External initiatives		12
102-13	Membership of associations		Fact Base: Memberships and Association (70)
Strategy			
102-14	Erklärung des höchsten Entscheidungsträgers		3
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102-16	Values, principles, standards, and norms of behavior		9–13; 54
102-17	Mechanisms for advice and concerns about ethics		11 Fact Base: Escalation Paths (70)

Disclosures		Comment	Reference
Governance			
102-18	Governance structure		AR 2020: 8–15
Stakeholder engagement			
102-40	List of stakeholder groups		8
102-41	Collective bargaining agreements		29 Fact Base: Details on Upholding Employee Rights (84)
102-42	Identifying and selecting stakeholders		7–9
102-43	Approach to stakeholder engagement		7–9
102-44	Key topics and concerns raised		8–9; 39–40
Reporting practice			
102-45	Entities included in the consolidated financial statements		96 AR 2020: 94–95
102-46	Defining report content and topic Boundaries		8–9
102-47	List of material topics		9
102-48	Restatements of information		96
102-49	Changes in reporting		8/9
102-50	Reporting period		96
102-51	Date of most recent report	The Sustainability Report 2019 was published on August 07, 2020.	
102-52	Reporting cycle		96
102-53	Contact point for questions regarding the report		97
102-54	Claims of reporting in accordance with the GRI Standards		96
102-55	GRI content index		59–67
102-56	External assurance	This report has not been externally audited.	

Topic-specific Standards

Disclosures		Comment	Reference
Economic			
Economic Performance			
103/201	Management Approach		5–6
201-1	Direct economic value generated and distributed		Fact Base: Economic Indicators (69) Fact Base: Donations and Sponsorship (71) Fact Base: Expenditures for Employees (84)
201-3	Defined benefit plan obligations and other retirement plans		AR 2020: 120
201-4	Financial assistance received from government	No significant financial assistance in the reporting period.	
Anti-corruption			
103/205	Management Approach		9–12; 54–57 Fact Base: Escalation Paths (70) http://voith.com/corp-de/coc-english.pdf
205-2	Communication and training about anti-corruption policies and procedures		10–11 Fact Base: Compliance Training (70)
Anti-competitive Behavior			
103/206	Management Approach		9–12; 54–57 Fact Base: Escalation Paths (70) Fact Base: Breaches of Compliance Regulations (70) Fact Base: Supplier Compliance (95) http://voith.com/corp-de/coc-english.pdf
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	For reasons of confidentiality, the number and type of legal actions are not communicated externally.	
Environmental			
Materials			
103/301	Management Approach		16–18; 22–24
301-1	Materials used by weight or volume		23 Fact Base: Materials Used (77)
301-2	Recycled input materials used		23 Fact Base: Materials Used (77)

Disclosures		Comment	Reference
Energy			
103/302	Management Approach		16–20; 40; 43–54
302-1	Energy consumption within the organization		20–22 Fact Base: GHG Emissions Recording Methodology (73) Fact Base: Total Energy Consumption (74) Fact Base: Direct Energy Consumption: Scope 1 (75) Fact Base: Production-related Energy Consumption: Specific Scope 1 and 2 (75) Fact Base: Electricity Mix (75)
302-2	Energy consumption outside of the organization	We report our Scope 3 emissions in detail on our freely accessible CDP profile: https://www.cdp.net/en/data.	Fact Base: Total Energy Consumption (74)
302-3	Energy intensity		20–21 Fact Base: Production-related Energy Consumption: Specific Scope 1 and 2 (75)
302-4	Reduction of energy consumption		20–22 Fact Base: Energy-saving Measures and Further Potentials (73)
302-5	Reductions in energy requirements of products and services		Fact Base: Further information on Social and Environmental Impacts – Voith Hydro (92–93) Fact Base: Further information on Social and Environmental Impacts – Voith Turbo (94)
Water			
103/303	Management Approach		16–20
303-1	Interactions with water as a shared resource		24–25
303-2	Management of water discharge-related impacts		25
303-3	Water withdrawal		18; 24–25 Fact Base: Water Withdrawal (79) Fact Base: Freshwater-saving Measures and Further Potentials (79)
303-4	Water discharge		25 Fact Base: Wastewater by Method of Discharge and Quality (80)
Emissions			
103/305	Management Approach		16–20
305-1	Direct (Scope 1) GHG emissions		23 Fact Base: Total GHG Emissions (76) Fact Base: GHG Emissions: Scope 1 (76)

Disclosures		Comment	Reference
305-2	Energy indirect (Scope 2) GHG emissions		23 Fact Base: Total GHG Emissions (76)
305-3	Other indirect (Scope 3) GHG emissions	We report our Scope 3 emissions in detail on our freely accessible CDP profile: https://www.cdp.net/en/data.	
305-4	GHG emissions intensity		Fact Base: GHG Emissions: Specific Scope 1 and 2 (76)
305-5	Reduction of GHG emissions		22 Fact Base: Measures for Reducing GHG Emissions and Their Development (77)
305-6	Emissions of ozone-depleting substances (ODS)		Fact Base: Air Pollutants (77)
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions		Fact Base: Air Pollutants (77)
Effluents and Waste			
103/306	Management Approach		16–20
306-2	Waste by type and disposal method		23–24 Fact Base: Waste Volume (78) Fact Base: Waste-saving Measures and Further Potentials (78) Fact Base: Hazardous Waste (78)
306-3	Significant spills	Voith is not aware of any significant incidents.	
306-4	Transport of hazardous waste		24 Fact Base: Hazardous Waste (78)
306-5	Water bodies affected by water discharges and/or runoff		25 Fact Base: Wastewater by Method of Discharge and Quality (80)
Environmental Compliance			
103/307	Management Approach		9–12; 16–17
307-1	Non-compliance with environmental laws and regulations	Voith is not aware of any significant incidents.	17 Fact Base: Breaches of Compliance Regulations (70)

Disclosures		Comment	Reference
Supplier Environmental Assessment			
103/308	Management Approach		54–56
308-1	New suppliers that were screened using environmental criteria	Voith always takes environmental criteria into account when reviewing old and new suppliers. A separate evaluation of the proportion of new suppliers reviewed is not available.	56–57 Fact Base: Supplier Evaluation (95) Fact Base: Supplier Risk Assessment (95)
Social			
Employment			
103/401	Management Approach		28–29; 31–32
401-1	New employee hires and employee turnover		31 Fact Base: Employee Turnover (87) Fact Base: New Hirings (88)
401-3	Parental leave		Fact Base: Parental Leave (87)
Labor/Management Relations			
103/402	Management Approach		27–29
402-1	Minimum notice periods regarding operational changes		29
Occupational Health and Safety			
103/403	Management Approach		34–37
403-1	Occupational health and safety management system		34; 40
403-2	Hazard identification, risk assessment, and incident investigation		34–37 Fact Base: Approach to Preventing or Dealing with Negative Health and Safety Impacts (90)
403-3	Occupational health services		35–37
403-4	Worker participation, consultation, and communication on occupational health and safety		35; 37 Fact Base: Employee Representation in Committees (90)
403-5	Worker training on occupational health and safety		35–36 Fact Base: Occupational Safety Training (91)
403-6	Promotion of worker health		37
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		35–36
403-8	Workers covered by an occupational health and safety management system		34 Fact Base: Certifications (72)
403-9	Work-related injuries		35 Fact Base: Occupational Accidents (90–91)

Disclosures		Comment	Reference
Training and Education			
103/404	Management Approach		27; 30–34
404-1	Average hours of training per year per employee		33 Fact Base: Training and Education & Career Development (89)
404-2	Programs for upgrading employee skills and transition assistance programs		32–33
404-3	Percentage of employees receiving regular performance and career development reviews		Fact Base: Training and Education & Career Development (89)
Diversity and Equal Opportunity			
103/405	Management Approach		29–31
405-1	Diversity of governance bodies and employees		29–31 Fact Base: Diversity in the Management Team and in the Workforce (85) AR 2020: 15 http://voith.com/corp-en/about-us/company/corporate-board-of-management.html
Non-discrimination			
103/406	Management Approach		9–11; 29–31; 54
406-1	Incidents of discrimination and corrective actions taken	Voith did not receive reports of any significant incidents in the reporting period.	
Freedom of Association and Collective Bargaining			
103/407	Management Approach		29; 54–57 Fact Base: Details on Upholding Employee Rights (84) http://voith.com/corp-de/coc-english.pdf
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Voith did not receive reports of any significant incidents in the reporting period.	54–57 Fact Base: Details on Upholding Employee Rights (84)
Child Labor			
103/408	Management Approach		9–12; 29; 54–57 http://voith.com/corp-de/coc-english.pdf http://voith.com/us-en/brochures_modern_slavery_en.pdf
408-1	Operations and suppliers at significant risk for incidents of child labor	Voith did not receive reports of any significant incidents in the reporting period.	54–57

Disclosures		Comment	Reference
Forced or Compulsory Labor			
103/409	Management Approach		9–12; 29; 54–57 http://voith.com/corp-de/coc-english.pdf https://voith.com/corp-en/brochures_modern_slavery_en.pdf
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Voith did not receive reports of any significant incidents in the reporting period.	54–57
Human Rights Assessment			
103/412	Management Approach		9–12; 29; 55–56 http://voith.com/corp-de/coc-english.pdf
412-2	Employee training on human rights policies or procedures		10–11; 55–56 Fact Base: Compliance Training (70)
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Global respect for basic human rights is enshrined in our Code of Conduct. All investment decisions are subject to this code.	
Supplier Social Assessment			
103/414	Management Approach		54–57
414-1	New suppliers that were screened using social criteria	When reviewing existing and new suppliers, Voith always takes their working practices into consideration. A separate evaluation of the percentage of new suppliers that have been reviewed is not available.	56–57 Fact Base: Supplier Evaluation (95) Fact Base: Supplier Risk Assessment (95)
Public Policy			
103/415	Management Approach		13–14 Fact Base: Donations and Sponsorship for Political Parties and Party-political Organizations (71)
415-1	Political contributions		Fact Base: Donations and Sponsorship for Political Parties and Party-political Organizations (71)
Customer Health Safety			
103/416	Management Approach		39–43
416-1	Assessment of the health and safety impacts of product and service categories		40–42
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Voith did not receive reports of any significant incidents in the reporting period.	

Disclosures		Comment	Reference
Customer Privacy			
103/418	Management Approach		12
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Voith did not receive reports of any significant incidents in the reporting period.	
Socioeconomic Compliance			
103/419	Management Approach		9–13
419-1	Non-compliance with laws and regulations in the social and economic area	Voith did not receive reports of any significant incidents in the reporting period.	Fact Base: Breaches of Compliance Regulations (70)

2020

Fact Base

n. a. = not available

01 Strategy & Integrity

1.1 Our Profile

Economic Indicators	**Economic Indicators** in € millions	**FY 2019/20**	**FY 2018/19**[1]	**FY 2017/18**
	Revenues	4,173	4,283	4,209
	Operating result before non-recurring items	139	208	153
	Income before taxes	73	138	157
	Business Area Portraits in € millions	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Revenues			
	Voith Hydro	947	1,147	1,103
	Voith Paper	1,805	1,660	1,746
	Voith Turbo	1,337	1,398	1,302
	Voith Digital Ventures	65	62	40
	EBIT			
	Voith Hydro	10	50	61
	Voith Paper	104	111	102
	Voith Turbo	42	76	75
	Voith Digital Ventures	–6	–22	–35
International Focus	**Locations by Regional Distribution**			
	Sales Markets in € millions	**FY 2019/20**	**FY 2018/19**[1]	**FY 2017/18**
	Germany	727	715	563
	Europe	1,109	1,184	1,185
	America	1,045	1,214	1,067
	Asia	1,168	1,032	1,253
	Other	124	138	141
	Sales Markets in %			
	Germany	13	17	13
	Europe excluding Germany	33	28	28
	America	21	28	26
	Asia	30	24	30
	Other	3	3	3
	Major Sales Countries in € millions			
	Germany	727	715	563
	China	639	590	780

[1] Figures for FY 2018/19 have been corrected retrospectively.

1.2 Strategy und Organization

Memberships and Associations	Voith and its Group companies currently represent their interests through 524 different association memberships, on which we spend around € 2.2 million annually in membership fees. Voith associations by significant membership contributions: • Verband Deutscher Maschinen- und Anlagenbauer e. V. (VDMA) (German Engineering Federation) • Südwestmetall Verband der Metall- und Elektroindustrie Baden-Württemberg e. V. (SWM) (Baden-Württemberg Employers' Association of the Metal and Electrical Industry) • FVA Forschungsvereinigung Antriebstechnik e. V. (Research Association for Power Transmission Engineering) • Deutsches Institut für Normung e. V. (DIN) (German Standards Institute) • Verband der Bahnindustrie in Deutschland e. V. (VDB) (German Railway Industry Association) • Open Industry 4.0 Alliance • Förderkreis der Deutschen Industrie e. V. (Society for the Advancement of German Industry) • International Hydropower Association (IHA) • Paper Machine Clothing Association • The Open Group
Employee Sustainability Training	A multilingual e-learning course is available worldwide with the aim of once again highlighting the importance of sustainability to all employees. This was completed by over 4,000 employees in the reporting year.

1.3 Values and Compliance

	Number of Training Sessions and Employees Trained	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Compliance Training	Management from the upper four levels, Sales, Sourcing (1 day)[1]	115	604	949
	Decentralized training by Compliance Officers (1.5 hours)	257	600	1.095
	Instruction by supervisor (0.5 hours)	805	956	1.659
	Compliance Officers (2 days)	8	18	17
	Scope and Number of Training Sessions			
	Management from the upper four levels, Sales, Sourcing (1 day)[1]	26	29	34
	Compliance Officers (2 days)	2	2	2
	Scope and Number of Training Sessions in %			
	Employees trained in compliance	100	100	100
	Compliance Officers trained	100	100	100
Escalation Paths	• Compliance Officer • Group Division Compliance Officer • Compliance Committee • Corporate Board of Management • Supervisory Board			
Breaches of Compliance Regulations	**Compliance Helpdesk** Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Reports via the Compliance Helpdesk (no complaints regarding suppliers)	0	0	0
	of which reported violations against environmental standards	0	0	0
	of which reported violations against social standards	0	0	0

[1] New managers at the Voith Academy were no longer included in FY 2019/20.

Taxes	**Taxes paid by region** in € thousands	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Germany	7,959	–	–
	Europe excluding Germany	3,065	–	–
	America	2,714	–	–
	Asia	347	–	–
	Other	37,190	–	–
	Total	51,302	57,000	67,000

1.4 Responsibility for Society

Donations and Sponsorship	**Donations and Sponsorship** in € millions	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Voith Group	2.04	2.27	1.64
	of which donations	0.62	1.23	0.71
	of which sponsorship	1.42	1.04	0.93
	Sponsorship Aid by Project in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Education (school, training, and science)	21	49	28
	Social affairs	13	8	12
	Sport	58	39	52
	Culture	8	4	7
	Sponsorship Aid by Region in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	APAC	7.0	3.0	8.3
	EMEA	91.0	94.0	85.1
	America	2.0	3.0	3.8
	Other	0.0	0.0	2.8
Donations and Sponsorship for Political Parties and Party-political Organizations	**Financial Contributions to Political Organizations** in € thousands	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Germany	0	0	0
	Europe excluding Germany	0	0	0
	America	0	0	0
	Asia	0	0	0
	Other	0	0	0
	Total	0	0	0
	In accordance with the specific Group Directive, donations to political parties and comparable party-political organizations, as well as sponsorships for the activities of such political parties and organizations (e.g. events, campaigns, etc.), always require the explicit approval of the Corporate Board of Management of Voith GmbH & Co. KGaA.			

02 Environment

2.1 Environmental Management Approach

2.1.1 Operational Environmental Protection

Certifications	**Existing Voith Location Certifications** Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	ISO 50001	9	9	9
	ISO 14001	71	64	55
	ISO 9001	76	69	63
	OHSAS 18001/ISO 45001	65	63	59
	Degree of Coverage Based on Employees in %			
	ISO 50001	19	19	21
	ISO 14001	79	81	77
	ISO 9001	78	74	81
	OHSAS 18001/ISO 45001	78	81	78
	Up to and including 2017/18, certification relates exclusively to production sites; since 2018/19, we have included all locations.			
Work Materials and Hazardous Materials Approval Process	At Voith, any new work material or hazardous substance undergoes central and local approval processes before introduction. In the central approval process, a systematic and automated check is made against applicable legal regulations (e.g. the ECHA Candidate List, or REACH annexes). The downstream local approval adds workplace and site-specific topics (e.g. water protection area, local regulatory requirements, storage location, on-site transportation, disposal). The use of centrally approved materials can therefore still be blocked at a local level for location-specific reasons.			

2.1.2 Efficient Use of Resources

Environmental Goals	**Environmental Goals** in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Reduction in specific energy consumption compared to 2011/12	–28.1	–22.1	–18.4
	Reduction in specific freshwater consumption compared to 2011/12	–35.1	–40.3	–34.4
	Reduction in specific waste volume compared to 2011/12	–36.1	–19.5	–23.9
Hot-spot Analysis Methodology	A hot-spot analysis shows the consumption (energy, water, materials, etc.) by control and analysis level (i.e. region, Group Division, location, system, process). This clearly pinpoints hot spots with high consumption levels and corresponding costs. Based on this, we develop project ideas for improvement, evaluate them and gradually develop them further using a stage-gate process through to implementation. We employ economic and environmental evaluation criteria in accordance with the Green Controlling cycle. We regularly review the distribution of consumption based on varying patterns and general conditions (location activities, economic activity, changes to the fleet of machines and plant, etc.).			

2.2 Performance in the Reporting Period

2.2.1 Energy Efficiency and Greenhouse Gas Emissions

GHG Emissions Recording Methodology

In gathering data on GHG emissions, Voith follows the guidelines of the Greenhouse Gas (GHG) Protocol. With the aid of conversion factors, data on GHG emissions such as CH_4, N_2O, HCF, PFC, and SF_6 are gathered, recorded, and integrated as CO_2 equivalents.

Data are recorded and gathered monthly on all material direct and indirect energy consumption sources in the management scope. At smaller locations outside the management scope, data on annual energy consumption by consumption source is gathered at irregular intervals. Based on the development of employee headcount the energy consumption figures given are adjusted for the respective reporting year. We derive consumption-per-capita rates, differentiated by office and service units, and produce estimates based on these for our smallest organizational units. This consumption is indexed by energy-consumption source according to the consumption index for our smallest organizational units. Direct fuel consumption due to vehicle operation is evaluated annually in Germany via a fuel card system. This covers almost 100% of our operational area (Scope 1 + 2).

The applicable emissions factors for direct energy consumption are taken from Defra publications or Voith's own GaBi database, according to their availability. Our locations can adjust them for location-specific factors (e.g. for LGP or natural gas) if they provide the corresponding proof, thus contributing to raising calculation accuracy. The emissions and GHG impact of refrigerants are also recorded and calculated.

The GHG emissions of indirect sources of energy consumption are calculated both on a location-specific and on a market-specific basis. The market-based emissions factors and the underlying grid mix are reported and documented annually by those locations in the management scope, based on the data supplied by the respective energy utility. The market-based data are compared centrally with location-based data from the IEA, checked for plausibility, and validated. Ecological Business Management acts in a consultancy function to the locations, for instance at locations with complex energy sourcing through contracting or self-generation. Integrating location-based factors provides an additional control of the reported market-based factors. In the reporting year, the difference between the location-based and market-based GHG emissions was 13,950 t CO_2e. Here, the location-based GHG factors were slightly higher on average than the market-based factors.

The data-gathering and recording process as well as the level of coverage of Scope 3 emissions are documented as part of our CDP Report.

Energy-saving Measures and Further Potentials

Reduction in Energy Consumption as a Direct Consequence of Conservation and Efficiency Drives in MWh	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Reduction in Energy Consumption	6,500	17,405	22,964

In the reporting period, amongst others the following savings were achieved:

- 2.0 GWh/a (1320 t CO_2e/a) through lighting projects, in particular in Appleton, Kunshan, Heidenheim, and West Monroe
- 1.7 GWh/a (390 t CO_2e/a) through efficiency projects focused on space-heating in Heidenheim and Haaksbergen
- 1.0 GWh/a (620 t CO_2e/a) through efficiency gains in production and finishing processes, in particular in Shanghai, Garching, and Salzgitter
- 630 MWh/a (370 t CO_2e/a) through compressed-air projects in Ipoh, Heidenheim, Austell, and Mississauga
- 410 MWh/a (1070 t CO_2e/a) were replaced by renewable energy projects in Vadodara and Shanghai (per PPA)
- 250 MWh/a (170 t CO_2 e/a) through improving cooling and air conditioning, in particular in Shanghai, Neenah, Kunshan, and Salzgitter

Energy Saving Potential in GWh	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Energy saving potential since FY 2011/12	140.3	135.3	130.8
of which achieved in the FY	6.5	17.4	23.0
savings already achieved since FY 2011/12	130.4	125.2	106.3

Measures in scope on the location level are checked by the respectively responsible Ecological Business Manager for their effectiveness. Measures controlling is carried out centrally via a measures tool.

Total Energy Consumption

Increasing Data Collection Coverage in MWh	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Energy Consumption (Scope 1 and 2): Coverage to date	402,846	447,882	460,699
Energy Consumption (Scope 1 and 2): Delta to almost 100% coverage	68,201	75,361	68,050
Energy Consumption (Scope 1 and 2): Coverage total	471,047	523,243	528,749
of which direct	165,120	183,122	182,043
of which indirect	303,158	338,725	345,354
Self-generated renewable energy	2,769	1,395	1,352

To achieve an even deeper understanding of our resource consumption and live up to our climate neutrality pledge, we have integrated the assessment of our smaller locations into the reporting system. These are usually service or sales offices. Based on data collation from random sampling, we have calculated per-capita rates for resource consumption at the smaller of these locations. The relatively larger of these locations were integrated into regular reporting. To facilitate the evaluation of developments over time, we have adjusted the data on energy consumption and greenhouse gas emissions from previous years in the rest of the chapter and in the Fact Base to reflect this new level of coverage.

Energy Consumption in MWh	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Total Energy Consumption			
Energy Consumption Within the Organization (Scope 1 and 2)[1)]	471,047	523,243	528,749
Direct Energy Consumption (Scope 1)[1)]	165,120	183,122	182,043
Natural gas	121,868	127,928	126,881
Heating oil	3,779	6,654	7,873
Diesel	20,281	26,642	28,931
LPG	11,133	11,535	9,629
Gasoline	4,692	5,344	5,055
Biomass / biogenic energy sources / hydrogen	3,367	5,020	3,675
Indirect Energy Consumption (Scope 2)[1)]	303,158	338,725	345,354
Electricity	237,994	269,223	271,492
from renewable sources	104,441	119,788	105,193
Long-distance heating	58,542	62,337	66,385
from renewable sources	n. a.	n. a.	n. a.
Steam	6,968	7,454	7,822
from renewable sources	n. a.	n. a.	n. a.
Energy sold	–345	–288	–346
Self-generated Renewable Energy	2,769	1,395	1,352
Energy Consumption Outside the Organization (Scope 3)			

We report our Scope 3 emissions based on energy consumption outside the organization in detail in our freely accessible CDP profile: https://www.cdp.net/en/data.

[1)] Production-related energy consumption of the largest production facilities, excluding logistics. Direct energy consumption in production (FY 2019/20 114,153 MWh; FY 2018/19 123,408 MWh) + indirect energy consumption in production (FY 2019/20 264,154 MWh; FY 2018/19 296,632 MWh).

Direct Energy Consumption: Scope 1	**Direct Energy Consumption (Scope 1)**	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Direct energy consumption at locations in MWh	140,283	153,261	152,200
	Direct energy consumption at locations in %			
	Natural gas	86	81	82
	Heating oil	2	4	5
	Diesel	3	5	6
	LPG	10	9	8
	Biomass / biogenic energy sources / hydrogen	–	1	–
	Other	0	0	0
	Direct energy consumption of the Voith vehicle fleet in MWh	24,837	29,862	29,843
	of which company cars[1)]	4,692	5,344	5,055
	of which logistics	20,145	24,518	24,788
Production-related Energy Consumption:	**Specific Production-related Energy Consumption (Scope 1 and 2)** in MWh/€ million revenues	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Specific Scope 1 and 2	Specific energy consumption	90.6	98.1	102.7
Electricity Mix	**Electricity Mix** in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Renewable resources	44.3	44,7	38.8
	Non-renewable resources	55.7	55,3	61.2

[1)] Company cars do not include employees' personal cars, or rental cars.

Total GHG Emissions	**GHG Emissions** in t CO_2e	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Total GHG emissions			
	GHG emissions Within the Organization (Scope 1 and 2)	140,318	159,094	175,779
	Direct GHG Emissions (Scope 1)	33,814	37,398	39,133
	Natural gas	22,424	23,542	23,348
	Heating oil	1,012	1,782	2,109
	Diesel	5,460	7,168	7,758
	LPG	2,389	2,475	2,066
	Gasoline	1,208	1,370	1,279
	Biomass / biogenic energy sources / hydrogen	4	20	4
	Coolants	1,318	1,040	2,569
	Other renewable energy sources and captive generation of renewable energy	0	0	0
	Indirect GHG Emissions (Scope 2)	106,504	121,696	136,645
	Electricity	87,812	101,295	115,067
	Long-distance heating	14,192	16,244	17,327
	Steam	4,627	4,264	4,379
	Energy sold	–127	–106	–128
	GHG emissions Outside the Organization (Scope 3)			
	We report our Scope 3 emissions in detail in our freely accessible CDP profile: https://www.cdp.net/en/data.			
GHG Emissions: Scope 1	**Direct GHG Emissions (Scope 1)**	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Direct GHG Emissions of the Locations in t CO_2e	28,019	30,329	32,048
	GHG Emissions of the Locations in %			
	Natural gas	83	78	77
	Heating oil	2	5	6
	Diesel	4	6	8
	LPG	11	10	8
	Other	0	0	0
	Direct GHG emissions of the Voith vehicle fleet in t CO_2e	5,795	7,060	7,085
	of which company cars[1)]	1,208	1,370	1,279
	of which logistics	4,588	5,690	5,806
GHG Emissions: Specific Scope 1 and 2	**Specific GHG Emissions (Total Emissions Scope 1 and 2)** in t CO_2e/€ million revenues	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Specific GHG emissions (Scope 1 and 2)	33.6	37.2	41.8

[1)] Company cars do not include: employees' personal cars, rental cars.

Measures for Reducing GHG Emissions and Their Development	**Reduction in CO_2e Emissions as a Direct Consequence of Conservation and Efficiency Drives** in t CO_2e	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Reduction through efficiency improvement and fuel switching	3,300	6,003	7,367
	Reduction in CO_2e Emissions in %			
	Reduction in CO_2e emissions compared with previous year	–11.8	–9.5	–1.4
	Reduction in direct CO_2e emissions	–9.6	–4.4	–1.3
	Reduction in indirect CO_2e emissions	–12.5	–10.9	–1.4
	See energy consumption reduction measures.			
Air Pollutants	**Air Pollutants**[1] in t	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Chlorofluorocarbons (CFCs)[2]	< 1	< 1	< 1
	Hydrochlorofluorocarbons (HCFCs)[2]	< 1	< 1	< 1
	Sulfur hexafluoride (SF_6)	< 1	< 1	< 1
	The indicators for other air pollutants are calculated, based on LCI conversion factors, from the reported energy consumption, logistics and business-travel data. Other air pollutants from energy consumption sources generally dominate. We additionally gather data on emissions from refrigerants. Business travel contributed 46 t (previous year 85 t) to VOC emissions. Since fiscal year 2018/19, data on NM-VOC from production-related VOC emissions are no longer gathered due to their low relevance for Voith. At Voith, these consist mainly of solvents that we use in coating or cleaning processes. We strive to continuously reduce the volume used through efficiency and substitution measures, such as in-house distillation. The closure of the foundry in São Paulo in fiscal 2018/19 eliminated the largest dust emitter. There are no other significant individual emitters of heavy metals or dust.			

2.2.2 Material Efficiency and Waste

Materials Used	**Materials Used by Weight** in t	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Total materials/raw materials used	187,341	197,962	215,003
	of which raw material	58,931	63,968	60,892
	of which semifinished products	103,275	107,327	133,020
	of which packaging	20,815	21,949	16,521
	of which auxiliaries	4,319	4,718	4,570
	Materials Used by Weight in %			
	Renewable materials	11	11	8
	Secondary raw materials	31	42	38
	Voith employs country-specific recycling factors to calculate the proportion of secondary raw materials in terms of the overall amount of materials used. The lower share of secondary raw materials in total material usage compared to the previous year is explained by regional changes in material purchasing, which have altered the recycling factors used.			

[1] This includes air pollutants due to production, from production-related energy consumption, and from the transport of goods and business travel.
[2] Ozone-degradable substances in t CFC-11e.

Waste Volume	**Reclaimed and Removed Waste by Method** in t	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Reclaimed waste total	21,217	23,216	23,167
	Reused	237	200	227
	Recycled	18,247	18,575	18,125
	Composted	237	200	207
	Recovered	2,062	3,878	4,212
	Other reclamation	434	363	396
	Removed waste total	6,927	13,479	10,905
	Incinerated	2,904	3,098	3,339
	Dumped at an external site	4,023	10,381	7,566
	Dumped at a company site	–	–	–
	Other removal	–	–	–
	Total waste	28,504	36,766	34,136
	Alongside the type of waste, the locations also enter the manner of disposal in our database. Possible discrepancies are due to rounding.			
Waste-saving Measures and Further Potentials	**Reduction in Specific Waste Quantities** in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Reduction in specific waste quantities	–20.6	5.9	11.2
	Specific Waste Weight in t/€ million revenues			
	Specific waste weight	6.8	8.6	8.1
	The individual locations work continually towards specific solutions to overcome local challenges regarding waste. In the reporting period the following waste savings were achieved, amongst others: • 126 t/a of waste from coolant lubricant emulsion through process improvements at our locations in Kunshan, Weißenborn, and Manchester • 16 t/a of oil balances through use of loaned IBCs at the Shanghai location			
	Material Efficiency Potential in t	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Efficiency Potential Since FY 2011/12	8,886	9,188	9,021
	of which achieved in the FY	47	266	4,174
	savings already achieved since FY 2011/12	8,855	8,808	8,596
Hazardous Waste	**Hazardous and Non-hazardous Waste** in t	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Total hazardous waste	4,144	7,047	6,084
	of which transported	4,144	7,047	6,111
	of which imported	–	–	–
	of which exported	–	–	–
	of which transported between Voith locations	–	–	–
	Total non-hazardous waste	24,360	29,720	28,053
	Total waste	28,504	36,766	34,136

2.2.3 Water

Water Withdrawal	**Water Consumption by Source** in m³	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Total water consumption	1,015,335	956,219	1,033,788
	of which rainwater	1,121	599	875
	of which wastewater procured from other companies	–	–	–
	of which freshwater (< 1,000 mg/l Total Dissolved Solids)	1,014,214	955,620	1,032,913
	of which surface water	81,991	67,128	64,544
	of which groundwater	538,804	493,133	470,508
	of which public as well as private water treatment plants	393,419	395,360	497,861
	of which other sources (> 1,000 mg/l Total Dissolved Solids)	–	–	–
	Categories are gathered centrally by means of a data-gathering process at the locations.			
	Water Consumption by Region in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Germany	55	46	43
	Europe excluding Germany	11	12	10
	America	12	18	16
	Asia	21	23	30
	Other	< 1	1	1
	Total Volume and Percentage of Reused Water in m³	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Reused water	31.0	25.5	44.5
	Total Volume and Percentage of Reused Water in % of total water withdrawal			
	Reused water	< 1	< 1	< 1
	Categories are gathered centrally by means of a data-gathering process at the locations.			
Freshwater-saving Measures and Further Potentials	**Specific Freshwater Consumption** in m³/€ thousands revenues	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Specific Freshwater Consumption	0.24	0.22	0.25
	The closure of the foundry in São Paulo led to a reduction in freshwater withdrawal of around 10,000 m³ in the 2019/20 reporting year. Besides that, no further savings of any significant magnitude were achieved in the reporting period.			
	Freshwater Efficiency Potential in 1,000 m³	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Efficiency potential in planning since FY 2011/12	818	806	815
	of which additionally achieved in the FY	< 1	10	< 1
	of which savings already achieved since FY 2011/12	799	799	789

Wastewater by Method of Discharge and Quality

Wastewater by Method of Discharge	FY 2019/20	FY 2018/19	FY 2017/18
Total wastewater in m^3	855,260	821,902	844,126
Wastewater in %			
of which discharged into the public sewage system	49.2	51.5	62.0
of which discharged into surface water	50.5	48.0	25.0
of which discharged into groundwater	0.4	0.5	13.0
of which reused at another company	< 1	< 1	< 1
Total treated wastewater in m^3	45,230	115,955	160,957
Total treated wastewater in %			
of which discharged into the public sewage system	42.4	54.9	68.0
of which discharged into surface water	56.0	43.7	31.0
of which discharged into groundwater	1.6	1.4	1.0
of which reused at another company	–	–	–
Total untreated wastewater in m^3	810,030	705,947	676,699
Total untreated wastewater in %			
of which discharged into the public sewage system	49.6	50.9	61.0
of which discharged into surface water	50.1	48.8	23.0
of which discharged into groundwater	0.3	0.3	16.0
of which reused at another company	< 1	< 1	< 1
Wastewater Quality[1] in t	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Biological oxygen demand (BOD)	7.7	9.4	8.2
Chemical oxygen demand (COD)	25.2	31.9	28.7
Total suspended matter content	6.3	9.6	8.1
Heavy metals	< 1	< 1	< 1
Nitrogen	1.0	1.3	1.0
Phosphorus	< 1	< 1	< 1
The monitoring processes to measure and control locations' wastewater quality are designed to fulfill the respective local statutory requirements. The existence of monitoring processes is recorded via hse+. Currently 29 % of total wastewater volume is covered by monitoring processes.			

[1] The emissions in wastewater are based on the volume of wastewater streams from Voith locations subject to monitoring, and the respective average of the measured concentrations.

03 Employees

3.1 Our Management Approach to Employees

3.2 Voith as an Employer

Employee Structure	**Consolidation Scope for Employee Numbers**[1] Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Employees Group-wide as FTE (without apprentices)	20,634	19,410	19,535
	Employees Group-wide as headcount	21,049	19,841	19,027
	of which employees included in data analysis	21,049	19,841	19,027
	Employees by Age Group, Gender, and Region[2] Number as a headcount	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Voith Group	21,049	19,841	19,027
	Employees by Age Group, Gender, and Region[2] Number by gender			
	of which women	3,819	3,638	3,477
	of which men	17,230	16,203	15,550
	Employees by Age Group, Gender, and Region[2] Number by age			
	of which < 30 years	2,636	2,546	2,435
	of which 30–50 years	11,654	10,967	10,450
	of which > 50 years	6,759	6,328	6,142
	Employees by Age Group, Gender, and Region[2] Number by origin			
	of which German	7,586	7,708	7,539
	of which not German	13,012	12,133	11,488
	Employees by Age Group, Gender, and Region[2] Number by region			
	of which Germany	8,037	8,133	7,950
	of which Europe excluding Germany	4,446	2,922	2,858
	of which America	3,747	3,952	4,133
	of which Asia	3,412	3,395	3,380
	of which other	1,407	1,439	706

[1] In contrast to the procedure applied in compiling the Annual Report, in the Sustainability Report workforce figures are stated as headcount instead of FTEs. For FY 2017/18 consolidated companies are in reporting scope, just as they are for the Annual Report; however, employee-level figures in the workforce master data for the FlowLink and Ray Sono participations are only available from FY 2018/19 onward. Unlike the Annual Report, the new SINTAKSA investment shortly before the end of fiscal year 2019/20 is only available at employee level from FY 2020/21.

[2] Due to part-time work, the regional distribution in heads differs from the Annual Report, where the values are reported in FTE (full-time equivalents).

	Employees by Age Group, Gender, and Region[1] Number by main countries	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Germany	8,037	8,133	7,950
	China	2,495	2,513	2,549
	USA	2,003	1,979	1.906
	India	1,405	1,439	706
	Brazil	1,103	1,358	1,590
	Austria	1,388	953	933

Our headcount increased in Europe (+52.2 %) and Asia (+0.5 %) primarily as a result of acquisitions and investments. By contrast, challenging market conditions led to a drop in headcount in Germany by 1.2 % and in America by 5.2 %.

Our core workforce is structured according to the principle of commercial prudence. Workforce flexibility through the use of temporary employment enables us to manage order peaks and therefore to respond quickly and flexibly in markets that can be very volatile. The engagement of employees from external companies is governed by a Group Directive.

	Full-time and Part-time Employees by Age and Gender Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Employees by Employment Type	**Full-time**	19,845	18,727	18,007
	of which women	2,999	2,870	2,766
	of which men	16,846	15,857	15,241
	of which < 30 years	2,533	2,449	2,325
	of which 30–50 years	11,073	10,406	9,953
	of which > 50 years	6,239	5,872	5,729
	Part-time	1,204	1,114	1,020
	of which women	820	768	711
	of which men	384	346	309
	of which < 30 years	103	97	110
	of which 30–50 years	581	561	497
	of which > 50 years	520	456	413

[1] Due to part-time work, the regional distribution in heads differs from the Annual Report, where the values are reported in FTE (full-time equivalents).

Employees with Temporary and Permanent Employment Contracts by Gender Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Permanent employment contract	19,014	17,896	17,032
of which women	3,384	3,196	3,033
of which men	15,630	14,700	13,999
Temporary employment contract	2,035	1,945	1,995
of which women	435	442	444
of which men	1,600	1,503	1,551
Temporary employees	934	1,050	1,239
of which women	182	227	250
of which men	752	823	989
Total Workforce by Employees and Supervised Workers by Gender Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Employees/workers	21,049	19,841	19,027
of which women	3,819	3,638	3,477
of which men	17,230	16,203	15,550
Supervised workers	934	1,050	1,239
of which women	182	227	250
of which men	752	823	989

In the reporting year Voith employed 934 workers (previous year 1,050) through temporary employment agencies, which is 11.1 % lower than in the year before. Temporary employment is a commonplace instrument in the sector to meet short-term order peaks. The number of permanent employment contracts increased by 4.6 % to 2,035 in the reporting year (previous year 1,945).

Measures for Socially Responsible Restructuring and Job Security

To avoid job losses we utilize every option available, such as deliberate hiring freezes for certain business areas or countries, the targeted use of working-hours accounts, and early retirement offers where appropriate. When making headcount reductions, we offer support for instance through advisory services and severance payments in accordance with local frameworks.

Examples of socially acceptable restructuring and measures to safeguard the future of locations:

Germany

- **Due to the COVID-19 pandemic,** in the reporting year we had to utilize the **short-time work scheme at all German locations (except Sonthofen)**. In doing so, we applied the very employee-friendly collective agreement on short-time work applicable to the German federal State of Baden-Württemberg to all Voith locations in Germany, minimizing financial losses for employees. Despite the difficult situation caused by the COVID-19 pandemic, redundancies for operational reasons were avoided in Germany.
- A further multi-year agreement to safeguard the future of our **Heidenheim location** was reached in 2020, replacing the previous agreement from 2015. The central points of the agreement are headcount adjustments without operational redundancies, investment in future topics that impact employment to safeguard the future of the location, and the return to the collectively agreed 35-hour working week.
- Agreements between Voith and the Works Council to safeguard the future of our **Crailsheim and Garching locations** have been in place for many years. Avoiding redundancies for operational reasons allows us to make the necessary staff reductions in a socially acceptable manner, in keeping with the tradition of a family company.
- At our **Kiel location**, negotiations are currently underway to participate in the collective agreement of the metal and electrical industry. The agreement provides for a two-year exclusion of redundancies for operational reasons.

At our **São Paulo, Mucuri, and Ponta Grossa locations in Brazil**, the employment relationships of all employees, with the exception of those in middle management, are governed by union agreements. A range of social benefits are stipulated in the agreements. For example, former employees continue to receive medical assistance from Voith for up to six months after the end of their employment and are supplied with food. In addition, employees who are about to retire are guaranteed that their employment relationship cannot be terminated in the 18 months prior to their departure (maximum duration 18 months, depending on length of service).

In response to the COVID-19 pandemic, in 2020 we introduced a special leave program for employees at our **locations in the USA and Canada**. Employees who cannot work due to quarantine or illness will continue to receive 50 % of their salary for a maximum of two weeks on a one-off basis. The remaining 50 % of the time can also be topped up with paid or unpaid vacation.

Expenditures for Employees

Expenditures for Employees in € millions	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Expenditures for wages and salaries	1,237	1,220	1,194
Expenditures for social security contributions, retirement pensions, and benefits	264.3	259.5	253.1
Expenditures for training and career development	2.8	2.9	3.6

Details on Upholding Employee Rights

Collective Bargaining Agreements Percentage	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Percentage of employees covered by collective bargaining agreements	67	72	81
of which Germany	96	97	100
of which Europe excluding Germany	70	74	87
of which America	54	80	81
of which Asia	26	24	32
of which other	31	18	57

Diversity in the Management Team and in the Workforce	**Employment Ratio of People with Disabilities** in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Employment ratio of people with disabilities	3.7	3.6	3.4
	Diversity in Senior Management Circle Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Senior Management Circle[1)]	80	73	74
	Proportion of women	6.3	8.2	6.8
	Distribution of Women and Men at Management Levels Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Corporate Board of Management, Executive Team, Senior Management Circle[1)]	86	80	80
	Proportion of women in %	5.8	7.5	6.3
	Corporate Board of Management, Executive Team, Senior Management Circle[1)] Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Regional directors / chairpersons, Management Board of operating units, heads of product groups, managers in Group management functions[2)]	347	367	379
	Proportion of women in %	8.9	6.8	8.2
	Regional directors / chairpersons, Management Board of operating units, heads of product groups, managers in Group management functions[2)] Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Mid- and lower-level management[3)]	652	669	688
	Proportion of women in %	11.5	12.4	11.8
	Mid- and lower-level management[3)] Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Total (across all management levels)	1,079	1,116	1,147
	Proportion of women in %	10.3	10.2	10.2

[1)] Management level 1 + 2.
[2)] Management level 3 + 4.
[3)] Management level 5.

Flexible Working Time Models

Availability of Flexible Working Time Models[1] Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Voith Group	14,504	12,056	7,950
of which women	2,624	2,246	1,510
of which men	11,880	9,810	6,440
of which < 30 years	1,806	1,422	1,027
of which 30–50 years	7,270	5,850	3,910
of which > 50 years	5,428	4,784	3,013

The figures stated are for **all** regions. Internationally, flexible working time models are available to employees in most regions. Flexibility extends to time and/or location.

Examples of flexible working time models:

In **Germany**, release from work for training is governed both by law and by collective agreements. In connection with this, a few years ago an additional agreement was reached with the Works Council to introduce subsidized part-time training in Heidenheim. In an “active” phase, employees can work for reduced remuneration; in a following “passive” phase, employees can utilize the time available for vocational training and continue to be remunerated.

All employees at our **locations in the USA and Canada** have a range of options available to them to structure their work insofar as their respective role allows. These include the possibility to adapt their working hours flexibly to suit their needs where necessary – something that is important for working parents, for example. In response to the new challenges posed by the COVID-19 pandemic, we also drew up a new Remote Work Policy. This will continue to offer executives with supervisory roles greater flexibility to work with employees to agree on work arrangements that meet their needs. In the USA, we have also been granting employees two weeks of additional paid vacation on the birth of their child since 2018.

In response to the COVID-19 pandemic, we expanded our Remote Work Policy as far as possible to **all locations in the South America region**. This means that around 70 % of all employees now have the opportunity to work remotely. Apprentices and interns will continue to receive full pay during the pandemic.

We are also applying remote work policies in the **APAC region** to enable us to respond to business requirements or special situations such as the COVID-19 pandemic. They ensure we are always in a position to meet customer needs and also offer the necessary flexibility for employees to become more productive and enjoy greater occupational satisfaction.

Percentage of Flexible Working Time Models in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Voith Group	68.9	60.8	41.8
of which women	68.7	61.7	43.4
of which men	68.9	60.5	41.4
of which < 30 years	68.5	55.9	42.2
of which 30–50 years	62.4	53.3	37.4
of which > 50 years	80.3	75.6	49.1

[1] Number of employees for whom flexible working time models are available (e.g. flexitime, saving and reducing overtime, sabbaticals).

Parental Leave	**Parental Leave** Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Employees Entitled to Parental Leave			
	Voith Group	20,351	18,413	18,867
	of which women	3,746	3,505	3,452
	of which men	16,605	14,908	15,415
	Total Parental Leave Take-up			
	Voith Group	514	509	461
	of which women	180	181	186
	of which men	334	328	275
Employee Turnover	**Employees Who Left the Company by Age Group, Gender, and Region (Workforce Fluctuation)** Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Voith Group	2,213	1,884	1,983
	of which women	335	373	341
	of which men	1,878	1,511	1,642
	of which < 30 years	392	399	433
	of which 30–50 years	1,002	881	981
	of which > 50 years	819	604	569
	of which Germany	470	366	359
	of which Europe excluding Germany	262	318	268
	of which America	1,171	855	979
	of which Asia	259	298	309
	of which other	51	47	68
	Percentage of Employees Who Left the Company by Age Group, Gender, and Region (Workforce Fluctuation) in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Voith Group	11.5	9,9	10,3
	of which women	9.5	10.7	9.8
	of which men	11.9	9.8	10.4
	of which < 30 years	17.0	16.8	17.4
	of which 30–50 years	9.5	8.5	9.3
	of which > 50 years	12.8	9.7	9.3
	of which Germany	5.9	4.6	4.6
	of which Europe excluding Germany	7.8	11.1	9.3
	of which America	30.9	21.2	21.8
	of which Asia	7.6	8.8	9.3
	of which other	6.7	6.5	9.7

New Hirings

New Employee Hires by Age Group, Gender, and Region Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Voith Group	1,344	1,839	2,151
of which women	232	381	408
of which men	1,112	1,458	1,743
of which < 30 years	564	751	918
of which 30–50 years	602	857	970
of which > 50 years	178	231	263
of which Germany	293	430	675
of which Europe excluding Germany	281	286	264
of which America	496	713	704
of which Asia	220	310	409
of which other	54	100	99

Percentage of New Employee Hires by Age Group, Gender, and Region in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Voith Group	6.4	9.3	11.3
of which women	6.1	10.5	11.7
of which men	6.5	9.0	11.2
of which < 30 years	21.4	29.5	37.7
of which 30–50 years	5.2	7.8	9.3
of which > 50 years	2.6	3.7	4.3
of which Germany	3.6	5.3	8.5
of which Europe excluding Germany	6.3	9.8	9.2
of which America	13.2	18.0	17.0
of which Asia	6.4	9.1	12.1
of which other	3.8	6.9	14.0

3.2.1 Attracting and Promoting Talent

Training and Education & Career Development

Training and Further Education Hours Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Voith Group	128,764	243,304	266,959
of which women	23,919	50,872	52,261
of which men	104,845	192,432	214,697
of which < 30 years	19,712	43,014	36,769
of which 30–50 years	82,179	153,326	164,251
of which > 50 years	26,873	46,964	65,939
The Corporate Board of Management, Executive Team, Senior Management Circle, Regional Directors / Chairpersons, Board of Management of operating units, heads of product groups, managers in Group management functions	656	11,130	14,467
Mid- and lower-level management	11,806	17,751	19,893
All other employees	116,302	214,423	232,599
Hours of Further Education by Employee			
Voith Group	6.1	12.3	14.0
of which women	6.3	14.0	15.0
of which men	6.1	11.9	13.8
of which < 30 years	7.5	16.9	15.1
of which 30–50 years	7.1	14.0	15.7
of which > 50 years	4.0	7.4	10.7
The Corporate Board of Management, Executive Team, Senior Management Circle, Regional Directors / Chairpersons, Board of Management of operating units, heads of product groups, managers in Group management functions	7.6	24.9	31.5
Mid- and lower-level management	11.8	26.5	28.9
All other employees	6.2	12.1	12.9
Number of Employees Who Underwent Further Training			
Voith Group	14,782	15,930	16,594
Employees Who Received Performance and Career Development Reviews in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Voith Group	90.1	92.1	91.4
of which women	89.2	90.4	88.8
of which men	90.3	92.6	92.0
The Corporate Board of Management, Executive Team, Senior Management Circle, Regional Directors / Chairpersons, Board of Management of operating units, heads of product groups, managers in Group management functions	76.0	87.6	86.3
Mid- and lower-level management	92.3	94.9	93.9
All other employees	90.0	92.2	91.4

Vocational Training	**Vocational Training** Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Apprentices and students at cooperative universities	756	838	801
	of which in Germany	530	534	519
	of which at the Heidenheim location	334	326	302

3.2.2 Occupational Health and Safety

Approach to Preventing and Dealing with Negative Health and Safety Impacts

Regarding our own locations, construction sites, and products, Voith's approach to preventing negative health and safety impacts is as follows:

1. At our own locations, we continually employ the occupational health and safety system as described. We are progressively expanding this proven system of regional support to continuously improve its quality and effectiveness.

2. At our construction sites and during on-site activities with our customers, we perform risk assessments in advance. These are updated on a regular basis and involve a careful examination of many aspects, including how the various industrial technicians are coordinated in relation to safety aspects.

3. For our products and their use, we focus right from the product development stage on achieving strict compliance with regulatory requirements. In addition, our products undergo a range of test and inspection stages. We incorporate the findings from these processes, together with information from market and product monitoring, systematically into the development and enhancement of our products.

To identify and analyze work-related hazards and risks in connection with occupational safety, we have implemented a comprehensive audit system in addition to our overarching risk-management process. On the technical side, in the reporting period we identified heavy-load handling and crane operation as the greatest HSE risks. In terms of personal hazards posed to employees, we are currently focusing on the subject of hand protection.

Employee Representation in Committees	**Total Number of Employees**[1] **Represented on Health and Safety Management Worker Committees** in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Voith Group	80	80	80
Occupational Accidents	**Occupational Accidents – Employees** Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Total occupational accidents	68	54	52
	of which fatal	0	0	2
	of which severe	4	3	5
	Frequency Rates – Employees[2]			
	Occupational accidents per million hours worked	1.8	1.5	1.5
	of which fatal	0	0	0.06
	of which severe	0.11	0.08	0.14

[1] Based on headcount.
[2] Number of occupational accidents resulting in downtime (1 day or more) per 1 million working hours.

	Occupational Accidents – Personnel working for Voith who are not Voith employees Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Occupational accidents	58	49	48
	Since October 2017 Voith has gathered third-party occupational accident data centrally. Each incident is documented in an Incident Report and followed up. For these incidents Voith's Reporting Organization does not currently distinguish between degrees of accident severity, or working hours lost. Due to the differing data-gathering methods these values are not comparable with the data provided on Voith's own employees.			
	Severity Rate[1)]			
	Voith Group	454.8	364.4	342.2
	Germany	343.3	343.6	303.4
	Europe excluding Germany	34.9	121.9	535.5
	America	760.3	323.5	286.3
	Asia	609.5	554.4	364.7
	Other	270.6	397.1	0.0
Occupational Safety Training	**Occupational Safety Training** in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Operations managers	60	approx. 100	approx. 100
	Administrative managers	20	80	80
	Trained service providers	n. r.	n. r.	n. r.

[1)] Hours lost per 1 million working hours.

04 Products and Supply Chain

4.1 Product Responsibility

R&D Expenditure	**Research and Development** in € millions	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	R&D expenditure	189	213	222
	Research and Development in %			
	R&D percentage	4.5	5.0	5.3
Quality Targets	• Complying with legal, regulatory, governmental, and customer requirements • Ensuring the quality of products and services • Reducing quality and risk costs, especially the cost of errors • Reducing technical risk potentials and their likelihood of occurring • Increasing efficiency and effectiveness with consistent and clear structures • Ensuring the development and qualification of employees • Aligning all measures with increasing efficiency and effectiveness • Reporting and data analysis across Voith companies with the goal of reducing quality, environmental, health, occupational safety, and regulatory risk costs, as well as identifying early warning signs in terms of risk management			

4.1.3 Product Impacts by Group Division

	Technology	**Sustainability Impacts**	**Area of Application (Product Group)**
Further Information on Social and Environmental Impacts – Voith Hydro	**Cavitation Erosion Detection:** Enables statements on the intensity of material removal and/or damage to affected components, depending on their operating condition, as well as the creation of condition-based analysis reports and the derivation of recommendations for action.	• Improved reparability • Improved upgradability/retrofitting • Improved service life technology	Condition Monitoring System/HyService
	StreamDiver: Enables the installation of new hydropower plants under strict environmental conditions at existing dams, locks, and irrigation dams. This enables the utilization of energy potential that cannot be tapped with conventional power plant concepts.	• Improved energy efficiency	Small hydro
	New turbine controller: Particularly compact design reduces space, maintenance, and energy requirements. Compared to high-pressure hydraulic power units and low-pressure regulators it enables reductions in oil volume of 60 % and 90 % respectively.	• Improved reparability • Improved energy efficiency • Improved environmental compatibility	Automation Large hydro Small hydro

Approach to Noise Emissions and Pollution at Voith Hydro

At Voith Hydro, noise emission targets are set on a project basis in the calls for tender. Specifically with regard to noise emissions, Voith Hydro pursues the ongoing goal of predicting noise emissions increasingly accurately and defining necessary measures in advance.

An example of a project-specific measure to reduce noise emissions is the new Voith turbine gearbox for the Barrage du Seujet hydropower station on Lake Geneva. For years, the power plant could not be operated at night due to low-frequency vibrations that were clearly noticeable inside the adjacent residential area's buildings. Together with the power plant operator's technical partner, Voith developed the concept for an improved transmission arrangement. As a result, outstanding efficiency of over 99 % was achieved. In addition, it was possible to reduce noise emissions in particular to such an extent that the power plant can now be operated continuously.

The noise reduction measures in the hydraulic laboratory launched in 2018/19 also continued in the reporting year. Furthermore, project-specific KPIs continue to be set to allow noise emissions to be controlled efficiently. Voith's OnCare.Acoustic smart technology is also used here: This enables the detection of fluctuations in turbine noise emissions so that appropriate measures can be taken.

Selection: Technologies for Improved Social and Environmental Impact

Technology	Sustainability Impacts	Area of Application (Product Group)
Introduction of the **Curved Bar Refiner Plate**, whose new design significantly reduces wear of the die plates in the pulper. The service life has more than tripled.	• Improved reparability • Improved upgradability/retrofitting • Improved service life technology	Products & Services
After extensive fluid mechanics surveys on our pilot plants and by using 3D printing in production, we were able to completely redesign key functional components of our **EdgeExpert 2.0**, significantly expanding the EdgeExpert application window to save fibers and energy for even more customers.	• Improved resource and material efficiency	Products & Services
Green Pulping Technology: This completely new pulping concept for recycled paper is currently in the development phase and has already been successfully tested and optimized in a pilot installation in a partial stream. As a result, the design, automation, and manufacturing of the prototype for continuous operation in the full stream was launched. Customers will commission the system in 2022. Green Pulping Technology will enable the significantly more energy-efficient pulping of recycled paper.	• Improved energy efficiency • Improved climate footprint	Projects
ProLube / FilmLube: Freshwater consumption on lubrication spray pipes is greatly reduced, and the moisture cross-profile of the wet felts is significantly more uniform. This improves the useful life of press felts by up to 30 %.	• Improved reparability • Improved service life	Rollers and covers
Smart-Loop-Technology for water treatment: Cooperation project with Voith subsidiary meri Environmental Solutions; enables improved cleaning of wastewater from paper factories. This reduces freshwater consumption by about 4 m^3 of freshwater per tonne of paper. With an annual production output of 750,000 t of paper, this corresponds to a saving of around 3 million m^3 freshwater per year.	• Improved environmental compatibility • Improved resource and material efficiency	Projects

Further Information on Social and Environmental Impacts – Voith Turbo	**Technology**	**Sustainability Impacts**	**Area of Application (Product Group)**
	Railroad diesel engines: A joint project with the Liebherr Group, in the development phase. These meet the latest emissions standards, offer 23 % more power in the same installation space, and deliver fuel savings of around 8 % versus the competition.	• Improved energy efficiency • Improved climate footprint • Reduced pollutant emission	VT Mobility

Approach to Lowering Noise Emissions at Voith Turbo

Voith Turbo works continuously to reduce its products' noise emissions. To this end, Voith Turbo always aims to comply fully with the technical specification for interoperability (TSI) relating to the subsystem "rolling stock-noise" (TSI Noise) according to EU regulation 1304/2014, as well as DIN EN ISO 3095 ("Acoustics – Railway applications – Measurement of noise emitted by railbound vehicles"). Other noise emission standards such as ISO/TR 11688-1/2 are also met. Examples are the Silent Vent fan wheel or the bionic gearing of final drives in the field of drive technology. Bionic toothing was developed to minimize material costs and noise emissions in gear drives, and is already in mass production and in use in rail-vehicle gear units. It enables a reduction in noise emissions by up to 10 dB(A). An example of this is a new railcar transmission test stand that allows Voith Turbo to conduct detailed noise measurements, advancing the optimization of railcar-transmission noise emissions. An approach to reducing the noise generated by railcar transmissions was also developed.

4.2 Responsibility in the Supply Chain

	Regional Distribution in %	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Procurement Markets	Europe	57	56	56
	America	18	22	27
	Asia	24	21	16
	Other	1	1	1
	Training of Purchasing Employees Globally Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
Scope of Training	Purchasing employees	approx. 500	approx. 500	approx. 500
	Purchasing employees trained	almost all	almost all	almost all
	Hours of training of Purchasing employees (total)	6,152	9,397	10,832
	Suppliers Who Have Submitted a Self-assessment Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**[1)]
Supplier Self-assessment	Compliance & Sustainability Check of initial self-assessment	3,532	3,659	3,584
	Initial self-assessment	n. a.	n. a.	n. a.
	Suppliers Who Have Submitted a Self-assessment in %			
	Share of the invoice volume obtained from suppliers for whom there is a valid Compliance & Sustainability Check of the initial self-assessment	63.7	66.0	68.0
	Supplier self-assessment ratio (share of the invoice volume obtained from suppliers for whom there is a valid self-assessment)	n. a.	n. a.	n. a.

[1)] Data gathered in November 2018.

Supplier Evaluation	**Evaluation of Existing Suppliers** Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**[1)]
	Evaluations (individual processes)	1,128	1,200	1,115
	Suppliers evaluated	963	1,000	916
	Suppliers audited	n. a.	n. a.	n. a.
	Evaluation of Existing Suppliers in %			
	Sustainability ratio	83.2	82.8	87.4
	Supplier evaluation ratio (percentage of invoice volume by evaluated suppliers)	26.7	29.0	49,0
	Invoice volume in € millions			
	Invoice volume with suppliers with a current and approved supplier evaluation	479	–	928
Supplier Compliance	**Supplier Compliance** Number	**FY 2019/20**	**FY 2018/19**	**FY 2017/18**
	Blocked suppliers	–	13	13
	Only includes blocks due to violations of compliance and/or sustainability guidelines; excludes blocks owing to bankruptcy or technical quality issues.			
Supplier Risk Assessment	The processes implemented in the Group Divisions Voith Hydro and Voith Turbo exemplify our supplier risk assessment.			
	For instance, Voith Turbo implemented a multi-step process for the risk assessment of suppliers. In addition to fundamental risk categories such as creditworthiness, quality, delivery reliability, competitiveness, and customer structure, the process also encompasses additional risks such as geographical location, geographical and political risk, and interruptions to supply systems. Voith Turbo uses the VDA 6.3 Process Audit standard for Supplier Assessments and Supplier Audits. Among other things, this includes questions about occupational safety and environmental protection: These determine whether the supplier has implemented a system for occupational safety and environmental protection, and whether there is a system in place for implementing the material compliance requirements (EG 1907/2006 REACH, or Directive 2011/65/EU ROHS for electronics suppliers).			
	Voith Hydro carries out intensive checks on suppliers for compliance and quality over the entire lifecycle. Prior to inclusion in the supplier database, suppliers undergo checks for integrity (including compliance and HSE criteria), financial stability, and implemented quality systems, as well as experience of and references from working with other suppliers. Supplementary on-site audits are carried out on suppliers of key power plant components and services; these audits are carried out jointly by Quality Assurance and the Supplier Development & Support function within Purchasing. To secure the highest quality assurance, Quality Management always has the final decision in the approval process via its right to veto.			

[1)] Data collected in November 2018.

The Report

Voith has published a Sustainability Report every year since 2011. This report describes the progress we made in terms of our sustainability in Voith's 2019/20 fis cal year, i.e. from October 1, 2019 to September 30, 2020.

In producing our report we followed the internationally recognized guidelines of the Global Reporting Initiative (GRI). The scope of our report fulfills the requirements of the Core option of the GRI Standards. Our report was not audited externally. In 2018 we carried out an exhaustive stakeholder survey to identify the material sustainability issues and enhance our materiality analysis; this report includes those results.

Unless stated otherwise, the facts, figures and information provided in this report apply globally to the following Voith Group Divisions: Voith Hydro, Voith Paper, Voith Turbo, and Voith Digital Ventures. Please refer to the Voith Annual Report for details of the Group companies covered. The degree of consolidation comprises at least 80 % of the Voith Group by revenue and headcount, and includes all of our Group's major locations. While we provide the number of employees in this report in terms of headcount, in our Annual Report we give this figure mainly in terms of FTEs (full-time equivalents); this may lead to discrepancies between the figures.

The data for the core figures provided in this report were gathered using mainly division-specific software. Figures were rounded off to support reporting clarity, which may cause discrepancies between the individual totals given in the relevant tables and final Group-wide totals. In individual cases it is not yet possible to derive a three-year trend; however, this is our objective for future reports. In a few cases, certain key figures already reported relating to previous periods have been retrospectively updated due to a change in the underlying data basis or calculation methodology. We have indicated this in the report at the corresponding points.

All forward-looking statements in this report are based on reasonable assumptions as at the deadline for report content submission. Due to unknown risks, uncertainties and other factors, the actual results, developments or performance of our company may deviate from our forecasts, estimations, and statements. (For further information please see our Annual Report.)

As a result of the Corona pandemic, Voith introduced numerous health protection measures in the reporting period. The increased use of mobile working has led to significant changes in key figures compared to the previous reporting year, particularly those related to employee presence, such as the number of face-to-face training days.

For optimal readability we refrain from making gender-specific references in this report. This is not a value judgment, and all such references are to be understood as fully gender-neutral.

Further information is provided at www.voith.com and in our Annual Report. We currently expect to publish our next Sustainability Report in early 2022.

Annual Report 2020

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The Sustainability Report is also available in German.
The German and English editions are available online at:
http://voith.com/corp-de/ueber-voith/nachhaltigkeit.html
http://voith.com/corp-en/about-us/sustainability.html

In addition to the Sustainability Report, Voith also publishes a comprehensive Annual Report at the end of the fiscal year. It is available online at:
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