

SUSTAINABILITY UPDATE 2019

DEAR LADIES AND GENTLEMEN,

Lockdown, production stop and general uncertainty: the coronavirus pandemic presents us all with significant challenges. We countered it resolutely: We used our experience in China and implemented a comprehensive package of measures globally at an early stage to protect our employees, their families and our production and services. With a tremendous amount of effort, we have kept our supply chains intact. Despite the difficult market situation and slumps caused by the pandemic, we have proven ourselves to be a system-relevant and strong partner to the automotive industry.

Changes also shaped the 2019 reporting year. As a metal processing specialist, we're concentrating on what BENTELER has been doing successfully for 140 years – our unmatched expertise in metal processing. For this reason, we sold the BENTELER Distribution division.

The entire industry is currently in a process of transformation. Growing environmental awareness and new alternative drives are shaping the change in mobility. We see this as an opportunity and support our customers in making mobility easier, safer and more sustainable.

85% of BENTELER products are drive and technology independent. In addition, we have made targeted investments in electromobility and concluded strategic partnerships in the area of technology. Thanks to our modular solutions in the area of chassis, body-in-white and electric propulsion, manufacturers can bring new models to market much more efficiently and faster than before. With the series-ready rolling chassis platform solution that we developed in cooperation with

Bosch and Pininfarina, manufacturers can cover the entire development process of an electric vehicle up to the start of production. Further investments in the growth field of electromobility are planned. This includes the expansion of the Schwandorf factory, which will produce battery trays for another German car manufacturer from 2021 onwards. In addition, BENTELER makes targeted investments in innovations – from new, stronger steels for lightweight construction solutions and reduced-CO₂ seamless tubes to an electrically heated catalytic converter that makes it possible to remove almost 100% of pollutants during a cold start.

And we take social and ecological responsibility: towards our employees, customers and the environment. In 2019, BENTELER Automotive was thereby able to reduce the rate of occupational accidents from 4.8 in the previous year to 2.8. To protect the climate, our Steel/Tube division operates an electric steelworks. In this way, around 95% less direct CO₂ emissions are generated in the production of seamless steel tube solutions than those caused by production in a conventional blast furnace.

This sustainability update presents further projects and key figures for the 2019 reporting year. We hope you enjoy reading it and welcome your feedback.

Salzburg, October 2020

The Executive Board of BENTELER International AG

Ralf Göttel
Chief Executive Officer

Dr. Arno Haselhorst
Chief Restructuring Officer

Frank B. Jehle
Chief Financial Officer

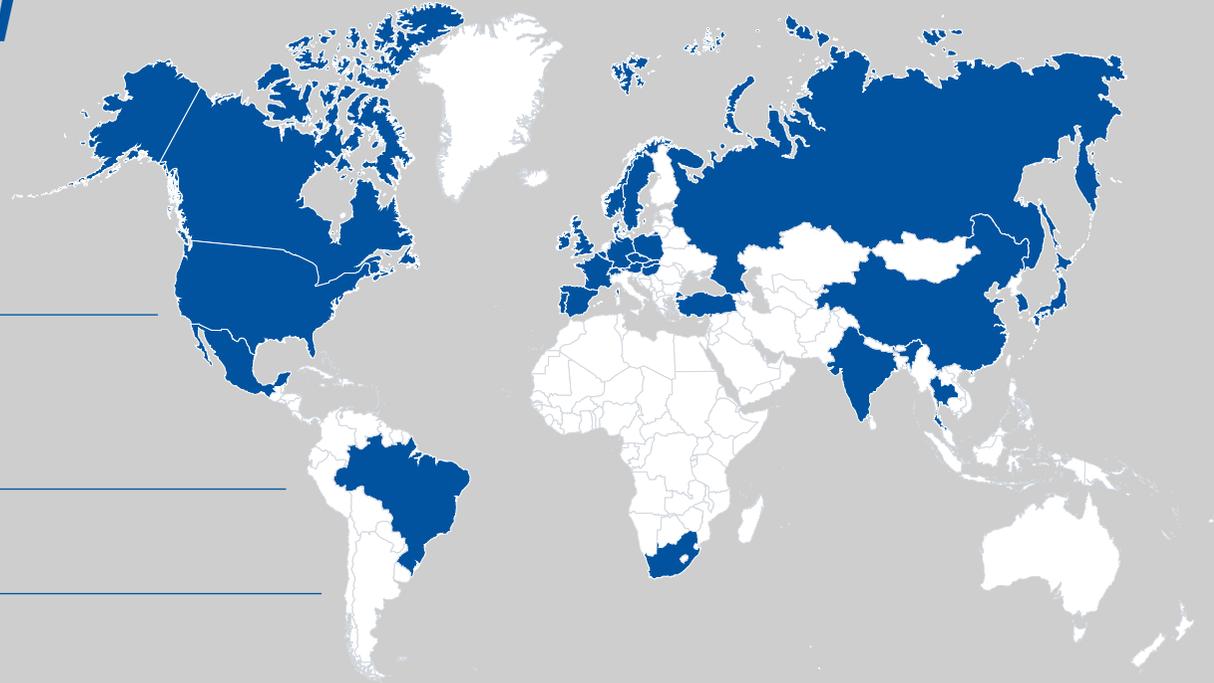


BENTELER OVERVIEW

About **27,000** employees

100 locations

28 countries



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COMPANY PROFILE

BENTELER is a global company owned by the fourth generation of its founding family and serves customers in the automotive, energy and mechanical engineering sectors. As a strategically innovative partner, we design, produce, and distribute safety-related products, systems, and services.

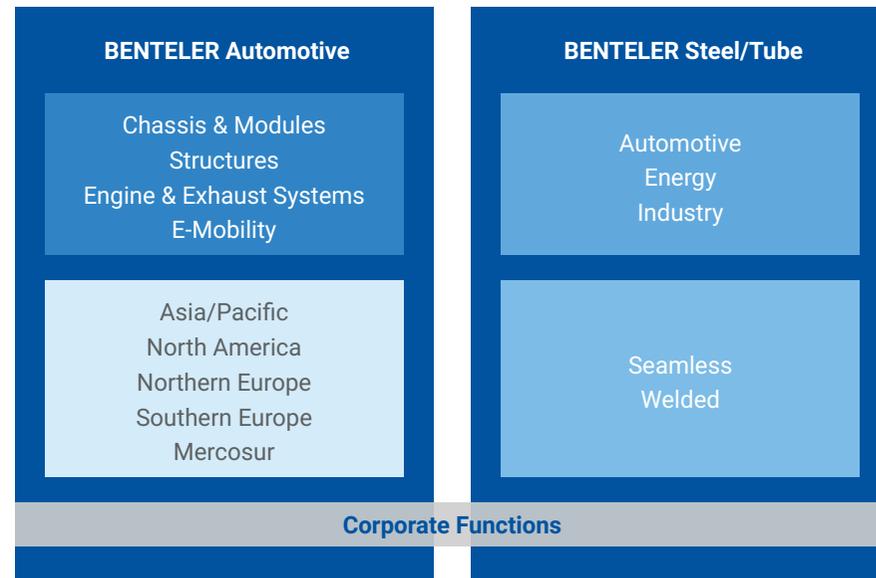
Under the strategic management holding company BENTELER International AG, registered in Salzburg, Austria, business operations are organized in the divisions BENTELER Automotive and BENTELER Steel/Tube. Until now, the global tube business and associated services were also part of the BENTELER Group's portfolio. The Distribution Division was sold at the end of November 2019 following approval by the antitrust authorities.

In addition to BENTELER International AG, BENTELER Business Services GmbH, based in Paderborn (Germany), serves additional holding functions. At 100 locations in 28 countries, our approx. 27,000 employees stand for first-class manufacturing and sales expertise – passionate and close to the customer.

Around
900
employees worldwide
are active in research
and development.

So that our customers are prepared for the requirements of the future, around 900 employees work in research and development worldwide. In 2019, this work led to 46 new patent applications. The research and development budget was 95 million euros.

BENTELER GROUP



■ Divisions ■ Business Units ■ Market Segments ■ Operating Units ■ Regions

FINANCIAL PERFORMANCE

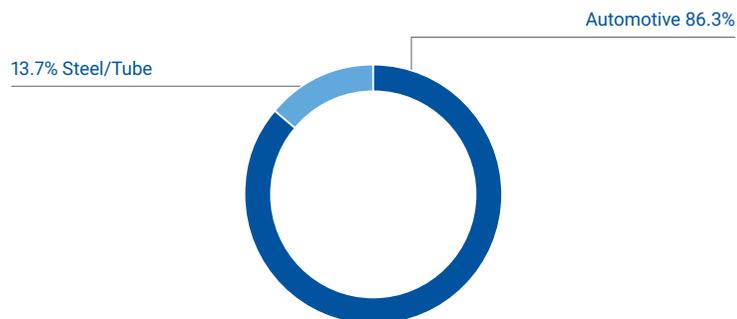
As a reorganized group, BENTELER achieved a turnover of 7.7 billion euros (2018: 7.4 billion euros), with the Automotive division accounting for around 86%. Adjusted for the Distribution Division, sales correspond to a growth of EUR 239 million compared to the previous year, 2018.

PORTFOLIO

For more than 140 years, the BENTELER Group has been synonymous with leading-edge competence in material, manufacturing and technology expertise.

As a leading global partner to the automotive industry, BENTELER Automotive offers its customers tailor-made solutions: From components and modules for chassis, body, engine and exhaust gas applications to modular system solutions in the field of electromobility. In close cooperation with our customers, we continually implement new ideas and solutions in the Business Units Chassis & Modules, Structures, Engine & Exhaust Systems as well as E-mobility.

SALES BY SEGMENTS

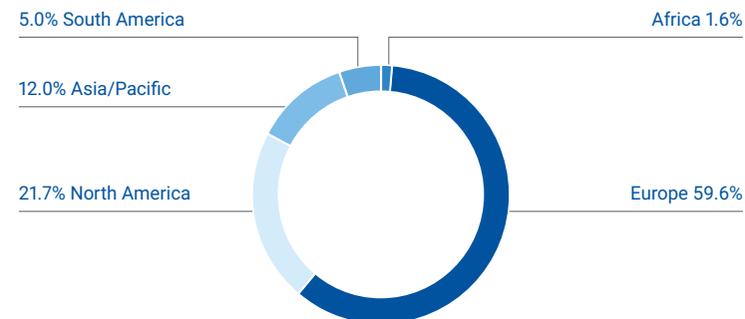


BENTELER Steel/Tube develops and produces quality steel tube as well as seamless and welded quality tubes. As one of the leading manufacturers, we offer our customers worldwide solutions along the entire value chain – from material development to tube applications – and even beyond it in areas such as environmentally friendly surface coatings and complex forming technology solutions, for example for airbag tubes. We thus provide tailor-made tube products for the automotive, energy and industrial markets.

INTERNATIONAL PRESENCE

With 84 production facilities worldwide and 16 subsidiaries, the BENTELER Group offers global development, production, and services. This way, we support our customers all along the value chain. In order to cater to actual demand, our production is closely integrated with that of our customers. Nine locations of the Automotive division are even located on customer's sites, and a further 31 within a radius of less than ten kilometres each. In the year covered by this report, BENTELER Automotive opened a new plant in Panambi (Brazil) and one in Mos (Spain).

SALES BY REGIONS



CREATING VALUE FOR THE REGION

Our global presence and commercial activities bring a special responsibility. We take this seriously and therefore actively promote the social interests of all production locations.

The BENTELER Automotive and BENTELER Steel/Tube divisions source materials, goods and services from more than 2,600 direct and 17,500 indirect suppliers. Steel companies are among the largest suppliers in terms of purchasing volume. The purchase volume in the reporting year amounted to more than 5.6 billion euros (2018: 5.6 billion euros). The mostly local sourcing of raw materials, goods, and services therefore supports the development of the local communities around our locations. This is one of the reasons why we are continuing to expand regional value creation and are pursuing a group average target of over 80% local procurement.

The share of expenses for local suppliers at the BENTELER Group in 2019 was around

86.5%

Within a continent, the localization share – i.e. the share of expenses for local suppliers – is currently 86.5% for the BENTELER Group (2018: 87%) and within a BENTELER region (e.g. Southern Europe, North America) at 54.7% (2018: 51%). In relation to the localization within a country, the quota is 51.4% (2018: 50%). By selecting predominantly local suppliers, transport

routes are shortened and emissions are reduced. In addition, this approach strengthens the regional economy and thereby promotes BENTELER's bond with the respective region.

The jobs that we create worldwide are mostly filled locally and appropriately remunerated. An analysis of the regional headquarters of BENTELER Automotive in Germany, the Czech Republic, Spain, the USA, China and Brazil showed that the starting salaries significantly exceed the applicable local minimum wage. This is guaranteed particularly at sites with collective bargaining agreements. In China and the US, where there is no collective bargaining, BENTELER applies salary bands that take account of minimum pay and local market factors. Consequently, here too, the lowest pay is significantly above the applicable minimum wage.

SOCIAL ENGAGEMENT

We maintain neighborly relations and create a joint future in a sustainable manner. The endowed chair in "Lightweight Construction in the Automotive Sector" has been established for more than 15 years at the University of Paderborn. In this way, BENTELER strengthens Paderborn as a research location and contributes to ensuring a high level of training.

In Mexico and Brazil, BENTELER supports young people with poor educational backgrounds, regardless of their origin or level of education. A special training program specifically promotes career entry. Up to 2019, a total of 70 young people had completed the program in Brazil alone.

SUSTAINABLE GOVERNANCE

The commercial success of the BENTELER Group is directly bound up with corporate responsibility – for employees, the environment, and society. We therefore see global developments such as climate change and urbanization as challenges which we address through value-based governance, technical innovation, and social engagement.

The strategic management holding company BENTELER International AG controls the processes, structures, and objectives of the global business through the central functions of HR, Compliance, Taxes, Finance and Controlling, Legal, and Insurance, as well as Communication/Marketing and Strategy. The Executive Board, as the management body, is actively supported and supervised by the Supervisory Board.

CORPORATE CULTURE

As part of an internationally based family company, BENTELER strives constantly to develop a culture in which employees contribute to the company's success through courage, ambition, and respect. That requires us to think collectively in an entrepreneurial way, to take responsibility for our actions and adopt a flexible approach to change.

BENTELER guarantees an attractive working environment with flexible conditions – for example with modern working-time models and the possibility of homeworking. That enables employees to reconcile professional and private demands and achieve a work-life balance.

STRATEGY AND MATERIALITY

In order to continue to develop the sustainability management in the company BENTELER worked with an external sustainability consultancy to draw up a strategic framework in 2017. All the requirements of stakeholders, regulations, the market, and current standards as well as ratings were taken into account. With the involvement of the relevant departments and decision-makers we analyzed existing structures and measures and drew up recommendations for a corresponding set of measures.

BENTELER provides information on current developments in its annual sustainability reports. This Sustainability Update is based on the guidelines of the Global Reporting Initiative (GRI). The GRI standards enable global transparency and comparability. An important basis for reporting is the selection of key topics. The currently applicable materiality analysis is presented from page 8 onwards in the [2017 Sustainability Report](#). A new materiality analysis is planned for 2021.



RISK MANAGEMENT

As an international company, BENTELER is exposed to numerous risks. Responsible handling of risks and comprehensive risk management are therefore essential components of the BENTELER Group's corporate governance. Risk management is a responsibility of the Executive Board, which reports regularly on the Group's overall risk situation to the Audit Committee and the Supervisory Board. A systematic risk management process helps management bodies identify risks at an early stage and initiate appropriate measures to prevent, avoid, or reduce the risks. Comprehensive reviews of the risk management system are regularly conducted and the governance of the Group is continually developed. Risk management was further improved during the reporting year.

Further details of the risk management system can be found on pages 21–23 of the [2018 Annual Report](#).

COMPLIANCE

Compliance at BENTELER concerns the obligation to maintain integrity and conduct our business in an ethical way. This means compliance with legal provisions and the fulfilment of other ethical standards and requirements set by the company itself. The latter are enshrined particularly in the [Guidelines and Code of Conduct](#). Every BENTELER employee is responsible for ensuring that his or her actions comply with these principles. The managers also have a particular duty to act as role models in view of their personnel responsibility. Any infringement of these principles may lead not only to possible legal penalties but also to disciplinary consequences.

Our Code of Conduct covers the following areas:

1. Social responsibility and legal compliance
2. Interaction with employees
3. Competition and antitrust law
4. Corruption, gifts and benefits
5. International trade
6. Environmental protection
7. Data protection
8. Relationships with business partners

BENTELER has given a commitment in its Guidelines and Code of Conduct to prevent corruption and comply with principles of fair competition and export control regulations. These three subjects are the focal points of the BENTELER Group's Compliance Management System.

Compliance in these areas is guaranteed among other things by training, guidelines, instructions and advice and legal information. In addition, the four-eyes principle applies throughout the group. To implement the Compliance program and resolve any doubtful cases the BENTELER Group has an organizational structure with multiple compliance bodies.

The Chief Compliance Officer reports directly to the chairman of the Group's Executive Board. In the Automotive and Steel/Tube Divisions, a Divisional Compliance Officer reports directly to the respective Division management. In the Asia, South America and North America regions, there are also Regional Compliance Officers. In addition, in several countries, the Divisional Compliance Officers are also supported by Compliance Delegates who deal with compliance matters in addition to their actual professional duties.

OUR COMPLIANCE PROGRAM SPECIFIES THREE OVERARCHING RESPONSIBILITIES:

1. Prevention:

Prevention of compliance violations by means of guidelines, trainings (classroom training, e-learning) and communication (leaflets, checklists, newsletters, compliance newsletter)

2. Detection:

Compliance checks (global standard and special checks by internal auditors in collaboration with the compliance organization), compliance investigations (monitoring of cases worldwide)

3. Reaction:

Pursuit of infringements, global case tracking and, where applicable, optimization of existing systems

In 2019, no suspected cases based on actual misconduct were reported, so that no disciplinary measures had to be taken. There were no proceedings against BENTELER due to corruption, anti-competitive behavior or the formation of cartels and monopoly. Accordingly, no fines or non-monetary penalties were imposed.

Grievances relating to possible compliance violations, any negative environmental or social impacts of BENTELER's business activities or in relation to breaches of the company's own Code of Conduct can be reported by e-mail to compliance@benteler.com. The contact function on the BENTELER website offers an anonymous means of reporting suspected violations. The presence and prominence of the Compliance Officers means that comments and complaints are usually directed – in person, by telephone, or by e-mail – to the respective Compliance Officers. A number of reports were received through various channels during the reporting period. All tip-offs were reviewed and further steps were taken if necessary.

To promote a uniform understanding of compliance across the Group, BENTELER offers specific trainings and relies in particular on e-learning and face-to-face training.

Due to a technical change in the Learning Management System (LMS) in early 2019, the platform was temporarily unavailable. Nevertheless, thanks to the increased use of face-to-face training by our compliance officers, 135 employees were trained in anti-corruption, antitrust and competition law, and export control. All three compliance areas were thematically addressed. A total of 923 employees had taken part in these training courses by the end of 2019, including all members of the Board of Management as well as managers and employees who work in potentially critical areas, such as sales or purchasing. After the implementation was completed in the second half of the year, pilot e-learning on the subject of export control started successfully. 523 employees had taken part by the end of 2019.

In 2019, the BENTELER Group's Code of Conduct was communicated for the first time to almost all industrial employees. For this, we conducted face-to-face training in 17 countries.

SUSTAINABLE PROCESSES

As an international company, the BENTELER Group fulfills its responsibility for designing sustainable products and processes and thereby protecting the environment. Conservation of resources is part of the established business practice and as a corporate objective ranks on a par with maintaining the highest quality and safety standards.

For sustainable added value, we consider the entire life cycle of our products – from the use of raw materials through development, production and use to disposal and recycling. We actively involve our employees in this. Our goal is to promote environmentally conscious thinking and behavior along our entire value chain. The basis for this is our [Guidelines and Code of Conduct](#).

ENVIRONMENTAL MANAGEMENT

BENTELER sees economic benefits and environmental aspects as closely intertwined, because anything that has a positive impact on the environment is often also economically sensible. We strive for more efficient manufacturing processes and develop sustainable technologies in close cooperation with our customers.

BENTELER Automotive's and BENTELER Steel/Tube's high-performance products and services are used in numerous industries. They often support our customers in reducing their own ecological footprints. All products have two core aspects in common: exceptionally high quality and above-average durability.

In corporate practice, environmental protection is a cross-sector task that involves all BENTELER Group's teams and locations. The scope of industrial responsibility is broad: it ranges from water protection, immission control and waste management to energy management and emissions trading.

In order to guarantee effective protection of resources and the environment at our sites, all BENTELER Automotive production sites and the European BENTELER Steel/Tube production facilities have certified environmental and/or energy management in accordance with ISO 14001:2015 or ISO 50001.

It goes without saying that BENTELER complies with all environmentally relevant laws and regulations. In 2019 there were no violations and no limits were exceeded. In the case of all deviations, the causes are identified and corrective measures are initiated. We use resources and investments in a targeted manner in order to prevent the same or similar cases in the future. In addition, we communicate all events globally so that other locations can be checked based on the knowledge gained.



SAVING ENERGY

We use various energy sources such as electricity, natural gas, district heating or diesel for our production. BENTELER uses a certified management system compliant with the ISO 50001 standard to ensure efficient energy management. All locations worldwide will be certified according to this standard in order to continuously reduce energy consumption. In 2019, the degree of coverage for BENTELER Automotive was 50% and for BENTELER Steel/Tube 85% (2018: both divisions were over 50%).

To reduce energy consumption and hence the associated emissions, efficiency and resource conservation are key components of BENTELER's integrated transport logistics. This is based on standard processes applied worldwide, setting out conditions for collaboration with logistics service providers. The transparency of all logistics processes is guaranteed by a system-supported transport management solution. Combined transport – for example by rail and ship – can be used where appropriate. Emissions-intensive air freight should be excluded as far as possible.

In 2019, BENTELER Automotive introduced several projects to increase energy efficiency and reduce energy costs. One example of this was the optimization of hot-forming lines and laser cutting systems at the Goshen plant (USA). By introducing an optimized atmosphere control on the hot forming lines and replacing nitrogen with highly compressed air on laser cutting systems, the quantities of nitrogen used were reduced by over 40% compared to the previous year.

In the year under review, energy consumption at BENTELER Automotive increased in line with added value and totaled 1,158,802 MWh (2018: 1,124,275 MWh). This means it has increased slightly by 3% compared to 2018.

Up to
80%
of the Kleinenberg location's energy needs are covered by wind power.

Our plant in Kleinenberg mainly manufactures exhaust gas recirculation coolers and fuel rails for engines. In total, the approximately 570 employees produce up to 7.5 million parts per year. A very important cooperation exists with the wind farm in Asseln near Lichtenau. In 2019, a 30-kilovolt cable network over ten kilometers long was set up. Now the BENTELER plant in Kleinenberg can already cover almost 80 percent of its electricity needs from wind power.

ENERGY CONSUMPTION OF BENTELER AUTOMOTIVE

	2017	2018	2019
Natural gas (MWh)	521,008	520,740	523,203
Electricity (MWh)	606,154	603,535	635,599
Total (MWh)	1,127,162	1,124,275	1,158,802
Energy intensity* (MWh/€ million)	621.6	608.0	607.3

* Energy consumption related to added value (equals total sales minus inventory changes and material use).

The energy intensity remained roughly the same and fell by 0.12% (2018: +3%). This results in an energy intensity of 607.35 MWh per one million euros of added value for BENTELER Automotive (2018: 608.05).

BENTELER Steel/Tube also uses various measures to increase energy efficiency. The main focus continues to be on measures to optimize production processes. In cooperation with the City of Paderborn, for example, a new district heating supply was commissioned at the Schloss Neuhaus site in 2019. It's an important part of sustainably using the waste heat from production over the long term, which has escaped in the past. Now we supply public buildings in Paderborn's Schloss Neuhaus district with waste heat from the process furnaces at our plant.

The energy consumption at BENTELER Steel/Tube was 1,064,293 MWh in the reporting year (2018: 1,207,181 MWh). It fell by around 11.8% compared to 2018, with a simultaneous 13.6% decrease in tube production. For a better understanding, the very different consumption levels of our plants are shown separately:

ENERGY CONSUMPTION OF BENTELER STEEL/TUBE IN LINGEN STEELWORKS

	2017	2018	2019
Natural gas (MWh)	51,936	56,918	48,526
Electricity (MWh)	368,010	350,093	296,899
Total (MWh)	419,946	407,011	345,425
Energy intensity (MWh/tonne)	0.650	0.644	0.658

Renting light

Our Dinslaken location relies on a completely new concept to further reduce energy and resource consumption. The old metal halide lamps in the factory halls were replaced by energy-saving LED lights from Deutsche Lichtmiete. The project partner offers a so-called "Light as a Service" package, whereby BENTELER "rents" the LED lighting. In this way, the conversion could be carried out earlier, which not only reduces costs, but also energy consumption and thus emissions.

ENERGY CONSUMPTION OF BENTELER STEEL/TUBE EUROPEAN PIPE MILLS

	2017	2018	2019
Natural gas (MWh)	579,042	587,289	534,809
Electricity (MWh)	207,978	212,881	184,059
Total (MWh)	787,020	800,170	718,868
Energy intensity (MWh/tonne)	1.261	1.276	1.327

REDUCING EMISSIONS

All measures taken to reduce energy consumption have an equal effect on environmentally relevant emissions. The CO₂ emissions from production result mainly from the combustion of natural gas to generate electricity and process heat (Scope 1) and from additional purchases of energy (Scope 2). Energy consumption has been converted into CO₂ equivalents using the emission factors provided by the German Automotive Industry Association (VDA). The calculation relates to the organizational units of BENTELER Automotive and BENTELER Steel/Tube plants and their limits. It is based on the total values for gas and electricity consumption and the district heating energy requirement.

Emissions at BENTELER Steel/Tube fell in 2019, due both to lower production and further environmental protection projects. Our steelworks in Lingen basically works with an electric arc furnace in order to minimize causing CO₂ emissions.

CO₂ EMISSIONS OF BENTELER STEEL/TUBE

	2017	2018	2019
Scope 1 (t CO ₂)*	154,486	153,833	138,674
Scope 2 (t CO ₂ **)	396,280	387,326	330,899
Total (t CO₂)	550,766	541,159	469,573

* For plants not participating in the greenhouse gas (GHG) offset, the Scope 1 emissions are calculated using a factor of 0.2016 tons of CO₂/MWh for natural gas. For areas involved in GHG trading, the values of the German Emissions Trading Authority (DEHST) are taken into account.

** The Scope 2 CO₂ emissions have been calculated using an emission factor of 0.688 kg/kWh (according to VDA) since 2017.

Approximately

95%

reduction in direct CO₂ emissions caused by the electric arc furnace in the Lingen steelworks.

In our Lingen steelworks, scrap steel is melted down with the help of graphite electrodes. Additional material, such as alloy metals are then added to obtain the desired steel grade. This reduces direct CO₂ emissions by around 95% compared to production in a conventional blast furnace and our customers benefit from CO₂-reduced seamless tube solutions.

The KPI CO_{2e} index introduced in 2018 was integrated in all BENTELER Automotive plants in 2019. CO₂ emissions were 469,704 tons of CO_{2e} in 2019 (2018: 474,955 tons of CO_{2e}).

CO₂ EMISSIONS OF BENTELER AUTOMOTIVE

	2017	2018	2019
Scope 1 (t CO ₂)	105,006	106,204	114,582
Scope 2 (t CO ₂)	352,458	368,751	334,251
Total (t CO₂)	457,464	474,955	469,704
CO ₂ intensity* (t CO ₂ /FTE)	20.6	20.9	19.1

* CO₂ emissions based on the number of employees, in full-time equivalents (FTE).

WATER AND EFFLUENTS

Our goal is to preserve resources. Water is a key factor and also plays a crucial role in safe production processes. A particular focus is on countries such as South Africa, where long droughts predominate. BENTELER uses water recirculation at a number of sites to reuse water in production processes. Wastewater is purified and then returned to the process water, reducing water extraction as well as costs. BENTELER monitors and analyzes water consumption at all its locations.

A large proportion of the wastewater arises as a result of contamination or mixing with other media such as hydraulic, greasing, or lubricating oil, as well as dirt. It is therefore purified in wastewater treatment plants such as vacuum evaporators, centrifuges or a chemical-physical waste treatment plant. That minimizes the waste and enables the treated water to be used in production or returned to the public system.

In 2019, BENTELER Automotive consumed 2,103,396 m³ of water (drinking water and process water) in its manufacturing plants (2018: 2,256,336 m³). We are currently working on recording water consumption in a more differentiated manner in order to be able to better compare the consumption of certain systems and implement measures in a more targeted manner in future.

BENTELER Steel/Tube uses water for cooling and rinsing processes and uses the most modern circulation processes. Process and cooling water is used several times and cleaned in the company's own effluent treatment plants so that it can be made available to the environment again in the highest quality.

At BENTELER Steel/Tube, 263,369 m³ of drinking water were used in the reporting year (2018: 299,463 m³). Whenever possible, primary process water for the production processes is used in circulatory systems to use the water as efficiently as possible.

MATERIALS

As in the previous year, steel and aluminum made up the largest proportion of the raw materials used at BENTELER Automotive with around 83% and around 14% respectively. Other purchased parts made up around 3% in total.

At BENTELER Steel/Tube, flat and long steel as well as steel scrap accounted for the largest proportion of the raw materials used, at around 97%, while alloys are used at around 1%. Other purchased parts make up around 2% in total.



WASTE AND RECYCLING

Waste from BENTELER's production activity is continuously recorded and analyzed. We differentiate between waste for recycling, reuse, and landfill. Hazardous waste arises, for example, due to painting work carried out during production. The goal is to reduce all waste as far as possible. Waste assessments are also part of the annual management audit in accordance with ISO 14001. Identified optimization potential is discussed, prioritized, and implemented in decentralized, theme-based committees such as the occupational safety, environmental or energy teams.

In doing so, we concentrate on closing loops. The steel and aluminum components used by BENTELER are 100% recyclable. The Steel/Tube division's own electric steelworks only processes steel scrap and thus makes a significant contribution to the circular economy.

At BENTELER Steel/Tube, the total amount of waste also includes fractions that come not only from regular production operations, but also from rebuilding and dismantling measures. In addition, waste from the BENTELER Steel/Tube plant in Shreveport, USA, has been included in the balance since 2018. This and increases in production explain the recent fluctuations in total volumes.

WASTE BENTELER AUTOMOTIVE

	2017	2018	2019
for landfill (tonnes)	6,418	6,378	5,928
for recycling and reuse (tonnes)	119,595	110,264	101,640
Total waste (tonnes)	126,013	116,642	107,568

WASTE BENTELER STEEL/TUBE

	2017	2018	2019
for landfill (tonnes)	2,183	4,235	2,732
for recycling and reuse (tonnes)	44,163	52,303	44,597
Total waste (tonnes)	46,346	56,538	47,329

Around
95%
 of the total waste
 was recycled and
 reused.

SUSTAINABLE PRODUCTS

BENTELER Automotive supports its customers in reconciling climate protection and mobility. A central focus is on the production of efficient vehicle components. With our products and solutions, we contribute to making future mobility easier, safer and more sustainable.

To reduce mobility's impact on the climate, BENTELER invests extensively in research and development. In the automotive sector, we focus in particular on electrification and lightweight construction for customers. To develop specifically optimized component solutions, we analyze relevant influencing factors for electric vehicles using, among other things, partial and full vehicle simulations. For concept analyses, new simulation techniques, which reduce the complexity of the simulation models and significantly shorten computation times are used.

BENTELER Automotive is working on promoting product development through life cycle analyses. Why? Because systematic material selection has a decisive influence on weight and costs, as well as on a vehicle's CO₂ balance. And that over the entire life cycle: from the provision of raw materials through production and vehicle use all the way to recycling. We have been conducting various case studies at component level since 2016 and, based on the results, develop strategies for reducing environmental pollution. For example, the selection of suitable materials can make a contribution to climate protection. In the future, we want to carry out further case studies to cover all important product families in the portfolios.

The main focus of development at BENTELER Steel/Tube is the identification of innovative materials and processes and their successful implementation on the market. A further building block for the development of novel steel and pipe solutions is innovation management. Relevant trends and developments are quickly recorded, shared within our organization and translated into new products for customers. The intensive cooperation with external partners such as universities and customers enables us to further expand our innovative strength.

The life cycle assessment (LCA) is an approach to environmental accounting and environmental management that takes into account all aspects of resource use and environmental release. The results of the life cycle assessment depend heavily on the assumptions needed to carry out the analysis. These must be agreed between the various interest groups (e.g. suppliers and OEM) in order to obtain a common understanding of the environmental impact. An LCA can be carried out absolutely or comparatively. Comparative life cycle assessments are used more frequently because they support decision-makers in weighing the advantages and disadvantages of alternative approaches.



CLIMATE-FRIENDLY AUTOMOTIVE TECHNOLOGY

The change to electromobility is happening rapidly. BENTELER sees this change as an opportunity and is working with strategic partners specifically on solutions for low-emission mobility.

BENTELER produces battery trays for series electric vehicles for several well-known automobile manufacturers – and thus plays a key role in the further development and spread of electric mobility. In the field of battery support, BENTELER is researching new modular and therefore scalable solutions, because these can be adapted for applications in different vehicles with little effort – this is all the more important since high production volumes have not yet materialized on the e-mobility market.

95 million

Euros were invested by BENTELER in research and development in 2019.

Another advantage is that the use of stainless-steel sheet means that no complex and expensive corrosion coatings are necessary.

Efficient battery cooling is an important aspect of electrification. Customers want short charging times with a higher range at the same time. This requires a larger number of battery modules. When charging electric vehicles, a growing amount of heat must be dissipated in a controlled manner.

Batteries and electric drives increase the weight of the chassis area. If the drive is integrated into the rear axle, the complexity of the axle design also increases. For these challenges, specific tubes offer optimal potential for designing space-saving axles while meeting while being fit for purpose. For series applications of large European platforms, steels with higher strength and lower weight are used. For these lightweight construction solutions, the BENTELER Steel/Tube division is increasingly using novel micro-alloyed and multi-phase material concepts in a strength class of up to 800 megapascals. In addition, we have intensified the new and further development of materials with higher static and dynamic strengths in order to use additional potential for lightweight construction.

So far, the material aluminum has been mainly used for battery trays. Given the increasing cost pressure that can be expected for mass-produced electric vehicles, BENTELER is researching variants made of sheet steel – with the aim of offering attractive solutions.

In e-mobility there is a strong demand for support in the development of e-vehicles. Not only because new players are forcing their way into the market, but also because the skills in the field of e-mobility are often still low, even in established companies. As a system supplier for e-mobility, we offer services along the entire value chain: The complete system engineering for platform development, battery pack and integrated E-chassis modules. All of this independently of production at BENTELER and also as individual components and subsystems.

Lightweight construction at an attractive price is also still an important issue for combustion engine vehicles. In a research project funded by the European Union completed in 2019, a number of attractive lightweight construction solutions were

created. Compared to the reference components, these offer significant weight savings at moderate additional costs while reducing CO₂ emissions through lower fuel consumption. The two crash-management systems created during the research project are now being discussed with customers with regard to a potential series implementation.

The BENTELER Electric Drive System

Electric vehicles have a completely different architecture to cars with internal combustion engines. The reason for this is the complex electric drive train, which has to be integrated into the vehicle for maximum functionality and efficiency. Our solution is the BENTELER Electric Drive System (BEDS). It is an open platform that we have successfully introduced around the world together with our cooperation partner Bosch. The platform combines our e-mobility systems as well as integrated E-chassis modules and our modular battery pack. Together with our partners Bosch, Vibracoustic and Pininfarina, we have optimized the interfaces to the electric drive train, to electronics and electrics, and to the body.

Higher strength materials also reduce the component weight: In cold forming, steel manufacturers are providing a new generation of high strength, yet easily formable grades. We have analyzed and evaluated these in internal tests. The key points are the simulative design of the components and the reproducible behavior of the significant springback typical of these materials. There is also a trend towards higher strengths in hot forming. BENTELER has therefore developed and qualified the new hot-formed steel BTR2000, which is even stronger. It offers the potential of around 15% lighter construction compared to conventional hot-formed grades.

15%

additional potential for lightweight construction offers the new hot-formed steel BTR2000.

Multi-material components also offer promising approaches that enable lightweight construction at attractive costs. With the help of our innovative SWOPtec technology (Steel Welded Opposed Plug technology), we make car bodies safer and vehicles more environmentally friendly. It enables steel and aluminum to be joined even in highly stressed areas of the vehicle body, making particularly robust. With SWOPtec, we are also replacing steel components with lightweight aluminum. This makes vehicles lighter, which in turn improves their CO₂ output.

TRANSPARENT LABELING

As suppliers to the automotive industry, BENTELER Automotive and BENTELER Steel/Tube provide their customers with full information on the constituents of the products and the amounts of them. This information is supplied industry-wide in the framework of the International Material Data System (IMDS), as prescribed by law. In order to achieve the maximum degree of safety, the analysis of the product content is organized centrally: specially trained employees process and check all customer projects and supplier parts.

SAFETY AND QUALITY

BENTELER Automotive and BENTELER Steel/Tube contribute to vehicle safety through their products: for example, crash boxes for crash management systems protect occupants in the event of a rollover or collision. Our tube solutions for airbags and tubes for crash management systems provide maximum protection in the passenger compartment thanks to their high rigidity. The improved crash characteristics are achieved through targeted heat treatment. For the partial steel tempering process, BENTELER Automotive also has a patented technology for increased passenger safety.

We produce components of the highest quality because they are directly relevant to passenger safety. The uncompromising assurance of product quality is therefore one of the most important functions of BENTELER's risk management

system. All BENTELER Automotive and BENTELER Steel/Tube sites that manufacture products for automotive use are certified in accordance with the requirements of ISO/TS 16949 and have been prepared for the switch to the new IATF 16949 standard. Furthermore, we also carry out quality controls during manufacturing and check production quality constantly.

PROTECTION OF CUSTOMER DATA

Data protection is an integral part of BENTELER's management system. Particularly in the context of digitalization and the development of autonomous driving, data are an increasingly important and precious asset for BENTELER Automotive in terms of added value.

As a result of the implemented processes and thanks to active technical experts, no customer data has so far knowingly been stolen or otherwise damaged. In addition, no complaints were received with regard to the privacy of third parties or data protection violations.



SUSTAINABLE RELATIONSHIPS

The success of the BENTELER Group is based on active, long-term relationships with customers, employees, suppliers, the works council, and the local community at the locations.

The basis of successful cooperation is trusted dialogue. Clearly communicated goals combined with innovation and willingness to change help us to react to market developments and position the BENTELER Group for the future in these challenging times. Through targeted investments in growth areas, we improve our work and the competitiveness of BENTELER as a whole.

WORKFORCE

In 2019, BENTELER employed an average of 26,987 full-time equivalents (FTE) worldwide, which is 1,591 fewer FTEs than in the previous year (2018: 28,578). The figures reflect BENTELER after the sale of the BENTELER Distribution Division in November 2019.

In the Automotive division, the average number of employees, including the BENTELER Glass Processing Equipment business unit, fell by 83 FTE to 22,873 FTE. In the Steel/Tube division, the average number of employees rose by 20 FTE to 3,830 (2018: 3,810) compared to the previous year. In the other companies, including the holding company, there were 284 FTEs in 2019, 27 fewer than in the previous year.

Our managers share the responsibility for successful talent management. That's why in 2019 we again raised awareness and prepared our managers for this important task through various events and formats. It remains our goal to fill as many positions as possible internally.

The fluctuation rate of employees and trainees who left the company voluntarily was 7.1% in 2019 for BENTELER Automotive (2018: 8.0) and 3.4% for BENTELER Steel/Tube (2018: 8.3). The key number does not take temporary workers into account.

PRODUCTIVE EMPLOYEES OF BENTELER

in FTE*	2017	2018	2019
Total	27,955	28,578	26,987**

* FTE: Full-time equivalent including contract workers; average value on 12-month basis

** Sale of the BENTELER Distribution Division on November 29, 2019

EMPLOYEE REPRESENTATIVE BODIES

Co-determination by representative bodies has always been a high priority at BENTELER. Representative groups such as the general works council in Germany or the European works council have worked with the management on a respectful and constructive basis for many years. The cooperation results in regular, trust-based exchanges that contribute to the future viability of the company. It is based on the legal requirements that apply around the world. Furthermore, BENTELER is oriented to the Convention on the Application of the Principles of the Right to Organize and the Right to Collective Bargaining (ILO Convention No. 98). The employee representative bodies are comprehensively informed about important operational changes in good time. All statutory information requirements are complied with.



BENEFITS FOR EMPLOYEES

We offer our employees competitive rates of pay. In addition to basic salary, this includes the usual market bonus and a range of fringe benefits, depending on the grouping. We regulate the evaluation and grading of core tasks, pay and fringe benefits globally with a uniform system. Fringe benefits include company pensions, entitlement to the use of company cars as well as health and other insurance benefits.

DIVERSITY AND EQUAL OPPORTUNITIES

The way we treat all employees is based on respect. Nobody should be personally discriminated against – either because of national origin, skin color, gender, religion, handicap or lifestyle. We have appropriate guidelines for dealing with each other and with business partners in a respectful manner, as well as organizational precautions. Among other things, there is a representative for the General Equal Treatment Act (AGG). In 2019, as in the previous year, no AGG violations such as bullying or discrimination were reported.

We also take care to achieve a better work-life balance for women and men. BENTELER thereby supports flexible working hours, the opportunity to work part time, and childcare in its own day care center in Paderborn. Numerous additional fringe benefits are based on the needs of the employees as well as the respective location and employment relationship. In Spain, for example, the costs for childcare are supported as part of a "Flexible Benefit System".

As part of deferred compensation, employees can choose between various tax-exempt or tax-privileged fringe benefits. BENTELER guarantees equal rights and promotion of women through a gender-neutral evaluation system and fair remuneration.

AGE STRUCTURE OF BENTELER AUTOMOTIVE EMPLOYEES BY EMPLOYEE CATEGORY AND GENDER IN PERCENT

	Management				Employees (excl. management)			
	Women 2018	Women 2019	Men 2018	Men 2019	Women 2018	Women 2019	Men 2018	Men 2019
Under 30	5.3	6.27	3.12	4.06	24.25	24.32	22.17	22.76
30 – 50	78.41	76.47	73.18	70.73	59.75	57.92	57.47	55.13
Over 50	16.29	17.26	27.71	22.76	16.01	17.76	20.36	22.11

AGE STRUCTURE OF BENTELER STEEL/TUBE EMPLOYEES BY EMPLOYEE CATEGORY AND GENDER IN PERCENT

	Management		Employees (excl. management)	
	Women 2019	Men 2019	Women 2019	Men 2019
Under 30	6.7	2	24.5	20
30 – 50	60	52.4	49	44.9
Over 50	33.3	45.6	26.5	35.1

EDUCATION AND TRAINING

The global market is characterized by increasing competitive pressure and a changing economic environment. We are convinced that we can only meet these and future challenges successfully with excellently trained employees. That is why we systematically invest in their further development.

In this, it's important to recognize and promote the employees' individual strengths. For this reason, BENTELER offers tailor-made courses with which employees at all levels can fully exploit their professional potential. In order to develop tailor-made training and further education measures, employees and managers conduct appropriate feedback discussions as part of their annual performance assessments.

BENTELER has a global network of internal trainers for many different topics such as finance, logistics, project management, quality and information technology. In 2019, we introduced a Learning Management System (LMS) to control the implementation of training courses more efficiently and systematically. We have initiated three e-learning courses for defined target groups on the topics of export control, supplier codes of conduct and information security.

OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT

The health and safety of our employees is of the utmost importance to us. To promote it we rely on numerous initiatives, which we see as a crucial investment in the future of our company. We have also integrated this approach in our [Guidelines and Code of Conduct](#): "Everyone must ensure that the health and safety of all

employees is guaranteed." To meet this requirement, BENTELER has implemented a worldwide occupational health and safety management system, which is regularly subjected to internal audits. A total of 54 locations in the Automotive Division are certified according to OHSAS 18001 and ISO 45001.

BENTELER Steel/Tube also works with a management system based on the international ISO standard 45001.

The typical work processes at automotive suppliers differ significantly from those in steel production and hot processing. BENTELER has implemented numerous technical and organizational measures in all areas of the Group to protect employees. In addition, all employees are trained on the subject of occupational safety and possible dangers before starting work. Further measures include personal protective equipment (PPE), which we provide to employees free of charge. Additionally, employees and their representatives also improve work safety directly in our factories. They are encouraged to point out unsafe workplaces and practices and to actively suggest improvements. The suggestion scheme, participation in the preparation of risk assessments, incident and accident investigations or the meetings of the occupational safety committee offer opportunities for this.

BENTELER ACCIDENT FIGURES

	2017		2018		2019	
	Accident frequency*	Absolute number of accidents	Accident frequency*	Absolute number of accidents	Accident frequency*	Absolute number of accidents
Automotive	3.6	193	4.8	224	2.8	134
Steel/Tube	8.4	57	7.6	55	8.0	52

* per million working hours



The efficiency of these measures becomes even clearer against the background of industry benchmarks. The accident frequency in electric steel works is on average 18 and in welded tube works 15 (source: Wirtschaftsvereinigung Stahl 2018).

In the year under review, BENTELER Automotive achieved a particularly low accident rate of 2.8 accidents per million working hours. Detailed accident analyses based on experience and regular assessments of the accident situation at all relevant management levels have contributed to this. In addition to individual improvement programs, various plants contributed to the newly introduced Walk-Observe-Communicate (WOC) system for the appreciation of safe behavior and thus to this significant improvement. The awareness, behavior and working methods of the participating employees are sharpened by “going there, looking and communicating the observation”.

SUPPLIER RELATIONS

We expect our suppliers to comply with the same social and environmental standards as those to which BENTELER is committed. This attitude is embedded in our [Supplier Code of Conduct](#) and forms the basis for contracts with suppliers. By signing our framework delivery contract, they also confirm knowledge, acceptance and compliance with our code of conduct for suppliers.

As an international company BENTELER is committed to upholding human rights in the company and in the supply chain. We have therefore undertaken to develop, maintain, and improve the appropriate systems and processes. The way we do that is set out in the [BENTELER Modern Slavery Statement](#) which is updated annually and can be viewed on our company website.

Among other things, we have created a comprehensive risk management system. In particular, we analyze the specific risks of modern slavery in our business and in our external supply chains. In doing so, we primarily adhere to the criteria in the 2019 global slavery index specified by the “Walk Free Foundation” and developed on a geographical basis.

The identified risks are reduced by BENTELER’s group-wide internal control system (ICS), which includes organizational controls, procedures and system reviews. Furthermore, BENTELER’s internal audit department regularly reviews all business areas of the entire group and checks compliance with guidelines, the robustness and efficiency of processes and reporting, and the functionality of the risk management system.

In view of the size of our purchasing budget and the importance of close partnerships with our customers, we also rely on systematic supplier management. Among other things, as part of the business partner check, we check whether active suppliers are on sanction lists. All suppliers of production material must also answer a self-assessment questionnaire on the following topics as part of the supplier evaluation and approval process:

- › Environmental, safety and energy management
- › Prohibition of child and forced labor
- › Guaranteeing freedom of association
- › Ensuring fair competition
- › Corruption prevention
- › Data protection

We record our suppliers' certifications in individual management systems, such as the ISO 14001 environmental management system. By means of this survey we communicate the importance of integrated environmental management to our suppliers. Such certificates have been recorded for 22% of BENTELER Automotive's active production suppliers. (2018: 22%) Our numerous smaller suppliers report using a self-assessment questionnaire.

We also conduct regular quality audits of our suppliers, including questions relating to social responsibility. This is done in accordance with the standard for process audits of the German Association of the Automotive Industry (VDA 6.3).

STAKEHOLDER DIALOG

Communication with our stakeholders is very important to us in order to understand their needs and constantly improve our performance. Our aim is to shape the future of our company in cooperation with all stakeholder groups.

The following groups are of particular importance to BENTELER:

- › Customers
- › Employees
- › Trade unions/Works councils
- › Potential new employees
- › Suppliers
- › Press/Media
- › Local communities at our locations

The Group-wide communication strategy defines target groups and topics as well as appropriate communication channels. As far as our employees go, the aim is to provide transparent information and to strengthen their bond with the company. For example, the "Business Update" communication is regularly published on the intranet, shown on screens in the plants and communicated to all employees by the managers. In it, the management board also sends a video message directly to the employees and talks, among other things, about the current market and company situation. Every employee has the opportunity to give feedback to superiors, the Corporate Communications Team or directly to the Executive Board. This form of orientation and coordination promotes active and flexible action even in a rapidly changing market environment. And thereby contributes to the long-term success of the company.

Wherever we operate, we exchange information regularly with local communities on subjects relevant to the company, economic development or current social issues. The departments engage in a dialog with stakeholder groups through various committees, associations, specialist groups, or press releases.

Stakeholders engaged in dialogue with BENTELER in various ways in 2019: employees can use the BENTELER suggestion system to suggest improvements in the ergonomics, safety and environmental friendliness of workplaces or processes. In the year under review, 10,160 proposals were submitted to the company suggestion scheme (BVW) at BENTELER Automotive (2018: 12,240). The implementation of suggestions for improvement not only made workplaces safer and more environmentally friendly, but BENTELER Automotive was able to save around 1,380,000 Euros (2018: 1,270,000 euros), minus the bonuses for the implemented suggestions. Employees in German, British, Belgian and Eastern European plants can currently submit suggestions for improvement via the central BVW system. It is also planned to implement new software that will enable all automotive plants to be integrated.

REPORT PROFILE

ABOUT THE REPORT

This 2019 Sustainability Update was published in October 2020. It is based on the standards of the Global Reporting Initiative. The reporting period is the 2019 financial year, which is the same as the calendar year. The most recent comprehensive [2017 Sustainability Report](#) was published in December 2018. Where qualitative or quantitative information applies only to a particular Division, this has been stated accordingly.



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