brose
Excellence in Mechatronics

SUSTAINABILITY REPORT BROSE GROUP 2020

About this report

This Sustainability Report is the fourth report published by the Brose Group. It outlines the reporting period from 1 January to 21 December 2020. The objective is to continue adhere to an annual reporting schedule in the future.

The contents of the report are guided by the materiality assessment based on GRI standards, which was performed for the 2019 Sustainability Report (see Materiality assessment, p. 9). It was validated for this 2020 Sustainability Report. Unless otherwise stipulated, all information contained in the report refers to the entire Brose Group. [GRI 102-45]

Responsible for content in the sense of German Press Law: René Ziegler, Vice President Communications and Marketing, Brose Fahrzeugteile SE & Co. KG, Coburg, Max-Brose-Straße 1, 96450 Coburg, Germany.

To improve readability, our Sustainability Report generally uses the masculine form to denote all genders.

Liability disclaimer

We have prepared the data contained in this Sustainability Report with the utmost care. Nevertheless, we cannot rule out any errors. Consequently, the Brose Group accepts no liability and makes no guarantee with respect to the correctness or accuracy of the information contained in this Sustainability Report. In addition to retrospective analysis, forward-looking statements made in this report were prepared based on existing forecasts. Although these have been prepared with the utmost care, unforeseeable developments in the future may lead to different results. Therefore, any forward-looking statements made in this report should not be regarded as certain.

The Brose Group reserves the right to update this Sustainability Report without additional notice.

Foreword of the Executive Management Board

Ladies and Gentlemen,

The coronavirus pandemic made it dramatically clear just how vulnerable our social and economic systems are. Suddenly, everything changed; politicians and businesses had to rethink former strategies and devise new ones. This also applies to our company, which was already in the midst of an extensive renewal process before the pandemic. Our experiences with COVID-19 and the transformation in our industry offer us an opportunity to emerge from the crisis stronger than before and act more sustainably. This report covers the progress we have already made in the three sustainability dimensions environment, people and sustainable management, and the work that lies ahead. We aligned our efforts with the principles of the "UN Global Compact" and the Sustainable Development Goals outlined in the United Nation's Agenda 2030. Moreover, we have participated in the industry dialog promoted by the German National Action Plan on Business and Human Rights since 2020.

We reorganized Brose Sustainability Management during the reporting year. An interdisciplinary sustainability committee (CR Board) meets each month under the leadership of the new Chief Corporate Responsibility Officer to ensure that all relevant topics are dealt with in a consistent, comprehensive manner. We set specific targets in the sustainability strategy we adopted in early 2021 in order to guide our corporate responsibility. Take climate protection, for instance: Brose will become a CO_2-neutral company. All of our locations worldwide will operate in a carbon-neutral manner as early as 2025.

Our components and systems help reduce energy consumption and emissions in vehicles, whether by achieving weight savings through lightweight design or by increasing the efficiency of auxiliary systems. The selection of materials also has a major impact on the ecobalance of our products, which is why we incorporate simple, reusable materials whenever possible and systematically recycle. We include manufacturing processes that avoid waste and focus on energy-efficient technologies as early as the design phase of product development. Our family-owned company also expects suppliers to comply with high sustainability standards: alongside quality and price, systematic alignment and compliance with sustainable principles is a requirement when awarding contracts.

Motivated employees are a company's most important assets, especially in a volatile climate. Brose promotes and demands entrepreneurship at every level of the company. We offer our employees an attractive working environment, interesting development opportunities and fair, performance-based compensation. Our family-owned company's values are readily apparent in our uncompromising commitment to occupational safety and health and the respectful way in which we treat each other. As a business, we also feel responsible for the communities in the regions surrounding our locations: even in challenging times, we sponsor projects in education, culture, social affairs and sport.

I hope you enjoy reading this informative and exciting work!

Ulrich Schrickel
CEO of the Brose Group

Company profile

Last updated: December 31, 2020

Brose is the world's fourth-largest family-owned automotive supplier. No matter where in the world a vehicle door or window is opened, a car seat adjusted or the air conditioning turned on – you will almost always find Brose Group technology in use. Although usually not visible to the driver, our products provide more comfort, safety and efficiency. Brose is the market leader in many areas, for example in door systems or electronically commutated cooling fan modules. The 100-percent subsidiary Brose Antriebstechnik has been manufacturing e-bike drives since 2014.

Facts and figures

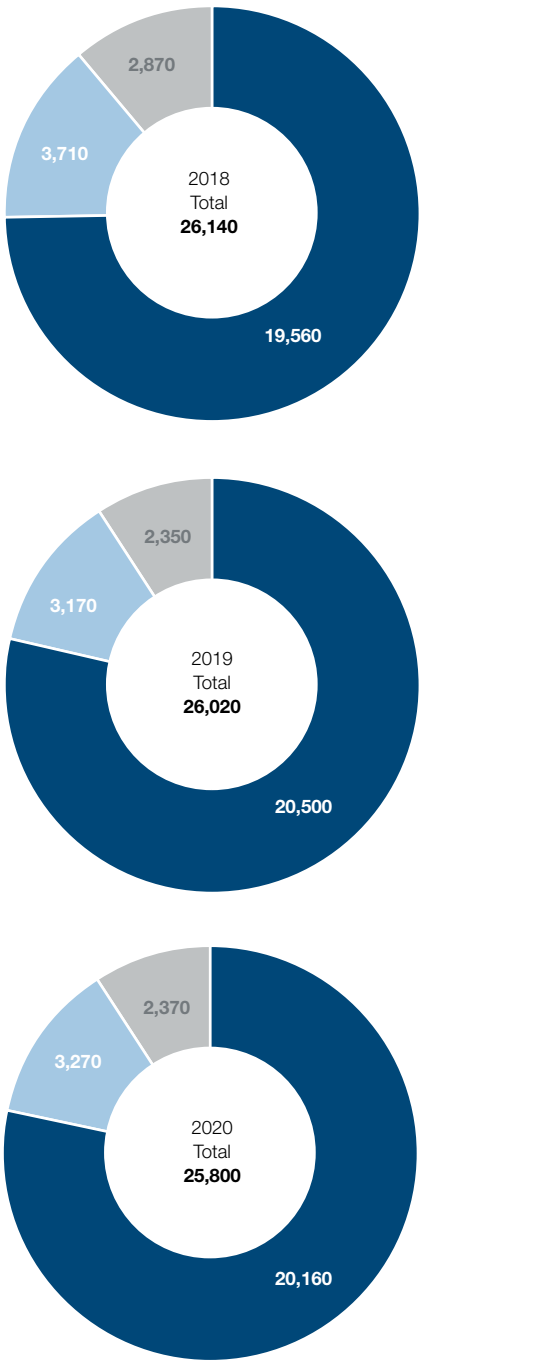
25,800 employees, around 60 percent in Europe and Africa, 25 percent in America and 15 percent in Asia.
Three headquarters in Coburg (CEO, Interior division), Hallstadt (Exterior division) and Würzburg (Drives division) along with two regional headquarters in Detroit/USA and Shanghai/China.
Company name: Brose Fahrzeugteile SE & Co. KG, Coburg
Headquarters: Max-Brose-Str. 1, 96450 Coburg, Germany
Investments in research and development: 9.4 percent of sales

Governance

Shareholder family: Michael Stoschek (Chairman), Christine Volkmann and their respective children
Advisory Board: Franz-Josef Kortüm (Chairman), Prof. Dr.-Ing. Thomas Weber, Prof. Dr. Andreas Wiedemann
Executive Management Board: Ulrich Schrickel (CEO), Thomas Spangler (Executive Vice President Operations), Niklas Beyes (Executive Vice President Commercial Administration), Olaf Gelhausen (Executive Vice President Organization and Human Resources), Raymond Mutz (Executive Vice President Drives), Periklis Nassios (Executive Vice President Purchasing), Sandro Scharlibbe (Executive Vice President Interior), Christof Vollkommer (Executive Vice President Exterior)
The shareholder meeting is the highest governing body in the Brose Group. Three of its members are women and two are men. All of the shareholders have been involved in the business and worked on social causes for years.

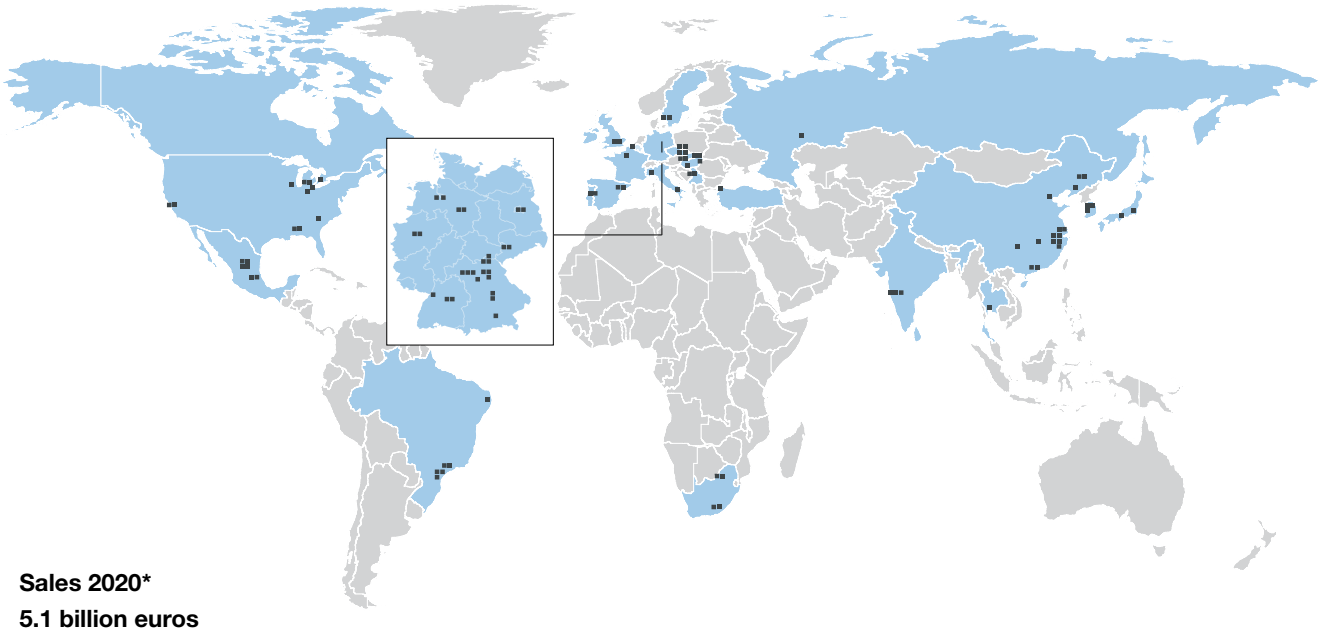
Employees 2018–2020

By employment contract



Locations and internationalization

Brose operates 65 locations in 24 countries, including 45 of our own plants and six production sites with local partners.



Sales 2020*

5.1 billion euros

	2018		2019		2020	
By region	€ billion	%	€ billion	%	€ billion	%
Europe	3.2	50.8	3.0	49.2	2.5	48.5
America	1.8	28.6	1.9	31.1	1.5	28.6
Asia	1.3	20.6	1.2	19.7	1.2	22.9
Total	**6.3**	**100**	**6.1**	**100**	**5.1**	**100**
By division	€ billion	%	€ billion	%	€ billion	%
Exterior	3.2	51.2	3.1	50.4	2.6	50.4
Interior	2.0	31.7	2.0	32.9	1.7	32.9
Drives	1.1	17.0	1.1	17.5	0.9	17.5
Total	**6.3**	**100**	**6.1**	**100**	**5.1**	**100**

*Different totals are due to rounding.

Product portfolio

Exterior

Door systems

Side door drives

Window regulators

Closure systems

Liftgate systems

Motors and drives and electronics

Interior

Front seat structures

Rear seat structures

Seat components

Adjustment systems for the vehicle interior

Motors

Drives

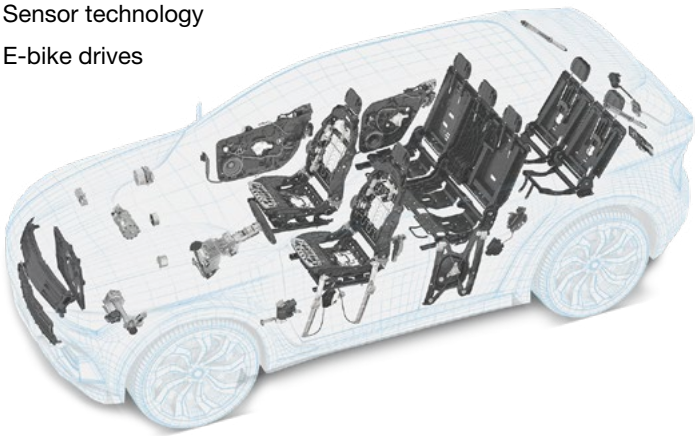
Systems for thermal management and the drive train

Motors for chassis and steering

Electronic controls

Sensor technology

E-bike drives



Philosophy

In accordance with our goal to deliver FIRST-class performance in every respect, the shareholders, advisory board and executive management board of the Brose Group approved the “FIRST” company principles.

F **Family**

The family places the company’s interests ahead of their own. Thus, we will grow in a profitable and self-financed way, and maintain our family-owned company’s independence.

I **Innovation**

We set standards with innovative mechatronic systems and components, securing a leading market position with the best price-performance ratio.

R **Respect**

Every employee, especially every manager, is a role model. Aware of our social obligation, we act fairly towards employees on all levels and at all locations.

S **Success**

We deliver top performance to our customers. Therefore, we set the highest quality standards for ourselves and our partners.

T **Team**

Shareholders, board members and employees collaborate based on trust, take clear and fast decisions and assume responsibility for their actions.

We want to be a point of contact for suppliers, society and policy makers to promote socially and environmentally responsible development. We are responsible for the impact of our products on the environment throughout their entire life cycle. We are committed to the continuous improvement of our processes in consideration of the economic aspects and necessities.

It is our goal to

– Sustainably reduce adverse environmental effects
– Improve the energy efficiency of our products and continuously improve production
– Prevent risks of injury and health hazards
– Provide a safe and ergonomic working environment for our employees
– Use suppliers that follow our sustainability and ethical principles
– Comply with legal and regulatory requirements.

We provide the necessary financial, structural and human resources to meet these self-imposed targets. We also avoid risks, prevent mismanagement and fight waste. We eliminate or mitigate the causes whenever and wherever we identify them. And we take organizational and HR-related measures when these efforts fail to achieve the intended objectives.

Interest groups, public funds and infrastructure investments

We are engaged in politics and society in the countries where we manufacture our products. This is why we are a member of national and international interest groups. In Germany some of these groups include the Employers' Associations of the Metalworking and Electrical Industries in Bavaria (bayme), the German Electrical and Electronic Manufacturers' Association (ZVEI), the Association for Supply Chain Management, Procurement and Logistics (BME), the German E-Mobility Association (BEM) and the German Association of the Automotive Industry (VDA).

We are also members of the German chambers of commerce in the US, China, Slovakia, Spain, Japan, France, Great Britain, India, Italy, Mexico, the Netherlands, Sweden, Hungary, the Czech Republic and South Africa among other countries.

Our infrastructure investments at our locations around the world not only foster our production, but also promote development in the respective regions. We invested 14 million euros in a new plant in Pančevo/Serbia during the year under review. Economic development is a key issue for the Belgrade region that also receives public funding. An additional 11.6 million euros was invested in Würzburg in the production of our electric climate compressor – this plays a key role in securing the Franconian location.

Public funds

in millions of euros of the total payments, by region

	2018	2019	2020*
China	3.1	4.2	14.5
Germany	0.6	0.4	0.5
Europe (excluding Germany)	1.4	1.3	7.1
Rest (including USA)	1.9	5.3	2.3
Total	**7**	**11.2**	**24.4**

*Including public financing aid during the coronavirus pandemic

Sustainability management

The Brose Sustainability Report received a new foundation in 2020. A comprehensive project was deployed during the reporting period to better connect and coordinate the myriad topics and elements in the area of sustainability. Representatives from the relevant functional areas collaborated on the project to define the new organizational structure.

The Executive Vice President Operations was assigned responsibility for the area of sustainability. The Chief Corporate Responsibility Officer (CCRO) of the Brose Group reports to him. This newly created position structures and coordinates all issues related to sustainability between the individual functions.

The interdisciplinary CR Board meets monthly under the leadership of the CCRO discuss, coordinate and prepare decisions on all sustainability-related issues. The CR Board features representatives from all functional areas that are able to contribute to sustainability. The regions are also included in the discussion via representatives from Detroit and Shanghai.

Brose sustainability strategy

The Brose Group sustainability strategy crafted during the reporting year was adopted by the executive management board in February 2021 and includes a clear statement on every aspect of sustainability and corporate responsibility. It clearly shows that we not only take responsibility for the financial future of the company, but also for the society in which we operate, the people we work with and the environment on which our very lives depend.

The shareholders and executive management board lead the Brose Group as a global, sustainably operating corporation and base their decisions on the following principles:

Brose is committed to protecting the environment: Brose factors economic criteria along with environmental aspects into its decision-making to continuously reduce the ecological impacts of operations.
Brose will become a CO_2-neutral company: Brose's objective is to become a CO_2-neutral company. A major milestone along the way is operating Brose's locations in a CO_2-neutral way by 2025.
Brose shows responsibility towards its employees: Our employees are the bedrock of the Brose Group's long-term success. Key focal points include ensuring fair working conditions and appropriate wages, personalized development opportunities and guaranteeing comprehensive occupational safety and health.
Brose shows responsibility towards society: Brose takes its social responsibility at all of its locations seriously and sponsors a number of activities that add educational, cultural, social, sports, health, infrastructure, employment and regional value to local communities.
Brose operates according to a Code of Conduct: compliance with laws and regulations is a matter of course for Brose. Our employees act with fairness and integrity towards each other and external partners and interest groups. Our Code of Conduct serves as a compass and is guided by values such as openness, tolerance, respect, positive human interaction, fairness, reliability and honesty, among others. We call on all our employees to conduct themselves in accordance with this Code and to take immediate, resolute action if they observe any violations.
Brose engages the supply chain: Brose requires its suppliers to comply with principles such as fair business practices, just working conditions, human rights or environmental standards and to expect them from their own suppliers so that these principles are practiced along the entire value chain. Alongside quality and price, systematic

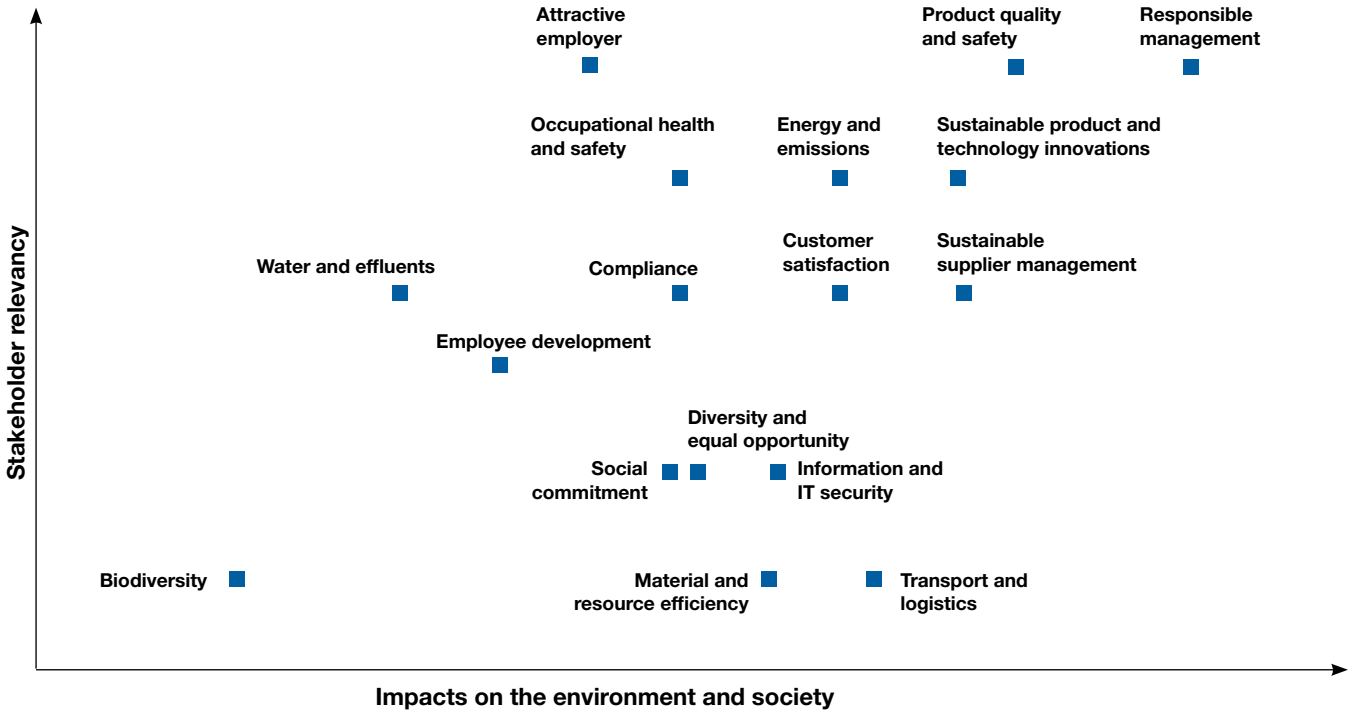
alignment and compliance with these principles is a requirement when awarding contracts.

Brose is committed to customers: environmental and climate protection and ensuring adherence to social standards are essential for Brose throughout the entire value chain and are embedded in every phase of the product development process. This enables us to offer customers sustainable, future-ready solutions and help them achieve their own sustainability and corporate responsibility objectives.

Materiality analysis

To determine the material content of this report we conducted a multi-step process with an external sustainability consultancy in 2019. In the first step a comprehensive, selective list of potentially relevant topics was prepared and condensed. We used this as the basis for a workshop with those responsible from the relevant functional areas to carry out two assessments: first, topics were prioritized from the perspective of our most important stakeholders (employees, customers, interested members of the public). Second, an analysis was performed to quantify Brose's impact on the environment and society for each topic. The resulting material topics were then validated and released by executive management. The results of the analysis were once again validated and confirmed for this report. [GRI 102-40, 102-42, 102-43, 102-44, 102-46, 102-47]

Topic matrix for materiality analysis



Compliance and risk management

We supplemented our Compliance Management System in 2020 using the ISO 37301 certification standard for orientation purposes. The Brose Group Chief Compliance Officer is the Compliance Management System process owner and is responsible for risk-oriented enhancements to the system via the global compliance organization. The system is designed to ensure ethical and legally compliant conduct within the Brose Group. Moreover, it helps us control and minimize compliance risks. The principal focus of the program is antitrust law and avoiding corruption. In 2020 compliance risks were collected and addressed in the group functions, business divisions and the global compliance organization in the scope of a compliance risk assessment. The Compliance Management System encompasses prevention measures in the form of training courses and consultations for employees in individual cases, monitoring of compliant behavior and responses to misconduct such as disciplinary actions or process improvements. Training courses are designed to address the company's individual risk propensity or provide information on current planning or changes in legislation.

Regular reviews performed by the auditing department in Brose Group companies and locations support the Compliance Management System in preventing and uncovering corruption, among other activities. This measure is primarily aimed at minimizing risk.

Code of Conduct fosters and demands ethical conduct

The Brose Code of Conduct is given to every newly hired employee. It is published on the intranet. Key contents of the Brose Code of Conduct include: humane conditions, collaboration with business partners, in particular fair business practices and preventing corruption as well as avoiding conflicts of interest, handling information and other assets, fairness and diversity, responsibility in the workplace and quality and environmental protection. The code applies at all of our locations worldwide and to all cultures and value systems. The rules and procedures are updated and adapted to current demands on a regular basis.

Supervisors are tasked with ensuring that the employees assigned to them understand and comply with the Brose Code of Conduct. The company will not tolerate any behavior that contradicts the Code of Conduct and such behavior may result in legal action. No serious breaches to the Code of Conduct were reported in 2020. Employees with PC access are required to participate in an e-learning course on the Brose Code of Conduct every 36 months. Course content is updated regularly. The courses last about an hour and raise awareness of the behavior norms outlined in the Brose Code of Conduct while making employees conscious of proper conduct in their day-to-day work. In the period from 2018 to 2020, 10,988 employees with PC access completed a corresponding e-learning session. The average fulfillment rate for the year 2020 is thus approximately 91 percent worldwide.

Increasing awareness of compliance topics

Brose also offers on-site compliance training on the topic of "Fair treatment of business partners" in foreign and domestic companies of the Brose Group. More than 300 employees at European locations received training during the year under review. Training was supplemented with foundation courses on specific topics in the field of antitrust law to raise awareness among employees involved in departments or projects that are particularly disposed to risks. Reviews were also performed to ensure compliance with signature rules, purchasing guidelines and business entertainment policies. To ensure non-discriminatory HR recruiting processes, the regional compliance organization in North America assists the HR department with its selection and recruiting processes. There are also regular communications concerning compliance topics in the region.

The Code of Conduct for Suppliers and Service Providers obliges our business partners to be socially responsible and comply with all applicable laws, in particular those governing the avoidance of corruption. The Code of Conduct should be seen as a supplement to the existing purchasing guidelines and is attached to the contract. It enters into force when the contract is concluded between the business partner and Brose.

Compliance risks at typical industry levels

No major cases of corruption were confirmed and Brose did not receive any fines or penalties due to corruption offenses in 2020. Antitrust authorities performed an antitrust review in January 2016. We cooperated with antitrust authorities and supported their investigative efforts. The 2016 process was concluded with a minor fine during the second half of 2020, which was covered by the risk management provisions made in the 2019 annual financial statements. A limited risk of claims for damages by third parties remains.

Reporting potential compliance incidents

If employees have questions about compliance topics or are aware of any compliance incidents, we expect them to actively seek a personal meeting with their supervisor to discuss the matter or directly contact the responsible Compliance Officer, HR support officer, the works council or the head of Human Resources Brose Group. Every concern is treated as confidential. Moreover, internal HR audits are conducted to discuss the relevant topics by location and identify the need for action as required. Local and/or global employee surveys can further be used to consolidate inconsistencies into a relevant catalog of questions. The Brose Group introduced a web-based whistleblower system in 17 languages to meet future legal requirements and more. Employees, customers, suppliers and other business partners can use the system to confidentially or anonymously report violations against legal regulations. For employees in Brose's German companies who wish to report information and for incidents related to employees in German Brose company locations the responsible Compliance Representative should be contacted by phone or email until further notice.

Environmental compliance

Our "Guidelines for environment, energy and occupational safety and health" document our commitment as a globally operating company to utilizing environmentally friendly technologies. We monitor compliance with all rules and laws related to the environment and work to counteract violations. The Brose Group records all incident-related cases of pollution. No significant pollution due to waste, chemicals or uncontrolled emissions released into the environment was reported during the reporting period. No fines or other non-monetary sanctions were issued in 2020.

Tax management

As a family-owned German company, we are aware of our responsibility to society when it comes to meeting our tax obligations. Brose is committed to tax compliance via the C.A.R.E. Principles (Compliance, Attitude, Responsibility, Enforcement) in its internal Code of Conduct. This includes adhering to national and international tax laws.

The Executive Vice President Commercial Administration is responsible for taxes and tax strategy. He delegates tasks to Finance & Taxes Brose Group and the local Finance competence centers. Finance and Taxes Brose Group functions as the tax department for Germany and also coordinates the Group's foreign tax roles. The head of Finance & Taxes and the Executive Vice President Commercial Administration share a constant exchange of information on all key aspects of this topic. Among other things, these include current and future developments, the status of the risk assessment and the implementation of risk-mitigating measures or controls. Furthermore, the Executive Vice President Commercial Administration keeps the shareholders and advisory board abreast of important tax-related issues and the tax risk assessment.

An internal control system (ICS) for taxes was implemented to control and reduce domestic tax risks and comply with tax guidelines. Finance & Taxes Brose Group strictly adheres to tax guidelines and continuously monitors and improves processes and controls. Backed by the active support of the Executive Vice President Commercial Administration, the Brose Group has a modern, world-class tax function. The utmost value is placed on further education and training for all employees via internal and external courses. To review and validate our position, the Finance & Taxes group function also relies on interdisciplinary, internal and external expertise. An auditing firm confirms our tax items in the annual financial statements. As part of its digitalization effort, the Brose group is working to further automate its processes and continually expand IT-based controls.

The Brose Group follows a management approach to taxes aimed at avoiding impermissible tax reductions and tax evasion and complying with statement, reporting, cooperation and documentation obligations to tax authorities.

We do not engage in aggressive tax planning activities and we pay taxes wherever we operate in a value adding capacity. Our tax departments have professional relationships with tax authorities without losing sight of the justified interests of the Brose Group and the responsibility to shareholders and other stakeholders to keep tax burdens as low as possible.

Tax concerns raised by employees, customers, suppliers and other business partners can be reported confidentially or anonymously via our web-based whistleblower system called WhistleB. Employees in Brose's German companies may only report suspected cases by contacting the responsible Compliance Representative by phone or sending an email.

Information and IT security

Brose's central Information Security Management System (ISMS) is at the core of our strategy for information and IT security. The Chief Information Security Officer (CISO) and his department are responsible for information and IT security in the Brose Group. As a staff department of the Chief Information Officer, it reports to the Executive Vice President Commercial Administration. This regular exchange enables the departments to engage in joint efforts to ensure corporate security, product safety and data privacy.

Reviewing risks

We use the Basic Protection (*IT-Grundschutz*) Compendium promulgated by the German Federal Office for Information Security (BSI) to assess threats. The Information Security Working Group reports existing threats to the CISO's teams on a monthly basis. Brose records the risks in the ISMS, assesses and continues to track them. We use a scanner to uncover vulnerabilities in our IT systems at two-week intervals. The results are registered in our central ticket system for processing. The centrally defined data classification makes it easier to identify sensitive data. Brose also prepares for cyberattacks with the help of regular security training courses. A global guideline provides deadlines for deploying software updates. The deadlines are based on the Common Vulnerability Scoring System and the threat levels for the individual devices.

To provide our customers with proof of compliance with minimum information and IT security standards, we regularly undergo TISAX (Trusted Information Security Assessment Exchange) certification testing. The validity of the TISAX certificates with AL3+ prototype protection was confirmed for an additional three years in early 2021.

Involving employees and business partners

All employees must complete an e-learning course on cybersecurity followed by a test every year. Additional e-learning modules covering IT and information security topics are available to supplement these mandatory courses. We build on this training by raising awareness among employees with measures designed for specific topics and target groups. These training courses include on-site events and practical recommendations for action. We plan additional instruction for employees in HR roles and in the development departments, because they frequently come into contact with sensitive data in their day-to-day work.

Privacy

Brose complies with the European General Data Protection Regulation (GDPR). To underscore its responsibility as a trusted employer, Brose implemented corresponding internal data protection provisions for employees and applicants as well as for customer and supplier relationships. These provisions outline how we handle employee and customer data.

Our data protection guidelines define the responsible regional and/or local contacts in their roles as data protection officers, managers and coordinators and the basic principles for satisfying the requirements set forth by the GDPR. Moreover, they provide a framework for how Brose and its employees should accept ownership of these responsibilities. The data protection guidelines are binding for all employees in our European locations and are always accessible to all employees via the Brose intranet. To ensure adherence to data protection regulations, every employee with access to a PC is required to regularly complete an e-learning course on the topic of data privacy every two years.

Beyond this, data privacy is also covered in our Global Terms and Conditions of Purchase. We have suppliers who receive access to sensitive data from Brose to process this data in line with legal requirements (Art. 28 GDPR).

Erasure of personal data

One of the most important provisions under GDPR is the erasure of personal data as soon as it no longer fulfills the original purpose of processing or subjects have revoked their consent to have their personal data processed. Brose came up with a solution for complying with the legal regulation in its existing HR system during the reporting year. We performed comprehensive analyses in test environments and then cleared out the respective datasets. We will be introducing the new HR system SAP Success Factors as part of Future Brose. It meets the technical guidelines for implementing the legal requirements and includes data erasure from the outset.

Subjects can contact the Brose Data Protection Officer in accordance with GDPR provisions. They also have the right to file a complaint with the responsible supervisory authority. Employees can also make use of other operational channels (e.g. the whistleblower system). There were no complaints concerning breaches of customer privacy or losses of customer data during the reporting year.

Sustainable procurement

Brose is working on establishing the most efficient and resource-conserving groupwide methods of purchasing raw materials and products while considering both internal and external supply chain sustainability requirements.

The Sustainability Project Manager for our Purchasing organization is responsible for all aspects of corporate responsibility within the supply chain. His tasks include ensuring suppliers comply with requirements and continuously further developing the corresponding processes. Our Code of Conduct for Suppliers is the framework for compliance with sustainability requirements. Workshops with key automotive industry companies and training sessions with our suppliers are planned to continue establishing and expanding our CR processes.

We rely on premium quality suppliers and set high standards for purchased parts and capital goods to exceed our customers' expectations. Brose uses these criteria to thoroughly review suppliers before awarding any contract. Regular progress checks are carried out once a contract has been awarded. The supplier must deliver precise information regarding the project and the project development status. At series start we perform additional assessments and evaluate compliance with our quality standards. Our guidelines are aligned with those of the automotive industry in accordance with IATF 16949 (International Automotive Task Force).

To satisfy the constantly rising automotive market demands for sustainable procurement, Brose is a member of the VDA project group with the working title "Corporate Sustainability Assessment Exchange" (COSAX). We are working with automakers and tier-1 suppliers in the group to create a standardized global mechanism for assessing aspects of sustainability in companies along the automotive supply chain. The sharing platform delivers comparable audit results and thus leads to mutual acknowledgment of these outcomes in the supplier network. COSAX is scheduled to launch in 2021. It will prevent multiple audits and minimize auditing expenditure overall throughout the industry. At the same time, it also takes into consideration the sustainability requirements of a wide range of stakeholders in our industry. Furthermore, the COSAX project addresses some of the future legal requirements for sustainable procurement: the German National Action Plan adopted in 2016 implements the UN Guiding Principles on Business and Human Rights (UNGP 2011), thus calling for mandatory due diligence for all market players with respect to sustainable procurement paths and products. So COSAX is another step towards fulfilling our corporate responsibility obligations.

Zero-defects target and supplier rating

We demand zero-defect products from our suppliers based on the principle of avoiding errors throughout the entire supply life cycle. Suppliers must provide detailed documentation of their quality management measures. This includes initial sample documents or proof of qualification and requalification of the delivered parts. We take a similar approach to supplier approval for capital goods.

We strive for positive, collaborative partnerships with all of our suppliers, a consistent quality management system and continuous improvements to processes and products. We use audits to ensure the presence of effective management systems (IATF 16949). The validity of the certification is reviewed on a regular basis and considered in our supplier rating.

24 technology audits were conducted for new suppliers during the reporting year in accordance with the standard questions in the VDA 6.3 processes. An additional eleven technology audits were carried out independently of VDA 6.3. Seven suppliers performed self-audits due to the pandemic. Brose will verify these audits in the future. Depending on the specific discipline, the audited companies must also answer additional technical questions. Beyond this, our suppliers' logistics processes and competitive strength are also audited on a regular basis. We performed 13 VDA-based process audits among existing suppliers in 2020. Due to the pandemic, another 97 audits were performed by the suppliers themselves. Brose will verify these audits for implausibilities at a later time.

Supplier assessment of ecological aspects

At Brose our approach is to map the entire production and product life cycle in the most ecological way possible. Our environmental management system is based on the ISO 14001 standard.

We also expect our suppliers and delivered parts to meet the highest ecological production and product life cycle standards possible. The Code of Conduct for Suppliers requires them to be socially responsible and comply with all applicable laws.

We perform a specific review of ecological criteria at all of our new suppliers using technology audits in line with the VDA 6.3 standard. Employees from the Brose Purchasing, Technology and Quality departments conduct the on-site inspections. Ecological criteria surveyed include the consideration of environmental aspects of products and processes, for instance. Other relevant factors include whether employees receive training on environmental topics and whether environmental simulation tests are used in product and process development. Beyond this, the audits also include existing certifications in accordance with ISO 14001 or OHSAS 18001/ISO 45001.

Since we want to support our suppliers in their efforts to implement environmental protection policies, we began training them ourselves in 2020. We have conducted a pilot workshop with selected suppliers to date. Additional training courses, both in-person and virtual, are planned for 2021 in every region that Brose procures goods.

Employment conditions along with ethical and moral principles

In the spirit of our Code of Conduct and company principles we encourage employees to exercise their freedom of association and engage in collective bargaining. These principles apply in the same way to every vendor the Brose Group works with. We have high expectations of ourselves and our suppliers when it comes to employment conditions. To our knowledge, none of our vendors tolerates child labor or dangerous working conditions. Similarly, to our knowledge, we work exclusively with suppliers that do not subject their employees to forced or compulsory labor. Moreover, we are unaware of any incidents in which our suppliers have not met our company's ethical and moral principles.

We always review the efficiency and performance of each of our new suppliers. We use the supplier onboarding process, supplier self-assessments and additional evaluations of key issues such as innovative strength or environmental management systems for this purpose. As part of the process, Brose sends all potential suppliers a Self-Assessment Questionnaire (SAQ). This questionnaire requires suppliers to make explicit statements regarding their moral principles or internal compliance rules, among other topics.

For instance, companies must be able to provide information on whether they can assure that no child or forced labor and no discrimination is tolerated on the basis of gender, race, skin color or similar. These questions are based on the Code of Conduct that is binding for all Brose Group employees worldwide and is a fundamental part of our supplier management.

We anchored these principles in our Global Terms and Conditions of Purchase (concluded with 85 percent of all production material vendors in 2020) and in our supply contracts. Our suppliers are required to maintain socially adequate working conditions and to request that their vendors observe these principles as well. Our Global Terms and Conditions of Purchase are available on the Internet at https://www.brose.com/de-en/purchasing/general-terms-and-conditions-of-purchase/.

Goods procurement in the regions and localization rate

Around 1,240 suppliers from 56 countries throughout the world deliver products to the various locations of the Brose Group. During the 2020 fiscal year we procured 56 percent of goods and services from suppliers in Europe, 24 percent from North America 19 percent from Asia and 1 percent from Brazil. Our suppliers' share of value added is about 60 percent.

The overall localization rate of the Brose Group is 88 percent. This is just one of the ways we strengthen local economies and optimize transport routes, while simultaneously creating more local jobs.

When procuring new systems we also ensure that they meet our high environmental and energy efficiency standards. Our internal Production Equipment Specifications "Work Safety and Environment – BN 589580" are always an integral part of our technical specifications, which ensures these environmental and energy efficiency standards are firmly anchored in the procurement process. The BN 589580 standard defines minimum requirements for protection and prevention in planning, producing and building production equipment. Alongside economic efficiency, worker safety and environmental protection are criteria set by our own standard.

In 2020 we evaluated for the first time how many of our suppliers have the TISAX certification with respect to safety measures. The results showed that 15 percent of our suppliers either have the TISAX certificate or are planning on receiving it. For 2021 we are planning on individually classifying our suppliers by safety standard and coordinating corresponding implementation strategies with them.

Share of procurement volume and localization rate

in percent, by region

	2019		2020	
	Procurement volume	Localization rate	Procurement volume	Localization rate
Europe	59	95	56	95
NAFTA	24	78	24	78
Asia	16	85	19	85
Brazil	1	50	1	52
Total	**100**	**88**	**100**	**88**

Stakeholder engagement in purchasing

The Brose Group values continuous communication with suppliers and customers and works hard to maintain the best possible business relationships, for example by conducting regular supplier surveys. We use these to determine whether our vendors continue to meet our standards. [GRI 102-40, 102-42, 102-43, 102-44]

During the reporting year we continued the Brose Exclusive Supplier Team (BEST) program we created in 2019 to award our strategically important suppliers. In December 2021 we also presented Finnish startup Top Data Science with the Supplier Innovation Award Europe for automating weld seam inspection with the help of artificial intelligence. We did not hold our Supplier Awards and Key Supplier Recognitions during the year under review due to the coronavirus pandemic.

Brose additionally participates in the implementation of the ASA assessment program by the German Association of the Automotive Industry (VDA): Our company plays the role of co-chair in the product group. It currently comprises 13 tier 1-supplier companies. We are building the portal for the assessment program with an external service provider. The portal launch is scheduled for the second half of 2021.

Brose is also seeking feedback from its customers on this topic. For example, we are a member of the “VOLVO Supply Chain Engagement Forum”. This forum focuses on issues related to sustainable procurement strategies and shares examples of best practices.

Brose was nominated to participate in the German National Action Plan for Business and Human Rights (NAP) in August 2020. NAP’s objective is for German-based businesses to embrace their responsibility to respect human rights in global supply and value chains. The plan was inspired by the United Nations’ Guiding Principles on Business and Human Rights.

As part of NAP, the German Federal Ministry of Labor and Social Affairs (BMAS) organizes industry dialogs to help businesses that face special challenges in complying with due diligence requirements related to human rights issues. BMAS, employee, automotive industry and NGO representatives come together to take part in multi-stakeholder dialogs. Brose is also cooperating here in a workshop called “Management Approaches to Implementing Human Rights Due Diligence and Efficacy Indicators – Dialog with the Automotive Industry”. The initial results are expected to be published during the course of 2021.

Products

Although usually not visible to the driver, many of the features that enhance vehicle safety, comfort and efficiency are based on our products. Backed by decades of expertise in mechanical, electric and electronic systems and sensor technology, we develop comprehensive solutions for our customers.

Systems for doors, liftgates and lids

Brose is the world market leader in the development and manufacturing of mechatronic products for vehicle doors and liftgates. With over 90 years of experience we set trends that enhance safety and comfort. Our door systems integrate all of the mechanical, electrical and electronic functions of a vehicle door into a single door system. This eliminates a number of components, thereby reducing weight and costs. Brose supplies these systems to customers' assembly lines pre-tested, ready-to-fit and synchronized with their vehicle production. The result: faster installation and lead times with increased quality overall.

We address environmental requirements to reduce CO_2 with lightweight design that features an intelligent material mix and optimum functional integration. One example is our door system featuring an "organo sheet" carrier, which saves over five kilograms per vehicle compared to conventional steel doors.

Our system for hands-free opening and closing of liftgates and trunk lids sets new standards. We have transferred this expertise to a power side door drive that makes a new dimension of comfortable vehicle access possible. The concept is flexible: it can be adapted to different space and door architecture requirements, depending on the vehicle manufacturer. Our contact-free sensor technology is the foundation for the safety of these systems: these sensors use radar to detect obstructions and stop doors from opening before a collision occurs.

Adjustment systems for front and rear seats and the interior

Virtually no other car feature must satisfy as many individual needs as the vehicle seat – from passengers' growing comfort expectations to the desire for maximum flexibility in the vehicle interior. Components and systems from Brose help manufacturers meet this challenge.

Brose seat electronics control up to 25 intelligent adjuster drives in cars today. They also regulate seat heaters and climate control and include comfort features. Passenger safety is guaranteed thanks to the electronically controlled pre-crash function, actuator systems designed to prevent fatigue and seats that feature tactile warnings in dangerous situations.

Our portfolio ranges from manual seat adjusters to all-electric power seat structures with lumbar support and a massage function. Active positioning of the headrest and side bolsters along with adjustment of the rear seat entertainment complete the product range. Our goal is to increase passenger comfort and safety – from entering the vehicle and buckling up to adjusting the seat position Thanks to advanced material concepts and production methods, we produce one of the lightest seat structures worldwide.

Electric drives

Brose motors and drives are also used in thermal management, the drive train as well as in the chassis and steering. They also operate window regulators, seats, liftgates and side doors. Our drives are available in a power range of 20 to 11,000 watts and voltages of 12 to 810 volts. Brose has manufactured drive systems for e-bikes in Berlin since 2014. What's more, we received our first orders for electric scooter drives during the reporting year.

Advances in electrification are impacting further developments in our motors and drives. We are systematically aligning our portfolio so that we can flexibly adapt to this trend: the Brose modular motor system enables us to quickly react to changing requirements – across all vehicle types and electrical system architectures – thanks to standardized components.

Power auxiliary systems reduce energy consumption and at the same time make driving a more pleasurable experience. One example is the electric air conditioning compressor: it is more energy efficient than conventional variants powered by an internal combustion engine because it only works when it is needed. Electric vehicles rely even more on this technology because they lack internal combustion engines. It also increases driving comfort, for instance when the air conditioning system ensures that the car is the desired temperature before passengers enter the vehicle.

Development and innovation

We factor in future requirements in product development, including vehicle access or interior features. Our mechatronic solutions expertise brings comfort, safety and efficiency to these areas. We are already working on solutions for tomorrow's customer requirements today. Challenges such as autonomous driving, e-mobility, connected vehicles and components and future usage concepts related to car sharing require fresh ways of thinking. This also applies to the interaction between the vehicle exterior and interior. Our ability to digitally connect our systems enables a completely new access experience for customers and makes vehicle interiors more flexible than ever. We will increase our focus on the functional interaction between components and systems in the future instead of individual parts. We are working with partners to develop a software platform to connect various functions.

We spent about 9.4 percent of our sales in research and development during the reporting year. 4,000 of our employees work in this area. Over 200 patent applications each year are proof of our company's innovative strength. We also continuously invest in the further qualification of our employees and the expansion of regional development areas.

The use of modern technologies helps Brose reduce development times for new products. Additive manufacturing processes not only enable us to efficiently manufacture prototype components but also pre-series tools. This means that the time required from the completion of the virtual model to the use of the sample part made from the original material is only weeks instead of months. At the same time, simulation methods ensure that far fewer physical tests are required. Comparing calculations with testing helps us deepen our understanding and further develop our analysis methods.

Sustainable product and technology innovations

In terms of company policy we are always reducing damaging environmental effects across the entire life cycle of our door and seat systems as well as our drives. Our Guidelines for environment, energy and occupational safety form the basis for this. When reducing damaging environmental impacts, the focus is on lightweight design along with the corresponding savings in energy and resource consumption during the service life of our products once they reach the consumer. But the selection of materials also has a major impact on the ecobalance of our products, which is why we try to use recyclable materials whenever possible and determine a recyclability rate for each product family.

We reduce the carbon footprint of the products themselves and our production as a whole by incorporating manufacturing processes that avoid waste along with energy-efficient technologies. Energy efficiency is a decisive factor in selecting the right supplier for new systems procurement.

To reduce CO_2 emissions in production and during the service life of our products, we constantly strive to improve them, with smaller form factors and lower weights being among our highest priorities. The basis used to calculate the following examples is the simplified Life Cycle Assessment according to Brose Norm BN 590020 with an assumed ratio of 50 percent each for gasoline and diesel vehicles. The simplified Life Cycle Assessment is based on the ISO 14044 certification standard. The defined service life is based on a useful life of 200,000 km.

This enables us to project a reduction in the Product Carbon Footprint, or CO_2 emissions by product, totaling 242,904 t of CO_2in the three business divisions for the period from 2019 to 2021. That is 3.1 percent of annual product-related CO_2 emissions. We will achieve this reduction through measures whose impact can be presented by the simplified Life Cycle Assessment as CO_2 equivalents. These measures in include lowering material and energy usage, achieving weight savings and reducing hazardous substances and emissions in general.

The Brose Group participates in official audits and certifications. Our ISO 14001 and ISO 500001-certified management systems for energy and the environment assure compliance with the relevant, industry-specific environmental requirements in product design and manufacturing. Using international standards lends credibility to Brose products and makes them easier to compare.

Exterior

The structure module Brose introduced in 2019 helped unleash the full technical and economic potential of organo sheet door modules. The carrier features a load-specific design, meaning that it can now also perform tasks related to door structure – the material construction with glass fabric and local reinforcements significantly enhances structural rigidity and crash performance. The result: the already lightweight organo door system is now 1.2 kg lighter at the same or an even lower price point, making this technology the most affordable option for dramatic weight savings in doors.

Brose collaborated on an advanced development project with its partner Plastic Omnium to develop a concept for a hybrid vehicle door construction made of plastic and strategically positioned metal reinforcements. This combination of materials enables new shapes and design freedoms, Since the hybrid door includes all of the desired components from the closure system to the side door drive, the precision manufactured door can be delivered just-in-sequence directly to the customer's assembly line.

The hybrid vehicle door has an especially positive effect on aerodynamics alongside a range of customization options. Possibilities include integrated rear mirrors and cameras, the elimination of the need for handles, seamless transitions between the door and window pane and air ducts to the wheel housing built directly in the door. These measures reduce the flow resistance of the vehicle by around 5 percent, thus cutting CO_2 emissions while driving by 1.8 g/km.

We further reduced CO_2 by a total of 800 kg/vehicle (2.7 g/km) over the entire product life cycle with a weight savings of up to 30 percent compared to conventional steel door structures. What's more, these measures also extend vehicle range thanks to low energy/fuel consumption.

Structure modules made of organo sheet enable cost-effective weight savings in the side door.

Interior

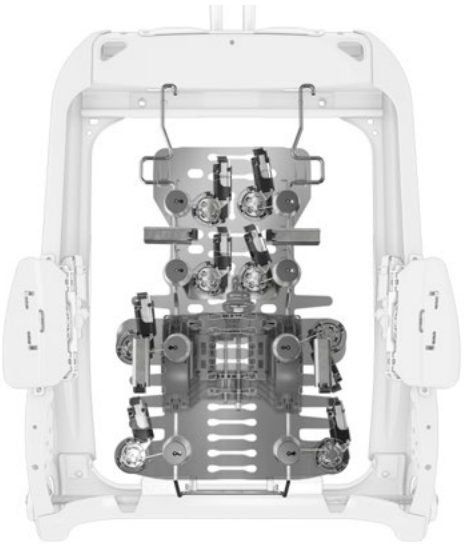
Brose leveraged significant savings potential for a power steering column adjuster. The new power steering unit is 35 percent lighter when compared to a reference product manufactured by one of our competitors. After conducting a systematic analysis of the entire system, the business division was able achieve weight savings for virtually every component part of the adjuster. Based on the planned quantities of 250,000 million units per year, we expect to cut CO_2 by 920 t.

The Smart Interior Actuator assumes several functions in the vehicle interior and is used to adjust vent flaps and air outlets, among other things. Thanks to design improvements and additional new features, Brose also achieved a 50 percent reduction in package space and weight compared to a reference product made by one of our competitors. Based on the planned quantity of 6 million units per year starting in 2023, we anticipate a CO_2 reduction of 1,680 t.

Development work on the third generation of our lumbar support resulted in design improvements that produced a weight savings of 30 percent compared to a second-generation reference product. We are projecting a CO_2 savings of 7,100 t with series production starting in 2021 and a quantity of one million units per year.

Brose is working on intelligent material combinations to save weight and optimize production. Brose also participates in a variety of research products to create as many synergistic effects as possible. Innovations are engineered and deployed with the Institute of Lightweight Engineering and Polymer Technology at Dresden University of Technology and a network of universities, material suppliers and process specialists. One example of this is a project that made it pos-

The newest generation of our lumbar support weighs about one third less than the previous model.



sible to integrate fiber-reinforced hollow profiles into organo sheet injection molded structures, creating extremely robust structural components. Another example was the integrated seatbelt we developed, which slashes weight by 30 percent and eliminates ten punched and bended parts made of steel compared to conventional designs.

Brose is also involved in two projects sponsored by the Federal Ministry for Economic Affairs and Energy: hypro and DRIFT. They are aimed at assessing the economic and ecological efficiency of lightweight design technologies made with material hybrids. The hypro project makes it possible to create hybrid designs for series production. DRIFT is tasked with the development of wire-shaped inserts for load-specific fiber reinforcement of injection molded thermoplastic components. Both projects focus on the key topics of caring for resources and reutilizing materials.

Materials Technology Brose Group also works on other sponsored projects with universities and institutes. For instance, they are involved in “MAICa-Rina”, “NFRipp” and “ReProOrgano”. Moreover, the department also shares ideas and information with Hof University of Applied Sciences and IFBB Hanover. Focal points of the research collaboration projects include subjects such as materials preparation, natural fiber reinforcement or biopolymers.

Drives

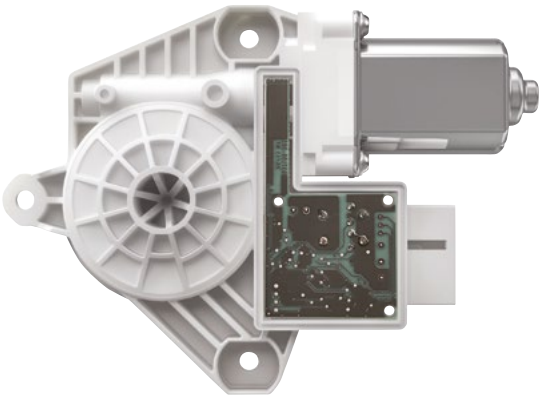
Brose’s “FlexBlade” design for cooling fan wheels achieves performance-related energy savings of up to 17 percent compared to its predecessor. Intelligent wing geometry in the wave design provides a tremendous performance boost compared to traditional fan wheels. It is possible to generate the ideal wing geometry for each individual application scenario based on the simulation and parameter variation. The products are supplied as complete cooling fan modules. They comprise a shroud, fan wheel and motor. The technology has been in use since mid-2020. Based on the planned quantities of 160,000 million units per year, we anticipate a CO_2 reduction of 5,270 t compared to the previous model.

We offer the shrouds in our cooling fan modules in a range of sizes and performance levels. Instead of making them from polyamide (PA) as in the past, future shrouds will be manufactured from the lighter material polypropylene (PP). The material thicknesses is 17 percent lower than that of the older basic material, cutting the module’s weight by around 6 percent. In addition, less energy is consumed during processing. This translates into a 30,702 t reduction in CO_2 emissions on just a single order of 4.2 million units. The percentage of Brose cooling fan modules with PP shrouds is rising steadily. Our target is to increase this from 5 percent in 2017 to 65 percent in 2021.

We also rely on lightweight design for our window regulator motors. During the reporting year the share of our BM2010 window regulator motors increased to 16.2 million drives. Brose has supplied a total of 27.2 million window regulator drives to customers. In terms of weight and performance, the new generation of the product saves 70,693 t of CO_2 each year.

Brose also worked on “remanufacturing” processes, i.e. the reconditioning of e-bike drives, during the reporting period. Now there are refurbishing processes available for a wide range of parts. We remanufactured 1,960 drives in 2020, which resulted in a CO_2 savings of 156 t compared to simply replacing them.

The increased use of lightweight motors for window regulators made it possible to reduce CO_2 emissions by over 70,000 t.



Environment

Any type of industrial production poses myriad challenges to the respective business when it comes to environmental protection and responsible handling of resources. The Brose Group introduced environmental standards as early as twenty years ago and has continued to develop them ever since. And, as a family-owned company with an over 100-year history, we act with foresight and sustainability. Issues like environmental protection and the conservation of raw materials have a high priority here at Brose. Our environmental management system is based on international standards. When it comes to materials, Brose considers the carbon footprint from raw material extraction to recycling. We also test multimaterial systems, recyclate granulate, biopolymers and natural fiber-reinforced composite materials.

During the reporting year we implemented more than 45 individual measures designed to increase energy efficiency in our production locations. The measures were primarily related to cross-sector technologies deployed across various manufacturing processes, such as compressed air, lighting, cooling or ventilation. For example, successive modernization of our lighting equipment in the respective production and administrative areas saves up to 40 percent of the required energy – a total of up to 1.9 GWh each year. Moreover, we either replaced compressed air generating equipment with more efficient models or equipped them with intelligent controls or heat recovery systems. The entire central compressed air system at our Würzburg location was modernized and now provides us with a highly efficient supply of compressed air with an average ratio of under 0.089 kWh per m^3. We are increasingly replacing incremental controls in ventilation systems with frequency controlled drives, which enables us to operate them based on our actual needs.

Lean management is a comprehensive management philosophy aimed at optimizing costs, quality and supply capability. The objective is to optimally coordinate all of the activities required to create value and avoid superfluous tasks, thereby increasing the company's competitive strength. The ecobalance improves continuously in the process, for example through the procurement of more efficient machines and systems for the latest products. Consistent application of the four principles, flow, "takt", pull and zero defects, assures perfectly aligned and integrated systems that ensure a continuous flow of materials. Lean management methods make processes and interrelationships transparent.

The principles and methods can be applied at every level of the company: in production, development, sales and in all direct and indirect areas of our business such as administration. No matter what we do, our goal is to sustainably reduce or avoid all forms of waste in the flow of materials or information and in particular in the interaction between the different departments along entire process chain.

Examples of the lean management method's contribution to our efforts to conserve resources and energy:

Reduction of paper in direct and indirect areas of the Group
- Use of software to present standardized, group-wide-wide and project-specific documentation
- Electronic handling of internal audits and assessments

Reduction in transport routes, storage, overproduction
- Associated optimization of Production Control (lot sizes, set-up times, etc.) in the Coburg press shop
- Elimination of transport routes and storage of materials with a logistics service provider
- Fewer resources expended for products without customer orders

Prevention of errors and scrap
- Transport cost and CO_2 savings thanks to the Poka-Yoke principle (technical precautions or equipment for instant error detection), root cause analysis, failure mode and effects analyses (FMEAs), non-destructive tests and Total Productive Management (TPM).
- Less scrap thanks to a targeted "scrap and rework" initiative.

Product life cycle, environmental management and energy management

Brose has balanced the ecological footprint of its products for decades via the BN 590020 assessment tool it developed in-house. We use our own method for determining the CO_2 emissions our products generate throughout their entire life cycle based on material and energy flows. We also determine the share of reusable components in our products and aim to minimize the use of resources.

In addition, we make efforts to bundle material and product transports. Brose wants to continually contribute to the steady improvement of the ecological efficiency of our business, from the top echelons of management to individual employees. This is defined in the Brose Code of Conduct. The environmental management system we use performs a valuable service here. Firmly established product development targets include environmentally friendly design with lower resource consumption, technical safety and health. Our annual certification according to DIN EN ISO 14001 shows how efficient our environmental management system is in all of the production locations of the Brose Group. Our process management is also certified according to IATF 16949.

To improve the energy efficiency of our production and infrastructure, we have also introduced an energy management system in 18 locations that is certified according to the requirements of the DIN EN ISO 50001 standard. We publish the respective certificates on our website.

To further improve our products, Brose introduced “Umberto LCA+” software during the year under review. Creating Umberto data models enables us to access integrated, up-to-the-minute databases for materials and basic processes (GaBi and ecoinvent). When paired with internally available and collected data, e.g. the amount of power a specific system uses, it is possible to perform the modeling process in the software. This returns environmental impact calculations, such as the CO_2 equivalent produced or the acidification potential per life cycle phase.

In the future the new software will make it possible to analyze environmental impacts like those achieved by using recycled materials, even more effectively. This will enable us to identify the biggest levers for reducing the carbon footprint of our products and offer recommendations for action to optimize these areas. We are also responding to customer demands so that they will continue to consider Brose in future invitations to tender.

We are gradually expanding modeling of the “Umberto LCA+” software to include the most important Brose products. Materials Technology is assisting the environmental coordinators in the business divisions with the process. Moreover, we are already implementing a wide range of measures to shrink our carbon footprint today. For instance, we are conducting in-house projects on using or remanufacturing organo sheet scrap produced during manufacturing.

In addition, we bundle material and product transports – including internal transports. To increase the energy efficiency of forklifts, we are deploying a forklift guidance system to optimize transport routes within the company and avoid unnecessary trips. On top of all this, the use of lithium ion battery packs makes changing batteries a thing of the past.

We almost exclusively utilize returnable packaging for European shipments, which also helps reduce our consumption of valuable resources. We ensure that packaging material is reusable ahead of time when it is sourced.

Energy use and emissions

In 2020 total energy consumption among all Brose locations was 379,835 MWh (2019: 423,533 MWh). This reduction can be attributed to the lower production rates during the coronavirus pandemic and efficiency measures that were implemented. This figure includes consumption of energy sources such as fuels, electricity, gas, district heating and heating oil that we need for our manufacturing processes and for our administration buildings.

The main type of energy Brose uses is electricity (57 percent), followed by gas. The majority of gas consumed goes toward our own electricity production and our paint finishing systems. The share of renewable energy in power consumption is 26 percent; the share of renewable energy in total energy consumption is 15 percent.

We operate a combined heat and power plant (CHP), where we generate part of our electricity ourselves and feed excess power and heat into the local public grid. In 2020 we fed 1,745 MWh of electricity and 17,013 MWh of heat into public supply networks in this way.

The energy intensity of the Brose Group during the reporting year is 377 MWh/million euros of plant costs. We believe this ratio of energy consumption to plant costs excluding material and tool costs is relatively low. We were able to achieve significant savings overall in 2020 thanks to efficiency measures.

Energy consumption

in megawatt hours and percent by energy type

	2018		2019		2020	
	MWh	%	MWh	%	MWh	%
Power	228,927	58.2	235,119	55.5	214,760	56.5
Natural gas	115,480	29.3	138,055	32.6	127,239	33.5
Fuels	32,480	8.3	33,077	7.8	21,449	5.6
District heating	15,396	3.9	15,799	3.7	14,766	3.9
Heating oil	719	0.2	810	0.2	932	0.2
Liquid gas	184	0.1	673	0.2	689	0.2
Total	**393,186**	**100**	**423,533**	**100**	**379,835**	**100**

Energy savings thanks to efficiency measures

in megawatt hours and tons CO_2 by energy type

	2019		2020	
	MWh	t CO_2	MWh	t CO_2
Power	7,217	4,615	2,721	2,053
Diesel/Gasoline	1,031	130	417	130
Total	**8,248**	**4,745**	**3,138**	**2,183**

Measures for reducing greenhouse gases

Our goal is to reduce our annual energy consumption by 3 percent, thereby simultaneously cutting greenhouse gas (GHG) emissions. Absolute values based on emissions in 2017 are defined as target figures. We were also able to cut product-related CO_2 emissions by over 200,000 t thanks in large part to weight savings.

Many factors influence energy consumption and the resulting CO_2 emissions – including system utilization, product portfolio, production technology and weather conditions. This is why we use separate, successfully implemented process and system-related measures to assess the reductions in GHG emissions.

In light of the various environmental protection and efficiency measures outlined above, Brose is committed to sustainably and permanently reducing additional GHG emissions beyond CO_2. This applies in particular to volatile organic compounds (VOC) and chlorofluorocarbons (CFC).

For over two decades, Brose has exclusively used a low-emission cathodic dip painting (CDP) method for coating its seat structures with water varnishes that have solvent concentrations far below 2 percent, for example. The unavoidable VOC emissions that result in the process are recombusted in all of our locations (except for one plant in Mexico). Partly voluntary thermal recombustion means that the emissions do not expose the surrounding area to odors and no longer contribute to global warming.

In the fall of 2019 we placed an order for two drive-in climatic chambers with CO_2 as a refrigerant instead of R23 (fluoroform) in the freezing stage. The climatic chamber will be used in the testing area for access & closure systems. We worked with our system manufacturer to implement the first project of this size using CO_2. This measure enables us to mitigate the risk of serious environmental damage due to refrigerants in the event of an incident. Each system reduces global warming potential by 114 t CO_2 equivalents. This allowed us to raise the overall efficiency of our Exterior testing area by 2 percent. In late 2020 we replaced another climatic chamber with CO_2 refrigerant and anticipate further increases in efficiency.

We also installed an additional, energy efficient servo press at the Coburg location during the reporting year. Based on manufacturer specifications, the unit uses about 40 percent less energy than conventional presses thanks to the servo-mechanical drive and the installed energy recovery system. We were able to confirm this technical data with internal measurements. Expectations regarding savings potential were exceeded with a 77 percent reduction in power consumption.

The Brose CO_2 balance is based on the international Greenhouse Gas Protocol standard. Emissions comprise:

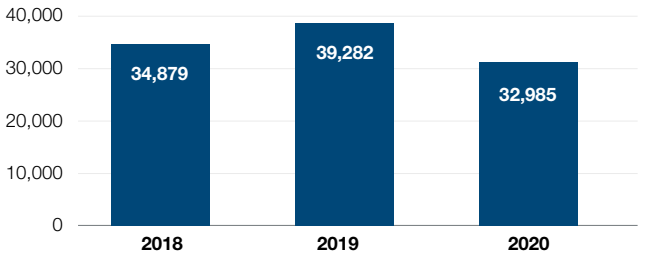
– Direct emissions from oil and gas consumption along with the Brose fleet and Brose Flugservice GmbH (Scope 1)
– Indirect emissions from generated power and district heating (Scope 2)
– All additional, indirect emissions from manufacturing and transport processes in the supply chain and other indirect emissions arising through the use of our products or waste disposal. This also includes emissions generated by business travel (Scope 3).

The CO_2 equivalent for Scope 1 and Scope 2 reporting is calculated by multiplying primarily local emissions factors with the computed fuel consumption. In certain locations we also use factors from the Intergovernmental Panel on Climate Change (IPCC) database.

The CO_2 equivalent for Scope 1 emissions from all of the Brose Group locations in the 2020 fiscal year is 32,985 t. Scope 1 emissions declined due to the coronavirus pandemic, as production was scaled down at the Brose locations and business travel decreased. The CO_2 equivalent for Scope 2 emissions in 2020 was 116,442 t.

Scope 1 emissions

in tons of CO_2 equivalent



Scope 1 emissions*

in tons of CO_2 equivalent by country

	2018		2019		2020	
	t CO_2	%	t CO_2	%	t CO_2	%
Germany	19,115	54.8	19,990	50.9	17,072	51.8
USA	3,546	10.2	5,041	12.8	4,535	13.7
Czech Republic	4,224	12.1	4,189	10.7	3,588	10.9
Canada	1,462	4.2	2,495	6.4	2,046	6.2
Mexico	1,353	3.9	2,417	6.2	1,844	5.6
Great Britain	2,138	6.1	2,411	6.1	1,847	5.6
Rest	3,041	8.7	2,739	7.0	2,054	6.2
Total	**34,879**	**100**	**39,282**	**100**	**32,985**	**100**

*Different totals are due to rounding.

Emissions from generating purchased energy

We include local emissions factors in our calculations of emissions from purchased energy. The total amount of Scope 2 emissions in the Brose Group broken down by percentage is 26 percent for the locations in North and Central America, 33 percent for our Asian locations and 41 percent for Europe, Brazil and South Africa.
Indirect greenhouse gas emissions declined at the majority of our locations due to the coronavirus pandemic. In absolute terms, we nevertheless see an increase in Scope 2 emissions during the reporting period, which is attributable to the switch from renewable to fossil fuels in the Czech Republic.

Scope 2 emissions*

in tons of CO_2 equivalent by country

	2018		2019		2020	
	t CO_2	%	t CO_2	%	t CO_2	%
China	38,530	44.3	37,772	41.4	35,687	31.5
USA	12,405	14.2	15,707	17.2	15,242	13.4
Mexico	12,528	14.4	14,466	15.9	12,082	10.7
Germany	14,902	17.1	12,187	13.4	8,602	7.6
Canada	1,290	1.5	2,664	2.9	2,227	2.0
Great Britain	2,932	3.4	2,521	2.8	1,763	1.6
Slovakia	967	1.1	1,216	1.3	1,558	1.4
India	901	1.0	1,002	1.1	1,222	1.1
Czech Republic	0	0	0	0	32,217	28.4
Rest	2,614	3.0	3,721	4.1	2,597	2.3
Total	**87,069**	**100**	**91,256**	**100**	**113,197**	**100**

*Different totals are due to rounding.

Emissions from the downstream value chain

The CO_2 equivalent for all Scope 3 emissions from the Brose Group locations in the 2020 fiscal year is 8,264,580 t. Most of our Scope 3 emissions are associated with the use of our products in our customers' finished products. We consider the following factors when determining these Scope 3 emissions: useful life, drive type and part weight.

Scope 3 emissions*

in tons of CO_2 equivalent by category

	2018		2019		2020	
	t CO_2	%	t CO_2	%	t CO_2	%
Use of sold products	8,086,884	78.6	7,386,672	79.1	6,541,994	79.2
Purchased goods and services (direct)	1,652,898	16.1	1,428,831	15.3	1,299,771	15.7
Processing of sold products	210,795	2.0	206,550	2.2	179,100	2.2
Capital goods	103,298	1.0	103,370	1.1	96,013	1.2
Upstream transport and distribution	69,513	0.7	66,168	0.7	58,659	0.7
Employee commuting	57,107	0.6	59,536	0.6	28,345	0.3
Purchased goods and services (indirect)	38,120	0.4	32,043	0.3	25,011	0.3
Business travel	34,512	0.3	28,183	0.3	11,402	0.1
Downstream transport and distribution	22,769	0.2	22,644	0.2	17,593	0.2
End-of-life treatment of sold products	8,538	0.1	6,119	0.1	5,671	0.1
Waste generated in operations	1,379	0	1,264	0	1,021	0
Total	**10,285,814**	**100**	**9,341,380**	**100**	**8,264,580**	**100**

*Different totals are due to rounding.

Determining the intensity of GHG emissions

The intensity of greenhouse gas emissions (GHG) in the Brose Group is reported annually in the Carbon Disclosure Project. Three different quotients are provided. Relative GHG emissions rose during the year under review due to relatively low sales during the coronavirus pandemic and the rise in absolute Scope 2 emissions resulting from the switch to fossil fuels in the Czech Republic.

Intensity quotient of GHG emissions

in tons of CO_2 equivalent and percent by category

	2018		2019		2020	
	Value	Change vs. previous year	Value	Change vs. previous year	Value	Change vs. previous year
t CO_2 / million euros in sales	17.7	-16.6%	21.1	+10.8%	28.5	+35.3
t CO_2 / employee	4.3	-16.5%	4.9	+8.8%	5.7	+16.4
t CO_2 / MWh	0.3	-20.0%	0.3	+2.5%	0.4	+24.1

Material and resource efficiency

The Brose Group is aware of its responsibility for our earth's limited resources. We are working on this topic in many different areas of the business in order to identify and achieve potential related to more efficient use of resources. Our goal is to manufacture products that are free from hazardous substances to protect our consumers' health. When selecting materials, we consider compliance with legal and customer-specific guidelines. We actively follow up on these efforts in working groups.

We are installing an additive manufacturing system, e.g. for our electric air conditioning compressor housing, for the tool-free, material-efficient production of metal components. The first components for initial equipment of production vehicles are slated for production in 2021. Additive manufacturing processes augment conventional processes in meaningful niche applications and special variants. Compared to conventional manufacturing methods, material expenditure decreases of up to 90 percent can be achieved provided the product is designed with additive manufacturing guidelines in mind. The elimination of tools saves materials, money and time. This enables the production of vehicle components that are more efficient both in terms of materials and costs than their traditional counterparts. Additive manufacturing saves us around 20 percent more CO_2 compared to conventional production for the assumed scenario with four customers and 500 housings each per year. We use the cradle-to-gate method as the basis for the analysis.

Moreover, Brose managed to release resource-conserving polymer materials and lightweight materials that we assessed using testing in our own Technical Center in Coburg for production during the year under review. During testing we collected data on mechanical performance, processing properties, odors and emissions values in production, among other parameters.

Use of materials for products

in tons, by material	2018		2019		2020	
	Absolute	%	Absolute	%	Absolute	%
Steel	399,055	72.6	380,742	75.3	324,617	74.4
Filled/reinforced plastics	86,177	15.7	67,942	13.4	63,746	14.6
Copper/copper alloys	13,937	2.5	14,492	2.9	9,017	2.0
Plastic	21,399	3.9	14,688	2.9	14,704	3.4
Aluminum/aluminum alloys	13,813	2.5	15,648	3.1	14,744	3.4
Other metals	10,645	1.9	9,853	2.0	6,796	1.5
Elastomers	3,352	0.6	766	0.2	1,177	0.3
Magnesium/magnesium alloys	569	0.1	360	0.1	727	0.2
Zinc/zinc alloys	540	0.1	698	0.1	691	0.2
Other	443	0.1	81	0.0	0	0
Total	**549,930**	**100**	**505,271**	**100**	**436,220**	**100**

Use of secondary raw materials

in tons, by material	2018		2019		2020	
	Use of materials	Share of secondary raw materials	Use of materials	Share of secondary raw materials	Use of materials	Share of secondary raw materials
Steel	399,055	175,584	380,742	188,030	324,617	142,832
Plastic	107,576	32,273	83,396	2,919	78,450	23,535
Aluminum	13,813	8,258	15,648	9,389	14,744	8,846
Copper	13,937	5,993	14,492	6,231	9,017	3,877
Total	**534,381**	**222,108**	**494,278**	**136,569**	**436,828**	**179,090**

Waste treatment and prevention

In general, we try to avoid generating waste whenever possible, which is why we use returnable packaging for shipments. However, since it is not possible to stop waste from being generated entirely, we separate it by type in our locations to ensure effective disposal and recycling. The waste generated in our locations comprises: scrap for recycling, household or commercial refuse, metal waste and special waste.

Amount of waste types

in tons by regions

2018	Scrap for recycling/ energy recovery	Household/ commercial refuse	Metal waste (scrap)	Special waste	Total
Asia	3,619	755	1,082	36	5492
North America	6,140	905	3,355	392	10,792
Europe	8,183	1,930	13,803	2,077	25,993
Latin America	977	45	107	31	1,160
Africa	377	16	6	0	399
Total	**19,296**	**3,651**	**18,353**	**2,536**	**43,836**
2019					
Asia	2,135	492	1,053	53	3,733
North America	6,524	1,420	4,009	463	12,416
Europe	6,649	1,593	12,028	1,889	22,159
Latin America	842	36	118	30	1,026
Africa	258	9	8	0	275
Total	**16,408**	**3,550**	**17,216**	**2,435**	**39,609**
Change vs. previous year	-15.0%	-2.8%	-6.2%	-4.0%	-9.6%
2020					
Asia	1,491	440	593	164	2,688
North America	6,058	811	2,984	287	10,140
Europe	5,553	1,327	9,919	1,652	18,451
Latin America	558	31	49	27	665
Africa	207	18	49	0	274
Total	**13,867**	**2,627**	**13,594**	**2,130**	**32,218**
Change vs. previous year	-15.5%	-26.0%	-21.0%	-12.6%	-18.7%

Documenting waste paths helps ensure that waste is transported away and recycled or disposed of in accordance with legal requirements. When selecting disposal companies we consider legal requirements, existing permits and completed service provider audits to ensure the various types of waste are disposed of in a professional manner. Waste is almost exclusively sent to local disposal specialists. Waste is never transported across borders and residual materials are never exported.

Documented waste paths

in percent by region

	2018			2019			2020		
	Seamless documentation for every type of waste	Documentation available but with minor flaws	Documentation leaves room for improvement	Seamless documentation for every type of waste	Documentation available but with minor flaws	Documentation leaves room for improvement	Seamless documentation for every type of waste	Documentation available but with minor flaws	Documentation leaves room for improvement
Asia	90.9	9.1	0	91.7	8.3	0	100	0	0
North America	80.0	20.0	0	81.8	9.1	9.1	72.7	18.2	9.1
Europe	100	0	0	95.8	0	4.2	87.5	12.5	0
Latin America	66.7	33.3	0	66.7	33.3	0	66.7	33.3	0
Africa	100	0	0	100	0	0	100	0	0
total	**92.0**	**8.0**	**0.0**	**90.4**	**5.8**	**3.8**	**86.5**	**11.5**	**2.0**

All disposal companies hired must meet the legal and technical requirements for transporting, recycling or disposing of waste and have the necessary permits. We also assess the reliability of our disposal specialists each year. As in previous years, most (86.5 percent) of our disposal companies were rated as exemplary. We have not determined any violations against legal requirements among any of the disposal companies. We expect 8 percent of the disposal companies to implement improvement measures, particularly with respect to documentation.

During the reporting period Brose acquired a developed property with around 12,000 m^2, where it plans on building a logistics center within the next two years. Brose has already torn down the existing buildings, which included a beverage wholesale and an apartment complex with large areas of commercial space. Both the demolition of the concrete and the asphalt surface of 3,000 m^2 could be used as recycling material for other building projects.

Transport and logistics

One of the most important approaches we take to reducing energy consumption and CO_2 emissions is the continuous improvement of our logistics processes. This is why we initiated Brose Transport Management (BTM) based on the "SAP TM" system in Europe in early 2018. It enables us to manage, structure and optimize our entire European road transport network ourselves. During the 2020 reporting year we bundled 71.1 percent of our freight volume into full loads. In addition, we launched a project to implement BTM in North America.

Despite the effects of the coronavirus pandemic and the resulting decrease in call-off orders, bundled transports only declined by 2.3 percent from 2019 to 2020 thanks to Transport Management. A study was completed on the installation of a crossdock in Eastern Europe to bundle even more volume.

We have supplied 14 European Brose locations along with our European overseas consolidation center with material from 17 Southeastern European suppliers via a new crossdock in Bratislava. Each week over 500 full unit loads and over 300 empty unit loads are transshipped and bundled into direct truck transports. This has helped us increase transport capacity utilization and cut costs by 37.6 percent.

Moreover, we worked with one of our freight forwarding service providers during the reporting year to save close to 70 t of CO_2 compared to the previous year. We achieved this by transporting 123 full truckloads in Northern Europe and North Africa using a combination of trucks, trains and ferries.

Water and effluents

Total water consumption at Brose during the 2020 fiscal year fell slightly from 746,154 m^3 in 2019 to 745,270 m^3 in 2019. Water consumption per employee and workday is approximately 134 liters. We source our water from well water (32.0 percent) and municipal potable water (68,0 percent). We use fresh water to cool production processes, as process water in surface technology, to apply cooling lubricants in washing systems, to water green spaces, in the canteen and in break rooms and for cleaning buildings.

Total water consumption

in cubic meters by source and region

	2018			2019			2020		
	Well water	Fresh water	Total	Well water	Fresh water	Total	Well water	Fresh water	Total
Asia	4,485	111,739	116,224	3,817	121,281	125,098	6,031	115,960	121,991
North America	8,300	122,900	131,200	4,139	149,275	153,414	4,203	176,214	180,417
Europe	287,906	281,443	569,349	198,760	254,066	452,826	225,993	203,960	429,953
Latin America	0	9,303	9,303	0	8,267	8,267	0	6,538	6,538
Africa	0	6,536	6,536	0	6,549	6,549	0	6,371	6,371
Total	**300,691**	**531,921**	**832,612**	**206,716**	**539,438**	**746,154**	**236,227**	**509,043**	**745,270**

We want to continue keep our demand for water low with a consistent water management system. Our focus lies on water with high purity levels and processes that result in effluents with high levels of pollution. This is why we introduced a system in 2016 that enables us to measure and evaluate our water consumption along with steps for reducing it. This system is designed to uncover the reduction potential of our "water footprint" and visualize this information in the "Water Saving Actions" report.

An important result of the analysis is the savings potential in surface technology, because this is where most of the water is used. It has a 98 percent share of our process water requirement, which corresponds to 18 percent of all fresh water needed. This is why we are developing a new waste water concept for the surface coating system: evaporators keep water circulating inside the system. This more energy-intensive process has ecological advantages in regions with less water and in areas with unsuitable public drainage systems.

The WWF "Water Risk Filter" was used to determine the locations in areas with "Water Stress". We introduced an in-house weighting system for reducing fresh water and effluents. It considers the availability of fresh water in the region, the effluent contaminant load and the infrastructure required for wastewater treatment.

Resource-conserving systems at our locations

In general, when procuring new systems we focus on decreasing water demand and contaminant load in wastewater while ensuring ground water and soil remain protected. This is accomplished by identifying systems that play a key role in water conservation early on in the procurement phase. Specialists define all of the system relevant requirements for manufacturers to take into account. Regular inspection and maintenance work ensure safe operation of systems that process substances that could contaminate water.

One example of our efforts in this area is the dramatic reduction of the specific water consumption of our nine-zone system for cathodic dip painting, specifically due to recirculation, cascades, bath maintenance measures and process control. The latest-generation systems consume 5.6 liters per square meter of painted surface. The effluents we treat in our own plants are emptied into the public sanitary sewers.

Paint finishing systems require sterile water with low conductivity, which is why we desalinate fresh water using reverse osmosis. The saliferous water is led in through the sewer. Since the Querétaro-Aeropuerto (Mexico) plant is located in an arid region, the saliferous concentrate from the reverse osmosis system is mixed together with rain water in a collecting tank and then used to water green spaces. This allows us to reduce the plant's fresh water requirements by 40 m³ daily.

At the Taicang (China) plant we commissioned a wastewater-free surface coating system during the third quarter of 2020. The project slashes the system's fresh water requirement by around 75 percent and was thus the largest water savings project carried out during the reporting year. It marks a major change in process control and to date no other reference systems exist with this scope. Beyond that, this system's new wastewater concept is aimed at reducing the amount of chemicals used in process baths. We work with specialist companies to dispose of the concentrate that accumulates in the vacuum evaporator as liquid waste. Right now 10 percent of process water is waste. We want to reduce this figure to 5 percent in the future. If the process proves effective, it will be written into standard specifications for surface coating systems.

Specific water removal

Brose uses a variety of sources for its daily water needs. Sanitary and social facilities required more than 75 percent of fresh water, 13 percent are needed as process water for surface technology. We use 11 percent of fresh water for irrigation and the remaining 1 percent for cleaning and washing processes. Well water is used almost exclusively for cooling purposes in our German locations; it is led back to the ground water via drainage shafts wherever possible.

Water discipline measures implemented

by region

	2018	2019	2020
Asia	7	7	9
North America	3	5	0
Europe	1	6	7
Latin America	1	1	2
Africa	1	1	2
Total	**13**	**20**	**20**

Effluent discharge systems and water quality

The Brose Group generated 617,404 m^3 of effluents in 2020. Due to the high water quality we lead part of this back into the storm water sewer either directly or following treatment. More than anywhere else, this is possible in our European locations. The ground water the Hallstadt location takes for cooling purposes is used in separate cycles and monitored systems and can be reintroduced via drainage shafts after use. Effluents from paint finishing systems are treated in a batch plant prior to being led into the sanitary sewer. A chemical process is used to remove heavy metals, oils and lubricants.

We are increasing our use of sand traps and gasoline traps to irrigate our parking areas. To ensure smooth operation of these systems, we inspect them according to the same criteria in all of our locations. The remaining water that is not led away via storm water sewers or ground water is disposed of via the public sanitary sewer system. These systems are subject to effluent regulations in the respective municipalities.

We strive to keep the level of effluents our locations produce to a minimum. Our objective is to either reduce the amount of water used by one of the main consumers by 20 percent or more in at least one location per region by the end of 2021, to replace fresh water with rain water and recycling water or to reuse wastewater that originally went into the sewage system in downstream processes or return it directly to surface water. And our plants have introduced a range of methods of avoiding waste water.

Effluent discharge rates

in cubic meters, by disposal type and region

2018	Storm water sewer	Public sanitary sewer	Ground water	Total
Asia	1,622	107,335	0	108,957
North America	2,989	66,658	0	69,647
Europe	239,031	188,597	169,529	597,157
Latin America	0	9,025	0	9,025
Africa	0	0	0	0
Total	**243,642**	**371,615**	**169,529**	**784,786**
2019				
Asia	1,373	75,069	0	76,442
North America	14,565	85,027	0	99,592
Europe	206,799	165,859	80,190	452,848
Latin America	0	8,944	0	8,944
Africa	0	2,124	0	2,124
Total	**222,737**	**337,023**	**80,190**	**639,950**
2020				
Asia	0	61,308	0	61,308
North America	20,849	74,025	0	94,874
Europe	226,354	135,644	90,668	452,666
Latin America	0	6,432	0	6,432
Africa	0	2,124	0	2,124
Total	**247,203**	**279,533**	**90,668**	**617,404**

Biodiversity

Biodiversity – the science of varied lifeforms – governs the protection of ecosystems on land and in the water. The progressive fragmentation and destruction of natural habitats is considered to be one of the greatest dangers to the biological diversity of our planet. Biodiversity is also viewed as one of the most valuable foundations of human welfare.

Scientists see negative influencing variables on biodiversity among other things in soil sealing, climate change, in increased concentrations of CO_2 in the atmosphere and in high levels of nitrogen in our waters. The latter is not only caused by over-fertilization, but also by vehicle emissions.

As a globally operating company, it is important to us to have a positive impact on these influencing variables. For Brose the primary course of action is not only to achieve lower CO_2 emissions in our locations, but also to reduce the weight of our products. After all, if vehicles weigh less, then CO_2 and other harmful emissions may also decline during the life cycle in which our products are integrated.

In addition, our company has participated in a reforestation project in China for several years to combat desertification in Inner Mongolia. In 2020 we donated 6,000 shrubs to the “Million Tree Project” sponsored by the “Shanghai Roots & Shoots” foundation. We have also financed the planting of a total of 43,500 shrubs and 4,000 trees over the past five years. All of these efforts underscore Brose’s commitment to environmental protection in China.

Employees and society

We owe the market success and business performance of the Brose Group to the ingenuity, innovative capacity and technical expertise of our staff. As a self-reliant family-owned company with more than 100 years of history behind it, our actions are characterized by continuity and independence. The long-term, sustainable orientation of our shareholders is also reflected in our people and value-centric corporate culture and in our HR work. This is expressed in the shareholder families' willingness to put the welfare of the company and its employees ahead of their own personal interests.

Qualification and development, working environment and social benefits paired with forward-thinking HR concepts help us deploy employees where they are needed while giving them what they need to grow, enhance their loyalty to the company and establish Brose as an attractive employer worldwide.

Restructuring HR activities
We are restructuring HR activities as part of our Future Brose renewal program. This includes both the global organizational structure and the type of services performed.

An interim HR organization is currently completing the groundwork necessary to establish a new structure by the end of 2022. It comprises HR Services, the group functions and the business partners.

HR Services frequently performs recurring tasks and will be supported by the new myHR system. Brose will expand myHR in stages until late 2022, when it reaches peak performance. Its objective is to simplify, optimize and standardize core tasks such as contract management and billing along with training and recruiting processes.

Employees in the group functions are concerned with the development of and compliance with global HR standards and guidelines. The business partners advise managers on HR issues and in their role as supervisors. They push ahead by systematically developing new talent and implementing global HR standards.

Workforce and working conditions

Brose is also an innovative employer. The progressive personnel concepts at our family-owned company have received many awards and regularly rank highly in external employer surveys. Brose has been named one of the top 100 employers in Germany by students and graduates for years.

In 2020 our corporate group received domestic and international employer awards. Brose took second place in the 2020 *Focus Magazine* Survey of Top Automotive Employers in Germany. German magazine *"Stern"* ranked our company among the best 500 employers in Germany (automotive sector: 30th, overall ranking 476th) in the very first survey of this kind it has ever published.

Financial magazine *"Focus Business"* and the employer review platform kununu ranked Brose second in the Automotive category and 17th in the overall rankings of industrial companies from 36 different sectors. Our company was ranked second among 32 vehicle manufacturers and suppliers as a "Top Employer for IT Jobs" in a survey conducted by German technology magazine *"Chip"*. Brose came in first in the Automotive/Vehicle category in the BEST RECRUITERS 2019/20 survey.

On the international stage, the Mexican plant Querétaro El Marqués received the title "Best Company 2020" and was ranked 40th among a total of 336 companies studied nationwide in a survey published by financial magazine *"Expansion"*. Alongside all of these accolades, the US research team Talent Board certified that Brose North America offers an outstanding candidate experience, landing us our first award with a ranking of 29th out of a total of 123 North American companies.

Leadership culture guidelines

Brose is committed to ensuring its managers set the best possible example. Brose defined seven guiding principles to underscore its focus on entrepreneurship in its leadership culture. These principles outline the common understanding of leadership in the Brose Group.

In concrete terms, they refer to team spirit and openness, the desire to improve, strengthening entrepreneurial activities, challenging and fostering employees, a sharper customer focus, simpler and thus faster decision-making paths and showing humility in success. The guidelines stand for personal attributes and are assigned to corresponding working methods. This enables supervisors to give performance appraisals.

To emphasize the spirit of entrepreneurship, Brose incorporated the leadership principles in the personal assessment for supervisors when the new assessment period began on 1 April 2020. This will ensure a common understanding of leadership throughout the corporate group and provide employees with orientation.

Employees

By employment contract

	2018	2019	2020
Permanent employment contracts	19,561	20,504	20,160
Fixed-term employment contracts	3,714	3,167	3,270
Temporary workers	2,870	2,348	2,375

Employees

by group (excluding temporary workers)

	2018			2019			2020		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Salaried employees	6,767	2,564	9,331	6,976	2,623	9,599	6,941	2,581	9,522
Indirect cost laborers	3,305	471	3,776	3,426	479	3,905	3,379	470	3,849
Direct labor	6,027	3,719	9,746	6,043	3,676	9,719	5,985	3,634	9,619
Apprentices	350	72	422	375	73	448	375	65	440
Total	**16,449**	**6,826**	**23,275**	**16,820**	**6,851**	**23,671**	**16,680**	**6,750**	**23,430**

Employees

by region (excluding temporary workers)

	2018			2019			2020		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Germany	6,521	1,875	8,396	6,558	1,885	8,443	6,336	1,773	8,109
Europe (excluding Germany)	3,424	2,397	5,821	3,725	2,317	6,042	3,945	2,384	6,329
Asia*	2,704	770	3,474						
China				2,300	690	2,990	2,334	659	2,993
East Asia				150	66	216	156	67	223
North America	3,469	1,678	5,145	3,769	1,780	5,549	3,632	1,767	5,399
South America	331	108	439	318	113	431	277	100	377
Total	**16,449**	**6,826**	**23,275**	**16,820**	**6,851**	**23,671**	**16,680**	**6,750**	**23,430**

* Reported separately for China and East Asia starting in 2019

New entries*

by age group

	2018		2019		2020	
	Absolute	Share of designated workforce groups in %	Absolute	Share of designated workforce groups in %	Absolute	Share of designated workforce groups in %
under 20	222	62.2	250	59.4	227	51.4
20-29	1,484	26.9	1,214	23.0	922	19.2
30-39	1,087	18.8	769	9.6	581	7.3
40-49	441	8.6	312	6.2	335	6.5
50-59	160	4.3	118	3.1	85	2.2
from 60	11	1.5	11	1.4	9	1.0
Total	**3,405**	**14.6**	**2,674**	**11.5**	**2,159**	**9.4**

New entries*

by gender

	2018		2019		2020	
	Absolute	Share of designated workforce groups in %	Absolute	Share of designated workforce groups in %	Absolute	Share of designated workforce groups in %
Male	2,354	14.3	1,925	11.6	1,476	9.0
Female	1,051	15.4	749	11.2	683	10.3
Total	**3,405**	**14.6**	**2,674**	**11.5**	**2,159**	**9.4**

New entries*

by region

	2018		2019		2020	
	Absolute	Share of designated workforce groups in %	Absolute	Share of designated workforce groups in %	Absolute	Share of designated workforce groups in %
Germany	693	8.3	486	5.8	205	2.5
Europe (excluding Germany)	874	15.0	742	12.9	981	16.2
Asia**	541	15.6				
China			270	9.5	231	8.1
East Asia			33	15.3	22	9.9
North America	1,219	23.7	1,073	19.3	686	12.7
South America	78	17.8	70	16.2	34	9.0
Total	**3,405**	**14.6**	**2,674**	**11.5**	**2,159**	**9.4**

* All of the figures on entries and exits are excluding joint ventures
** Reported separately for China and East Asia starting in 2019

Exits*

by age group

	2018		2019		2020	
	Absolute	Share of designated workforce groups in %	Absolute	Share of designated workforce groups in %	Absolute	Share of designated workforce groups in %
under 20	22	6.6	67	15.9	64	14.5
20-29	990	18.4	1,069	20.3	1,027	21.4
30-39	868	11.7	962	12.1	935	11.7
40-49	447	9.1	480	9.5	474	9.2
50-59	193	5.5	255	6.0	231	6.1
from 60	122	18.0	200	25.5	189	22.0
Total	**2,642**	**11.9**	**3,003**	**12.9**	**2,920**	**12.7**

Exits*

by gender

	2018		2019		2020	
	Absolute	Share of designated workforce groups in %	Absolute	Share of designated workforce groups in %	Absolute	Share of designated workforce groups in %
Male	1,756	11.2	2,046	12.4	1,955	11.9
Female	886	13.5	957	14.3	965	14.6
Total	**2,642**	**11.9**	**3,003**	**12.9**	**2,920**	**12.7**

Exits*

By region

	2018		2019		2020	
	Absolute	Share of designated workforce groups in %	Absolute	Share of designated workforce groups in %	Absolute	Share of designated workforce groups in %
Germany	296	3.6	421	5.0	395	4.9
Europe (excluding Germany)	923	16.6	899	15.6	992	16.3
Asia**	439	13.8				
China			371	13.1	292	10.3
East Asia			24	11.1	13	5.8
North America	917	19.0	1,183	21.3	1,137	21.1
South America	67	15.7	105	24.4	91	24.1
Total	**2,642**	**11.9**	**3,003**	**12.9**	**2,920**	**12.7**

* All of the figures on entries and exits are excluding joint ventures
** Reported separately for China and East Asia starting in 2019

Performance, compensation and fair wages

All of the companies of the Brose Group offer our employees compensation and additional benefits regardless of employees' gender, religious denomination, heritage, age, disability, sexual orientation or country-specific characteristics. Our compensation policy is based on the market value of the respective job evaluation, which is determined based on the Hay system, and the individual performance of the person who holds the position.

Each year comparison studies are conducted with the help of an independent, external service provider to define a country's market level and to determine appropriate and fair basic wages and overall compensation packages. All employees receive compensation packages that are competitive in the relevant markets in which they work.

During the reporting year Brose informed the over 1,000 senior managers in the corporate group that the remuneration system would change for them starting in January 2021. Until then there were different rules for senior management compensation. This resulted in inefficient processes and a lack of transparency.

Now that the components of remuneration have been harmonized, there is a foundation on which to build a unified remuneration system that aligns with the industry standard. Consistently linking the profit-sharing bonus to the overall results for the group strengthens entrepreneurship. The globally harmonized profit-sharing bonus fosters interdisciplinary collaboration and cooperation for the success of the company. Incorporating personal objectives also emphasizes personal engagement.

The company's financial situation and the employee's individual performance are used for changes in wages. At Brose we use the annual objective agreement and appraisal meetings for this purpose. Supervisors evaluate their employees based on their performance and share confidential feedback with them. Nearly 9,200 employees and managers primarily from development and commercial administration worldwide participate in the objective agreement and performance appraisal process. In 2020 about 74 percent of participants were male and 26 percent female. Supervisors arrange clear, unique, manageable and motivating assignments and achievable results with their employees.

As a family-owned company, we are keenly aware of our responsibility towards our employees. This is why we inform our employees of changes within the company as quickly as possible and proactively help them qualify for new assignments within the Brose Group or when changing jobs.

We value having a thriving internal labor market. Its importance has only grown in light of the implementation of Future Brose during the year under review. After all, the renewal program will streamline central and business divisions and reduce headcounts in high-wage locations in Western Europe, North America and China.

At the same time, Brose is investing in new technologies and business segments and creating new jobs, primarily in countries with lower wage costs. The internal labor market offers attractive career opportunities to employees who are seeking new challenges, wish to further develop their careers or are interested in changing jobs. This is why we have optimized existing workflows in the internal labor market and consolidated global job openings on a new online platform on the intranet. By the end of 2020 the internal labor market platform on the intranet had around 91,700 views of job postings by employees interested in vacancies. The HR departments processed around 2,000 internal applications and over 550 employees have taken on a new, future-oriented assignment. The internal labor market thus encourages an open culture of change and boosts long-term employee retention.

Attractive benefits and rewards

Brose also relies on an attractive package of voluntary benefits tailored to the needs of its locations to strengthen its employer brand. In addition to health management, employee consultations during difficult times in their careers or stressful situations in their personal lives and family-friendly amenities, it also encompasses services such as catering, company sports activities, a company-private pension plan and discounts on sports and leisure apparel in the Brose Shop.

Brose offers an e-bike leasing campaign for employees at its German locations featuring the slogan "Keep fit, protect the environment and save money". We work with a leasing partner to provide the bikes to our employees free of VAT. They also save taxes because the lease payment is deducted from their gross pay. This also applies to car leasing options offered to employees by the company.

Equal pay for equal work

With respect to gross annual income, the income ratio of

women to men across all employee groups is more than 90 percent. Differences can be found in personal paths through life and development, which all have an impact on wages earned. The three main locations in Coburg, Bamberg and Würzburg with a total of over 6,900 employees were used to calculate the income ratio. Only core staff members are counted here. At these locations, which account for around 27 percent of our employees, collective agreements are either directly applicable or continue to have an effect. [GRI 102-41]

Social benefits in focus

Brose is always reviewing its range of voluntary social benefits. We place special focus on aspects pertaining to family friendliness. An audit performed by "berufundfamilie" provides valuable insight on how we can further develop the programs we offer in this area. We have performed regular recertifications with this partner since 2010 with binding objective agreements. During the reporting year we concentrated on regional networking between family members of recruited specialists and expats on foreign assignments and planning activities in the context of the restrictions brought about by the coronavirus pandemic.

We encourage a healthy work-life balance. One great example of this is the Brose Kids Club, around which our childcare program is built. It is established at the headquarters in Coburg and in Ostrava/Czech Republic, the largest production facility in the Brose Group. Around 6,000 people are employed in these two locations alone. Employee children from ages six to 14 can visit education and childcare facilities in Coburg and Ostrava. We also offer childcare for toddlers up to three years of age. Our family friendliness plays a key role in increasing employee retention and our appeal as an employer. This is why we are planning on establishing the Kids Club at the locations in Bamberg, Prievidza (Slovakia) and Pančevo (Serbia) by 2025, taking into account the circumstances specific to these locations.

The "FamilyNet" project launched at the Franconian locations by social and health management has proven itself quite effective. In addition to targeted orientation for impats (foreign workers), people returning from locations abroad and new employees, FamilyNet also offers personal support for their family members. The aim is to give them the social support they need to help them grow accustomed to their new environment. This boosts loyalty among skilled workers, because it enables their families to quickly assimilate even in foreign settings. In spite of difficult conditions due to the coronavirus pandemic, we were able to assist 14 families at the Coburg and Bamberg locations during the year under review.

Pension plan

Obligations arising from the pension plan for the Brose Group worldwide were 775 million euros (according to IFRS) as at 31 December 2020. Employer-financed pension plans in Germany are carried out by means of direct commitments, the amount of which depends on the selected pension plan and employee group. Employee contributions to company pension plans are financed from wages depending on the maximum legally permissible conversion limits. The pension plan model outside of Germany relies on a combination of employee and employer contributions as part of a deferred compensation plan featuring insurance-backed solutions.

Systematic employee development

We value employees who are willing to learn. A comprehensive range of further education and training programs helps all of our employee groups develop and grow both personally and professionally. The range includes a variety of formats such as on-site training courses, webinars and e-learning courses for extending and building product, methodological, leadership and language skills. We also have a document library featuring around 825 training manuals and guides to encourage flexible, independent study. In 2020 the number of hours booked by employees for further education and training via the Learning Cockpit was 69,000. Professional instruction in the workplace and participation in e-learning courses also help ensure professional qualification.

We prepare high-potential employees to accept major responsibilities in local, regional and global development programs as needed. These measures equip participants with the skills they need to successfully take on leadership roles at Brose. Moreover, our family-owned company offers committed employees further training opportunities throughout their careers regardless of their level of education. We also have local qualification programs, master tradesman courses and master's degree studies programs for full-time employees as supplements to these measures.

We focused the content of our range of paid classroom training courses with external trainers on the requirements associated with the Future Brose renewal program and compliance with legal requirements and mission-critical demands. The training courses were largely aimed at leadership development, change management and mandatory training measures. Brose simultaneously expanded its online training platform in light of the coronavirus pandemic and provided new webinars, video courses and e-learning modules. Consequently, the ratio of in-person seminars to online formats changed considerably. During the first quarter, the average value was 75 percent to 25 percent; this had already shifted to 46 percent to 54 percent by the fourth quarter.

Varied career paths

Our company offers employees professional and customer project manager career paths alongside the management career path. The career path concept offers equal opportunities for everyone and can be flexibly adapted depending on how people develop professionally: they can change paths at any time and achieve new career goals. Our own development programs for commercial employees and IT specialists complete the set of career building blocks.

All employees receive regular feedback on their performance to facilitate personal career growth. Feedback is provided to salaried employees – who make up around 36 percent of the entire workforce – in the scope of the annual Performance and Talent Management (PTM) process. The method used for this process is transparent for employees. There is a simplified process for skilled trades. The PTM process provides transparency about key players and high-potential employees in important positions in administration and production in the Brose Group.

Apprenticeship training: The foundation for the future

We believe that a solid career orientation is indispensable in helping high school students transition effectively into their new careers. This is why Brose targets young people early on: job shadowing, events like "Girls Day", "Girls for Technology Camp" or "Brose Bamberg Meets Technology", information sessions at schools or career fairs – our instructors and apprentices are on hand with advice and practical assistance to help facilitate career orientation.

Brose has offered apprenticeships for over 90 years – during the reporting year more than 470 apprentices and dual-track students learned a vocation. Nearly a third of these people work in our international locations in the US, Mexico, China, Brazil, Canada, France, Spain, the Czech Republic, Slovakia and Great Britain. The range of apprenticeship occupations encompasses twelve industrial/technical and commercial vocations.

To cover the high demand for qualified employees, Brose invested heavily at its Slovakian plant in Prievidza, opening a modern training workshop at the location during the reporting year. Over 80 aspiring mechatronics technicians and industrial mechanics have received training and support from four instructors here since 2019. Almost 30 of the close to 100 apprentices will be available to the plant as skilled workers starting in fall 2021. Introducing a dual vocational training program based on the German model has made Brose a pioneer in the region, giving it yet another advantage as an attractive employer.

We adjusted our apprenticeship and training portfolio during the reporting year as part of the Future Brose program to meet future business requirements. The renewal program

offers fresh talent new career opportunities at home and abroad.

For instance, we expanded our range of dual vocational training programs to include the specializations “Data Science” in the Business Information Systems degree program and “Embedded Systems” in the Electrical Engineering degree program. These qualifications will ensure our apprentices are well-equipped for the IT and electronics job market. We also realigned the content of our IT Specialist apprenticeship occupation.

Building expertise in production

We are gradually implementing HR measures as part of the “Factory 2025” project in order to strengthen the competitiveness of our plants and our appeal as an employer in production. The program focuses on leadership and employee qualification, working environment and demographic development.

This is why we established the “PTM for Workers” qualification program. The Performance and Talent Management program makes it easier for supervisors in production facilities to discover and promote specialists and managers at every stage of career development. The program helps employees obtain professional, personal and methodological qualifications. Furthermore, we are planning a pilot project for our apprentices in 2021, which will raise their awareness of environmental protection issues.

To ensure employees remain motivated and absences and employee turnover in the locations and regions remain below the market average over the long term, we will focus on new career paths for production employees along with an attractive and healthy working environment as we deploy our “Factory 2025” strategy.

Corporate diversity

Our corporate group is present on virtually every continent. Around 67 percent of our employees work in foreign locations. Together we represent over 87 countries with all of their diverse cultures and value systems. We view this diversity as an opportunity to learn something new every day. It is accompanied by globally organized collaboration that also involves our international customers and business partners. This requires openness, connected thinking and action from everyone involved.

Diversity is also reflected in how we promote and develop all of our employees– regardless of their age or gender. To increase the percentage of women in technical areas in particular, Brose has spent years supporting measures to interest women in technical career profiles early on in life.

These efforts range from career orientation initiatives for girls to internships or college or degree theses for aspiring female engineers all the way to mentoring programs that pair experienced women in management positions with young female engineers. Both men and women can participate in our international “Talent Circle” development program or our three-step career path concept, both of which can help them develop and grow into responsible technical and management positions.

Collaboration in a global team

Every workday at Brose is international when you are communicating with so many project teams in so many different languages in our locations around the world. Many employees in development, production and administration already work in a global network on a daily basis – within our company and with customers, partners and suppliers. And more and more employees go to foreign locations to work on temporary assignments.

We value employees with a strong global orientation – an asset that enables them to collaborate successfully and take effective action. The includes an understanding of other cultures and the ability to handle ambiguity and differences. We offer tailored intercultural training courses specifically for this purpose.

Efforts to this end made by Brose North America are worth highlighting. The company underlines its commitment to diversity. equal opportunity and integration through a partnership with the Center for Automotive Diversity and Inclusion (CADIA). This non-profit organization fosters the development of talent in automotive and mobility organizations to promote fair and open treatment in these companies. CADIA provides resources and training opportunities for Brose employees as part of this collaboration.

Beyond this, Brose North America set up an in-house team that implements anti-racist programs at its locations. In addition, the company made a donation to the NAACP Legal Defense and Education Fund to support the effort to eradicate racially motivated injustices.

Cases of discrimination can also be reported via the whistleblower system for international Brose companies, even anonymously if desired. Furthermore, all employees are able to talk with a trusted person of their choosing, such as a supervisor, HR Business Partner, employee representative or the responsible Compliance Representative.

We are unaware of any cases of discrimination in Germany. We also have no information or knowledge of such incidents at our foreign locations. We believe an appreciation of “otherness” is one of the keys to global business success. We explicitly document this in our company principles, in particular under the principle “Respect”.

Occupational health and safety

Corporate health management at Brose and our workplace health promotion are aimed at building and expanding employee resources and resilience. Corporate health management focuses on evaluated processes (steering committees and working groups), a guiding culture (health mission) and responsible leadership (F.I.R.S.T. principles). Our certified social and health management combines socially integrative employee and family programs with preventative and acute health management offers.

We are also recipients of the "Corporate Health Excellence Award" (EUPD Research – *Handelsblatt*) and a member of the German Demography Network (ddn). Our objective is to minimize the physical and mental stress our employees face and make them more aware of their own health with preventative and reactive health promoting activities.

Workplace health promotion is centered on employee behavior (lifestyle enhancement) as well as on a positive working environment (workplace enhancement). This takes place, for example, with

- concerted individual actions such as presentations, workshops, event days
- sustainable health programs such as Brose Check-Up, MobilCheck, hazard assessments for psychological stressors in the workplace, company integration management
- lectures and training courses
- the use of health promoters or social measures such as systemically oriented employee consultations and other offers to help resolve conflicts like mediation.

Our offer is available to all of our employees. We regularly inform them of the options available to them via multiple channels such as the myBrose App, our intranet, notices and health promoters.

Industrial medicine, physical therapy and company sports

The legal requirements governing industrial medical support for our employees focus primarily on preventative health offers that meet employee needs. Our Closed-Loop Activity Portfolio (CLAP) offers employees a cyclical program featuring prevention, acute care and rehabilitation services. From the initial diagnosis to treatment, we improve regeneration in a network comprising industrial medical care, post-care physical therapy treatment and psycho-social support, while shortening paths and preserving the work capacity of all of our employees.

We motivate our employees to take part in company sports activities on a regular basis. These offers increase levels of physical activity and encourage members of the workforce to take responsibility for their own health and well-being. The Brose company sports program is aimed equally at production workers and salaried employees. We are always expanding and enhancing our long-standing company sports program. Information on the program is available to everyone at Brose via the annual company sports calendar.

Preventing work-related accidents

Our goal is to prevent work-related accidents in production and administration. Hazard assessments are performed for all workstations and activities. The hazards that are identified are assessed using a risk matrix, based on the probability of occurrence and the extent of damages. Intolerable risks are mitigated using the appropriate protective measures. Technical precautions take precedence over organizational and personal protective measures. The efficacy of the protective measures is reviewed and ensured through regular technical tests or safety inspections.

Supervisors document work-related accidents that occur despite preventative measures and analyze them with occupational safety specialists and additional experts like the company doctors if necessary. Employees at certain locations can even report near-misses and unsafe situations themselves via the myBrose App.

Group-wide accident statistics consider accidents involving all Brose employees as well as agency workers and temporary employees. The figures do not include accidents involving employees from external companies. Accidents resulting in more than three days of lost time must be reported. The provisions set forth by the German professional societies are valid groupwide. 135 such accidents were reported groupwide during the year under review. The majority of accidents (124) took place in plant functions, four occurred in the business divisions and seven in the group functions. There were no fatal accidents in the Brose Group in 2020.

Key figures for managing incidents

The number of incidents per thousand employees (TMQ) is a yardstick for measuring the frequency with which accidents occur while the accident severity is used to determine the average number of days lost due to incidents. The number of incidents per thousand employees is determined for a rolling 12-month period. Part-time and full-time workers are

evaluated. Figures are not presented by gender, religion or ethnic group.

The number of incidents per thousand employees is 5.37 for the group as a whole. Europe exceeded the group average with a value of 8.13, while the remaining regions had a maximum of 3 incidents per thousand employees. Accident severity in the group was 22.61. North America experienced the highest severity level (42.27) and Africa and South America the lowest (0). Working conditions and preventative measures are comparable in all of the Brose Group's locations.

Ergonomics in the workplace

Brose takes safeguarding the health of its employees very seriously. We further improved ergonomics in our production workplaces around the world during the reporting year. We achieved our plant target for ergonomics in almost every plant. We are relieving the burden our employees by increasing the use of robots and automation for strenuous work. Ideally, these measures will also shorten assembly times and increase efficiency.

The Interior business division's Manufacturing Engineering worked with the Manufacturing Equipment Center in Coburg in 2019 to develop a fully automated packaging concept that will be used in future customer projects. The pilot line at the Ostrava plant was commissioned in 2020. Additional projects are in planning thanks to the positive experience and dramatic improvement in ergonomics.

We established the "ergonomic check-up" to clearly assess our global locations and their work systems. We evaluate existing and planned work systems using the traffic light method. Now only older systems have "red" workplaces with very strenuous tasks. Targeted selection of employees and job rotation help us alleviate possible negative impacts of these workplaces.

To reduce the physical forces impacting our employees right from the start, the Interior and Exterior business divisions performed measurements using a force measuring glove. This enabled us to improve and reduce excessive forces via constructional design.

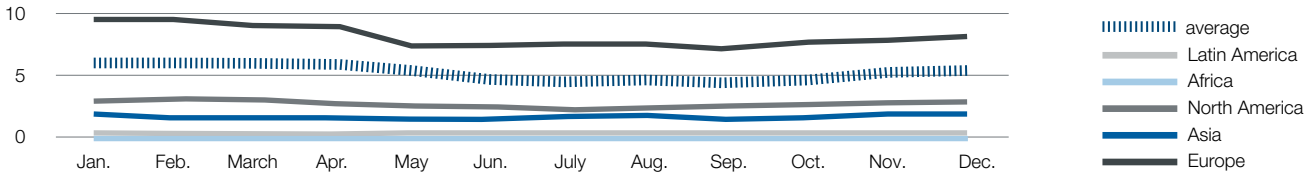
Number of work-related accidents >3 days and severity level

in days lost per number of accidents by region

	2018		2019		2020	
	Number of work-related accidents	Number of days lost per number of accidents	Number of work-related accidents	Number of days lost per number of accidents	Number of work-related accidents	Number of days lost per number of accidents
Europe	157	22	140	25	115	21
North America	26	25	20	15	15	42
Latin America	1	5	0	0	0	0
Asia	10	28	9	28	5	9
Africa	0	0	0	0	0	0
Total	**194**	**23**	**169**	**25**	**135**	**23**

Incidents per thousand employees >3 days in 2020

by region



Social commitment

We take social responsibility seriously. Our family-owned company sponsors projects in the areas of sports, education, culture and society. We cooperated with partners, initiatives and institutions in 20 countries for this purpose in 2020. Our public and social commitment play a crucial role in securing Brose's long-term competitiveness. Our shareholders believe it is important to position Brose as a promoter of social, educational and cultural projects. In view of the difficult economic situation and the negative effects of the coronavirus pandemic on our business, we adjusted the financial scope of our involvement during the reporting year. In total, we reduced our expenses by 30% compared to the budgeted amount.

Sports

Sport requires talent, a willingness to do your best, ambition, discipline, passion and team spirit. These are all characteristics that are in high demand both in our company and in the automotive sector as a whole. Our sport sponsoring efforts are directed at attracting the attention of performance-driven and athletically minded people and recruiting them as Brose employees.

For example, we have sponsored tennis pro Kevin Krawietz since he was 16. The junior Wimbledon winner has systematically worked his way up in the world rankings since 2009. His command of the court garnered him a sensational achievement in 2020: the Coburg native and his doubles partner Andreas Mies successfully defended their title at the French Open. Krawietz and Mies are only the fourth men's doubles team since 1968 to successfully defend their title in Paris.

Our involvement in basketball aligns with the philosophy of Brose: basketball is a fascinating sport characterized by very dynamic moves, perfect timing and precise plays. Our support for the clubs in Bamberg, Bayreuth, Würzburg and Coburg has helped make Franconia a bastion of professional basketball in Germany.

We are also involved in motorsport and sponsor rally pros like Dominik and Patrik Dinkel along with former Formula-1 pilot Tiago Monteiro. Brose-backed racing driver and brand ambassador Christian Engelhart delivered outstanding performance throughout the year. He and his teammate Michael Ammermüller left the competition behind, coming in first in three of 14 races. They took home the championship title of the GT Masters 2020 in their very first season together.

Education

Education is an important prerequisite on the path to personal success, whether at work or in one's personal life. It drives all forms of societal and technological progress. As a globally operating, family-owned company, systematically fostering young peoples' careers is an integral part of the Brose identity.

Every year the Scientific Alliance of Polymer Technology (WAK) presents its award for forward-thinking Master's or Doctor's theses in its field of expertise. With its involvement in WAK, Brose helps cement relationships with current and future specialists in the field. Due to our business interest in polymer research we have also sponsored two of the WAK awards since 2007. The thesis awards are presented every October. In 2020 Brose awarded a Master's thesis by a graduate of the University of Erlangen-Nürnberg (Plastics Engineering Department) a 3,500 euro cash prize and a dissertation by a graduate with a doctorate in engineering from the Dresden University of Technology (Institute Of Lightweight Engineering and Polymer Technology) a 5,000 euro cash prize.

We also supported education for young people in China. Brose has partnered with the organization "Gesanghua Education's Aid" since 2016. The "Brose Class" was established at Qinghai Huangnan No. 2 National Middle School as part of this collaboration to assist students affected by poverty and help them finish their schooling. Brose offered scholarships to finance the education of 30 boys and girls in the class. This gives these youngsters the opportunity to receive an education along with prospects for a bright future.

Social responsibility

As a family-owned company, it is important to Brose to help people who face difficult situations. We make a conscious effort to concentrate our social commitment on the regions surrounding our locations, where our proximity gives us keen insight into the unique local needs and challenges.

Our company helped protect the public's health during the coronavirus pandemic. In Pančevo (Serbia) Brose donated medical devices to the Public Health Institute to perform PCR tests. The institute analyzes samples from the entire South Banat region with around 300,000 inhabitants. The donation doubled their testing capacity. In the municipality of Anting in China we cooperated with the Health Ministry to provide medical equipment such as thermometers, sanitizers and PPE.

Culture

Whether music, painting, literature, architecture or other forms of creative expression: culture moves and connects people across all borders. It creates and strengthens core values such as tolerance and humanity. Alongside talent and skill, it demands from artists extraordinary passion, ambition and dedication. All of these traits and motivating factors can also be found in the Brose canon of values. This is why we have been involved in international cultural sponsoring for many years. At the same time, supporting local projects helps increase the appeal of the regions surrounding our locations.

Brose has supported the Bamberg Symphony since 2005. Its members travel the world as Germany's cultural ambassadors. We are passionate about introducing young people to classical music, for example by enabling them to attend symphony concerts at discounted rates. 336 young conductors from 54 countries took part in the Bamberg Symphony's "Mahler Competition 2020", one of the world's foremost events for talented young conductors.

Investments in the community

in thousands of euros by division

	2018	2019	2020
Sports	17,401	7,608	5,859
Education	502	415	275
Culture	315	222	207
Social responsibility	207	265	245
Total	**18,426**	**8,510**	**6,586**

Annex

This report was prepared in line with the GRI Standards: 'Core' option. To carry out the GRI Materiality Disclosures service, the German version of the "Brose Sustainability Report 2020" was available to the Global Reporting Initiative (GRI). The GRI Services Team confirmed the correct positioning of the 'Materiality Disclosures' [GRI 102-40 bis GRI 102-49] in the report.

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