

Sustainability Report 2020



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Foreword by the Board of Directors

For Jowat, sustainability signifies acting responsibly as a company with the aim of continuously combining business development and corporate success with the sustainable interest of society and the environment. In this, we see an opportunity and a future-oriented strategy to safeguard the long-term success of the Jowat Group. We act in accordance with the principles of sustainability and are committed to a future-compatible development. Not only because ecological and social issues are a dangerous risk. In addition, enterprises are under growing and direct pressure to act from many sides: politics, customers and investors demand verifiable sustainability.

With our entrepreneurial endeavors and our products, we want to make our contribution to the implementation of the United Nations' Sustainable Development Goals (SDGs).

To provide evidence for this, we are publishing our first Sustainability Report in 2021. Sustainable development is a global issue and therefore this will be a global report, published in German and in English.

We will enshrine the principle of sustainability in our corporate strategy to tackle future challenges and safeguard our long-term success. Thereby, we actively commit to sustainability.

We, the Board of Directors of Jowat SE, as well as all employees are committed to actively contributing towards achieving our set goals for a sustainable corporate development.

Therefore, we are very pleased with this major milestone, our first Sustainability Report.

The Board of Directors of Jowat SE



Klaus Kullmann



Ralf Nitschke



Dr. Christian Terfloth

About this Report

We are publishing the first Sustainability Report of the Jowat Group for the business year 2020 to communicate our sustainability performance. In this publication, we examine our impact in regard to social, ecological and economic aspects and explain the concepts we have drawn up and what measures we have taken with respect to the matter. The purpose of this report is to inform our stakeholders – employees, customers, shareholders, banks, suppliers, political players and government authorities, NGOs, neighbors, as well as everyone interested – of what we are doing to make our products, solutions and processes as well as our supply chains socially and ecologically compatible.

This Sustainability Report follows the framework of the Global Reporting Initiative (GRI). It has been created in accordance with the GRI Standards: “Core” option.

This Sustainability Report deals with the financial year from 1st January to 31st December 2020 and, where possible, contains the comparative data from the previous year or years. Sustainability reporting will take place regularly, the next Sustainability Report of Jowat SE is expected to be published for the fiscal year 2022.

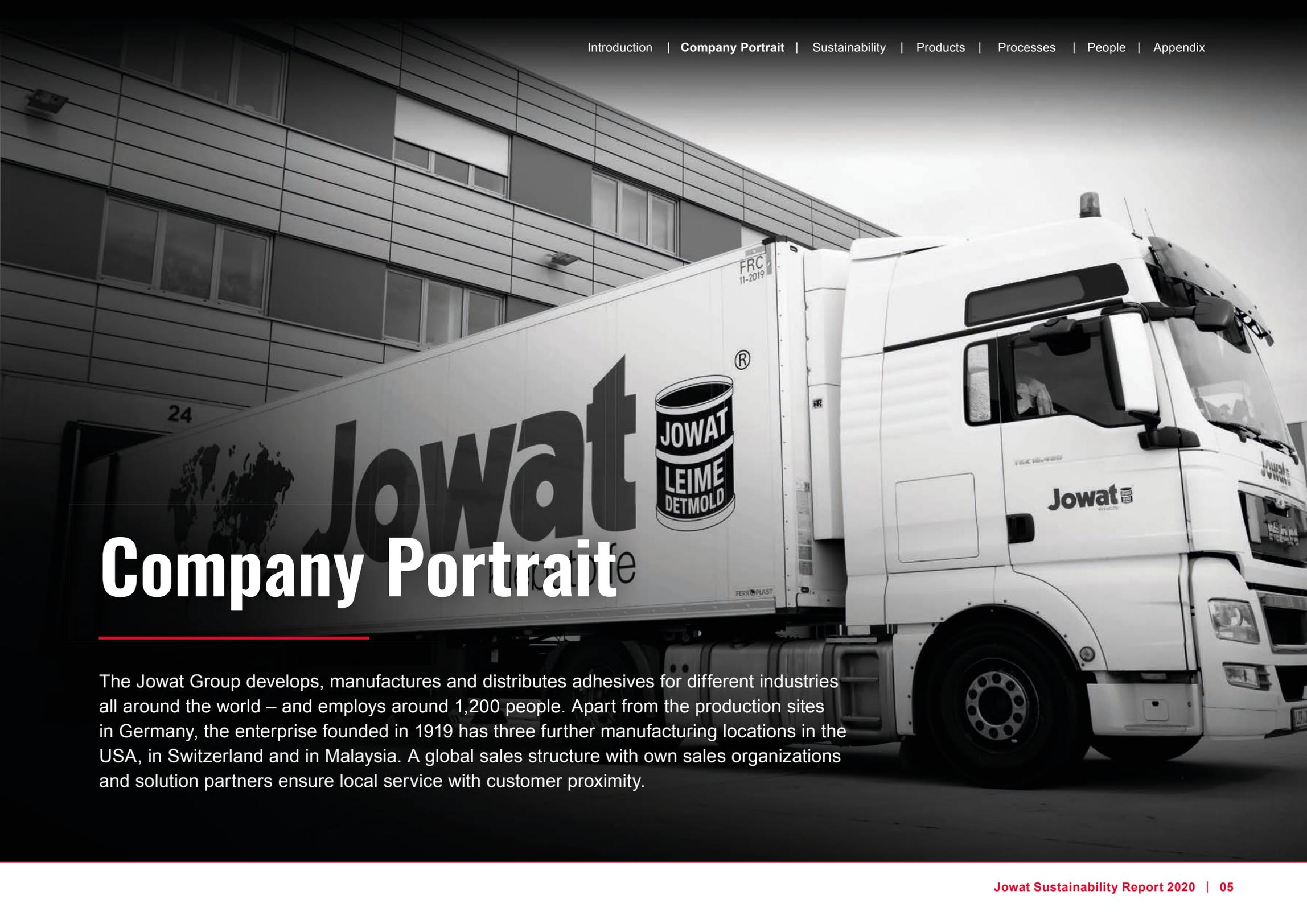
In the reporting period, Jowat with its Group headquarters in Detmold was operationally active in five manufacturing locations (two in Germany, one each in Switzerland, the USA and Malaysia) as well as with 23 sales organizations in 22 countries. We want to take a holistic look at our sustainability performance and provide a comprehensive reporting structure. The report focuses primarily on our manufacturing locations. In future, we plan to also include data from our sales locations. Any data that should differ from the reporting period specified is marked as such.



The House of Technology at our Group headquarters in Detmold

Numeric values indicated in the text and tables have been rounded. It is therefore possible that individual figures in the tables of this report do not add up to the exact sum specified

and that percentages indicated do not exactly reflect the corresponding absolute values. The editorial deadline for the 2020 Sustainability Report was 23 August 2021.



Company Portrait

The Jowat Group develops, manufactures and distributes adhesives for different industries all around the world – and employs around 1,200 people. Apart from the production sites in Germany, the enterprise founded in 1919 has three further manufacturing locations in the USA, in Switzerland and in Malaysia. A global sales structure with own sales organizations and solution partners ensure local service with customer proximity.

Our Enterprise

As a manufacturer of adhesives for industrial applications, we have business partners in a wide variety of industrial sectors. While we supply a complete range for the wood and furniture industry, we develop special solutions for other industries. We distribute our products in over 80 countries and provide service and advice in different languages.

The Jowat Group is globally active in the development, production and distribution of adhesives and supplies customers in different industries. In the reporting period, Jowat with Group headquarters in Detmold was operationally active in five manufacturing locations (two in Germany, one each in Switzerland, the USA and Malaysia) as well as with 23 sales organizations in 22 countries. Group revenue for the year 2020 was €326 million. We are pursuing a triad strategy and have been present for many decades in three economic regions – Europe, America and Asia-Pacific – and have a tight network of distributors.

Products, Markets and Employees

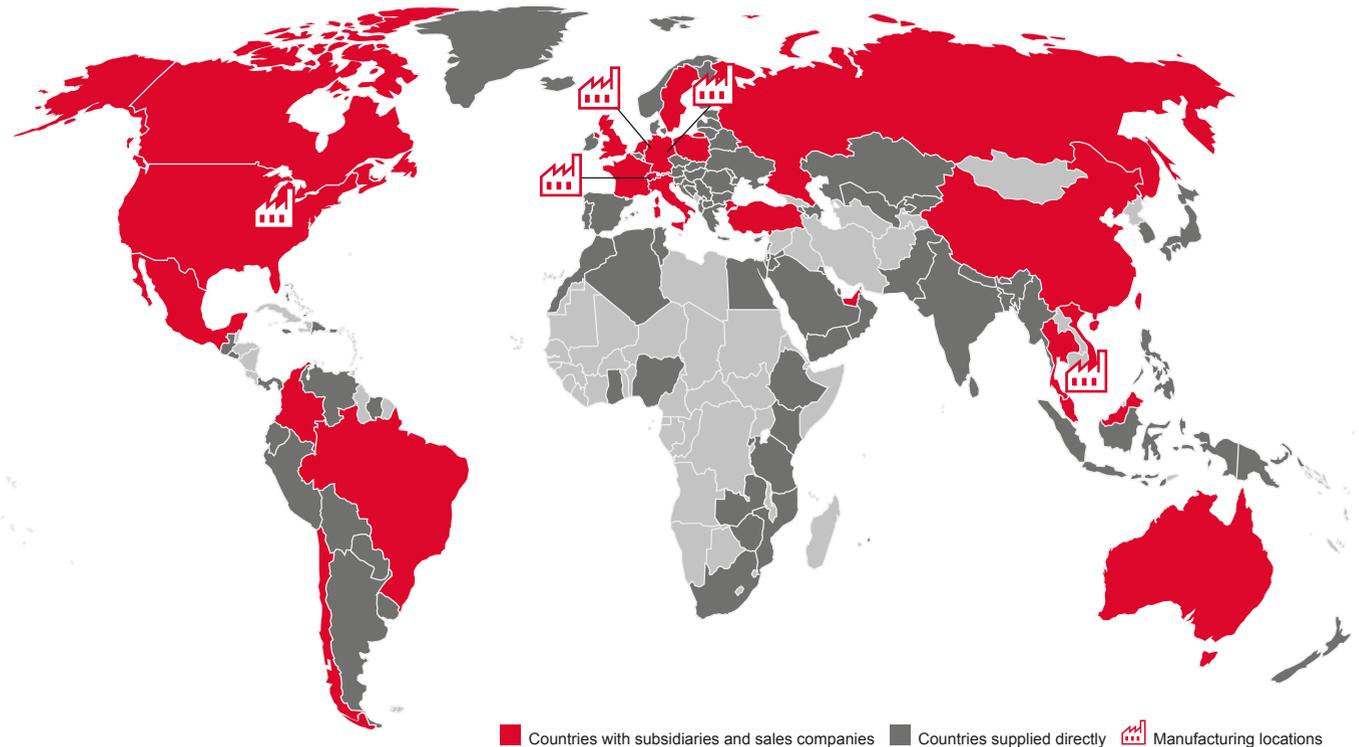
Our competence enables us to provide comprehensive solutions to the challenges of our adhesive processors. Our product portfolio comprises mostly dispersion, hot melt and solvent-based adhesives, which we supply to the wood and furniture industry, one of our key markets, or also e.g. to sub-suppliers in the construction industry as well as growth markets such as the packaging industry. Companies in the automotive, textile and electrical industry also appreciate the benefits of our adhesives.

We support the development of these industries around the globe, focusing on solutions with a high potential for innovation and rationalization. We are prepared to meet the individual requirements of our customers and can therefore offer specially tailored solutions much faster than many of our competitors.

Around 1,200 employees around the globe are working to make that possible, over 900 of whom are employed at our five manufacturing locations.

95 percent have a permanent employment contract, 89.7 percent work full-time. The proportion of female employees at the manufacturing locations is 21.3 percent.

Jowat is active in 5 manufacturing locations as well as with 23 sales organizations in 22 countries – and employs around 1,200 employees.



Employees by employment contract in the year 2020*

	Germany (Detmold and Elsteraue)	Switzer- land (Buchrain)	USA (High Point)	Malaysia (Bandar Enstek)	Total
Number of employees (total)	606	38	176	111	931
Permanent employees	564	35	176	109	884
of whom female	117	14	31	33	195
of whom male	447	21	145	76	689
Temporary employees	42	3	0	2	47
of whom female	0	1	0	2	3
of whom male	42	2	0	0	44

* Data from the manufacturing locations

Full-time and part-time employees in the year 2020*

	Germany (Detmold and Elsteraue)	Switzer- land (Buchrain)	USA (High Point)	Malaysia (Bandar Enstek)	Total
Number of employees (total)	606	38	176	111	931
Full-time employees	517	31	176	111	835
of whom female	78	10	31	35	154
of whom male	439	21	145	76	681
Part-time employees	89	7	0	0	96
of whom female	39	5	0	0	44
of whom male	50	2	0	0	52

* Data from the manufacturing locations

Sustainable Corporate Governance

Jowat SE is a European corporation (Societas Europaea). Its shareholders are two limited partnership companies, which are run by the two owner families Depenbrock and Frank. Therefore, Jowat has been a family enterprise for over 100 years. Jowat SE is operationally active (research & development, production, purchasing, sales & marketing) and responsible for the development of the Group's strategy. In addition, Jowat SE holds direct or indirect interests in the companies that are part of the Group and provides different types of services to those companies.

The management of the operative business lies with the Board of Directors. Their work and compliance with the company's Articles of Association is supported and verified by the Supervisory Board of Jowat SE within the framework of regular meetings and whenever necessary. The Supervisory Board is currently composed of two representatives of the founding families and four external members with renowned expertise in the fields of economics and adhesives.

Jowat has been a family enterprise for over 100 years.

Business Development, Equity and Funding

The Jowat Group is largely financed by a high equity ratio of around 50 percent. Financial institutions provide additional financing for Jowat SE and selected subsidiaries. Despite of the coronavirus pandemic, earnings before taxes in 2020



Bird's eye view of our headquarters in Detmold

increased compared to the previous year and amounted to €21.8 million. Two million euros were distributed to shareholders in 2020. Further economic indicators of the consolidated financial statement are regularly published in the Federal Gazette.

Jowat only avails financial assistance for research endeavors if they are also of public interest beyond the foreseeable and expectable revenue. In 2020, Jowat received around €0.1 million from the government for research endeavors. A comparable amount is expected in Germany within the framework of the German Federal Research Grants Law (Bundesforschungszulagengesetz) for the 2020 fiscal year. The expenditures of the enterprise in the respective research endeavors far exceed those grants.

In connection with the coronavirus pandemic, Jowat received an inflow of around €0.8 million from social insurances and government bodies. Due to those payments, we were able to ensure that no employees had to be laid off.

In Bandar Enstek (Malaysia) we make the surface of our roofs available for the construction of a photovoltaic system operated by the power supplier TNB. We purchase the solar power at a fixed rate and thereby also benefit from the government funding of solar energy in Malaysia.

Principles and Guidelines

Jowat is distinguished not only by its products but also by the values that are actively lived within the company. These values are essential to our success and have been enshrined by our **guidelines** in our corporate culture and in our everyday work.

Our Principles

- **Our customers** are the most important factor of our day-to-day work. It is our job to meet their requirements as efficiently as possible and to offer comprehensive solutions to their problems. To us, it goes without saying that customer focus and customer intimacy is paramount.
- **Our employees** are our greatest asset. This is why training and professional development are of utmost importance to us. We want to ensure every last member of our team can offer the very best expertise to our customers.
- **Our quality awareness** is something we are constantly working on with great success both internally and externally. On our way to a “Total Quality Management”, the certification according to ISO 9001:2015 is an important step. For us, “total quality management” is all about optimising internal processes, taking preventative measures to prevent mistakes, achieving exceptional product quality, and delivering on time.
- **Our environmental responsibility** is aimed at long-term concepts and sustainability. It extends to the conservation of natural resources, use of environmentally safe production methods, prevention of emissions, and offering competent environmental information for our customers.
- **Our potential for Innovation** allows us to be the spearhead in research and development and adhesive application technologies for all product segments and industries in which we operate.
- **Production reliability** means for us: constant optimisation of our manufacturing processes, constant increase in workplace and equipment safety, and safeguarding availability of raw materials and machine.
- **Solution partners** are manufacturers of machinery, materials, substrates, application equipment, serving the same industry we supply. An intense exchange of ideas and experience in regard to research and development activities as well as product application facilitates practical new solutions for the customers we share.
- **Global is our market, global is our strategy.** This includes our sales activities and subsidiaries in all regions. By focusing on our strengths, we have made ourselves right at home in our markets around the world.



Award-Winning Corporate Governance

In the 2020 business year, Jowat SE received the “Axia Best Managed Company” award for the second time in a row. The award is given each year by Deloitte Private, Credit Suisse, the Wirtschaftswoche magazine and the Federation of German Industries (BDI) to Mittelstand (mid-sized companies) that demonstrate a positive long-term economic development. Jowat convinced the jury with its innovative power, long-term strategy and strong corporate governance structures.

Over 100 years of Jowat

Jowat stands for more than 100 years of tradition and experience. The nucleus of today's technology leader is the wholesale business for glue and carpentry supplies founded by Johannes Watzlawczik in 1919 in the Silesian town of Breslau. In the 1930s, the founder's sons-in-law Georg Lobers and Heinrich Frank took over the management of the company. After World War II, they advocated for a fresh start in the princely town of Detmold in the Lippe region, which was a major center of the carpentry trade and the growing furniture industry in Germany at the time. The company name "Jowat," in tribute to the founder Johannes Watzlawczik had already adorned the storefront in the 1930s back in Breslau.

the opportunities and the risks situation in the Group. The Supervisory Board, for instance, is provided with a Risk Management Report on a monthly basis.

Action plans have been developed and are available in the event of a raw material shortage or a production line failure. For instance, we source interchangeable raw materials from several suppliers. In case of a disruption in production, manufacturing will be taken over at least partially by other Jowat production facilities. Due to this global flexibility, we were able to maintain reliable deliveries during the coronavirus pandemic also.

Elaborated Action plans are available in the event of raw material bottlenecks or production line failures.

Risks of Climate Change

Our sites are subject to various statutory requirements and exposed to varying risks due to climate change. In the European Union (EU), the Green Deal is driving the replacement of fossil fuels and will lead to a significant increase in our energy costs if the current production methods are maintained. We are taking actions to reduce our CO₂ emissions in manufacturing, for instance by using alternatives to fossil energy sources or increasing the use of alternatives to fossil raw materials (for more information, see chapter Processes, page 22). The opportunities lie in the growing use of bio-based as well as recycled raw materials and in the optimization of adhesive

application amounts, which is the focus of research and development at Jowat. Further information on this topic is provided in the chapter Products, page 15.

According to current assessments, the location in High Point (North Carolina, USA) will be the first affected by the direct physical impact of climate change. The site is located in a region that could be increasingly exposed to storms or flooding in future. The protection measures in place today against tornados and flooding are in line with the current risk situation and will be adapted if necessary. The European sites and the site in Malaysia, however, are located in regions where, based on current assessments, the risk of extreme weather events to be expected is rather lower.

Our Contribution: Industry, Innovation and Infrastructure



Due to our business activities oriented on sustainability goals, we contribute to the UN sustainability goal no. 9 "Industry, Innovation and Infrastructure" (chapter "Sustainability at Jowat," page 12). By continuously prioritizing research and development, we achieve a more efficient use of raw materials and we create more environmentally compatible product technologies and manufacturing processes.

Management of Risks and Opportunities

How well our risks are managed is crucial to meeting our corporate goals. Risk management is therefore an integral part of our business processes and corporate decisions. We monitor and manage our risks using a range of control systems. With those systems, we systematically determine and assess the risks and opportunities and record the risk potentials in detailed weekly, monthly and quarterly reports. The Board of Directors and the Supervisory Board of Jowat SE are regularly briefed on

Jowat
Klebstoffe

Sustainability at Jowat

We are convinced that sustainability is a success factor. We take into account the ecological and social impact of our business activities and aim to improve it. For that purpose, we are defining clear goals in our sustainability program. Transparent reporting makes our progress visible.

How We Manage Sustainability

We take responsibility for the ecological and social impacts of our business activities. In our sustainability program, we have defined fixed goals to be achieved by 2025. With this, we also want to make a contribution to the Sustainable Development Goals (SDGs) of the United Nations relevant to us. For that purpose, we are working on a number of factors – from the selection of raw materials, to responsible purchasing practices as well as good and safe working conditions to a more resource-conserving production.

Responsibility for the sustainable orientation of the enterprise lies with the Board of Directors of Jowat SE. They are supported in the planning and operational implementation by the Sustainability Team, which is composed by members from different departments and reports directly to the Board of Directors. Here, we follow the Responsible Care® initiative of the chemical industry and the environmental protection guidelines of the German Adhesives Association (“Industrieverband Klebstoffe e.V. – IVK”).

Quality, environmental protection and energy efficiency are firmly enshrined corporate goals at Jowat. The corresponding guidelines are regularly evaluated within the framework of management reviews and adapted if necessary and are binding for all employees at all locations. They form the basis of our understanding of sustainability. The executives are responsible for permanently anchoring this understanding into the corporate culture.

In order to leave a world worth living in for future generations, we make our decisions subject to sustainability. For instance, we actively include environment and climate protection aspects in the development of products, in the planning of new production facilities and in manufacturing.

Our material sustainability topics

In 2020, we conducted a materiality analysis based on the 17 sustainability goals (Sustainable Development Goals, SDGs) of the United Nations to determine the sustainability topics most significant to Jowat.

The relevance of each SDG to Jowat as well as its impact and the possibility to influence it by Jowat were analyzed within the framework of an interactive workshop with executives from

all relevant departments. We assess the relevancy from our internal perspective as well as from the point of view of the customers, the external group of stakeholders most important to us.

Following the analysis, we identified seven SDGs as most significant to Jowat. Based on this first analysis, we want to increase our sustainability contribution in future. These SDGs are presented together with our existing approaches and activities in this report.



With our sustainability program, we want to contribute to the 2030 Agenda

The Global Sustainability Goals

In autumn 2015, the United Nations adopted 17 global sustainability goals (SDGs) to be achieved by the year 2030. In addition to politics and society, private-sector companies are also called upon to make their contribution on this path toward a sustainable development. Jowat subscribes to this agenda and wants to make an active contribution towards these goals. We focus here on the results of our materiality analysis, i.e. the goals that we can have the greatest influence on achieving.

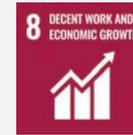
Our Reporting Topics

The SDGs defined as relevant provide the key topics for our sustainability reporting. We have assigned the corresponding indicators of the Global Reporting Initiative (GRI). Its standards form the globally dominating framework for reporting on sustainability. In addition, we are including further subordinate targets of the 17 SDGs with corresponding GRI indicators because they are significant to our corporate development and indispensable for an appropriate level of transparency of our commitment to sustainability. These SDG targets refer to the following topics: women's participation and opportunities for leadership (SDG target 5.5), increase the share of renewable energy (7.2), double the rate of improvement in energy efficiency (7.3), ensure equal opportunity and eliminate discrimination (10.3), as well as reduce corruption and bribery (16.5), and ensure access to information (16.10).



Good Health and Well-Being

As a manufacturer of chemical products, Jowat has a big influence on the health and well-being of its employees and customers. Therefore, SDG 3 – Good Health and Well-Being – is closely linked with our core business and is accordingly of very high relevance to us. We are constantly working on reducing the release of chemicals to the air, water and soil and preventing detrimental effects on humans and the environment.



Decent Work and Economic Growth

As a globally active group of companies, we employ people in many countries and source raw materials from the most different suppliers. Therefore, we want to make a contribution to SDG 8 – Decent Work and Economic Growth. Business activities at Jowat are focused on the long-term value development, which also involves the safeguarding of workplaces. In addition, we take our human rights due diligence in the supply chain very seriously and are constantly implementing appropriate measures to ensure compliance.



Quality Education

A high level of education and qualification of our employees is important to us. Therefore, we consider SDG 4 – Quality Education – of very high relevance. After all, this SDG incorporates overarching topics such as e.g. lifelong learning and securing skilled labor. In addition, training measures are necessary to share knowledge about environmentally compatible courses of action and to raise awareness of sustainability with our employees and our customers.



Industry, Innovation and Infrastructure

Since its foundation, the Jowat Group has been focusing on innovation, competitiveness and functioning business structures. For this reason, we classify SDG9 – Industry, Innovation and Infrastructure – as highly relevant to our external stakeholders. Here, we aim for economic stability in accordance with dynamic processes and development opportunities.



Clean Water and Sanitation

Clean water plays a vital role in the value creation at Jowat – as raw material as well as cleaning agent. SDG 6 – Clean Water and Sanitation – therefore plays an important role. In light of the water shortage around the globe, we consider our water and wastewater management to be an essential field of action to use water more efficiently and thereby to make a contribution to the conservation of this resource.



Responsible Consumption and Production

Jowat manufactures adhesives that are used in the worldwide production of a vast variety of finished products, such as furniture, clothes or packaging. Consequently, we consider SDG 12 – Responsible Consumption and Production – to be of high relevance. Key action areas of the Group resulting from this are the sustainable procurement, the efficient use of raw materials and the conservation of resources.



Climate Action

Climate change is one of the greatest challenges of our time. We, therefore, consider SDG 13 – Climate Action – as highly relevant to Jowat. Climate protection is thus also part of our sustainability program and a focus of our actions in the field of environment.

Our Sustainability Goals

Based on the results of the materiality analysis, we developed a sustainability program in the reporting period. For that purpose, we analyzed the maturity of our sustainability management within the framework of the data collection for our first sustainability report and derived four action areas from it:

- products for tomorrow
- more resource-conserving manufacturing
- responsible procurement practices and supply chain
- healthy and satisfied employees

Representatives of the relevant areas in coordination with contact persons from the triad regions have developed specific sustainability goals for the above, which we want to achieve by the year 2025. To do so, we take into consideration regulatory framework conditions as well as the results of an environment analysis. However, the decisive factor in determining the level of ambition was our own aspiration. We defined packages of measures to implement the goals and are now working on successively integrating them into our ongoing processes. We measure our progress in achieving our sustainability goals using specific performance indicators that we will integrate into our reporting in the future.

Compliance as a Key Factor

The Jowat Group manages its business with responsibility and in accordance with the statutory requirements in effect in the countries of activity. In addition, we adhere to the rules of our Code of Conduct, which includes the principles for ethical and legal conduct. It is online available and accessible to all employees and at all times via our JOSY information system, and it is addressed, among other occasions, within the framework of the annual Start-Up Meetings. New employees in Detmold and Elsteraue attend a training concerning the Code of Conduct within the scope of their induction.

Sustainability Program

Action area	Sustainability goal	Performance indicator
 Products for tomorrow	By the end of 2022, we are to develop an assessment system with sustainability criteria and assess our product development according to it.	Proportional share of the product innovations that meet sustainability criteria
	By 2025, 80 % of our product innovations are to meet these sustainability criteria.	
	By 2021, we are to further develop our Green Adhesives product range and double the sales volume by 2025.	Sales volume of Green Adhesive products
 More resource-conserving manufacturing	In corporation with our business partners we are to develop solutions that allow us to use at least 25 % raw materials based on recycled resources, by 2025.	Number of solutions with at least 25 % raw materials based on recycled resources
	By 2025, we are to reduce waste in our production per manufactured metric ton of finished goods saleable by 15 % and thereby increase our material efficiency compared to 2021.	Production waste per manufactured and finished good saleable
	By 2025, we are to reduce our energy consumption per metric ton of goods produced by 5 % compared to 2021.	Energy consumption per metric ton of goods produced
 Responsible procurement practices and supply chain	By 2025, we are to reduce our Scope 2 emissions by 25 % per metric ton of product compared to 2021.	Scope 2 emissions per metric ton of product
	By 2025 our suppliers (at least 80 % of the purchased volume) are to meet the sustainability criteria of our Code of Conduct.	Proportional share of suppliers who meet the sustainability criteria of the Code of Conduct
 Healthy and satisfied employees	We are to further improve the work-life balance by 2025.	Share of employees returning after parental leave
	By 2025, we are to reduce the number of working days lost due to accidents at work per employee compared to 2020. We want to permanently maintain "zero fatalities."	Working days lost due to accidents at work

Furthermore, since 2021, the document has been assigned to each employee once a year for their information on an electronic training portal.

Ensuring Compliance

We maintain an electronic schedule of legal provisions at the Group headquarters, in which all statutory requirements relevant to us are collected and distributed to the employees responsible for the purpose of fulfilment. Observance of the statutory requirements is monitored through safety-order-cleanliness (dubbed “SOS”) and protection-energy (dubbed “UE”) inspections, as well as through the annually conducted compliance audit.

Reporting of Misconduct

Unethical or illegal behavior can be reported along our hierarchical structure. In addition, the Board of Director is available as a global contact for all matters. Communication can be either directly personally, by phone, by e-mail, or anonymously via a complaint form on the Jowat website. The e-mail generated by the domain is forwarded directly to the Board’s offices. Should any suspicious cases arise, they can be immediately evaluated and clarified by Internal Revision. A telephone or electronic whistleblowing system is to be implemented in the future.

Preventing Corruption

Corruption will not be tolerated at Jowat, because it undermines the functioning of the (social) market economy and creates losers on both sides. As an internationally active enterprise group from the “Mittelstand,” this mission statement is very important to us. Our Code of Conduct also includes binding rules for the

purpose of tackling corruption. The market price situation is very transparent due to a market structure of our supply chains with a few, big suppliers. In our opinion, it is therefore highly unlikely that any advantages should be accepted or granted in procurement. In the case of investments, that is also excluded due to system requirements, such as recording in SAP, approvals by the Board of Directors and comparative offers. Should we receive information about possible cases of corruption, they will be assessed by the Board of Directors and forwarded to the department most competent to clarify the situation. Depending on the type of information, this can be Environmental Management, HR Management, the Legal department, Finances and Controlling, or Internal Revision. The decision in each individual case is made by the Board of Directors. No cases of corruption have hitherto come to the attention of the Jowat Group.

Dialog with Our Stakeholders

Due to our global economic activity, we have an effect on the lives of many people. We have a particular responsibility towards them and at the same time, they define the reputation of the Jowat Group. Therefore, we address the expectations of different stakeholders and determine them through a survey in which all managers at Jowat participate. The list of stakeholders is being adapted as necessary.

Our customers are among our most important stakeholders, with whom we are regularly in personal contact via our participation at professional trade fairs and our biennial Jowat Symposium. We also publish a Customer Magazine once a year with news and background information on our innovative adhesive applications. Our employees are a further, very

important group of stakeholders, who are regularly informed of current developments in the enterprise via the internal “Jowat-Times” newspaper. Start-up meetings, which are also attended by the Board of Directors and managers, are held in all three triad regions.

In addition, we cooperate closely with our suppliers and “solution partners” – companies whose products optimally complement our adhesives. We are also in close contact with shareholders, rating agencies and banks. Every year, we discuss the past business year with our banks and inform them of any news concerning our corporate strategy.

We want to be a responsible and welcome neighbor in the immediate surroundings of our locations. Therefore, we seek dialog with the general public as well as with our neighbors and make voluntary commitments, for instance with regard to noise pollution and emissions.

Shaping Association Work

As a member of the German Chemical Industry Association (Verband der Chemischen Industrie e.V. – VCI), whose work includes representing the political interest of the German chemical industry, Jowat has excellent connections in its field of business. In addition, we are a member of the Federation of German Industries (Bundesverband der Deutschen Industrie e.V. – BDI) and the German Adhesives Association (Industrieverband Klebstoffe e.V – IVK). Managers at Jowat SE are also exercising a shaping role in those associations through our membership. Furthermore, employees provide advisory services as technical experts to national associations.

Developing the Products of Tomorrow

Jowat is committed to adding value responsibly. We aim to ensure the careful use of natural resources and are working on more environmentally compatible product innovations. Beyond our wide range of adhesive products, we provide technical auxiliaries, e.g. different cleaners, for our customers. Through our comprehensive service and our professional advisory in particular, we want to make sure that together with our customers we can exploit the full potential of increased resource efficiency in the processes. At the same time, we protect the sensitive data of our customers and employees.

For Optimum Solutions

Our objective is to manufacture high-quality adhesives, which facilitate durable bonded end products. In light of climate change and the loss in biodiversity, we are responsible for ensuring that our business activities are more sustainable. We do this by e. g. developing adhesives with a high content of renewable raw materials or product solutions for wood-based construction.

Jowat manufactured a total of around 90,000 tons of adhesive in the reporting year 2020. Our product range reflects the many-sided aspects of the World of Bonding and can be divided into different categories. Apart from fossil and mineral materials, we are processing an increasing amount of bio-based raw materials in the production of our products. To ensure the best possible bonding results for our customers, we also take into account the type of materials to be joined by the adhesive. The result depends on different parameters, such as viscosity, green strength or processing temperature. Therefore, each adhesive will behave differently in any given application.

Jowat manufactured a total amount of around 90,000 tons of adhesive in the reporting year 2020.

Our Product Portfolio

Our main product technologies are conventional and moisture-curing hot melt adhesives, reactive adhesives, solvent-based adhesives, as well as dispersion adhesives. The performance of our products depends on their specific

ingredients: Hot melt adhesives solidify by cooling and dispersion adhesives form a bond when the water evaporates. Each application requires specific adhesive characteristics. High production speeds need short setting times to facilitate direct downstream processing. The bonding of big elements has different requirements than, for example, the production of protective clothing. Our diverse product range reflects the wide range of industries we supply, from wood-processing companies to the food industry and to the production of textiles.

Hardeners, crosslinking agents and primers (adhesion promoters) complement our adhesives and play an essential role in optimum bonding results. Crosslinking agents, for example, are mixed with the adhesive when increased water resistance is needed. Our flushing and cleaning agents are tailored to the composition of our adhesives to remove them reliably and without undesired chemical reactions from surfaces and machines. This prevents interactions and deposits, and ensures consistent quality in the production of our customers.

Our objective is to provide tailor-made solutions to all our customers – this prevents flawed application and saves resources. That is why it is important for us to know the exact requirements and the framework conditions of the adhesive application and to support them with technology, service and advisory.

As a partner for specific bonding applications, we understand the different requirements and needs in the industries – from furniture manufacture to food packaging. Jowat has become an established technology leader in the bonding technology market for the furniture and wood industry. Our products are being used in many further industries.

Adhesives for Sustainable Products and Production Processes

Jowat also manufactures adhesives for furniture production and the manufacture of construction elements. From wood to plastic to metal and to concrete, the variety of materials used

in the construction industry is very wide and our adhesives are expected to be adapted to the special characteristics of those materials. In doing so, we focus on efficiency and durability and promote the use of sustainable raw materials.

Construction and Living: The diversity of material combinations bonded in the construction industry is virtually unlimited. From interior fittings and flooring to construction elements for outdoor applications – each part has different requirements to withstand in everyday use for many years. Therefore, we adapt our adhesives to the specific conditions and add additives to our formulations with functions that go beyond bonding. Here, we take into account the appearance as well as the water and heat resistance and overall durability.

In the field of construction and furniture manufacture, we focus particularly on adhesives for wood processing. Wood is an extremely versatile and much demanded material. Manufacturers and consumers appreciate the natural texture, quality and appearance of the material, which create a warm and comfortable atmosphere. The wide range of furniture and construction elements demonstrates that wood can be processed in very different ways.

In addition, the impact of wood on the environment is minimal compared to concrete if forests worth protecting are preserved as ecosystems. Wood stores the greenhouse gas CO₂, whereas it is emitted in large quantities during the production of concrete. A prefabricated wood-based building also has a positive effect on humidity and thereby helps ensure a pleasant and healthy indoor climate.

Compared to concrete, wood stores the greenhouse gas CO₂ instead of emitting large quantities of it.

The applications of Jowat adhesives include the manufacture of load-bearing glulam. Adhesives from the Jowapur® product range are certified in accordance with EN 15425:2017 and are therefore approved for load-bearing glulam construction in Europe. These adhesives lead to an increase in production capacity at our customers due to an optimized assembly time-pressing time ratio and withstand high stresses. Once cured they are emission-free and odorless, formaldehyde and solvents are not contained. In addition, we provide many dispersion and hot melt adhesives for the bonding of wood and wood-based materials in the production of doors, flooring or windows.

In the furniture division, we supply adhesives for a wide range of furniture, e.g. cabinets, tables, upholstered furniture and mattresses. In the development of our adhesives, we take into consideration durability as well as aesthetic aspects. After all, furniture is exposed to a lot of stress and at the same time is a major factor in the ambience of a room. Apart from reliable adhesion, clean application is also desired. In addition, the requirements are rising with respect to product efficiency, occupational safety and sustainable production. Therefore, we are continuously optimizing our adhesives with consideration of environmental aspects. Selected formulations such as Jowatherm® GROW and Jowatherm-Reaktant® GROW are based on renewable raw materials and are used, for example, in the furniture industry.



The house of Technology in Detmold: Meeting point and innovation center

Wood-based construction: Jowat leads by example

Our House of Technology in Detmold has a wood-based structure and was completed in 2018. The building houses offices and meeting rooms as well as an innovation and application center. The front section of the building is a central meeting point with a bistro, conference and event rooms, and an auditorium. The building concept was developed in cooperation with the Detmold School of Architecture and Interior Architecture. Students designed the interior design of individual sections. The production building of Jowat Swiss AG was also built in 2008 based completely on wood. The innovative wood-based building includes offices and labs as well as production and the entire logistics department.

Textile: The occasion determines not only the choice of clothing, but also the adhesive used. Protective clothing, for example, can make the difference between life and death and must therefore withstand much more than conventional clothing. Hygienic textiles for medical use, on the other hand, need to be sterilized, which exposes the lamination to extreme stress. It stands to reason that contact between the finished product and the skin must be harmless. In addition, selected Jowat products have been certified with the “ECO PASSPORT” of OEKO-TEX®.

Transport: Adhesives are also used in the transport of goods and people. For example in the construction of ships and rail vehicles or in the production of cars and motor homes. The trend towards ever lighter vehicles with optimized energy efficiencies also plays a role in production, whereby quality and safety characteristics must be maintained. Adhesives are being used in a wide variety of applications in the transport industry: from bonding different materials for interior components, to bonded passenger cell filters or intake air filters that protect the engine from soot, dust or pollen.

Food and Consumer Goods: Our wide range of products provides tailored solutions for manufacturers of food and consumer goods to facilitate improved and more convenient packaging processes. Barely any other industry is as fast-moving as this one. Requirements for the material and shape of packaging are changing quickly and consumer awareness of sustainability aspects is growing with regard to the product as well as of packaging. Adhesives facilitate alternative packaging, for example due to the progressive substitution of plastics with fiber-based materials.



Our adhesives are used in a wide range of industries and applications

Graphics Industry: Our adhesives are used in a broad spectrum of applications in the graphics industry – from laminating printed sheets for folding cartons to book covers. The portfolio of our dispersion adhesives provides solutions for diverse paper and film combinations. The dispersions are suitable for food contact in accordance with EU Regulation 1935/2004 and meet performance characteristics for the different process requirements.

Opening Up New Markets

The German subsidiary JowatPro, founded in 2019, serves specialist retail partners and processors from the crafts sector. The company's online store makes the ordering process easier for independent craftspeople and small businesses and indicates the nearest local Jowat partner. In addition, JowatPro has its own warehouse space and supplies not only adhesives, but also related products and processing equipment, such as adhesive applicator guns.

Our Contribution: Responsible Consumption and Production



We seek to establish a responsible value creation and thereby support our customers' development towards more resource-efficient production and more environmentally compatible products. In doing so, we promote the UN Sustainable Development Goal 12 – Responsible Consumption and Production.

Our products are tailored to the needs of our customers and facilitate the efficient use of natural resources. We attach special importance to achieving the desired result with the smallest possible amount of raw materials. With our service and professional advisory, we help to raise awareness of sustainability and provide information for more sustainable decisions. We are also working to increase the use of renewable raw materials in our formulations, for instance in the bio-based GROW adhesives.

Bio-Based Adhesives – Tried and Tested, and Newly Discovered

Nature offers a variety of renewable raw materials that are suitable as adhesive raw materials. The resin of trees was used as an adhesive in the Stone Age already.

Today, fermented bio-waste, oils, starch or cellulose can be used to manufacture adhesives. Jowat is analyzing different renewable raw materials to determine whether they are suitable for adhesive formulations. Our task here is to invest in intensive development efforts and in new adhesive formulations, because fossil raw materials are becoming increasingly scarce. At the same time, demand for industrial adhesives is growing each year.

Fossil raw materials are becoming increasingly scarce. At the same time, demand for industrial adhesives is growing.

However, despite fluctuations in the crude oil price, bio-based raw materials are frequently more expensive than the fossil equivalents due to complex production processes. And there is one more challenge: the use of bio-based raw materials must not have a detrimental impact on the production of the adhesive or the disposal of the end product. The GROW product range fulfils these requirements.

Reducing the Ecological Footprint of Adhesives

Jowat has been developing bio-based hot melt adhesives and launched the Jowatherm® GROW product range in 2019 on the market. Today, between 20 and 50 percent of ingredients

in these adhesives are sourced from renewable raw materials. This way, we have partially replaced the fossil raw materials – an aspect that is becoming more significant for our customers also. An internationally successful furniture group, for instance, has set itself the goal of increasing the use of bio-based adhesives. Even though adhesives only make up a small part of the finished product, the industry processes millions of tons of adhesives globally each year.

Recycling Waste from Paper Production

The bio-based raw materials used in the manufacture of Jowatherm® GROW packaging adhesives are sourced exclusively from the waste and by-products in other industries. Therefore, we are not in competition for valuable resources needed in food production. We use crude tall oil, a by-product created in the production of paper, as a raw material for polymers and resins. This bio-based raw material can be used to formulate adhesives that are equivalent to formulations with a petrochemical basis. The pine wood used for the production of crude tall oil is sourced from strictly regulated forestry.

Lower Processing Temperature, Lower Energy Consumption, Increased Occupational Safety

Low-temperature hot melt adhesives provide further potential to increase the environment friendliness of bonding processes. Apart from other conventional products, several of our bio-based hot melt adhesives from the Jowatherm® GROW series can be processed at lower temperatures. This reduces the amount of energy required in production as well as the risk of burning, due to the lower processing temperatures. In addition, the bio-based hot melt adhesives have been optimized in terms of their stringing behavior. The sharp cut-off at the nozzle ensures an accurate application, thereby minimizing the need for our customers to clean their products or machines and thus minimizing material waste.

“If one global player starts focusing on sustainable bonding, other companies will soon follow suit.”



Dr. Felix Starck, Head of Development Thermoplastic Hot Melt Adhesives at Jowat SE

Bio-based raw materials facilitate adhesive formulations that are equivalent to formulations with a petrochemical basis.

Responsible Value Creation

At our manufacturing locations, we comply with internationally applicable frameworks and adhere to national legislation. All our locations meet the requirements for ISO 9001, an international standard for quality management. The standard facilitates a continuous improvement of our products and services. Furthermore, it helps increase customer satisfaction and meet statutory as well as official requirements.

As an enterprise in the chemical industry, we bear responsibility for the substances we place on the market and the hazards arising from them. We implement all statutory requirements related to chemical substances, for example under the EU Chemicals Regulation REACH and the CLP Regulation on the classification, labeling and packaging of substances and mixtures. Our adhesives that can be used in the packaging of food comply with the relevant global specifications. We also meet the requirements of the IWAY standard for suppliers to the multinational home furnishings group IKEA.

Jowat evaluates all raw materials, intermediates and finished goods for their health and safety impacts during transport, storage, production, distribution and use. We have established a comprehensive system at Jowat for meeting our product stewardship responsibilities. This also involves a database for impact assessments, toxicological evaluations, as well as product registration, classification and labeling.

We follow the substitution principle in order to minimize risks to human health and the environment as much as possible. The principle prescribes mandatory testing of the substitution of all hazardous substances. Jowat is driving the substitution or reduction of hazardous substances in different product categories, for example in VOC-reduced primers or the hazard-labeling-free product range Jowatherm-Reaktant® MR. However, the use of hazardous substances in the manufacture

Jowat evaluates all raw materials, intermediates and finished goods for their health and safety impacts during transport, storage, production, distribution and use.

of adhesives cannot always be avoided. Around 20 percent of the substances sourced by Jowat are hazardous, of which around five percent reach the consumers. Those five percent are usually contained in highly diluted form in the products and therefore no hazard labeling is required. The much larger proportion of the substances cures when the adhesives are processed industrially and therefore poses no health risk to consumers.

Promoting Customer Safety

Application aspects to ensure a convenient processing of our products are taken into consideration in the development stage already. The two organizational units "Technical Support & Service" and "Environmental Management" at Jowat are responsible for the central management of customer safety. They control our activities in this area, set goals and monitor their achievement. For this purpose, they work together with other relevant departments, such as Purchasing or the Legal department. Based on these established processes, we provide information and assistance for the correct handling of our products.

This includes processing instructions as well as personal customer support and advisory. For example, we provide adhesive training for processors and organize symposia. The Jowat Adhesives Symposium for the wood and furniture

industry was organized successfully for the 18th time in 2021 and has become established as a fixed industry meeting in the German-speaking sales region. In 2021, it was held in a digital format for the first time due to the coronavirus pandemic.

Our product labels comply with the specifications of the Globally Harmonized System of Classification of Chemicals (GHS) and are translated into different languages. The statement of procedure for labelling also follow the environmental protection standards of the German Adhesives Association (Industrieverband Klebstoffe e.V.). In addition, our customers receive data sheets on the technical handling and safety of the respective products. Safety data sheets are created in the Environmental Management department according to the four-eyes-principle.

We use the news feed on our website and on social media, among other purposes, to provide important product information on occupational safety and health protection to our business partners in different industries. Our customers also have the opportunity to audit our locations. Our technical support can be contacted by phone in case of complaints, problems and acute emergencies. In addition, complaints management systems are implemented at all our production locations. In 2020, there were no violations of safety or health regulations relating to our products.

We provide information and assistance for the correct handling of our products based on established processes.

Our Management of Information

Information processing plays a key role at Jowat in the performance of daily tasks. The protection of trade secrets and the data of our employees, customers and business partners from unauthorized access and unauthorized manipulation is our top priority.

The handling of customer data is set out in our Code of Conduct. In addition, we comply with the European Union's General Data Protection Regulation (GDPR). The GDPR and the Code of Conduct are available and accessible to our employees on the JOSY information system and must be complied with at all times. Our IT security guideline supplements the aforementioned frameworks and provides a clear overview of the security strategy, organization and objectives. In addition, our employees have permanent contact persons at Jowat to clarify any questions regarding information security. For the reporting year, we are not aware of any violations of product labeling, marketing regulations, or the protection of customer data.

Information technology (IT) supports all essential strategic and operational processes. We want to prevent the risk of an IT system failure disrupting business activities, for example due to a cyberattack. We therefore take appropriate measures to ensure that the risks associated with e-mail and internet use remain as low as possible. For all processes, IT applications and IT systems, we appoint a person responsible as well as a deputy. The designated persons are responsible for determining the protection required and granting access authorizations. Any adjustment or change in the location of servers or data is decided upon by IT management jointly with the management at the corresponding location.



In our audimax in the House of Technology we regularly host information events

**The processing of information
plays a key role in the performance
of daily tasks at Jowat.**

Designing Sustainable Processes

We are continuously working to reduce the negative ecological and social impacts of our business activities and to increase positive effects. In doing so, we take a comprehensive approach along the entire value chain. We advocate environmental protection, occupational safety and human rights – in our enterprise as well as at our suppliers.

For Environmental Protection in Production

At Jowat, the responsible use of resources in production is part of daily business – because we are aware of their value. Quality, environmental protection and energy efficiency have been laid down as corporate goals in a guideline. It provides clear orientation for all employees at Jowat and helps embed our understanding of responsible action within the corporate culture.

How We Embed Responsibility

Our guidelines on quality, environmental protection and energy efficiency make it clear that we consider the constant improvement in these areas to be a corporate goal. They are binding for all employees at all our locations. Managers are responsible for embedding the understanding described therein permanently in the corporate culture. The Board of Directors is accountable for environmental protection. The plant and production managers are responsible for ensuring compliance with environmental protection standards at the individual locations – both our own as well as those of the country they are in. Those responsible delegate certain subsections, such as waste management. Prior to the coronavirus pandemic, the Board of Directors regularly traveled to the manufacturing locations and also raised the question whether our guidelines were being observed and lived by. Since March 2020, however, we have had to limit ourselves to reviewing business figures and to virtual meetings due to travel restrictions.

At the Detmold location, we have established an environmental management system certified in accordance with the international standard ISO 14001 and which is being enhanced continuously. In Detmold as well as at the Elsteraue site, we have an energy management system certified in accordance with ISO 50001, which will continuously improve our energy

efficiency. Further important guidelines for the expansion of operational environmental protection are also provided by the statutory framework.

Compliance in Production

Compliance with environmental requirements is a natural part of operations at our five manufacturing locations in Germany, Switzerland, the USA and in Malaysia. To this end, we have established processes that are based on the applicable national requirements. The German manufacturing locations in Detmold and Elsteraue use the “Recht im Betrieb” compliance tool for this purpose. At the Buchrain site in Switzerland, matters of compliance are handled by a central contact person, who receives information on current developments from the authorities, the Swiss professional trade association for occupational health and safety, and the hazardous goods officer. Health, Safety and Environment Officers are also responsible for compliance at the sites in Bandar Enstek (Malaysia) and High Point (USA), respectively, and are in contact with the local authorities. In 2020, there were no fines or penalties for non-compliance with environmental laws and regulations at our production locations.

Reducing Emissions

At Jowat, we take responsibility for climate protection and optimize our manufacturing processes by applying and further developing environmentally-friendly technologies. This saves energy and reduces our CO₂ emissions.

How We Use Energy

Our main sources of energy are electricity and natural gas, and to a lesser extent diesel, heating oil and gasoline. Diesel is primarily used for the transport of our goods. We are supported significantly in our efforts to reduce energy consumption at our locations by the aforementioned ISO 50001 certification at the locations in Detmold and Elsteraue as well as by a trans-

Working Together Towards a Sustainable Future

In September 2020, the corporate headquarters in Detmold launched the “ÖKOPROFIT® Kreis Lippe 2020” project in cooperation with nine other companies from the Lippe region. For the duration of one year, we will be accompanied and advised by B.A.U.M. Consult. The German Environmental Management Association (Bundesdeutscher Arbeitskreis für umweltbewusstes Management e.V. – B.A.U.M.) supports companies in their efforts to advance in the field of sustainability. Within the framework of this cooperation, we want to discover potentials for further improvement and promote exchange.

gional energy network in which we are active together with several other companies.

In 2019, we set ourselves the goal of saving two gigawatt hours of energy at the manufacturing location in Detmold and 50 megawatt hours at the location in Elsteraue by 2023. By the end of 2020, we had achieved a total of almost 10 percent of our savings target in Detmold and almost 34 percent in Elsteraue. In 2020, we implemented different projects for that purpose. For example, we installed motion detectors and LED lighting at our global production sites and are using chargers with time switches. Due to the measures implemented in the year 2020, we saved a total of 26.3 megawatt hours annually. This results in total savings of around 220 megawatt hours in the years 2019 and 2020. By 2025, we aim to reduce our energy consumption per metric ton of goods produced by 5 percent compared to 2021 within the framework of our sustainability program. To this end, we will implement further measures to reduce energy consumption.



We plan to further reduce our energy consumption in the future

By 2025, we aim to reduce our energy use per metric ton of goods produced by 5 percent compared to 2021 within the framework of our sustainability program.

Energy consumption by energy source

Energy source in MWh	Detmold (Germany)	Elsteraue (Germany)	Buchrain (Switzerland)	High Point (USA)	Bandar Enstek (Malaysia)	Total
Primary energy use	13,412.2	2,922.8	333.2	4,846.4	2,209.1	23,723.7
Natural gas	8,170.1	2,899.5	0.0	4,828.7	2,145.3	18,043.6
Heating oil	0.0	15.0	260.0	0.0	0.0	275.0
Diesel	5,225.2	8.3	66.7	0.0	0.0	5,300.2
Gasoline	16.9	0,0	6.5	17.7	63.8	104.9
Secondary energy use	11,274.0	3,557.6	457.0	7,892.6	4,630.4	27,811.6
Electrical Current	11,274.0	3,557.6	457.0	7,892.6	4,630.4	27,811.6
of which from renewable energies	6,405.7	2,020.2	0.0	0.0	0.0	8,425.9
Total	24,686.2	6,480.4	790.2	12,739.0	6,839.5	51,535.3

Specific energy consumption

	2020
Energy consumption per kilogram finished goods [kWh/kg]	0.6



Our Contribution: Climate Action

The manufacture of hot melt adhesives requires energy-intensive processes. By reducing the consumption of fossil fuels and thus greenhouse gases, we see great potential to contribute to the global sustainability goal SDG 13 –Climate Action.

We are currently working to increase the proportion of renewable energies in our energy mix. In Malaysia, the roofs of our buildings at the Bandar Enstek location are being used by the energy supplier TNB for a photovoltaic system. The system has been in operation since March 2021 and has been covering between 15 and 20 percent of the plant's electricity needs. The manufacturing location in Switzerland uses the Earth's heat (geothermal energy) to generate power. At the headquarters in Detmold, we installed solar cells that supplied 57,968 kilowatt hours of electricity in the reporting year, which was fed into the local energy grid. We are also planning an energy center to safeguard the infrastructure and the energy efficiency. At our location in Detmold, we also have charging stations that can be used by guests to charge their electric cars and bicycles for free.

Our Emissions

Jowat is obliged to declare the emissions at its manufacturing locations. Those declarations are based on local statutory requirements and therefore subject to different submission periods. For example, a declaration must be submitted each year at the location in Bandar Enstek (Malaysia), and every four years at the locations in Detmold and in Elsteraue. Independent of those obligations, our aim is always to keep the emission of greenhouse gases from the manufacture and transport of our products as low as possible.

Direct emissions (scope 1)

Emissions by energy source in t CO ₂	Detmold (Germany)	Elsteraue (Germany)	Buchrain (Switzerland)	High Point (USA)	Bandar Enstek (Malaysia)	Total
Gas	1,797.4	637.9	0.0	1,061.9	472.0	3,969.2*
Heating oil	0.0	43.8	191.7	0.0	0.0	235.5
Diesel	1,389.9	2.2	17.7	0.0	0.0	1,409.8
Gasoline	4.5	0.0	1.7	4.7	17.0	27.9
Total	3,191.8	684.5	210.8	1,066.6	490.0	5,642.4

* The total amount includes CO₂ as well as the equivalents from nitrous oxide (N₂O) and methane (CH₄) emissions.

Indirect emissions (scope 2)

Emissions by energy source in t CO ₂	Detmold (Germany)	Elsteraue (Germany)	Buchrain (Switzerland)	High Point (USA)	Bandar Enstek (Malaysia)	Total
Electricity	2,072.4	629.2	0.0	2,762.4	1,166.9	6,630.9



We rely on renewable energies e.g., through solar roofs like here in Malaysia

Our Approach to Raw Materials

Whether raw materials for production, packaging materials or water – Jowat is committed to the efficient and environmentally compatible use of resources. Despite of the complex challenges we face when we improve our processes, we work every day to ensure a responsible use of resources.

Efficient Use of Raw Materials

At Jowat, we aim at using resources efficiently and preventing waste in production. Around 60 percent of our costs can be attributed to the use of materials and therefore it is ecologically and economically vital that they are used in a responsible manner. There are a number of actions we are taking to ensure this: We have defined different sets of key data for all raw materials, which have to be verified and confirmed by our quality lab when a new batch is received. In this way, we prevent the manufacture of flawed products. In addition, any remnants of a component that has not been used up, will be used when the next batch is manufactured. Conservation of resources also plays a central role in administrative activities. For example, we are aiming to use only recycled printing and tissue paper as far as possible.

We use industrial packaging which is as compact as possible and easy to handle. We use scarcely composite packaging in order to facilitate an easier recycling within the framework of the known systems.

Raw materials used

Raw material in t	Detmold (Germany)	Elsteraue (Germany)	Buchrain (Switzerland)	High Point (USA)	Bandar Enstek (Malaysia)	Total
Dispersions	3,140.2	3,189.0	73.6	389.5	230.0	7,022.3
Resins/waxes/polymers	21,722.7	8,931.0	1,234.8	15,703.9	7,031.6	54,624.0
Additives	1,519.4	245.0	53.8	455.6	166.4	2,440.2
Monomers	4,988.2	0.6	1,762.7	50.1	218.8	7,020.4
Solvents	223.8	5,438.5	76.3	0.0	651.0	6,389.6
Fillers	1,487.6	2,160.9	212.3	1,613.7	3,354.9	8,829.4
Total	33,081.9	19,965.0	3,413.5	18,212.8	11,652.7	86,325.9
of which hazardous substances in %	19.5	27.3	55.4	1.1	9.1	17.4

Packaging materials used*

Packaging materials in metric tons	Detmold (Germany)	Elsteraue (Germany)	Buchrain (Switzerland)	Bandar Enstek (Malaysia)	Total
Metals	1,402.1	424.5	41.4	177.5	2,045.5
Cardboard/paper	300.6	48.2	16.8	48.7	414.2
Wood	1,022.2	408.3	27.7	964.4	2,422.6
Plastics	332.1	95.1	43.1	106.4	576.6
Multi-component / composites	585.5	524.0	123.6	68.0	1,301.0
Total	3,642.5	1,500.1	252.5	1,364.9	6,759.9

* Jowat Corporation (USA) records the amount of packaging materials in number of items only and was not taken into account in the calculation of the total amount.

Our Approach to Waste

Our manufacturing locations operate according to the principle: Always prevent waste where possible. Nevertheless, waste is unavoidably generated at the manufacturing locations as a result of the production process and due to the packaging of raw materials and factory supplies. Disposal measures with an equivalent value of more than €2,500 e.g., products, raw materials or containers, require the approval of the Board of Directors following a detailed failure analysis. Out-of-spec production batches are offered to our customers within the framework of special sales. The remaining waste is separated and disposed of properly.

Waste generated

Waste by type in t	Detmold (Germany)	Elsteraue (Germany)	Buchrain (Switzerland)	High Point (USA)	Bandar Enstek (Malaysia)	Total
Hazardous waste (laboratory and production)	87.6	65.4	8.4	1.1	16.7	179.2
Non-hazardous waste (laboratory and production)	2,217.1	94	70.2	825.5	244.7	3,451.5
Other	19.9	64.1	0.3	0.0	19.7	104.0
Total	2,324.6	223.5	78.9	826.6	281.1	3,734.7

Waste streams in the PUR hot melt adhesives production department

In 2019, we launched a project at our location in Detmold aimed at reducing waste streams in the production department for PUR hot melt adhesives. Within that project, we developed different options in cooperation with an external consultancy provider. Our objective was to reduce the waste rate from five percent in the base year 2018 to three percent by the year 2020. That target was overachieved, and we prevented around 250 metric tons of waste and reached a waste ratio of 2.4 percent at the end of 2020.

Our Approach to Hazardous Substances

Any change to a formulation at Jowat to use a raw material that has not been used before is subject to an established procedure to evaluate the risks associated to people and the environment. We make sure there are no hazard characteristics that would prevent its use and verify to what extent the hazard characteristics can affect the products. Because, in many cases, the hazardous substances cure to form a harmless compound during bonding. If certain hazard characteristics are determined within the framework of the evaluation, the testing of alternatives is mandatory.

In addition, we use a comprehensive questionnaire, the Supplier Chemical Assurance Form (SCAF), to clarify whether the products of our selected suppliers fall under international regulations such as the Restriction on Hazardous Substances (RoHS) or REACH, Substances of Very High Concern (SVHC) or conflict minerals (Dodd-Frank Act). The questionnaire also includes questions concerning critical ingredients. If there are any inconsistencies or if the material contains certain ingredients, e.g. which must not come into contact with food, we clarify those issues with the supplier. The introduction of the material in the company requires the prior coordination with the specialist for occupational health and safety, the creation of a workplace safety card and the filing of the safety data sheet for general use.

The use of hazardous substances cannot be completely prevented in the manufacture of adhesives for industrial use. This is partly due to the reclassification of the risk of hazardous substances by the legislator, as was recently the case with the substance titanium dioxide at EU level. When dealing with non-substitutable hazardous substances for production, we separate work areas where necessary and use special filters in the extraction systems. Where these precautions are not sufficient, we provide our employees with personal protective equipment.

Many hazardous materials are also dangerous goods. Those are transported to customers in most cases by our own truck fleet. We train our employees on how the cargo has to be secured and on the care and maintenance of the vehicles, to ensure a proper handling of the goods. The rules on hazardous substances and dangerous goods are laid out in the statement of procedure "Handling of Hazardous Substances".

In addition to our efforts to reduce the use of hazardous substances, we also use bio-based raw materials alongside fossil and mineral raw materials. Modified natural resins have always been used in the formulation of our solvent-based and

hot melt adhesives. For products in the Jowatherm® GROW range, we increased the proportion of bio-based raw materials to up to 45 percent.

For more information on the use of bio-based raw materials, please refer to page 19 in the Products chapter.

Our Approach to the Use of Water

We are aware that water is one of the most valuable raw materials and that, according to the **Water Risk Atlas**, Germany is also exposed to the risk of water shortages. Water is utilized in different ways within the Jowat Group – in the manufacture of dispersion adhesives, for cleaning production facilities, for cooling or for sanitary purposes. For hygiene and quality reasons, we only use drinking water from the local drinking water supply.

Wastewater contaminated with product from the flushing and cleaning processes at the Detmold plant is diverted into a company wastewater treatment plant. After treatment and preliminary testing, it is discharged into the public wastewater

Our goal of discharging less than 5,000 cubic meters of product-contaminated water in Detmold was first met in the year 2020.

system. At the other manufacturing locations, wastewater contaminated with product is collected separately in tanks, which are picked up by a certified disposal company. Wastewater that cannot be treated or not treated properly is collected in Detmold, too, by a tank truck for external disposal. The long-term annual average thereof has been about 90 metric tons. In 2020, 126 metric tons had to be collected by a tank truck.

Due to its facilities, the Detmold plant is subject to the implementation of the directive on industrial emissions. Every five years, we update the so-called baseline status report, which contains information on groundwater and, if applicable,

soil contamination at the site. In addition, we carry out regular sewer inspections and, where necessary, remediate damaged sewers in accordance with the statutory requirements of self-monitoring of sewer systems. The first verification was completed in 2019. Regular analyses of discharged water are also mandated by law in the USA and in Malaysia.

To ensure that we are prepared for possible water shortages in future, we are aiming at permanently reducing the volume of product-contaminated wastewater at the Detmold location to less than 5,000 cubic meters per year and thereby minimize the need for fresh water. We achieved this goal for the first time in 2020. To this end, we implemented a number of measures, including analyzing the origins of wastewater in the dispersion department and the installation of a pigging system for cleaning the ductwork.

Water withdrawal

Water withdrawn in m³	Detmold (Germany)	Elsteraue (Germany)	Buchrain (Switzerland)	High Point (USA)	Bandar Enstek (Malaysia)	Total
Local drinking water supply	16,310	1,235	609	3,076	11,988	33,218

Water discharge

Water discharged in m³	Detmold (Germany)	Elsteraue (Germany)	Buchrain (Switzerland)	High Point (USA)	Bandar Enstek (Malaysia)	Total
Municipal wastewater treatment plant	12,694	1,096	609	1,770	11,968	28,137
External wastewater treatment plant	126	139	0	1,020	20	1,305
Total	12,820	1,235	609	2,790	11,988	29,442

Our Contribution: Clean Water and Sanitation



Water plays a significant role in the manufacture of adhesives. At all our locations, we ensure that wastewater contaminated with our products is treated and complies with limit values before it enters the sewage system. By preventing hazardous chemicals and substances from having a detrimental impact on water quality, we contribute to the achievement of SDG 6 – Clean Water and Sanitation. In light of the global water shortage, we aim to further reduce our water consumption compared to recent years, both in production and in sanitation at our sites.

For Responsible Procurement

Our environmental and social responsibility is not limited to our locations. Jowat is committed to responsible procurement of goods and services along the supply chain. We have therefore set ourselves the goal of committing the majority of our suppliers to the sustainability criteria of our code of conduct by 2025.

As a manufacturer of adhesives, Jowat currently purchases most of its raw materials from suppliers in the petrochemical industry. In order to ensure reliable deliveries to our customers, we cooperate with several suppliers for most raw materials or have alternative formulations approved by our customers. In addition, our suppliers also include plant manufacturers for the construction of additional production facilities or packaging machines and IT hardware distributors. In addition, we use the services of different contractors, e.g. for manual work or digital data processing.

Freedom of Association and Collective Bargaining

We respect the right of employees at all locations to the freedom of association and fully recognize the German Works Constitution Act. In the reporting period, Jowat received no

notification that employees' right to freedom of association or collective bargaining may have been violated or significantly threatened at any of its locations of operation or suppliers.

We have been working together with the employee representatives at our locations in a spirit of trust and goal-oriented manner for many years. We make joint decisions based on the applicable laws that take into account the interests of the enterprise as well as of the employees. Jowat informs the works council in regular intervals of the current course of business and of measures planned.

Human Rights in the Supply Chain

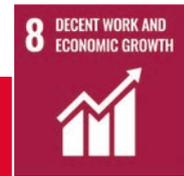
Jowat has developed a supplier questionnaire on the fulfilment of human rights due diligence in the supply chain. It contains questions on sustainability management and is based on fundamental international frameworks such as the UN Guiding Principles on Business and Human Rights. Suppliers are asked questions concerning compliance with human rights, safeguarding of occupational health and safety, the assurance of compliance, business ethics and environmental protection. In addition, the questionnaire also includes questions about the certification of the supplier. The questionnaires are scheduled to be sent to suppliers in September 2021 and processed subsequently.

In order to obtain an overview of the human rights risks in our own supply chain, we conducted a risk analysis in the reporting year together with an external consultancy firm. The processing and evaluation of the results is not yet completed. All countries from which we source raw materials were taken into consideration in the analysis. A database with country-based information on human rights risks such as child labor and forced labor served as the basis for the risk analysis. Based on the results, Jowat will set concrete targets for improving human rights due diligence in its supply chain.

Local* procurement

	Europe	USA	Malaysia	Total
Locally used procurement budget in %	98.6	91.7	81.4	95.7

* Definition of "local" used: The supplier (not the place of manufacture of the goods) is located on the same continent as the processing Jowat plant.



Our Contribution: Decent Work and Economic Growth

We want to fulfil our human rights due diligence in the supply chain and thereby contribute to the achievement of SDG 8 – Decent Work and Economic Growth. With the human rights risk analysis and the supplier questionnaire, we are taking important steps to implement this and ensure that our supply chains are free of modern slavery, forced labor and child labor. In addition, we promote the protection of labor rights and a safe working environment for all employees.

Ensuring a Good Quality of Life for All

We take our responsibility for employees and society seriously. Therefore, we offer attractive workplaces and create an environment in which our employees enjoy working and remain healthy. To contribute to our society, we provide training for young people, promote diversity within our own ranks and help where help is needed.

Successful Together

Around 1,200 employees at Jowat contribute to the success of the enterprise every day. Fostering their well-being is one of our corporate principles and is at the heart of our actions. Our relationships are based on an equal footing and on mutual respect. We focus on the needs of our employees and work out solutions together. In this way, we pursue long-term corporate development and offer attractive workplaces.

We are convinced that only well-trained and committed employees can tackle the challenges of today and tomorrow, always with the overall well-being of the enterprise in mind. Therefore, employee satisfaction, qualification and motivation play a key role at Jowat. Our code of conduct provides us with a clear framework for this and is aimed at ensuring equal opportunities. Personal interactions are characterized by appreciation and forward-looking. Flat hierarchies facilitate quick decisions. This makes it easier for us to respond to the needs of our employees and to meet the changing conditions in the markets. Our employees maintain close contact with our customers and business partners with regard to their wishes and expectations.

Personal interactions are characterized by appreciation and forward-looking. Flat hierarchies facilitate quick decisions.

Human Resources Management is the responsibility of the Board of Directors. The fields of action in this area include e.g. the development of compensation models, the relationship between employer and employees, occupational health and safety, training, equal opportunities, and freedom of association. Of course, Jowat respects the right of employees to join a trade union and to be represented by employee representatives.

Flexible Working Hours

When personal life situations change, we support our employees in an open and solution-oriented manner in adapting the framework conditions, for example the restructuring of working hours to part-time work. 16 percent of employees at our biggest location in Detmold are working part time. The proportion at our global locations is 9.7 percent.

The Jowat Group strives to offer employees individual solutions for their personal and professional lives. To this end, they can use of a wide range of services provided by our cooperation partner Familienbetreuung Lippe (FABEL Service) at the Detmold location. The range of services includes the arranging of short-term childcare as well as assistance and advice in different life situations. During the closure of schools and daycare centers in connection with the coronavirus pandemic, we also adapted individual working hours and facilitated remote working.

Special Benefits for Employees

We offer our company benefits to both full-time and part-time employees at all locations. The benefits include, for example, individual working time models and occupational health examinations. The JoFit sports program is available at the location in Detmold and includes weekly health exercise classes, running groups and different team sports.



The well-being of our employees is at the heart of everything we do

Use of Parental Leave

Employees who have had a child can go on parental leave, a right enshrined in German law. At the German locations, 30 employees went on parental leave in 2020. In the reporting period, 23 employees returned from parental leave. 87.5 percent of them remained employees in the Jowat Group. The duration of absences across reporting years for returnees after parental leave in 2020 averaged 17.4 months per person. Employees at other locations can also go on parental leave. However, the legal provisions vary from country to country. Jowat aims to find a solution suitable for employers and employees in each case. In doing so, we strive to facilitate a return to work as smooth as possible.

We offer older employees the possibility of so-called partial retirement, which allows a smooth and early transition into retirement. Partial retirement is financed from the demographic fund set up by Jowat. In addition, we supplement the personal salary during partial retirement with so-called pension increase insurance contributions, which are used to significantly raise the individual contributions for the statutory pension insurance.



Our Contribution: Quality Education

Our apprenticeship and training measures are oriented towards SDG 4 – Quality Education. In order to meet our social responsibility, we have decided to offer more apprenticeships than are necessary for our own needs. In this way, we are helping to alleviate the shortage of skilled workers and provide young people the opportunity to develop their careers with us. Since 2000, more than 120 apprentices have successfully completed their apprenticeships at Jowat in Detmold alone.

Appreciation and future orientation characterize our teamwork

Parental leave 2020*

	Number	%
Employees (Germany)	613	100.0
of whom have went on parental leave	30	4.9
of whom female	12	40.0
of whom male	18	60.0

* The data refers to the German locations in Detmold, Lage and Elsteraue.

Jowat set up a support fund for its German organizations many decades ago to provide financial assistance to individual employees and their families who are experiencing times of hardship through no fault of their own. The donation of the funds is the responsibility of an employee committee.

Informing and Involving Employees

At the beginning of each year, we hold an annual start-up meeting for all managers in the triad regions (Europe, Americas and Asia-Pacific) to review the past business year and describe the strategic goals for the following business year. The event is also attended, among others, by the individual shift managers from the production areas and the managing directors of our subsidiaries.

In our employee magazine “Jowat Times,” we provide information on operational changes and topics of strategic focus. The magazine is published two to three times a year, depending on current developments. This communication format is supplemented by the JOSY information system, internal memos from the Board of Directors, bulletin boards, e-mails and annual works meetings.

Ideas for possible improvements in daily operation are also contributed by employees themselves. The suggestions are discussed constructively in our teams. Jowat idea management serves as an additional tool for taking up ideas from employees. A decision-making body close to the company awards prizes for the best ideas and initiates their implementation.

Retention of Employees

Our employees perform their tasks with particular commitment, show flexibility in organizing their working hours and demonstrate long-term loyalty to Jowat. This is reflected in many long-term employment relationships. The turnover rate at our German locations was 3.9 percent in the reporting period. The global turnover rate at our locations was 7.6 percent in 2020.

Employee turnover rate at the German locations

	Turnover rate in %	Leaving employees	New employees
Jowat Germany	3.9	56	28
by gender			
female	3.4	8	4
male	4.1	48	24
by age			
under 30 years	6.7	27	22
30-50 years	3.8	15	3
over 50 years	2.2	14	3

Employee turnover rate at all locations

	Turnover rate in %
Jowat Group	7.6
by gender	
female	5.2
male	8.4

In our employee magazine “Jowat Times”, we provide information on operational changes and topics of strategic focus.

Lifelong Learning

Personnel development supports the implementation of our corporate strategy by constantly expanding the skills of our employees. We want to strengthen their knowledge worldwide. We promote and expect the willingness to change and the ability to learn new things. We bundle competence management within the Jowat Academy. Whether it is the development of managers, dual study courses, strategic projects, or company health management – the Jowat Academy drives a number of important topics and accompanies their implementation. This also includes employee appraisals, training programs, cooperation and networks.

Facilitating Individual Development

Those responsible for the specialist departments have the particular task of identifying and monitoring training needs in order to develop the necessary skills. We offer annual technical training courses in German and English language to reach an internationally uniform level of knowledge among our employees. The annual employee appraisals provide the opportunity for managers to talk with employees about satisfaction on both



An international team: Our employees in Malaysia

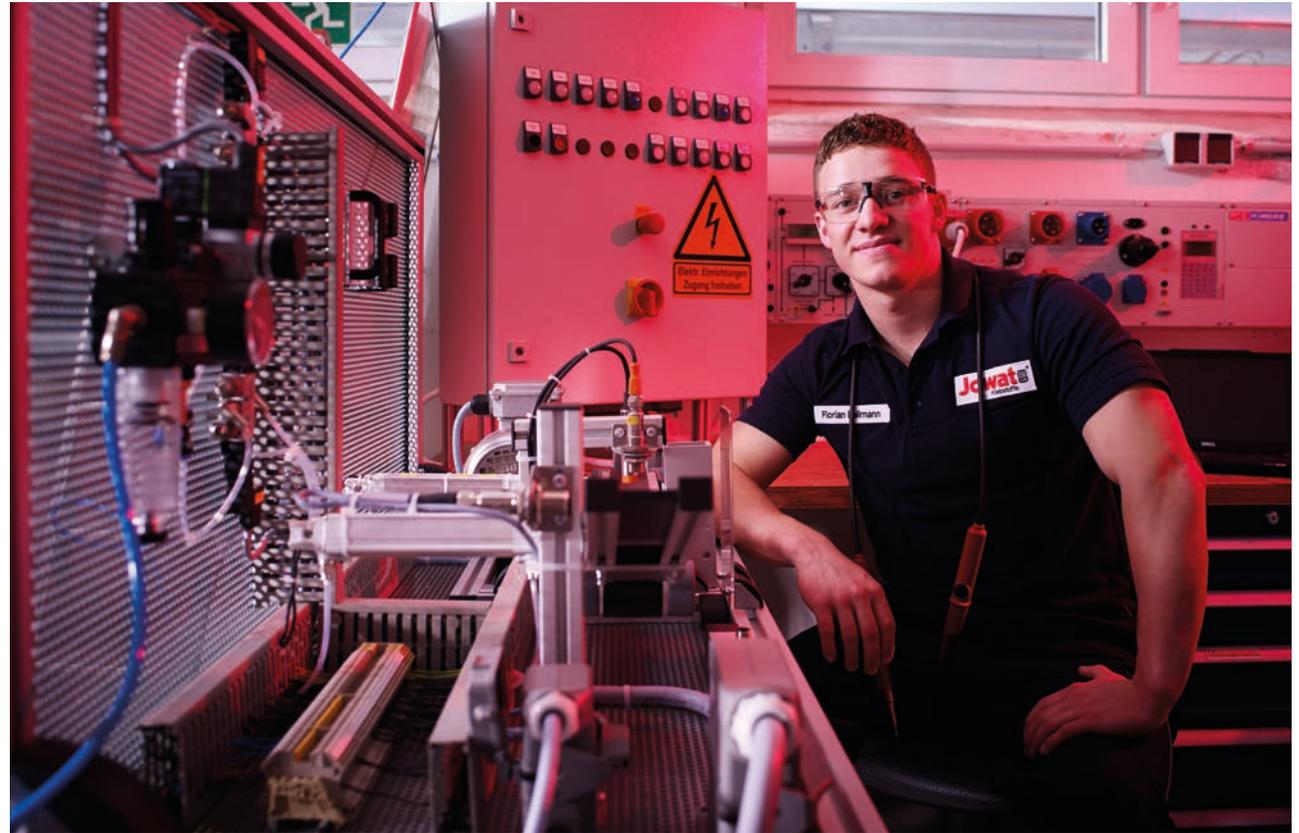
sides and about the potential for development. The appraisal interviews are conducted with our employees in Germany, Switzerland and the USA – around 70 percent of our workforce.

Many of our employees have the opportunity to change locations within the Group and – if they wish – return to the previous one. In recent years, several key positions at international locations were filled with employees who previously worked at the enterprise’s headquarters in Germany. They continue to develop professionally at Jowat and acquire intercultural skills. We want to offer this opportunity to young people in particular and thereby foster their loyalty to the Jowat Group.

Digital Formats for Exchange and Learning

To facilitate the best possible development of our employees, we support them with a comprehensive onboarding process and with mentoring programs. In addition, we provide several learning courses in digital format. For future managers, we have established a four- to five-month program with external coaches. A shared “management toolbox” is another support tool that was developed in 2018 as part of the introduction of a second management level under the Board of Directors at the Detmold location.

Due to the coronavirus pandemic, we moved from in-person events to digital learning formats as far as possible in 2020. All employees can now access a video catalog via the Jowat Academy. The catalog provides e.g. video tutorials on general questions about remote work. On average, each employee attended seven hours of training in the reporting period.



Our employees perform their tasks with particular commitment and also contribute their own thoughts for possible improvements

Quality Training Lasts a Lifetime

Training and the promotion of young professionals have always been of particular significance to us at Jowat. Our apprentices and students reward us for this commitment with loyalty and dedication.



Dieter Fricke still remembers how he used a handcart to transport heavy oak barrels full of liquid. The trained industrial clerk who is now in his 80s completed his apprenticeship at Jowat in Detmold in the post-war period. He has a lot of good memories about his apprenticeship. He got to know all the departments – from production to accounting. Even if the tasks may be carried out differently today, comprehensive training has always been a matter of course at Jowat.

Over **90%** of our apprentices and students remain to work at Jowat after graduation.

“You Have to Stir Their Enthusiasm”

Apprenticeships at Jowat today are more diversified than ever and provide young people the opportunity to experiment – right from day one. They can choose from ten different career paths at Jowat, from chemical lab assistants to industrial clerks. They can also gain valuable experience abroad, e.g. during a three-week intensive training course at the European College of Business and Management in London or at the Dublin Business School.

Young People Are Important to Us

We want to make it as easy as possible for young people to enter their professional lives. This applies to apprentices as well as to university graduates, to whom we offer preliminary internships and who can choose to major in one of three dual study courses: wood technology, business administration and information technology for businesses. They provide the unique opportunity for young people with a secondary education certificate to couple theory and practice.

We Do a Great Deal to Achieve That

In 2020, we had 30 apprentices in Germany and eight in the United States. Over 90 percent of our apprentices and students remain to work at Jowat after graduation. This also helps us to deal with the increasing shortage of skilled employees. We offer a wide range of courses for apprentices as well as for students to prepare them for their future careers, e.g. corporate etiquette, social media, relaxation methods, and business English skills.

“After their graduation from school, the apprentices learn in the chemical lab, for example, how to mix adhesives following a formulation or how to test the specific characteristics of the mixture. This is important. You have to stir their enthusiasm.”



Christoph Funke Pereira,
Head of Training Chemical Lab Assistants at Jowat SE

“Apprentices’ Week” for a Sense of Community

Each year, we organize an “Apprentices’ Week” in Detmold for our apprentices and students. The event was attended by 26 young people in compliance with hygiene regulations in the “House of Technology” in October 2020. It provided exchange, variety and educational activities. The program also involved an introduction to the basics of bonding technology as well as occupational safety and the presentation of our communication guideline. In addition, there was time at the end of the week to clarify any remaining questions and to plan joint projects.

Diversity and Equal Opportunities

We consider diversity an enrichment and want to create a diverse employee structure in the Jowat Group. Our code of conduct makes it clear that we do not tolerate any discrimination based on age, gender, origin, disability, religion or sexual identity. In the reporting period, no incidents of discrimination or disadvantage within the Group have come to our attention. If such incidents occur in the future, we will review each one individually and penalize them if necessary.

The proportion of women in management positions has steadily increased over the past years and is now at around 23 percent. The average rate in the industry is also 23 percent according to the equal opportunity survey of the Association of Managers and Executives in the Chemical Industry. With our participation in the “Cross Mentoring Ostwestfalen-Lippe (OWL)” program, we prepare qualified female employees at our Detmold location to take on management tasks. Our female managers also help mentees from other companies and share valuable experience with the young women. At several other Jowat locations, female managers also support female employees in taking on management tasks within the framework of mentoring programs.



Fair Compensation

In our compensation system, we take objective criteria such as education into account across all locations and classify our employees in wage and salary groups according to their tasks. This procedure is always gender-neutral. The basic salary agreed on for salaried employees can be supplemented with different components, such as voluntary bonuses, premiums or variable salary components. Agreement of the corresponding compensation takes place according to the above-mentioned objective criteria and is without exception gender-neutral. In general, a completed vocational training is required for employment at Jowat.

Our Contribution: Gender Equality and Reduced Inequalities

In our daily operations, we want to contribute to the UN Sustainable Development Goals SDG 5 – Gender Equality, and SDG 10 – Reduced Inequalities. Our code of conduct as well as our commitment to the balancing of personal and professional life reflect this objective in concrete terms. The equality officer at Jowat SE is responsible for continually drawing attention to potentials for development. This primarily concerns the equality of our employees as well as of people applying. After all, we want to give every person the same opportunity to develop personally and professionally in our enterprise.



The organization of occupational safety is to be audited by the competent social accident insurance institution for employers (Berufsgenossenschaft) confirmed with the “Sicher mit System” seal of approval.

Occupational Health and Safety

Employee safety has the highest priority at Jowat. We work continuously to mitigate risks and prevent occupational accidents. Compliance with all relevant laws and regulations is the basis for that and is mandatory. This applies to all our locations, even if implementation may be different from country to country.

The occupational safety policy and organization implemented at the Detmold location serves the goal of protecting and improving the health and safety of our employees. The organization thereby complements the statutory required safety committee. This also means that the occupational safety specialist, the company physician and the works council support the Board of Directors and the department heads in complying with and further developing the applicable rules. Finally, the organization of occupational safety is to be audited by the competent social accident insurance institution for employers (Berufsgenossenschaft) confirmed with the “Sicher mit System” seal of approval.

Further Measures at the Locations

Elsteraue (Germany): The location conducts monthly inspections to monitor aspects of safety, order and cleanliness at the plant. Any grievances are assigned to those responsible for rectification. This also includes the maintenance of the personal protective equipment of our employees.

Buchrain (Switzerland): The location has joined the Federal Coordination Commission for Occupational Safety, an industry solution for small and medium-sized companies in the chemical industry in Switzerland. It is supported by the ECO SWISS organization, which reviews our measures every five years and makes recommendations for further improvement.

High Point (USA): The location is planning on introducing an occupational health and safety policy and organization and is guided by the same objectives as in Detmold. The local safety committee meets every two months to discuss current events, suggestions for improvement and additional measures.

as notices on information boards, internal rules and regulations, or, for example at the Detmold location, presentations on screens.

There were no occupational accidents with serious high-consequence or fatal consequences in the reporting period. The rate of recordable work-related injuries averaged 5.24 injuries per 200,000 hours worked. Because there are relatively few employees in Buchrain (Switzerland), each injury is assigned a higher weighting in the calculation of the average. Therefore, Buchrain records the highest value within the Group, with 11.96 per 200,000 hours worked. The rate of days away from work due to work-related accidents at the Detmold location was 0.13 percent. Work-related illnesses were not identified at any of our manufacturing locations in 2020.

Promoting Good Health

At all manufacturing locations, Jowat provides benefits that include preventive medical examinations and insurance payments in the event of accidents or illness. Those benefits are only covered by basic health insurance at the Swiss location in Buchrain. Employees at the locations in Germany who return to work after a lengthy illness can gradually become re-acquainted to their daily work through measures of gradual reintegration. Within that process, we ensure occupational medical support.

Despite the difficult conditions due to the coronavirus pandemic, the competent government authority in Malaysia honored our plant in Bandar Enstek for its commitment to occupational health and safety. Jowat was voted best employer in the category “Chemical, ergonomic and noise management.”

Bandar Enstek (Malaysia): The HSE officer there reports relevant measures to the competent national authority on a monthly basis and passes on accident data. Employees as well as temporary workers receive information, instructions and training on safe working and on health protection.

Analyzing and Reducing Hazards

Our manufacturing locations regularly conduct risk analyses to identify, mitigate or, if possible, eliminate hazards. If occupational accidents occur, those incidents are discussed and improvement measures are initiated. Our measures to increase occupational safety include communication tools such

Work-related injuries in 2020

Location	Rate of recordable work-related injuries per 200,000 hours worked
Detmold (Germany)	3.3
Elsteraue (Germany)	6.2
Buchrain (Switzerland)	12.0
High Point (USA)	3.9
Bandar Enstek (Malaysia)	0.9
Total	5.2



Our Contribution: Good Health and Well-Being

As a manufacturer of chemical products, Jowat bears a special responsibility for the health of its employees. Improper handling of hazardous chemicals would pose a health hazard at our manufacturing locations. We therefore consider SDG 3 – Good Health and Well-Being – to be very important for the Jowat Group and promote it. With our occupational safety measures, we ensure that raw materials, semi-finished goods and finished products are handled correctly and carefully at all production sites. Extensive protective equipment is available to ensure the safety of our employees. Risk assessments and training courses also help to identify risks in the work with chemicals and to minimize the risk as far as possible. In doing so, we take into account the TOP principle (hierarchy of measures with technical, organizational and personal measures).

Jowat was acknowledged in Malaysia as best employer in the category “Chemical, ergonomic and noise management.”

Raising Awareness among Employees

A safe workplace and good health depend not least on the personal responsibility of each and every individual. Therefore, Jowat focuses on raising employee awareness of this issue. Measures include making occupational safety a topic in our internal communication channels and giving employees the opportunity to submit suggestions for the improvement of occupational safety. At the Detmold and Buchrain (Switzerland) locations, the ideas are evaluated and prizes are rewarded if they are implemented.

Rapid Response in the Pandemic

Following the outbreak of the coronavirus pandemic, Jowat quickly and decisively took appropriate measures in the middle of the first quarter of 2020. The actions taken included e.g. the setting up of a communications team. Jowat SE reached agreements with the works council to ensure the protection of the workforce and the safe continuation of business operations. Since then, our JOSY information system has provided employees with regular information on current requirements, messages from the Board of Directors and documents that are helpful or necessary in dealing with the pandemic. In addition, we use the EPLAS system to provide training in the form of presentations and work instructions that describe and require compliance with protective measures and rules of conduct in the coronavirus pandemic.

Training on occupational safety and health protection is carried out at all Jowat manufacturing locations. The frequency and type of instruction are regulated by the individual locations. The instructions take place either digitally or in person and also include a practical part. To raise awareness of a healthy life among our employees, we also cooperate e.g. with health insurance firms and provide competent point of contact for a wide range of health-related topics.

Safety Measures for Third Parties

Visitors as well as external companies and business partners must register before entering a Jowat manufacturing location. Before entering the premises, e.g. to provide services in the production area, they receive safety training via EPLAS – an occupational safety software. At the Detmold and Buchrain (Switzerland) locations, protective equipment must also be worn depending on the area visited.

Commitment to Society

Children and the youth are our employees of tomorrow. Therefore, we want to spark their interest in science at an early age and are taking different actions to that end. In cooperation with a regional newspaper, the “Lippische Landes-Zeitung”, we organize the “Children’s University” at the Detmold location for schoolchildren between the ages of nine and twelve. Our initiative has also led to the reintroduction of chemistry as a major subject at secondary schools in Detmold.

Awakening Curiosity for the Natural Sciences

We open our doors to school groups for plant tours which also include lab experiments. Together with the German chemical industry association (Verband der Chemischen Industrie e.V. – VCI), we are also committed to providing exciting and realistic chemistry lessons in schools. Through the association’s fund,

Help during the Crisis

Jowat joined others and did its utmost to help mitigate the impact of the coronavirus pandemic. After the German Federal Institute for Occupational Safety and Health had facilitated the conversion of production lines, we manufactured disinfectant at the Detmold plant. In the reporting period, this amounted to around 5,000 liters, which we used primarily to support fire departments, rescue services, municipalities, schools and charitable institutions.

we support such measures financially and with information materials from the chemistry school partnership (Schulpartnerschaft Chemie).

Another focus in our work to promote young talent is to support young people in the start of their professional lives. For that purpose, Jowat has been offering the “International Partnership Program” in cooperation with several other companies, the East Westphalia-Lippe industrial and commercial club (Industrie- und Handelsclub Ostwestfalen-Lippe), and four universities. The program is aimed at students majoring in the field of economics and gives them the opportunity to complete a three-month internship abroad.

Our subsidiary in Switzerland is committed to providing apprenticeships and training in the woodworking and furniture trades and supported the Swiss carpenters’ training network and the national carpenters’ association in the reporting year.

GRI Content Index

For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report. The service was performed on the German version of the report.



GRI-Standards	Page	Comment
GRI 101: Foundation 2016		
GRI 102: General disclosures 2016		
Organisational Profile		
GRI 102-1: Name of the organisation	3	
GRI 102-2: Activities, brands, products and services	6, 16-18	
GRI 102-3: Location of headquarters	3	
GRI 102-4: Location of operations	6	
GRI 102-5: Ownership and legal form	7	
GRI 102-6: Markets served	6, 16-18	
GRI 102-7: Scale of the organisation	6/7	
GRI 102-8: Information on employees and other Workers	6/7	
GRI 102-9: Supply chain	29	
GRI 102-10: Significant changes to the organisation and its supply chain		No significant changes in the reporting period.
GRI 102-11: Precautionary Principle or approach	9	
GRI 102-12: External initiatives	11/12, 23, 36	
GRI 102-13: Membership of associations	14	
Strategy		
GRI 102-14: Statement from senior decision-maker	4	
GRI 102-15: Key impacts, risks, and opportunities	9, 11-13	
Ethics and Integrity		
GRI 102-16: Values, principles, standards, and norms of behaviour	8, 11, 13	
GRI 102-17: Mechanisms for advice and concerns about ethics	14	

GRI-Standards	Page	Comment
Governance		
GRI 102-18: Governance structure	7, 11	
Stakeholder Engagement		
GRI 102-40: List of stakeholder groups	14	
GRI 102-41: Collective bargaining agreements		Our remuneration is not linked to collective bargaining agreements. Therefore, the remuneration of our employees is not covered by collective bargaining agreements.
GRI 102-42: Identifying and selecting stakeholders	14	
GRI 102-43: Approach to stakeholder engagement	14	
GRI 102-44: Key topics and concerns raised		We include the most important issues raised by our stakeholders in our materiality analysis.
Reporting Practice		
GRI 102-45: Entities included in the consolidated financial statements	3	
GRI 102-46: Defining report content and topic boundaries	11/12	
GRI 102-47: List of material topics	11	
GRI 102-48: Restatements of information		No changes, as initial report
GRI 102-49: Changes in reporting		No changes, as initial report
GRI 102-50: Reporting period	3	
GRI 102-51: Date of most recent report		Initial report
GRI 102-52: Reporting cycle	3	
GRI 102-53: Contact point for questions regarding the report	45	
GRI 102-54: Claims of reporting in accordance with the GRI Standards	3	
GRI 102-55: GRI Content index	39-44	
GRI 102-56: External assurance		There was no external audit of the information in this report.
Material Topics		
GRI 201: Economic Performance 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	10/11	
GRI 201-1: Direct economic value generated and distributed	7	Consolidated Financial Statements Jowat SE in the Federal Gazette.
GRI 201-2: Financial implications and other risks and opportunities due to climate change	9	
GRI 201-3: Defined benefit plan obligations and other retirement plans	32	Consolidated Financial Statements Jowat SE in the Federal Gazette.
GRI 201-4: Financial assistance received from government	7	

GRI-Standards	Page	Comment
GRI 203: Indirect Economic Impacts 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	38	
GRI 203-1: Infrastructure investments and services supported	38	
GRI 204: Procurement Practices 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	29	
GRI 204-1: Proportion of spending on local suppliers	29	
GRI 205: Anti-Corruption 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	13/14	
GRI 205-1: Operations assessed for risks related to corruption	14	
GRI 205-2: Communication and training about anti-corruption policies and procedures	13/14	
GRI 205-3: Confirmed incidents of corruption and actions taken	14	
GRI 301: Materials 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	19, 23, 26	
GRI 301-1: Materials used by weight or volume	26	
GRI 302: Energy 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	23/24	
GRI 302-1: Energy consumption within the organization	24	
GRI 302-3: Energy intensity	24	
GRI 302-4: Reduction of energy consumption	23	
GRI 303: Water and Effluents 2018		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	23, 28	
GRI 303-1: Interactions with water as a shared resource	28	
GRI 303-2: Management of water discharge-related impacts	28	
GRI 303-3: Water withdrawal	28	
GRI 303-4: Water discharge	28	
GRI 305: Emissions 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	23-25	
GRI 305-1: Direct (Scope 1) GHG emissions	25	
GRI 305-2: Energy indirect (Scope 2) GHG emissions	25	

GRI-Standards	Page	Comment
GRI 306: Waste 2020		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	23, 27	
GRI 306-1: Waste generation and significant waste-related impacts	27	
GRI 306-2: Management of significant waste-related impacts	27	
GRI 306-3: Waste generated	27	
GRI 307: Environmental Compliance 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	23	
GRI 307-1: Non-compliance with environmental laws and regulations	23	
GRI 401: Employment 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	31	
GRI 401-1: New employee hires and employee turnover	33	Number of newly hired employees is currently only available for the German sites. We plan to collect this data for the other sites in the future.
GRI 401-2: Benefits provided to full-time employees that are not provided to temporary or part-time employees	31	
GRI 401-3: Parental leave	31/32	So far, we can only report data on parental leave for our German sites. We plan to collect this data for the other sites in the future.
GRI 402: Labour/Management Relations 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	29, 31	
GRI 402-1: Minimum notice periods regarding operational changes	29, 31/32	Jowat complies with the applicable legal requirements with regard to notification deadlines.
GRI 403: Occupational Health and Safety 2018		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	31, 36-38	
GRI 403-1: Occupational health and safety management system	36/37	
GRI 403-2: Hazard identification, risk assessment, and incident investigation	36/37	
GRI 403-3: Occupational health services	36/37	
GRI 403-4: Worker participation, consultation, and communication on occupational health and safety	38	
GRI 403-5: Worker training on occupational health and safety	38	
GRI 403-6: Promotion of worker health	37/38	
GRI 403-7: Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	38	
GRI 403-9: Work-related injuries	37	
GRI 403-10: Work-related ill health	37	

GRI-Standards	Page	Comment
GRI 404: Training and Education 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	31, 33/34	
GRI 404-1: Average hours of training per year per employee	34	
GRI 404-2: Programmes for upgrading employee skills and transition assistance programmes	33/34	
GRI 404-3: Percentage of employees receiving regular performance and career development reviews	33/34	The employee interviews are conducted with our employees in Germany, Switzerland and the USA – around 70 percent of our workforce. We plan to expand the next data collection accordingly.
GRI 405: Diversity and Equal Opportunity 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	31, 36	
GRI 405-1: Diversity of governance bodies and employees	7, 36	Beyond the quota of women in management positions, no information is currently available on employee categories, age group, etc. We plan to expand data collection in this regard.
GRI 405-2: Ratio of basic salary and remuneration of women to men	36	
GRI 406: Non-discrimination 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	31, 36	
GRI 406-1: Incidents of discrimination and corrective actions taken	36	
GRI 407: Freedom of Association and Collective Bargaining 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	29	
GRI 407-1: Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	29	We are not aware of any business locations where the right to freedom of association and collective bargaining could be threatened
GRI 408: Child Labor 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	29	
GRI 408-1: Operations and suppliers at significant risk for incidents of child labor		A human rights risk analysis was carried out in the reporting year. The development and evaluation of the results has not yet been completed.
GRI 409: Forced or Compulsory Labor 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	29	
GRI 409-1: Operations and suppliers at significant risk for incidents of forced or compulsory labor		A human rights risk analysis was carried out in the reporting year. The development and evaluation of the results has not yet been completed.
GRI 414: Supplier Social Assessment 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	29	
GRI 414-1: New suppliers that were screened using social criteria		In the future, new suppliers are to be screened using a questionnaire on social criteria.
GRI 414-2: Negative social impacts in the supply chain and actions taken		A human rights risk analysis was carried out in the reporting year. The development and evaluation of the results has not yet been completed.

GRI-Standards	Page	Comment
GRI 415: Public Policy 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	13/14	
GRI 415-1: Political contributions		Jowat SE did not make any donations to political parties in the reporting period.
GRI 416: Customer Health and Safety 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	20, 27	
GRI 416-1: Assessment of the health and safety impacts of product and service categories	20, 27	
GRI 416-2: Incidents of non-compliance concerning the health and safety impacts of products and services	20	
GRI 417: Marketing and Labelling 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	20	
GRI 417-1: Requirements for product and service information and labelling	20	
GRI 417-2: Incidents of non-compliance concerning product and service information and labeling	21	
GRI 417-3: Incidents of non-compliance concerning marketing communications	21	
GRI 418: Customer Privacy 2016		
GRI 103: Management approach 2016 (including 103-1, 103-2, 103-3)	21	
GRI 418-1: Substantiated complaints concerning breaches of customer privacy and losses of customer data	21	

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