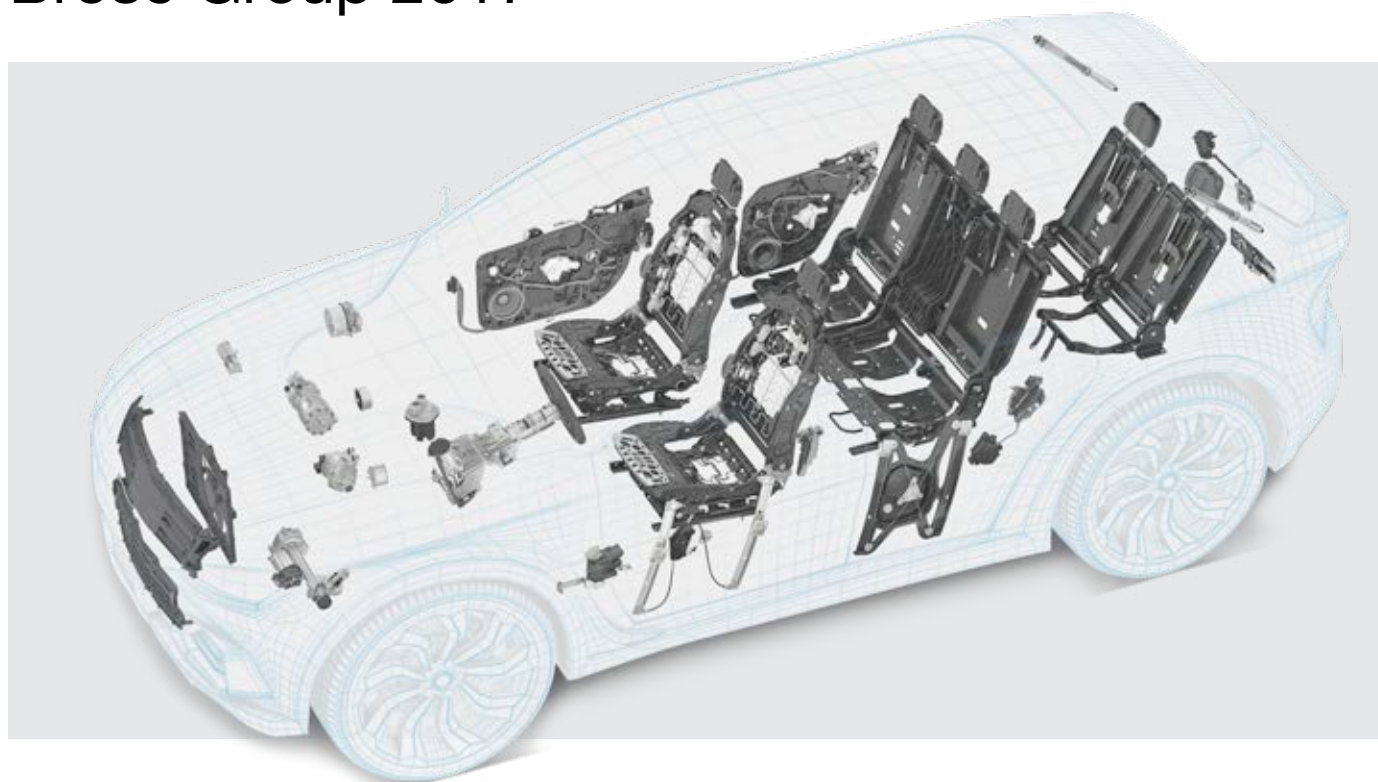


# Sustainability Report Brose Group 2017





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# Notes on this report

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This Brose Group Sustainability Report outlines the reporting period from 1 January to 31 December 2016 and – where permissible and/or possible – the reporting period from 1 January to 31 December 2017.

We have selected the GRI standard with the comprehensive “in accordance” option “Core” for this Sustainability Report.

We have implemented the basic reporting principles in a team comprising a range of functional areas. This working group met twice in 2017 and twice in 2018 to coordinate the contents of the report. While defining the contents of the report, aspects such as the availability of data and the justifiability of publication were weighed along with other topics. No non-company units or stakeholders were involved in the preparation of the Brose Group Sustainability Report. This Sustainability Report has not been reviewed by external auditors.

Responsible for content in the sense of German Press Law: Jan Saeger, Vice President Communications, Brose Group, Brose Fahrzeugteile GmbH & Co. Kommanditgesellschaft, Coburg, Max-Brose-Straße 1, 96450 Coburg, Germany.

The Brose Group does not have an executive-level position with overarching responsibility for economic, environmental and social topics.

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

**In the Notes** we refer to the following GRI standards:

G4-3, G4-16, G4-18, G4-19, G4-20, G4-21, G4-22, G4-23, G4-24, G4-25, G4-26, G4-27, G4-28, G4-29, G4-30, G4-31, G4-32, G4-33, G4-36.

**In Section 1** “At a glance” we refer to the following GRI standards:

G4-3, G4-4, G4-5, G4-6, G4-7, G4-9, G4-34, G4-38, G4-56.

**In Section 2** “Products and company” we refer to the following GRI standards:

G4-4, G4-6, G4-8, G4-10, G4-16, G4-56, G4-57, G4-58, G4-EC4, G4-EC7, G4-LA-1, G4-SO3, G4-SO4, G4-SO5, G4-SO6, G4-SO7, G4-SO8.

**In Section 3** “Supply chain and customers” we refer to the following GRI standards:

EN-1, EN-2, EN-27, EN-28, GRI-12, GRI-24, EC-9, EN-32, EN-33, LA-14, LA-15, HR-4, HR-5, HR-6, HR-10, HR-11, SO-9, SO-10.

**In Section 4** “Environment” we refer to the following GRI standards:

G4-EN3, G4-E4, G4-EN5, G4-EN6, G4-EN7, G4-EN8, G4-EN10, G4-EN11, G4-12, G4-13, G4-EN14, G4-EN15, G4-16, G4-17, G4-EN18, G4-EN19, G4-EN20, G4-EN21, G4-EN22, G4-EN23, G4-EN25, G4-EN26, G4-EN29.

**In Section 5** “People at Brose” we refer to the following GRI standards:

G4-11, G4-15, G4-51, G4-52, G4-HR2, G4-HR8, G4-EC1, G4-EC3, G4-LA2, G4-LA3, G4-LA6, G4-LA7, G4-LA9, G4-LA10, G4-LA11.

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# Foreword

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*Ladies and Gentlemen,*



Since it was established by Max Brose 110 years ago, the long-term development of our company has been a top priority. Sustainable, value-oriented commitment and an environmentally conscious approach are firmly established at Brose.

As a family-owned company, a stable ownership structure makes us a reliable partner. The small number of owners and, consequently, modest distributions mean that the Brose Group can finance its growth completely independently. Profits are consistently reinvested in further developing the company.

Our product portfolio focuses on the trends comfort, safety and efficiency. It goes without saying that environmental protection and the conservation of natural resources are a priority for us. We introduced Brose environmental standards as early as twenty years ago and have continued to develop them ever since: we take over 40 aspects such as freedom from hazardous substances and energy efficiency into account when developing new components and systems. We optimize our production and logistics processes as well as our use of materials in manufacturing: for example, we use recycled or recyclable material, use reusable packaging and optimize the transport chain within and outside of our company. At the same time, we aim to ensure our products are used in the most resource-conserving way throughout their life cycle.

As part of these efforts we rely on our comprehensive, decades-long expertise in mechatronics and the interaction of mechanical, electric, electronic and sensor systems. We have a clear focus on the seat, door, electric drives and electronics product fields. The door division centers on light-

weight design and new features, while the seat division concentrates on lightweight design and advancements in new interior design concepts and the drives division is focused on reducing emissions by electrifying auxiliary systems.

Our products' contribution to reduced consumption and fewer emissions is independent of the vehicle drive type. Electrification of vehicle drives is on the rise; they are becoming more automated and connected. These factors will have an impact on how we travel in the future. The automotive industry is undergoing a fundamental change: we see major opportunities for our business and are aligning our portfolio of products to respond to the shift in our industry. We are using the opportunities created by e-mobility and autonomous driving to our advantage, achieving technological advances in our product range and solidifying our market position.

Products and processes geared at achieving economic and ecological sustainability are a solid foundation – but the culture a company lives by is key. Our family-owned company cherishes values such as responsibility and respect. This applies to our customers, suppliers and partners, but it begins with us: our employees are accustomed to aiming for top performance and constantly developing their skills and talents. We appreciate their intense motivation and extreme dedication. This is why we create the right conditions so that our employees can grow in line with their capabilities and tasks. For us this includes appropriate remuneration, safe workplaces and personal development opportunities.

Our company is involved in numerous projects in each of its locations worldwide – in the tradition of our company's founder, Max Brose. We accept social responsibility and

sponsor projects, investments and individuals in society, education, culture and sport. One of our key aims is to introduce our values to young people and help them improve their education and situation in life.

This Sustainability Report offers an overview and examples of everything Brose has already achieved with respect to the environment, society and sustainable business management and what our goals are for the future.

And we will continue to rely on the knowledge and dedication of our employees, the stability of our family-owned company, on our innovative strength, the quality of our products and long-term partnerships with customers and suppliers in the years to come.

Sincerely,



Kurt Sauernheimer  
CEO of the Brose Group



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# 1. Brose – At a glance

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Last updated:  
31 December 2017

## The Brose Group

Brose is the world's fourth-largest family-owned automotive supplier. No matter where in the world a car 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, electronically commutated cooling fan modules or premium front seat structures. The 100% subsidiary Brose Antriebstechnik has been manufacturing e-bike drives since 2015.

### Facts and figures

25,525 employees, 61% in Europe and Africa, 21% in America and 18% in Asia.

Three headquarters in Coburg (CEO, Seat division), Hallstadt (Door division) and Würzburg (Drives division) along with two regional headquarters in Detroit/USA and Shanghai/China. Headquarters: Max-Brose-Str. 1, 96450 Coburg, Germany  
Investments in research and development: 8% of turnover

### Executive management

#### Shareholder family

Michael Stoschek (CEO), Christine Volkmann and their respective children

#### Advisory Board

Franz-Josef Kortüm (Chairman), Prof. Dr. Christian Rödl, Prof. Dr.-Ing. Thomas Weber

#### Executive Management Board (as of May 2018)

Kurt Sauernheimer (CEO and Door business division), Thomas Spangler (CTO), Niklas Beyes (Executive Vice President Commercial Administration Brose Group), Periklis Nassios (Purchasing Brose Group), Patrick Popp (Drives business division), Sandro Scharlibbe (Seat business division), Jörg Schwitalla (Executive Vice President Human Resources Brose Group).

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.

## Philosophy

The Brose executive management adopted the FIRST company principles and introduced them worldwide with the aim of delivering first class performance in every respect. Every letter stands for a principle:

**F**

### Family

The family places the company's interest 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**

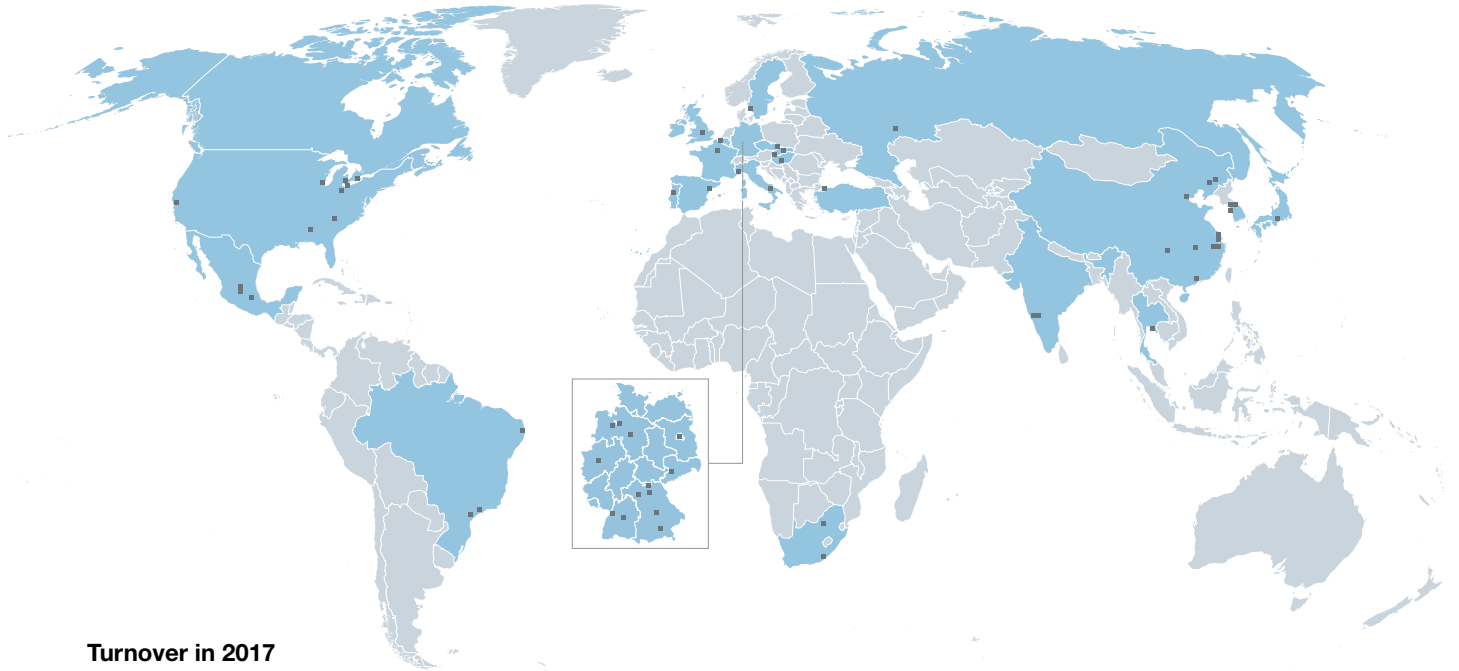
### Team

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



## Locations and internationalization

Brose operates 62 locations in 23 countries, including 44 of our own plants and six production sites with local partners.



## Turnover in 2017

### 6.3 billion euros

By region: Europe 3.4 billion euros, America 1.6 billion euros, Asia 1.3 billion euros

By division: Door 3.2 billion euros (51%), Seat 2.1 billion euros (33%), Drives 1 billion euros (16%)

### Product portfolio Door

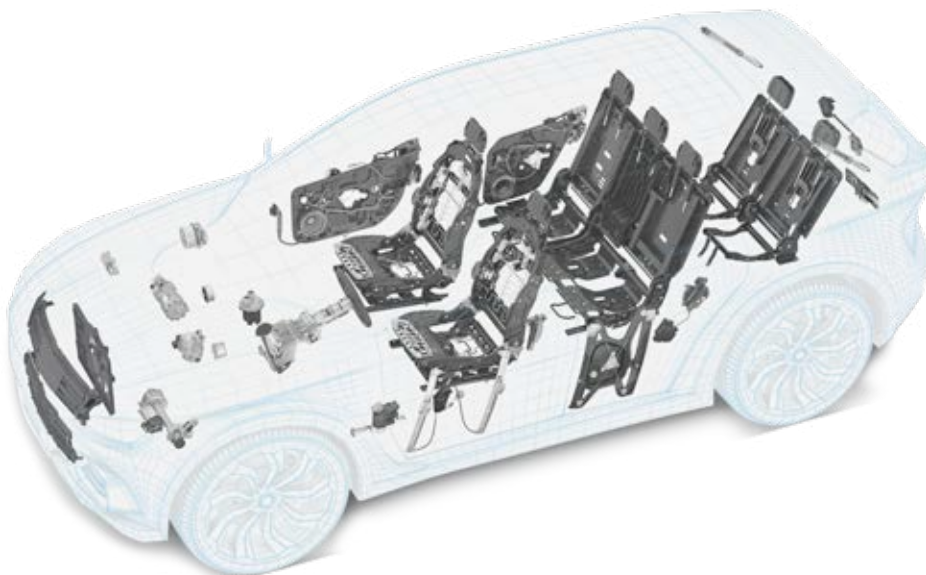
Door systems  
Side door drives  
Window regulators  
Closure systems  
Liftgate systems  
Motors and drives and electronics

### Seat

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



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## 2. Products and company

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### Product portfolio and quality

No matter where in the world a car 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, many of the features that

enhance vehicle safety, comfort and efficiency are based on our products. Backed by decades of expertise in mechanics, electrics, electronics and sensor technology, we develop comprehensive solutions for our customers.

### Door and liftgate systems

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 our 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 support environmental requirements to reduce CO<sub>2</sub> with lightweight design that features an intelligent material mix

and optimum functional integration. One example is our door system with organo sheet carriers, 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 a new benchmark in safety: these sensors detect obstructions and stop liftgates and doors from closing before a collision occurs. Our expertise is based on decades of experience in anti-trap protection for window regulators.

### Adjustment systems for front and rear seats

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 to meet this challenge. 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: to increase passenger comfort and safety – from entering the vehicle and buckling up to adjusting the seat position. The megatrends of e-mobility and autonomous

driving demand new, dynamic interior concepts. In response, Brose has developed functional adjustment systems. We offer car manufacturers mechatronic systems for the entire vehicle interior from a single source, above and beyond the seat. This makes new, coordinated interior usage scenarios possible. We pushed ahead with the standardization and modularization of our portfolio at an early stage. This enables us to easily adapt products to meet customer and model-specific requirements and to produce them at the same consistently high level of quality worldwide. This is a key benefit for our customers, especially when it comes to global projects. We continuously improve all components, keeping a constant

eye on the overall system – with a clear focus on costs, function and weight. Thanks to advanced material concepts and

production methods, we produce what is currently the lightest seat structure worldwide for high-volume production.

## Electric drives

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. This is more economical than conventional variants powered by an internal combustion engine because it only works when it is needed. 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. Electric vehicles are in any case dependent on this technology.

Brose delivers over 200 million electric motors and drives every year, making it a market leader. In addition to thermal

management, these are also used in the drive train as well as in the chassis and steering. They also operate window regulators, seats, liftgates and side doors. Our motors and drives are available in a power range of 20 to 6,500 watts and voltages of 12 to 810 volts.

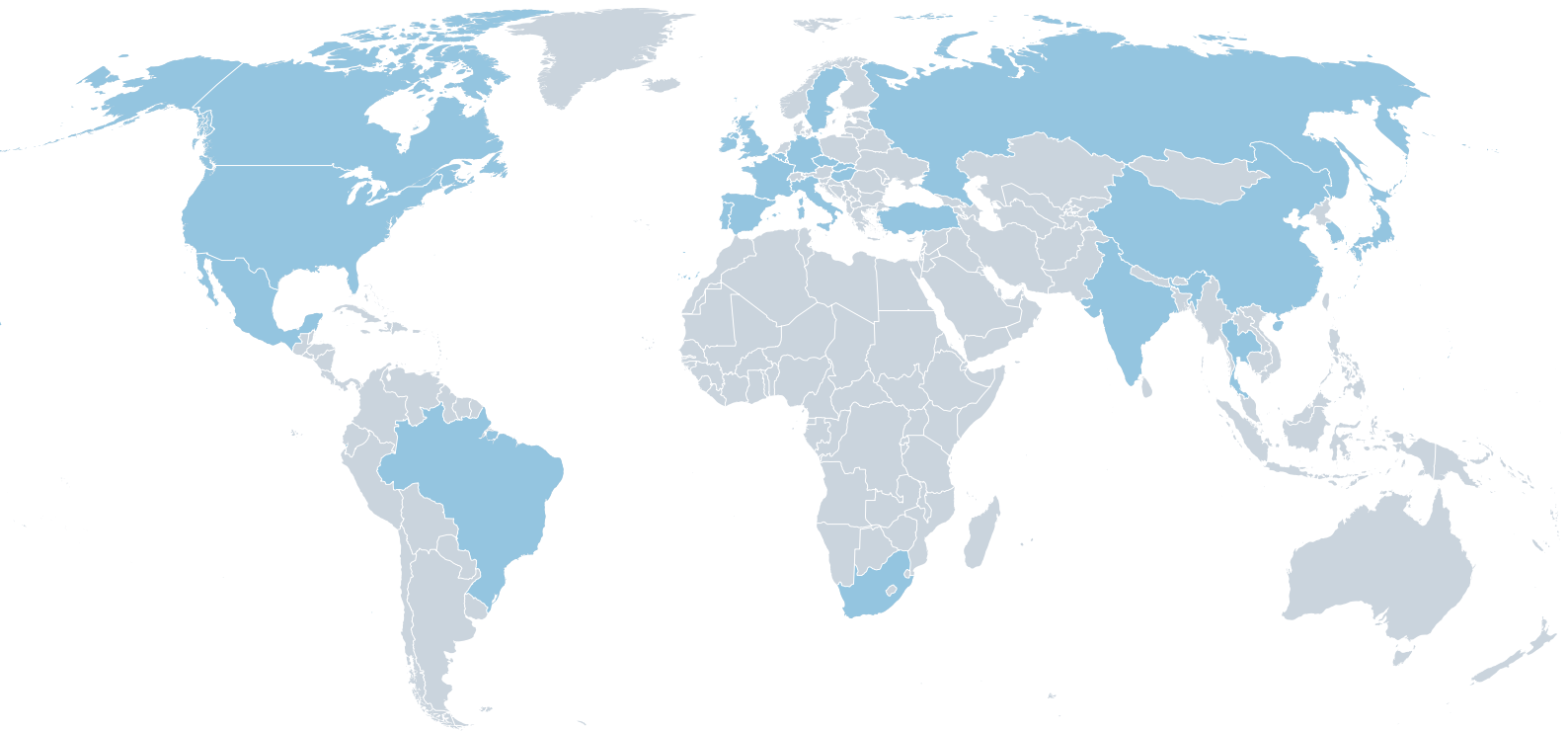
The system approach is our top priority when developing new products: we integrate mechanical, electric, electronic and sensor systems to create perfectly coordinated products. This enables us to increase efficiency while minimizing package space and noise. The electric oil pump is one example: first we combined the motor and the electronics into one unit. Then we expanded the pump in the next step, combining three components in a single, compact housing. Brose drives reduce consumption. We follow a system approach in development, thereby optimizing the degree of efficiency, package space and acoustics of our products.

## Development and innovation

The future trends connectivity, autonomous driving, new mobility concepts and electrification are transforming the automotive industry. As a system supplier we provide car manufacturers with innovative products – always with the goal of increasing safety, enhancing comfort and maximizing efficiency. We invest in future projects, such as power side door drives, new usage concepts in the vehicle interior and power auxiliary systems like air conditioning compressors. We spend about 8% of our turnover in research and development each year. We also continuously invest in the further qualification of our employees and the expansion of regional development areas. With more than 3,000 technicians and engineers, over 10% of our employees work in this area, a third of whom are located outside Europe. More than 200 patent applications each year are proof of our company's innovative strength. Finding inventive ways to use sensors is

the basis for a number of new features. Brose has set benchmarks when it comes to hands-free opening and closing of liftgates. We transfer this expertise to develop innovations for new products such as collision protection for power side doors. And this is one of the reasons we work with start-up companies. The use of modern technologies helps Brose reduce development times for new products. Additive manufacturing processes not only enable us to 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, efficient 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.

## Locations, sales, partners and employees



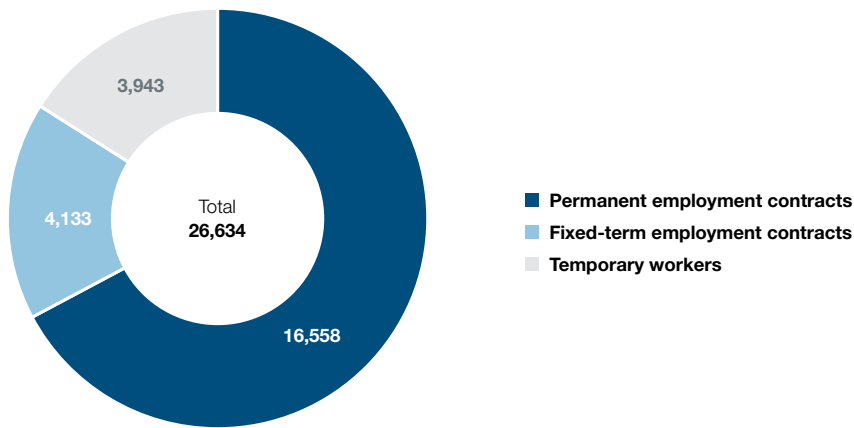
To us, customer proximity also means being close to our customers geographically. This is why Brose makes investments to build new plants and strengthen existing locations. Internationalization is a key component of our growth strategy. The corporate group operates in 23 countries worldwide. Alongside Germany, the US, Mexico and China, where the majority of our production and development locations are found, this also includes the following countries: Brazil, Canada, Belgium, France, Great Britain, Italy, Portugal, Russia, Sweden, Slovakia, Spain, the Czech Republic, Turkey, Hungary, South Africa, India, Japan, South Korea and Thailand.

We supply our products to all key automotive markets in around 40 different countries. Our customers are vehicle manufacturers and tier 1 suppliers who use our products in their systems.

In 2016 24,634 Brose employees (year-end figures) in 62 locations generated 6.1 billion euros in turnover.

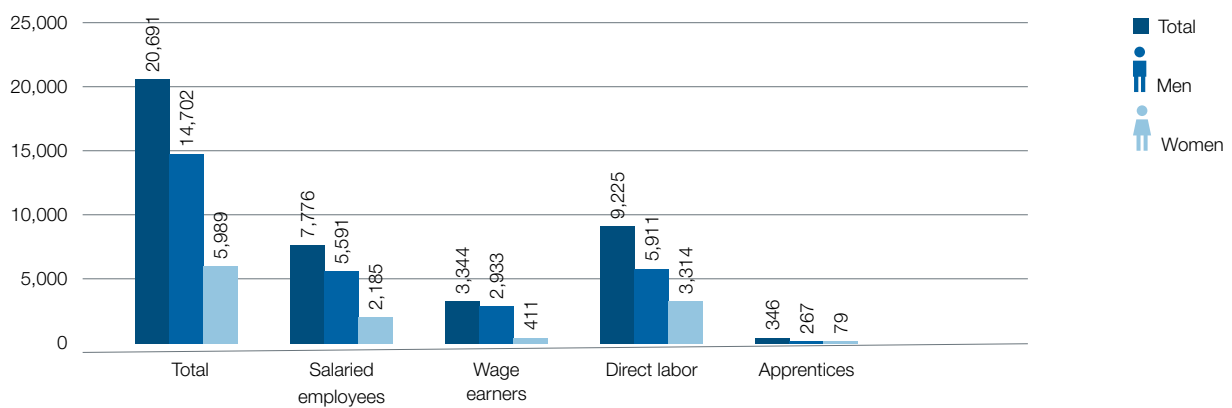
### 1. Employees 2016

by employment contract



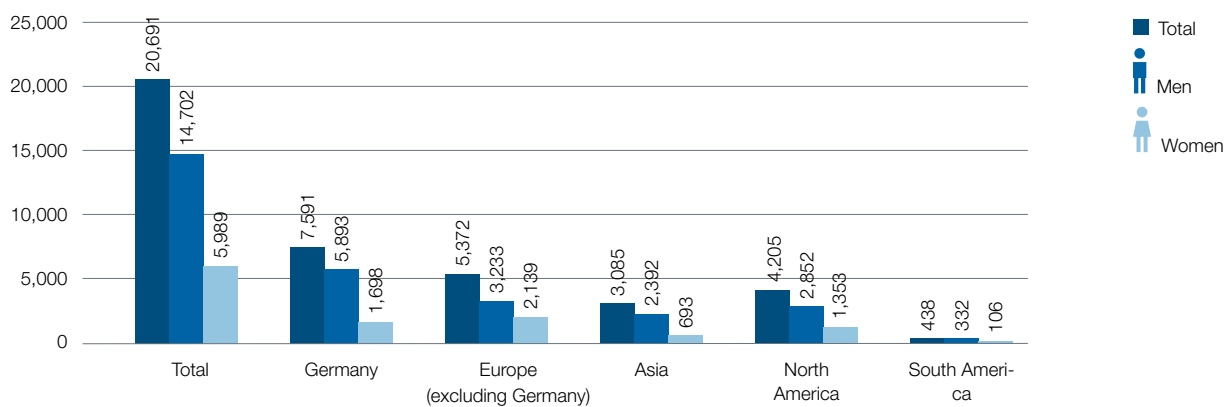
### 2. Employees 2016

excluding temporary workers, by group



### 3. Employees 2016

excluding temporary workers, by region



### 4. New entries by age group 2016

	Total	under 20	20-29	30-39	40-49	50-59	From 60
New entries	2,739	157	1,239	842	352	134	15
Share of workforce (%)	13.2						
Share of designated workforce groups (%)		54.7	23.3	12.5	7.6	4.2	2.9

### 5. New entries by gender 2016

	Total	Male	Female
New entries	2,739	1,878	861
Share of workforce (%)	13.2		
Share of designated workforce groups (%)		12.8	14.4

### 6. New entries by region 2016

	Total	Germany	Europe excluding Germany	Asia	North America	South America
New entries	2,739	501	1,129	426	600	83
Share of workforce (%)	14.6					
Share of designated workforce groups (%)		6.6	21.0	13.8	14.3	18.9

### 7. Exits by age group\* 2016

	Total	under 20	20-29	30-39	40-49	50-59	From 60
Exits	1,976	29	729	663	323	147	85
Share of workforce (%)	10.0						
Share of designated workforce groups (%)		9.6	14.3	10.6	7.2	4.8	18.8

\* excluding joint ventures

### 8. Exits by gender\* 2016

	Total	Male	Female
Exits	1,976	1,445	531
Share of workforce (%)	10.0		
Share of designated workforce groups (%)		10.3	9.4

\* excluding joint ventures

### 9. Exits by region\* 2016

	Total	Germany	Europe excluding Germany	Asia	North America	South America
Exits	1,976	256	710	289	599	122
Share of workforce (%)	10.0					
Share of designated workforce groups (%)		3.4	14.6	10.5	14.5	26.9

\* excluding joint ventures

In accordance with our goal to deliver first-class performance in every respect, the shareholders, advisory board and executive management board of our corporate group have approved the following company principles based on the term “FIRST”.

**F – Family:**

The family places the company’s interest 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 first-class 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 at our locations and promote socially and environmentally responsible development. Our responsibility takes into account the entire life cycle with regard to the impact of our products on the environment. 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.
- Provide the necessary financial, structural and human resources.
- Comply with legal and regulatory requirements.

We avoid risks, prevent mismanagement and fight waste. We eliminate or mitigate the causes whenever and wherever we identify these. If this does not achieve the intended objective, we take organizational and HR-related measures.

## Interest groups, public funds and taxes

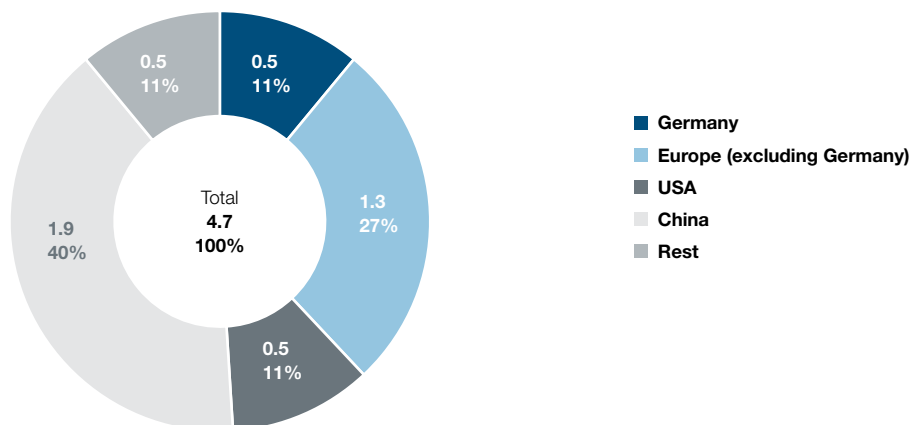
We are engaged in politics and society in the countries in which we manufacture our products. This is why we are a member of national and international interest groups. In Germany some of these groups include the Employers’ Associations of the Metalworking and Electrical Industries in Bavaria (bayme), 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.

We are aware of our responsibility to society and act accordingly. This also applies to handling taxes. Media reports covering major corporations’ attempts to avoid taxes and international tax competition paired with rising national debts have brought corporate finance policy to the public eye. Major media focus on what appear to be dubious business practices can result in existential damage to the reputation of affected companies. This is why observing laws, compliance, ethical, environmental and social standards are becoming more and more essential to the success of long-term customer and employee relationships and thus for sustained business success.



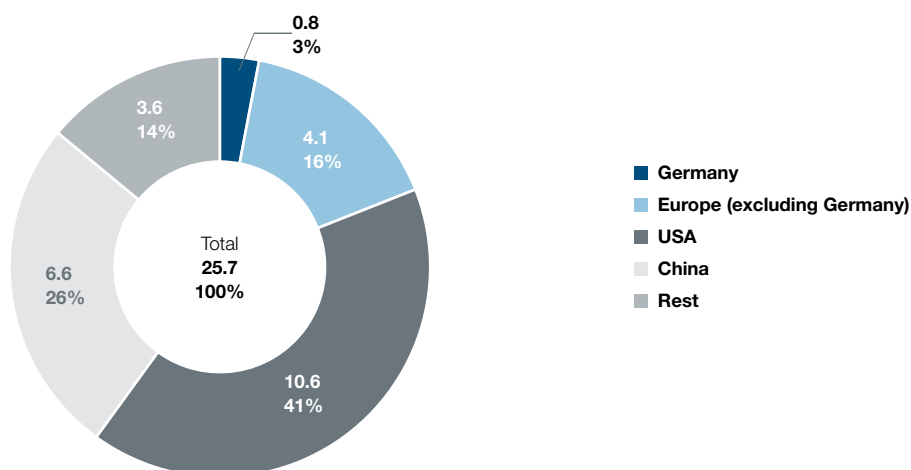
### 10. Public funds 2017

in millions of euros, in % of the total payments, by region



### 11. Tax breaks and tax relief 2016

in millions of euros, in % of the total payments, by region



The Brose Group received around 4.7 million euros in public funds in the form of tax breaks and tax relief in 2017. More than half of the total amount was granted to our company's locations in Europe.

With 1.9 million euros, around 40% of the total funds went to our German locations. In addition, locations in the China and US regions also received 0.5 million euros in tax breaks each.

## Code of Conduct

The Brose organization already has key compliance elements. They are currently being consolidated into a comprehensive Compliance Management System that satisfies national and international standards. This is of the utmost priority for our company. The principal focus of the program will be anti-trust law and avoiding corruption. The Compliance Management System is set up to be a preventative solution and is constantly being expanded.

The Brose Code of Conduct defines standards for ethical and legally compliant behavior that is binding for all employees. This also includes rules on avoiding corruption. The company will not tolerate any behavior that contradicts the Code of Conduct and such behavior may result in legal action. No breaches to the Code of Conduct were reported in 2017.

The Brose Code of Conduct has been and is given to every newly hired employee. Like our company principles, it is published on our website and on the intranet. Key contents of the Brose Code of Conduct include: collaboration with business partners, in particular fair business practices and avoiding 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 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. Our employees 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. There is no breakdown of the exact amount of time required for this.

In the period from 2015 to 2017 9,693 employees completed a corresponding e-learning session. The average fulfillment rate for the year 2017 is approximately 90% worldwide. The Brose Global Terms and Conditions of Purchase (GTCP) oblige our business partners to be socially responsible and comply with all applicable laws, in particular those governing the avoidance of corruption.

An analysis of the risks of corruption in the Brose Group showed that the level of risk did not exceed the industry average in any of the relevant areas. No cases of corruption were confirmed in 2017, which is why Brose did not receive any fines or penalties due to corruption offenses in 2017.

If employees have questions about compliance topics or are aware of any potential compliance violations, we expect them to actively seek a personal meeting with their supervisor to discuss the matter. If employees do not wish to discuss a specific compliance topic with their supervisor, they can directly contact the Chief Compliance Officer, the local Compliance Officer, the local legal department, their responsible HR support officer, the works council or the head of Human Resources Brose Group. Every concern is always treated as confidential. Brose uses campaigns like the "Compliance Day" at its regional headquarters in Shanghai to raise awareness of compliance objectives and guidelines among all employees. In China, topics such as bribery prevention and data privacy are also subsumed under compliance.

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## 3. Supply chain and customers

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### Raw materials and resources: Responsibility in each of the business divisions

The Brose Group is aware of its responsibility when it comes to our limited natural resources. We continue to work 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.

This is why we have already held our Environment and Technology Day four times. Interested employees can learn about subjects such as lower energy and raw materials requirements, lower CO<sub>2</sub> emissions and, not least, associated reductions in production costs.

Both Brose employees and external lecturers shared information and ideas during our Environment and Technology Day in 2017. Topics of interest included how to use product design, manufacturing processes and logistics processes to achieve higher resource efficiency in ongoing projects.

### Packaging: Brose Group material use worldwide in 2016

During the 2016 fiscal year material use in the Brose Group for non-reusable packaging was 14,385 t versus 395,383 t of material in reusable packaging.

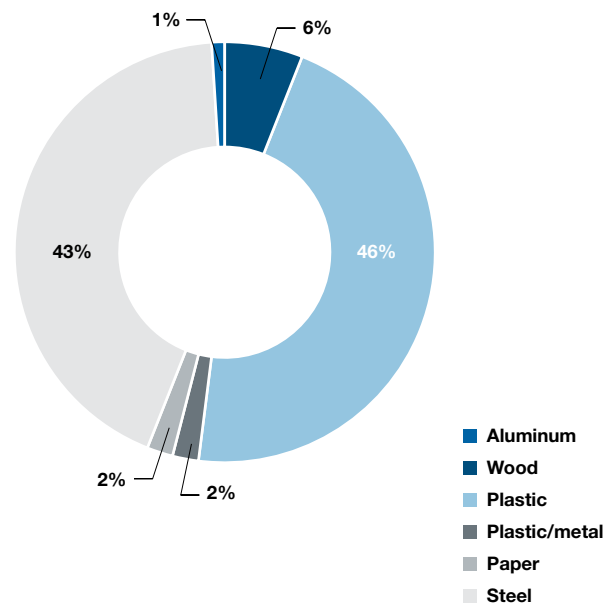
#### 1. Material tied to non-reusable and reusable packaging

Material	Tons
Plastic	189,789.23
Steel	177,117.23
Wood	22,971.69
Paper	9,377.38
Plastic/metal	7,984.29
Other	2,495.73
Aluminum	33.00

The share of non-reusable packaging in all packaging used worldwide in the Brose Group is only just over 3%. Figure 3 shows the share in percentage values: paper and wood comprise the largest share of non-reusable packaging materials, with a total of 95%.

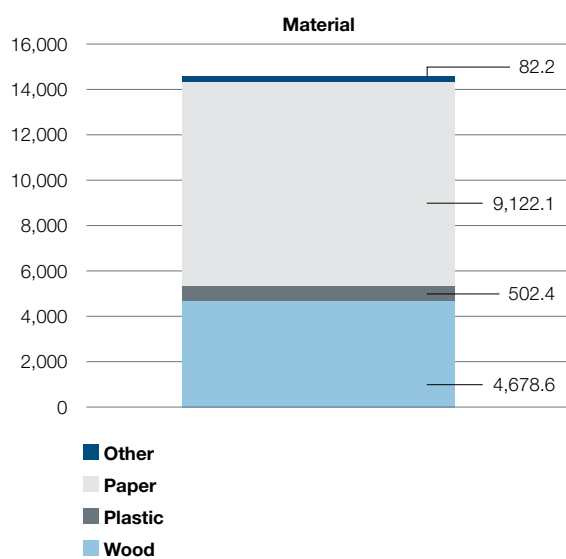
At over 96%, reusable packaging is by far the most commonly used packaging in the Brose Group worldwide. Our logistics efforts focus squarely on working with reusable packaging whenever possible. Figure 4 shows the weight share of the different materials in percentage values:

## 2. Product packaging materials in 2016



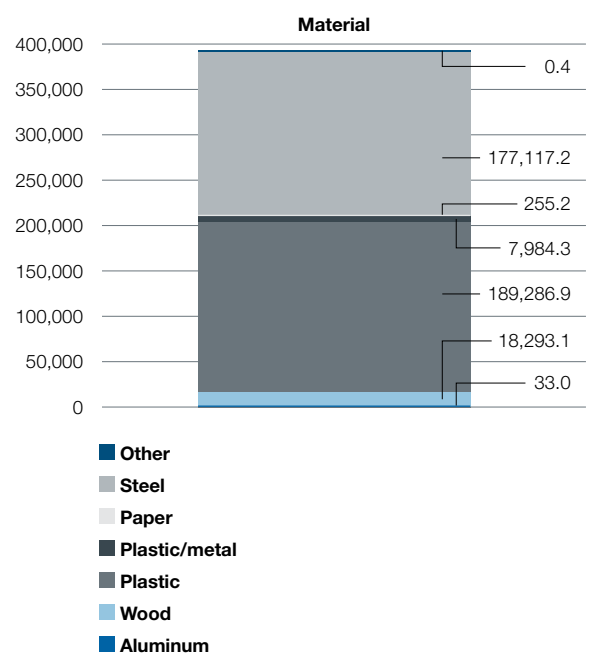
## 3. Composition of non-reusable packaging 2016

share of weight in t



## 4. Composition of reusable packaging 2016

share of weight in t



## Materials used in Brose products

The Brose Group product portfolio in the Door, Seat and Drives business divisions requires the use of a wide range of materials.

In 2016 we used around 531,000 t of different materials. A detailed breakdown of the use of materials is provided in Table 5.

The range of products in the business divisions was broken down into groups to determine which materials were used: double-guided window regulator, single-guided window regulator, door module front, door module rear, spindle drive, control unit, capacitive sensor, soft-close feature, hood latch, lock striker, lock, latch module, tailgate latch, backrest, seat substructure, rear seat 2nd row, rear seat 3rd row, components, cooling fan module, drive train actuator, electronic braking system, power steering motor, HVAC blower, window regulator motor and other. One product was selected to represent each product group. For this product an analysis was performed on the material composition from the IMDS (International Material Data System). At the same time the respective production volumes were also included in the analysis.

Because the production volumes do not correspond 100% with the real quantities and not every product in the respective product group features the same design, the figures presented here only provide a rough estimate.

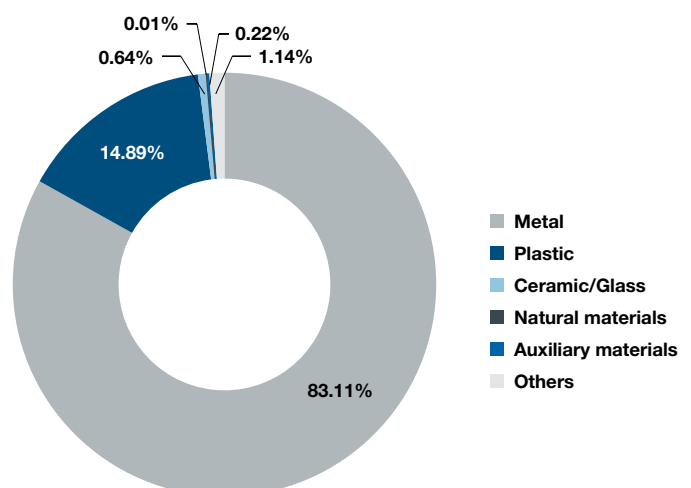
The following overall distribution can be inferred from Figure 6 from the detailed breakdown of the renewable and non-renewable material groups in the Brose Group.

5. Use of materials for products in 2016

Material	Use of materials in tons	Share in percent
Steel	407,692.54	76.74
Plastic	40,472.33	7.62
Glass fiber fabric-reinforced plastics	38,635.23	7.27
Aluminum	24,219.45	4.56
Alloys	5,106.56	0.96
Other	3,945.80	0.74
Copper	3,872.98	0.73
Ceramic/Glass	3,401.04	0.64
Paints	2,090.00	0.39
Auxiliary materials	1,164.02	0.22
Other special metals	595.91	0.11
Natural materials	38.47	0.01

6. Use of materials for products in 2016

by material



## Secondary raw materials in Brose products

Secondary raw materials, i.e. processed or recycled raw materials, are essential materials for a number of products. Brose business divisions use these materials wherever it is possible and makes sense. Moreover, the manufactured products can also be recycled. We calculate the recyclability of our products based on an international standard.

The share of secondary raw materials in relation to the overall amount of material saved is 37% in the Door business division, 41% in the Seat business division and 32% in the Drives business division.

In 2016 secondary materials broke down across the overall use of materials as follows:

7. Use of secondary raw materials for products in 2016

Material	Use of materials in tons	Share of secondary raw materials in tons
Steel	407,692.54	179,384.72
Plastic	79,107.56	23,732.27
Aluminum	24,219.45	14,531.67
Copper	3,872.98	1,665.38
<b>Sum</b>	<b>514,892.53</b>	<b>219,314.04</b>

The rates for determining the share of secondary raw materials are based on industry-wide standard values.

## Ecological footprint of Brose products

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 and health” 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.

To keep the ecological footprint of our products themselves as well as our entire production operation as small as possible and reduce it even further, we have formulated specifications that must be implemented in specific periods.

For example, the carbon footprint – i.e. product-related CO<sub>2</sub> emissions – is scheduled to decrease by 11,000 t in the three business divisions. We introduced measures in late 2016 to ensure this. Our goal is to begin implementing these measures in December 2018. These include lowering material and energy usage, achieving weight savings and reducing hazardous substances and emissions in general. These figures can be presented as CO<sub>2</sub> equivalents. Among other things, an award we received in 2017 is proof that our efforts are bearing fruit: Brose’s Würzburg location won the “Main-Franconia

Sustainability Award (Figure 8). This award recognizes measures to ensure sustainable management implemented within the company.

8. Main-Franconia Sustainability Award 2017



To reduce emissions in the vehicle operating phase we are using newly developed material composites to lower the weight of our products among other efforts. Our Seat division won the Gold “Materialica Design and Technology Award” in October for a technology known as organo sheet – a fiber-reinforced thermoplastic. We supply the organo sheet rear seat load-through for the Land Rover Discovery; series production launched in late 2016 in Coburg. This product is 38% lighter than steel load-throughs. The “3rd generation lumbar adjuster” is another system component; it weighs about 32% less than its predecessor model.

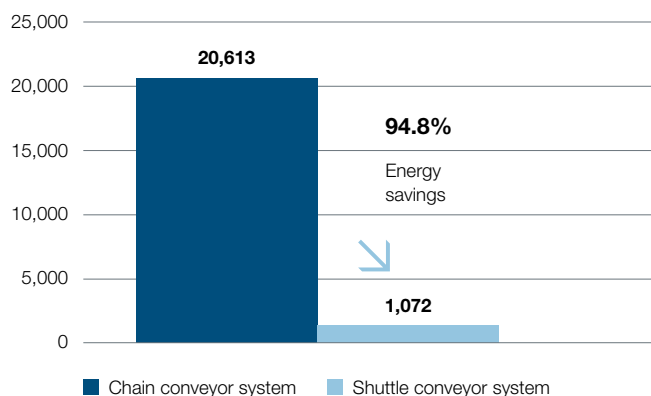
We use weight-optimized parts for cooling fan modules, drive actuators, power braking systems, power steering motors, HVAC blowers and window regulator motors in the Drives business division. This reduces vehicle fuel consumption, thereby conserving resources and reducing harmful emissions. We have been using extremely energy-efficient transport systems in the Door business division’s intralogistics since 2016: this new shuttle conveyor system works in the new assembly lines and saves around 95% more energy compared to the chain conveyor that was previously used (Figure 9).

Furthermore, retrofitting drive production equipment has enabled us to shut down the conveyors automatically, segment by segment. This results in an annual energy savings of around 37,000 kWh and, in turn, a 20 t reduction in CO<sub>2</sub> emissions.

The Brose Group also participates in official audits and certifications. Our certified management systems for energy and the environment assure compliance with the relevant, industry-specific, environmental requirements in product design and manufacturing. This not only enhances the credibility of Brose products, it also makes them comparable by international standards in terms of their relevancy to the environment.

### 9. Annual power consumption

shuttle conveyor system vs. chain conveyor system, by system in kWh





## Packaging recovery at Brose: Reusable instead of non-reusable

Since the Brose Group does not deliver directly to consumers, there has not yet been a need to recover product packaging. To reduce waste as much as possible, 95% of deliveries to customers are made using reusable containers that

seamlessly reenter the logistics process. This means that these containers and packaging materials are not disposed of as waste.

## Supplier management: High quality, good partnerships

### The Brose supply chain

Smooth procurement logistics are a top priority for our company as a tier 1 supplier. Every day around 350 suppliers send production materials to Brose locations in Europe.

We bundle main leg shipments at central transfer hubs in Germany and the Czech Republic. From here the freight continues to European Brose plants.

We rely on premium quality suppliers and set high standards for purchased parts to exceed our customers' expectations. Before awarding any contract Brose ensures that suppliers are capable of manufacturing the product in question. Once a contract has been awarded, a progress check is conducted with a defined prioritization. Suppliers are then rated when a series starts. We review compliance with our quality requirements for the products and delivery by external parties. Our guidelines are aligned with those of the automotive industry in accordance with IATF 16949 of the International Automotive Task Force. The objective of this working group comprising representatives from carmakers and automotive associations is to improve product quality.

Our goal is zero-defect production based on the principle of avoiding errors. Suppliers must provide detailed documenta-

tion of their quality management measures. This can include initial sample documents, proof of qualification and requalification and the corresponding prototypes.

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 our suppliers have implemented effective management systems (ISO/TS 16949). The validity of the certification is reviewed on a regular basis and considered in the supplier rating. During the 2016 reporting year, we completed 113 audits with potential suppliers and 127 audits with established series suppliers.

### Quality thanks to communication: Stakeholder engagement in purchasing

The Brose Group values consistent communication with suppliers and customers and works hard to maintain the best possible business relationships, for example by conducting regular supplier surveys. We show our appreciation for outstanding suppliers on a regular basis with Supplier

Awards and Key Supplier Recognitions. We use supplier dialog and supplier self-assessment at fixed intervals to determine whether our vendors continue to meet Brose's high standards.

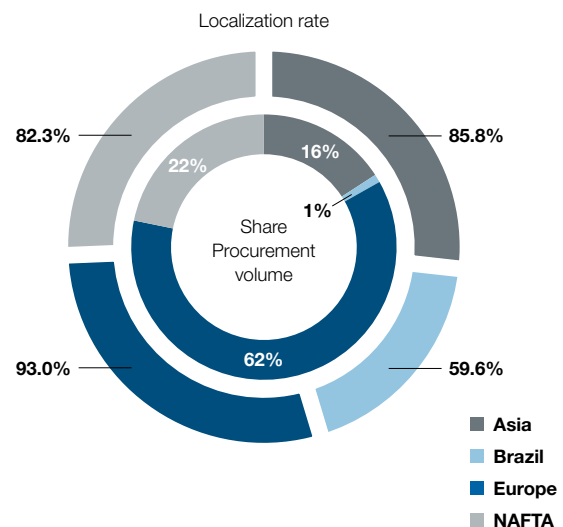
### Brose values local suppliers – throughout the world

Around 15,000 suppliers from 49 countries throughout the world deliver products to the various locations of the Brose Group. During the 2017 fiscal year we procured 62% of goods and services from suppliers in Europe, 22% from the NAFTA region and 16% from Asia. Our suppliers' share of value added is about 60%.

The localization rate is 89% in total: we obtain this share of the procured goods and services from the respective regions. This is just one of the ways we strengthen local economies and optimize transport routes. It also helps us create and preserve jobs and solidify local infrastructures.

10. Share of procurement volume and localization rate

by region



### Supplier assessment in consideration 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.

And we have the same high demands of our suppliers: the only way for our products to truly be "green" is by ensuring that the entire supply chain meets ecologically tenable and coherent criteria.

We perform a specific review of ecological criteria at all of the suppliers and service providers we designate as environmentally relevant. We require certification in accordance with ISO 14001 from all of our galvanizers. Valid certificates are requested on a regular basis. Environmental aspects are an established component of our technology audits. This is why we evaluate the ecological capability and performance of over 100 suppliers each year.

## Validation of new suppliers with respect to work practices, human rights, protection of children and young adults and forced labor

The Brose Group has a global Code of Conduct with defined rules of behavior that are binding for everyone. We respect legal regulations and moral principles – these values are a fundamental part of our supplier management. The Code of Conduct can be accessed via the web at <https://www.brose.com/mx-en/company/code-of-business-conduct/>.

We always review every new supplier's work practices. We use the supplier onboarding process, supplier self-assessments and evaluations for this purpose.

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 work-

ing conditions for young people. Similarly, we work exclusively with suppliers we know manufacture in their business locations worldwide without the use of any forced labor or mandatory work. Moreover, we are unaware of any incidents in which our suppliers have not met our ethical and moral principles.

We anchored these principles in our "Global Terms and Conditions of Purchase" (concluded with 83% of all production material vendors in 2017) and in our supply contracts. Our suppliers are required to maintain socially adequate working conditions and to request this of their vendors 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/>.

## The Brose Code of Conduct aims to achieve humane conditions

The Brose Group has a global Code of Conduct with defined rules of behavior that are binding for all employees in the company. The code outlines standards that Brose uses as a cornerstone for ethnically responsible behavior.

Objectives of the Code of Conduct include mutual respect, fairness and honesty in personal interactions with co-workers and business partners. The code applies at all of our locations worldwide and for all cultures and value systems.

Employee and supplier adherence to the code is a matter of principle for the Brose Group, as is respect for human rights.

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## 4. Environment

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### Our goal

Any type of industrial production poses myriad challenges to modern businesses when it comes to environmental protection and responsible handling of finite resources. The Brose Group introduced environmental standards as early as twenty years ago and has continued to develop them ever since. Issues like environmental protection and the conservation of raw materials have a high priority here at Brose, also in light of our over 100-year-long company history. We use an environmental management system based on international standards.

As a family-owned company, we act with foresight and sustainability in mind. Lightweight design is a key topic. And efficient components such as electric motors and drives can ensure fewer vehicle emissions while reducing end-user energy consumption regardless of the type of drive in use. When it comes to materials, Brose considers the carbon footprint from raw material extraction to recycling. We also test multimaterial systems, recycle granulate, biopolymers and natural fiber-reinforced composite materials.

We developed our own method of determining the CO<sub>2</sub> emissions our products generate throughout their entire life cycle. We also determine the share of reusable components in our products. Minimizing the use of resources is another one of our key objectives. In addition, we make efforts to bundle transports, e.g. including materials and products.

The Brose Code of Conduct states our objective as a company to continually contribute to the steady improvement of the ecological efficiency of our business. The environmental management system we use performs a valuable service here. Firmly established product development targets include environmentally friendly design, 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.

To improve the energy efficiency of our production and infrastructure, we have also introduced in select locations an energy management system that is certified according to the requirements of the DIN EN ISO 50001 standard. We will expand the system to the locations in Bamberg, Coventry (Great Britain), Prievidza (Slovakia) and the Shanghai plant by the end of 2019. We publish the respective certificates on our website.

## Responsible use of resources: Energy, raw materials, carbon footprint

We are currently working on achieving a 5% reduction in our carbon footprint at our locations. In December 2016 we defined measures that should enter into effect by late 2018. We also aim to reduce product-related CO<sub>2</sub> emissions in the three business divisions by 11,000 t during this period.

Another key issue for Brose lies in reducing our “water footprint”. Potable water is an extremely valuable resource we

need in our production processes. This is why we began building a system in March 2017 that pursues objectives aimed at cutting water consumption. Just like our carbon footprint we want to visualize the potential that a reduction in water consumption can offer our business. We follow up on these actions internally with a “Water Saving Actions” report.

### In detail: Reduced energy demands in the business divisions

To calculate the reduced energy requirements in the business divisions Brose uses a template for ecological product evaluation based on the company’s own Brose Norm BN 590020. This norm features a simplified estimate of impact in accordance with ISO 14040 et seq.

Using the Brose guidelines we defined the calculation factors listed in Table 1 to demonstrate energy savings in production and during the consumer service life due to lower product weight.

To present the reduction in energy requirements we selected products from 2016 as examples and compared them to their predecessor models. We also created a comparison of energy requirements that we calculated using the Ecological Product Evaluation. We used this to determine the difference and calculated it using the construction volumes for one year. To ensure a cohesive approach we looked at energy consumption across the entire product life cycle (exclusive end of life).

For example we developed a new basic latch in the Closure Systems product unit. It weighs 540g. Its predecessor weighed 810g. This weight savings had a positive impact on fuel consumption in the vehicles that feature the latch.

While the new basic latch has a poorer energy balance in manufacturing and annual production requires 116 GJ more than the previous model, a closer look at the service life over a useful life of 200,000 km indicates a total energy savings of 36,981 GJ/year.

Another example is a door module from the Door business division. This product is entering series production featuring a carrier plate with a significantly reduced wall thickness of 1.4 mm. The comparison model had a wall thickness of

1. Basis of calculation for energy savings potential during service life

Service life parameters	
Type of fuel	Gasoline
Useful life	200,000 km
Heating value of super unleaded gasoline	32.60 MJ/l
Fuel reduction coefficient of a gasoline engine	0.004 l/(100 km*kg)
Emission factor of gasoline	2.85 kg CO <sub>2</sub> /l

1.8 mm. Making the wall less thick enabled developers to achieve a weight savings of 446g in the new door module.

The new model requires less energy in manufacturing and during the product's service life than the comparison model does. Thus, using less material can decrease energy consumption both in production and during the service life of a product once it reaches the consumer.

Projecting this onto a production year, this results in a total savings of 25,043 GJ. 21% of the reduced energy consumption is associated with manufacturing the new door module compared to its predecessor. 79% of savings is achieved during the product's service life.

We manufactured around 6.3 million spindle tilts in the Seat business division in 2016. Our new product development re-

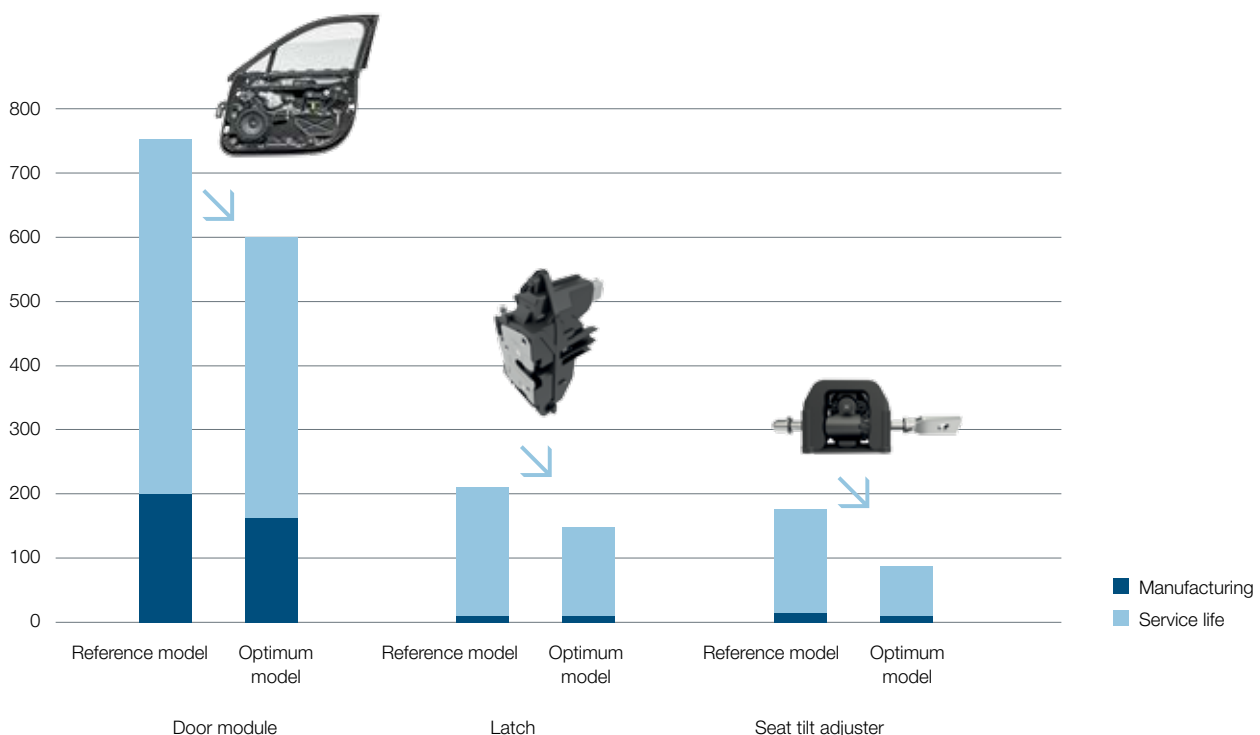
sulted in a weight savings of approximately 50% compared to the previous product (230g). Projecting this onto a production year, this results in a total savings of 552,195 GJ/year. 91% of the energy savings is achieved during the product's service life.

The Drives business division achieved a targeted reduction in its energy requirements in 2016 by increasing the share of lightweight window regulator motors in the entire Brose scope of delivery worldwide. The reduced energy requirement was determined by comparing the new product to its predecessor.

Compared to the reference product the new product development yielded a weight savings of approximately 25% (151g). Projecting this onto a production year, this results in a total savings of 597,972 GJ/year.

## 2. Reduced energy requirements of selected projects

in MJ/product, by business division



## Measures for reducing greenhouse gases

Our goal is to reduce our annual energy consumption by 1.5%, thereby simultaneously cutting greenhouse gas (GHG) emissions. Absolute values based on emissions in 2014 are defined as target figures.

Many factors influence energy consumption and the resulting CO<sub>2</sub> 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<sub>2</sub>.

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%, for example. The unavoidable VOC emissions that result in the process are recombusted in all of our European locations.

We have also continuously improved the degree of efficiency of this painting process. The CDP system we will set up at our plant in New Boston (USA) in 2019 features this technology. This is important to us as part of our corporate strategy, even though there are no associated regulatory requirements in the US. The entire process is neutral in terms of nitrogen dioxide emissions. Therefore, what would normally be an obligatory disadvantage of recombustion technology no longer exists.

## Energy use and emissions: Efficiency is the main objective

Environmental protection and responsible treatment of resources are firmly anchored in the Brose corporate strategy. As previously outlined in sections 4.1 and 4.2, our energy management system ensures improved energy efficiency

and helps us reduce our level of energy consumption and the associated costs.



## Our energy consumption from various sources

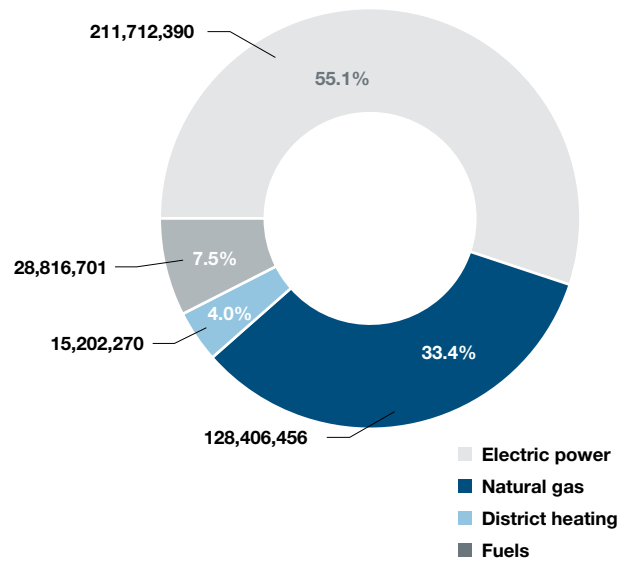
In 2016 total energy consumption among all Brose locations was 1,389,029,034 MJ. This includes consumption of energy sources such as electricity, gas, district heating and heating oil that we need for our manufacturing processes and for our administration buildings.

The main type of energy Brose uses is electricity (55%), followed by gas. The majority of gas consumed goes to our production processes and paint finishing systems.

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 2016 we fed 3,965,036 MJ of electricity and 62,483,112 MJ of heat into public supply networks in this way.

### 3. Consumption in 2016

in kWh, by energy type



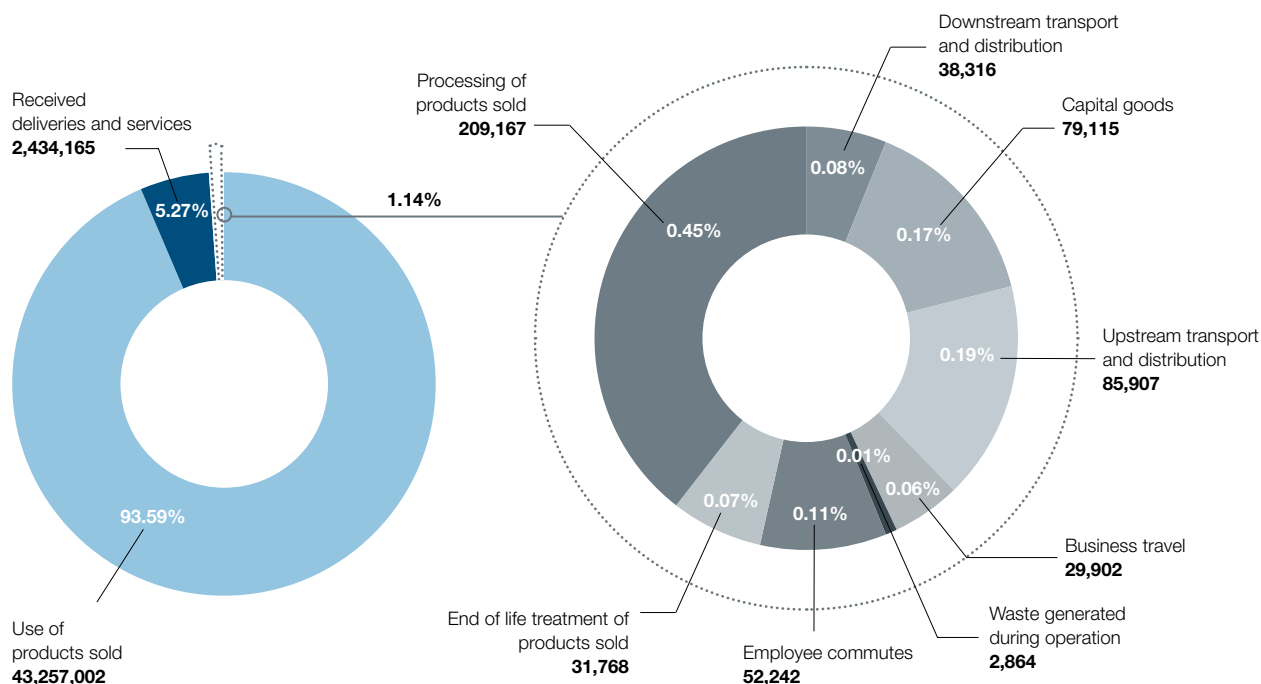
## External energy consumption

The service life of our products is a key aspect of our energy efficiency developments and measures. Supplier management paired with the high demands we place on our suppliers enable us to positively influence the amount of energy consumed by the deliveries and services we receive. We use the same approach for capital goods and transport and distribution of goods.

Figure 4 shows the amount external energy consumed in the respective areas. The basis for comparison is the ton CO<sub>2</sub> equivalent.

#### 4. Externally energy consumed in 2016

using the ton CO<sub>2</sub> equivalent.



## Streamlining energy-intensive processes

The energy intensity of the Brose Group is 351 kWh/ thousand euros. We believe this ratio of energy consumption to plant costs is relatively low.

We were able to achieve significant savings overall in 2016 thanks to efficiency measures (see Table 5).

#### 5. Energy savings thanks to efficiency measures in 2016

	kWh	MJ	CO <sub>2</sub> in t
Power	2,135,502	7,687,807	1,281
Gas	679,471	2,446,096	137
District heating	225,000	810,000	26
Sum	3,039,973	10,943,903	1,444

### Efficiency measures for reduced energy consumption

Most of the efficiency measures we implemented in 2016 were in cross-sector technologies deployed across various manufacturing processes, such as compressed air, lighting, cooling or ventilation. Alongside the successive modernization of our lighting equipment we also replaced compressed air generating equipment with more efficient systems. Most of this equipment features heat recovery systems and is controlled by intelligent compressor controls. We are increasingly replacing incremental controls in ventilation systems with frequency controlled drives, which enables us to operate them based on our actual needs.

In addition, when procuring new systems we ensure that they meet our high environmental and energy efficiency standards. Our technical specifications always include our internal Production Equipment Specifications “Work Safety and Environment – BN 589580”, thereby firmly integrating these environmental and energy efficiency standards in the procurement process.

For example, we rely on efficient servo technology when purchasing new plastic injection molding systems. Compared to conventional hydraulic technology, this step alone can save up to 30% more energy. We also optimized existing production facilities during the reporting year, resulting in even more efficient use of energy.

One of the most important approaches we take to reducing energy consumption and CO<sub>2</sub> emissions is the contin-

uous improvement of our logistics processes. Higher packing densities enable us to lower the number of trips made, thereby reducing our need for fuel. Organizational measures like bundling continuous runs prevent inefficient, half-empty trips. We distributed these improvements across various individual measures to achieve savings of 303 t of CO<sub>2</sub> emissions in 2016.

Aspects like material efficiency, process control and production technology are becoming more and more important for Brose. One example of this is the systematic improvement of our standard component, the window regulator drive. The electronics are integrated into the gear housing in the new generation (see images below). Plastic is being used more and more often instead of steel. This reduces package space and slashes the weight of the component by 25%.



### Greenhouse emissions: Reduction is the long-term objective

Our goal is to influence emissions from our supply chain process for the first time during the target period from 2016 to 2018. We plan to reduce CO<sub>2</sub> emissions from energy use by more than 4,000 t. Until now we have achieved these savings through joint efforts to optimize transport processes. The Brose CO<sub>2</sub> 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 during business travel (Scope 3).

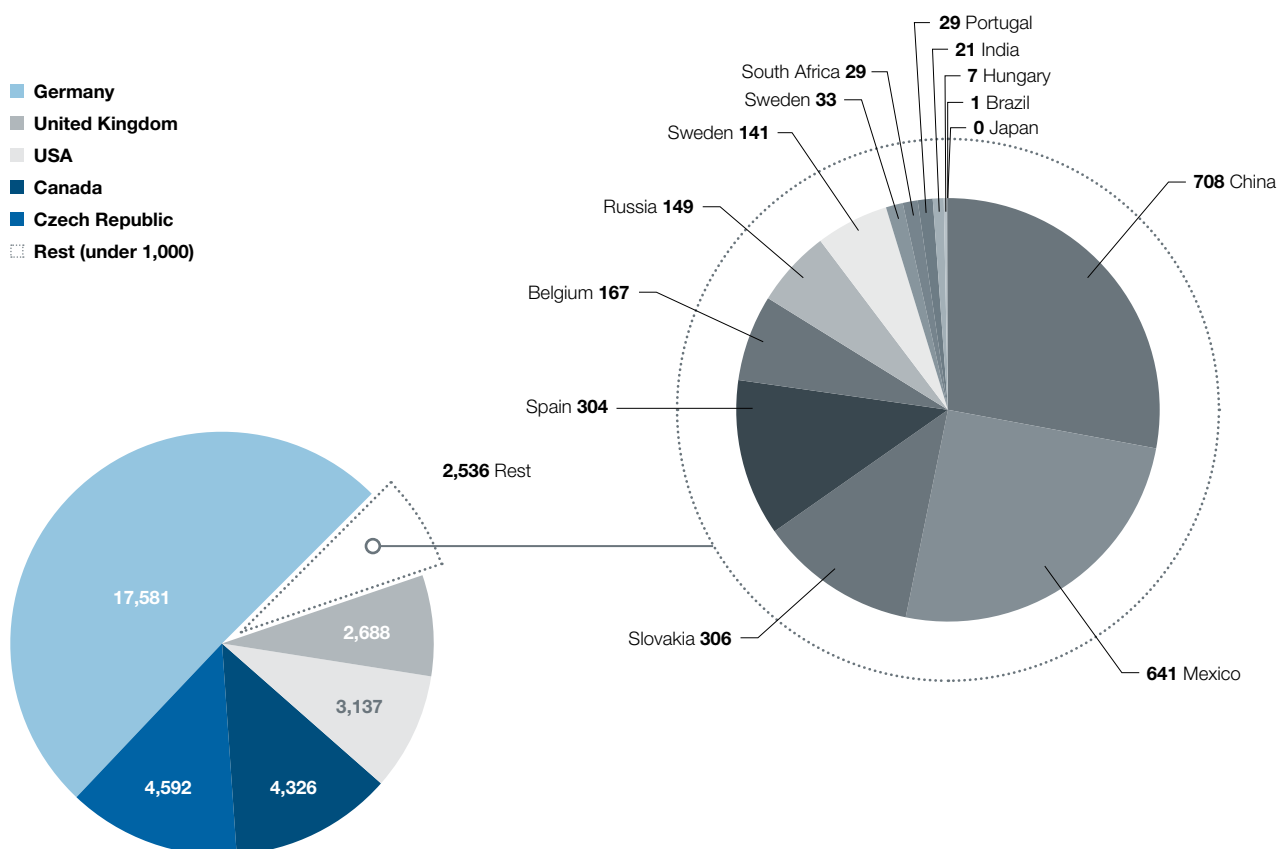
The CO<sub>2</sub> equivalent for Scope 1 and Scope 2 reporting is calculated by multiplying primarily local emissions factors with the computed fuel consumption. In certain locations we also use factors from the Intergovernmental Panel on Climate Change (IPCC) database.

The CO<sub>2</sub> equivalent for the Scope 1 emissions from all of the Brose Group locations in the 2016 fiscal year is 34,860 t. The CO<sub>2</sub> equivalent for the Scope 2 emissions in 2016 was 68,699 t.

In detail: Scope 1 and Scope 2 emissions both rose in 2016 compared to 2014, by 14% and 12% respectively. This rise should be seen in the context of a growth in sales of +16%, meaning it was actually under-proportionate. Due to a lack of data from 2014 we used the location-based method for calculating for Scope 2 emissions.

## 6. Scope 1 emissions 2016

ton CO<sub>2</sub> equivalent



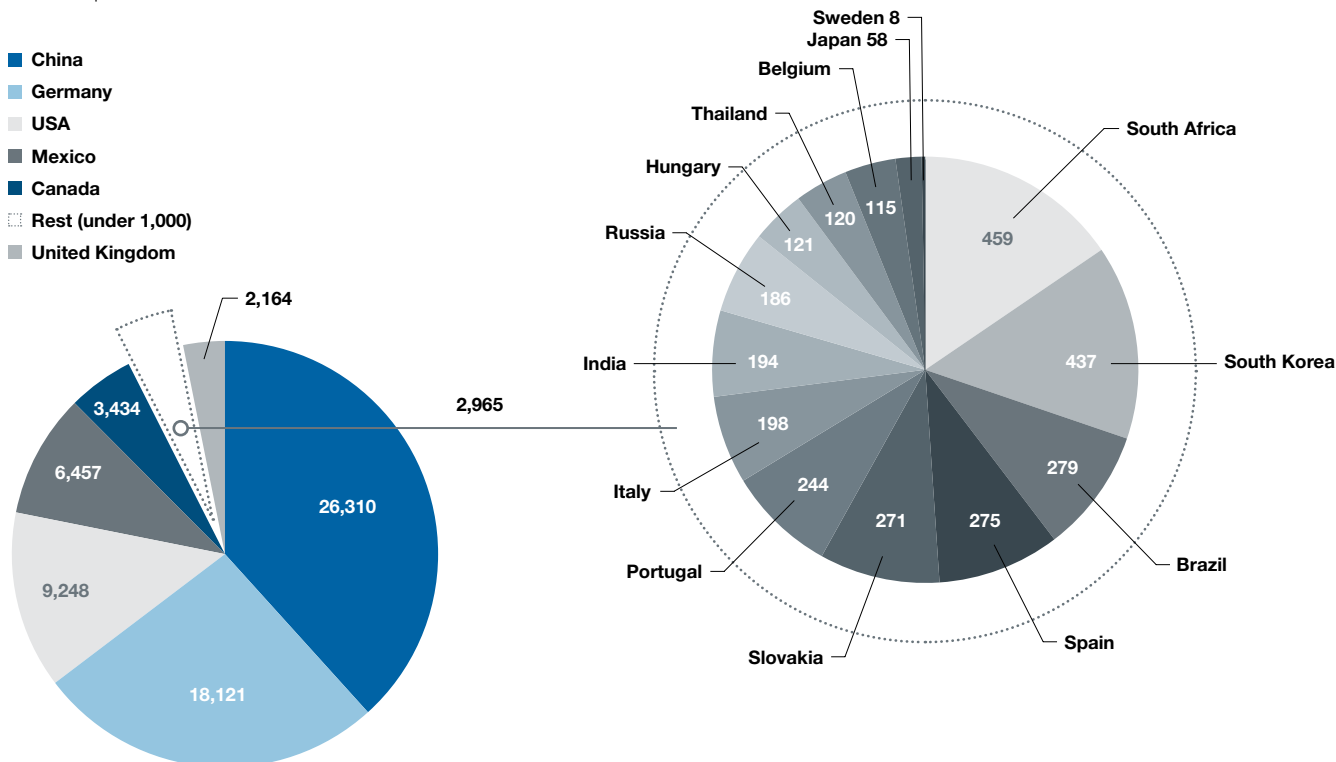
## Emissions from generating purchased energy

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 per-

centage is 27.9% for the eight locations in North and Central America, 39.5% for six Asian locations and 32.6% for Europe (this also includes Brazil and South Africa) with 25 locations.

### 7. Scope 2 emissions 2016

ton CO<sub>2</sub> equivalent



## Emissions from the downstream value chain

The CO<sub>2</sub> equivalent for all Scope 3 emissions from the Brose Group locations in the 2016 fiscal year is 46,220,448 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.

For decades lightweight construction more than anything else has shaped our identity as proof of our development

expertise. Lightweight design is absolutely essential to further reduce emissions during the service life of fuel-powered or electric vehicles. The positive effect can be demonstrated in figures: in 2016 advancements in our products enabled us to help bring about a CO<sub>2</sub> reduction of over 87,000 t during the useful life of our products. The CO<sub>2</sub> savings is associated with the lighter products we sold during fiscal 2016.

## Determining the intensity of GHG emissions

The intensity of GHG emissions in the Brose Group is reported annually in the Carbon Disclosure Project.

Three different intensity quotients are provided.

### 8. Intensity quotient of GHG emissions in 2016

Intensity quotient	Value	Change vs. previous year	Reason
t CO <sub>2</sub> /million Euros in turnover	21.16	- 12.6%	Increase in the share of renewable energies for electricity purchases
t CO <sub>2</sub> /employee	5.12	- 13.1%	Increase in share of renewable energies and growing number of employees
t CO <sub>2</sub> /MWh	0.35	- 17.9%	Increase in the share of renewable energies for electricity purchases and rising energy consumption

## Long-term objective: Reducing and replacing ozone-depleting substances

Brose is committed to further reducing greenhouse gases and harmful emissions beyond CO<sub>2</sub>. This applies in particular to volatile organic compounds (VOC) and chlorofluorocarbons (CFC).

CFC-containing refrigerants are chiefly used in climate technology, for compressed air dryers, cold chambers and recooling plants as well as for “small systems” such as refrigerated cases, beverage dispensers or water coolers. Our goal is to gradually replace the refrigerants needed for this

equipment groupwide with climate-friendly alternatives or different technologies. In 2016 the amount of partially halogenated refrigerants in circulation in the Brose Group was 11,725 kg.

In some locations volatile organic compounds (VOC) are emitted when coating parts for seat adjuster systems. To keep these emissions as low as possible, we will be using new, water varnish systems with solvent concentrations of just 1-2%.

## Reducing air emissions with intelligent processes

Clean air measures go hand-in-hand with other process improvements. One example of this is the cathodic dip painting line we commissioned at our Coventry plant in 2017. It is the first system in the Brose Group to fully refeed waste heat generated from thermal recombustion back into the process. Moreover, treatment of waste gas ensures that no additional sulfur dioxide (SO<sub>2</sub>) and nitrogen oxide (NOx) emissions are generated to feed heat to the dryer or for process water heating.

### 9. Cathodic dip painting system at our Coventry plant



This heating concept, which Brose developed together with our suppliers, is scheduled to be transferred to all new systems, including those in places where recombustion is not required by law – like our New Boston (Michigan, USA) location.

Right now four out of seven cathodic dip painting systems are equipped with thermal recombustion technology, reducing the maximum likely solvent emission rate by 48t/year.

## Transport and logistics: State-of-the-art intralogistics in Ostrava

Established in 2004, the Brose production facility in Ostrava, Czech Republic is one of our lead plants. Brose has its own press shop there along with an acoustics center and a paint-shop. Seat structures, electric motors and drives and closure systems are manufactured in Roznov. We supply over 30 OEMs and suppliers worldwide from Ostrava. The common seat platform for BMW and Daimler – one of the most modern on the market today – is manufactured here, for instance.

Brose deployed a new logistics concept in Ostrava in 2014 that sets standards worldwide. The concept aims to optimize energy consumption with highly efficient processes. General contractor SSI Schäfer realized the project: SSI Schäfer impressed Brose with its single-source material and information flows and the implementation of the SAP EWM logistics solution.

The material flow starts with storage in the high-bay warehouse. Materials are transported to the repacking area on demand and then sent to the automated small parts warehouse. They are then taken to the tugger train stations as required. From here they are transported to production on board tugger trains.

The plant receives parts and materials from 366 suppliers and during peak times employees unload up to 65 trucks via seven ramps daily. The conveyor technology can store up to 180 heavy load containers per hour in the five-aisle high-bay warehouse.

The high-bay warehouse has 10,000 storage spaces. From here the materials are distributed on demand. The bridge either leads to production or the depalletizing robot. Following the fully automated depalletizing process, the mini load containers are stored in an automated small parts warehouse

10. High-bay warehouse in Ostrava with 10,000 storage spaces



with seven aisles and 23,500 storage containers in the most space-saving way possible. Storage and retrieval systems with energy recovery systems ensure that the handling process is fast and energy efficient.

At the heart of the plant is the innovative tugger train solution, which almost completely eliminates forklifts in the plant – this solution is the only one of its kind worldwide. Small parts are ready for transport in the four stations using a practical and fast drive-through loading system. The tugger trains run according to a schedule – on average, a tugger train leaves a station every four minutes. This ensures optimal material supply in production. Employees do not handle the mini load containers until they reach the assembly line – this signals the end of the automated process. All in all, Brose has developed a forward-looking logistics solution for material and information flows in Ostrava. The modular solution components will also be rolled out at other production facilities in the future.



## Waste: Avoid, prepare, dispose of professionally

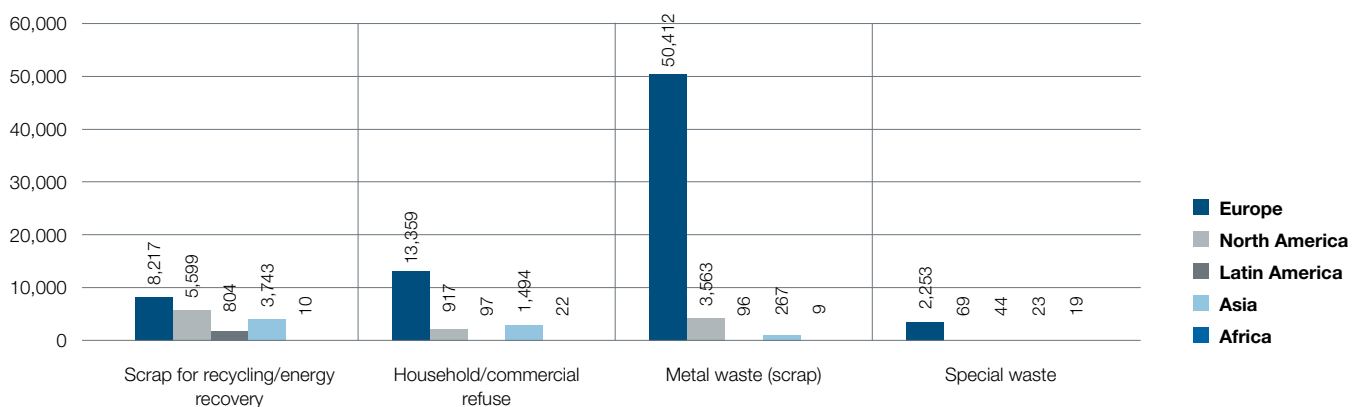
At Brose we try to avoid generating waste whenever possible, which is why we use reusable packaging that is returned to us for shipments. However, since waste cannot be avoided entirely, we separate it by type in our locations to ensure effective disposal and recycling. The waste generated in our locations comprises: scrap for recycling, household or commercial refuse, metal waste (scrap) and special waste.

We comply with reporting regulations. Documenting waste paths is designed to ensure that waste is transported away, recycled or disposed of in accordance with legal requirements. We have valid, written permits for waste disposal.

When selecting disposal companies we consider legal requirements, existing permits and completed service provider audits. Waste is almost exclusively sent to local disposal specialists. Waste is never transported across borders and residual materials are never exported.

### 11. Amount of waste types in 2016

in t, by region



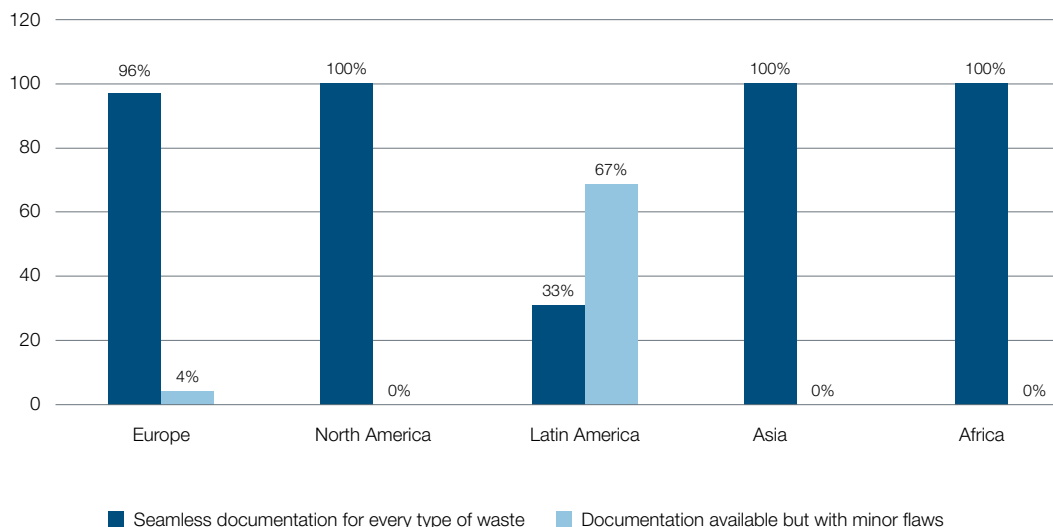
## Disposing of hazardous and non-hazardous waste

Brose hires external companies to dispose of the various types of waste in a professional manner. We select these companies based on our company policies and only award the order when we have deemed the company to be suitable and reliable. Of the selected disposal companies, 95.5% are waste disposal specialists or companies that meet the necessary legal requirements for recycling waste and have the necessary permits. Only 4.5% of the disposal companies that comply with the legal requirements do not have fully documented proof of this compliance.

We offer additional environmental engineering consulting for disposal companies: the Brose environmental protection specialist advises the external company on all questions related to environmental protection, waste disposal, soil and water conservation, the release of pollutants and handling hazardous materials.

### 12. Documented waste paths in 2016

by region



## Pollution

The Brose Group records all incident-related pollution. No significant pollution due to waste, chemicals or uncontrolled emissions released into the environment was reported

during the reporting period. Consequently, no fines or other non-monetary sanctions were issued against the Brose Group.

## Environmental regulations: Violations of applicable laws

Our “Guidelines for environment, energy and occupational safety and health” document our commitment as a globally operating company to utilizing environmentally-sound technologies. Our responsibility takes into account the entire life cycle with regard to the impact of our products on the environment. Our guidelines are binding for all Brose Group locations and are supplemented and/or concretized

through the formulation of location-specific environmental, energy and occupational safety programs.

We monitor compliance with all rules and laws related to the environment and work to counteract violations. No fines or other non-monetary sanctions were issued in 2016.

## Biodiversity: Having a positive impact

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 the greatest danger for the biological diversity of our planet. Biodiversity is also viewed as one of the most essential foundations for human welfare.

Scientists see negative influencing variables on biodiversity among other things in soil sealing, climate change, in increased concentrations of CO<sub>2</sub> 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<sub>2</sub> emissions in our locations, but also to reduce the weight of our products. After all, if vehicles weigh less, then CO<sub>2</sub> and other harmful emissions may also decline during the life cycle in which our products are integrated.

## Water and effluents: Responsible treatment of the most important element

Total water consumption during the 2016 fiscal year rose from 652,604 m<sup>3</sup> to 736,359 m<sup>3</sup> compared to the year prior. Water consumption per employee and workday is approximately 130 liters. Water is obtained as well water (38.4%) and municipal water in potable quality (61.6%).

Brose uses 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.

We want to continue to reduce our demand for water 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 began introducing a system from 2016 to 2018 that enables us to measure and evaluate our water consumption along with measures 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. Independently of this, our plants were already focusing on water-conserving production during the 2016 fiscal year.

At the process level, surface technology is the largest water consumer in the Brose Group. It has a 98% share of our process water requirement, which corresponds to 23% of all fresh water needed. This is why we are concentrating on reducing the amount of water obtained as well as effluent levels in surface technology.

One example of our efforts in this area is the dramatic reduction of the specific water consumption of our 9-zone CDP system, specifically due to recirculation, cascades, bath maintenance measures and process control. The latest-generation system consumes 5.6 l/m<sup>2</sup> of painted surface. The effluents we treat in our own plants are always emptied into the municipal sanitary sewers.

## From fresh water to rainwater: Specific water removal

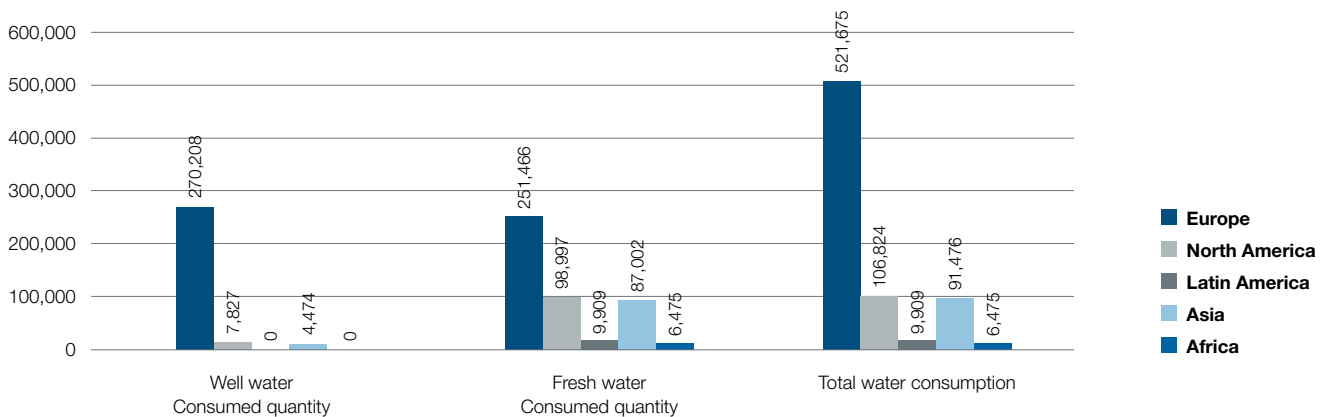
Brose uses a variety of sources for its daily water needs. Sanitary and social services use over 62% of fresh water; 23% is used as process water for surface technology. We use 13% of fresh water for irrigation and the remaining 2% for cleaning and washing processes.

Well water is used almost exclusively for cooling purposes in our German locations; it is led back to the ground water via drainage shafts.

Brose uses well water to cool production processes at its Coburg location. After cleaning it is led to the storm water sewer in desorption systems.

### 13. Total water consumption in 2016

in m³, by source and region



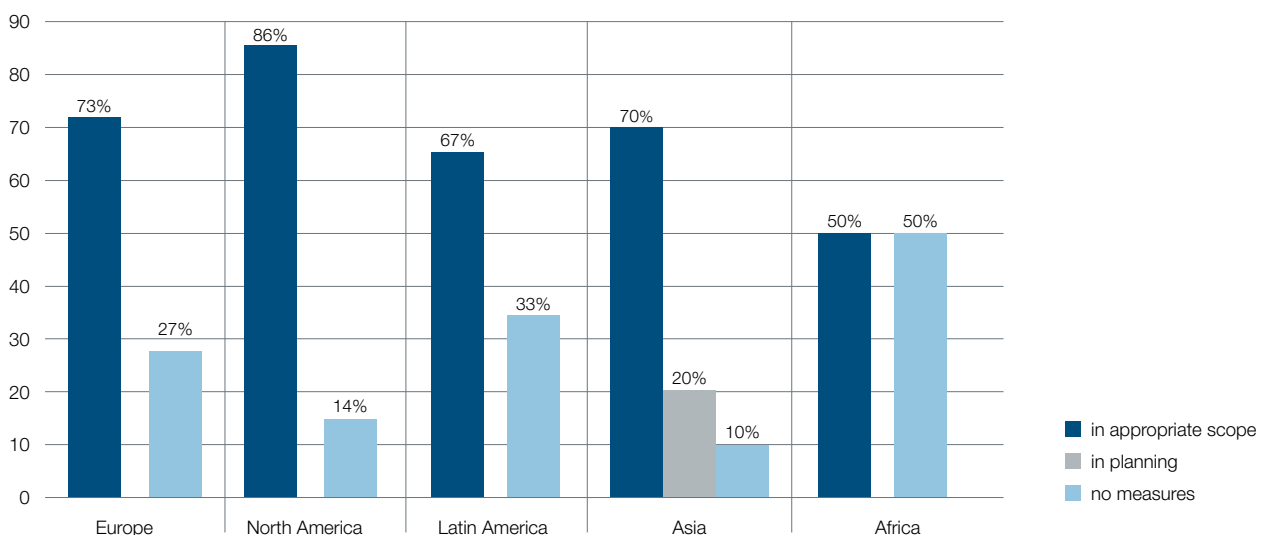
## Treated and reused water

Brose has effluent treatment systems, but it does not have its own water treatment systems. The reason for this is the position of our locations where a well-developed municipal infrastructure ensures the corresponding water treatment, thereby enabling water to be returned to surface water. Our Quéré-taro Aeroportito location is one exception. Here effluents are treated in the industrial park's own effluent treatment system

and provided to the businesses located there again for reuse. However, we are aware of our responsibility when it comes to a resource as valuable as water and we are working hard to conserve potable water as much as possible. At the same time, we require more water for our production processes. Total water consumption during the 2016 fiscal year rose from 652,604 m³ to 736,359 m³ compared to the year prior.

### 14. Water use in 2016

share of locations with implemented water savings measures



## Effluent discharge systems and water quality

The Brose Group generated 773,103 m<sup>3</sup> of effluents in 2016. Due to the high water quality we can 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.

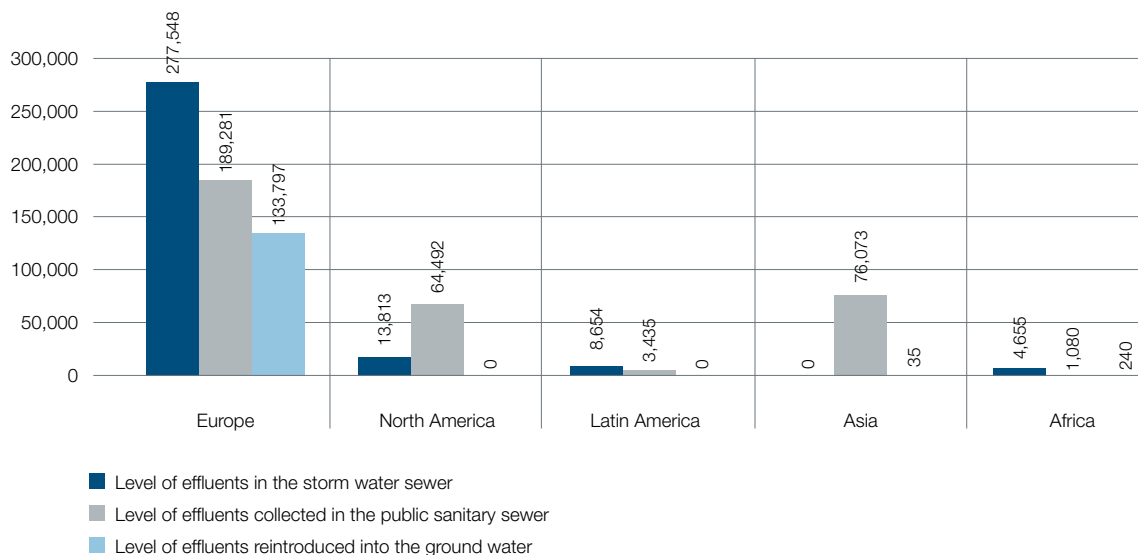
Effluents from paint finishing systems are treated in a batch plant prior to being led into the sanitary sewer. We are in-

creasing 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. And our plants have introduced a range of methods of avoiding waste water.

### 15. Effluent discharge rates in 2016

in m<sup>3</sup>, by disposal type and region



## Fines and non-monetary sanctions

We are unaware of any of our effluent discharge systems having a negative impact on conservation areas or biodiversity. We comply with regional regulations, usually exceeding them with the Brose standard. We have no fines or other violations of environmental regulations to report during the 2016 report-

ing period. Nor have we documented any internal violations of such rules within the company. We monitor compliance with the related legal requirements using our environment and energy management system.

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## 5. People at Brose

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### Goal: Shared responsibility

We owe the market success and strong business growth of the Brose Group to the inventiveness, innovative capacity and technical expertise of our staff. A powerful focus on our people and values has a lasting effect on our HR policy.

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 family's willingness to put the welfare of the company and its employees ahead of their own personal interests.

### Value-oriented HR work

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.

We want to foster a diverse corporate culture and solidify a common identity, which is why our HR department incorporates the values defined in the company principles in its HR tools such as employee surveys, feedback discussions, personality profiles, orientation programs or leadership development courses.

## 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 600 training manuals and guides to encourage flexible, independent study. In 2017 the average number of hours spent on further education and training was 25.3 (indirect employees) and 5.1 hours (direct employees). Brose has not collected data for direct and indirect employees based on gender to date. 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 pro-

grams as needed. These measures equip participants with the skills they need to successfully take on further leadership roles at Brose. Moreover, our family-owned company offers committed employees further training opportunities throughout their careers regardless of their level of education. In fact, we offer over 450 training and qualification measures. We also have local qualification programs, master tradesman courses and master's degree studies programs for full-time employees as supplements to these measures.

In addition to all of these benefits, we also offer many different health programs to keep employees physically and mentally fit – during their active careers and beyond. Salaried employees in our German locations can take advantage of what is known as the advisor model as part of a part-time retirement program. The program assists employees with their retirement from work life by gradually reducing their weekly working hours over the course of several years. An organized transfer of knowledge and experience is also ensured during this phase.

## Varied career paths

Our company offers employees professional and customer project manager career paths alongside the management career path. The career path concept is permeable and can be flexibly adapted depending on how participants 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. This feedback is provided to all salaried employees in the scope of the annual Performance and Talent Management (PTM) process. The process includes objective agreements and meetings along

with performance appraisal and potential evaluation. 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. Supervisors work with the HR organization and employees to define measures and development goals to allow their true potential to fully unfold in their new role. Progress in succession planning and employee development is reviewed at least twice yearly.

Employees who are interested in a specific position can take the initiative and discuss the next steps in their career devel-



opment with their supervisors or HR support officers. Similarly, supervisors are responsible for using performance appraisal meetings to prepare development plans with employees, which can help develop the necessary professional skills and management expertise. Our managers also meet with HR sup-

port officers every year to perform a structured analysis and discuss their employees' qualification requirements. These employee discussions are an important element both in scheduling training and development measures and succession planning.

## 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 professional lives. 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.

Our corporate group offers young people challenging apprenticeships that will provide them with long-term career perspectives both here and abroad. Brose has offered apprenticeships for over 90 years – today over 400 apprentices and dual-track students are learning a new trade with us. Nearly a quarter 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 nine industrial/technical and commercial vocations. This includes – in combination with a corporate apprenticeship – dual studies programs offering Bachelor's degrees in mechanical engineering, electrical engineering, business informatics or business administration and engineering. Analogous to the dual-track studies program, we also offer programs with universities of applied sciences with deeper practical experience in electrical engineering and information technology, automotive engineering, business administration and engineering and automotive and automation technology and robotics.

## Apprenticeship award in the US

Brose is one of the founding companies behind the "Michigan Advanced Technician Training" program. The program was developed based on the German vocational training standard and supported by the German American Chambers of Commerce (GACC) and the German Chambers of Industry and Commerce (IHK).

Brose is currently training 18 apprentices in total as mechatronics technicians and technical product designers in a number of locations. In 2017 the GACC recognized Brose's involvement with its apprenticeship award. It highlighted the company's innovative employee development framework that opens up challenging career paths to young people.

## Consistent integration of new curricula

The Brose training concept consistently incorporates new curricula into the apprenticeship program. We do this to foster high-potential professionals who can handle technical and organizational challenges with expert skill and encourage them to remain loyal to the company. Digital media, IT learn-

ing systems or learning with tablet computers are standard elements of our training concept. Instructors receive parallel training on how to deploy new media and hone their IT skills so that they can create their own course content.

## Strengthening interdisciplinary expertise

An apprenticeship at Brose is so much more than simply learning a trade: we also encourage apprentices and demand that they act in a team-oriented, responsible way. This is one reason why we also offer regular language training courses along with temporary assignments to Brose Group locations in Europe and abroad that last several weeks during the school break. What's more, our apprentices in the Brose Junior Company work on company-specific assignments – an experience that helps them strengthen their professional, methodological and social skills.

The German Vocational Training Association (DBA e.V.) awarded us its “DBA-Cert Quality Seal” in recognition of our company's excellence in apprenticeship training. This confirms that our training processes are implemented in an effective, efficient way and that every employee involved with training has a working knowledge of standards, guidelines and methods. All topics are systematized with the goal of making the training processes and methods simpler and more efficient. Results are documented in a quality manual. Recertification takes place every three years.

## Performance and compensation

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 characteris-

tics. 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.

## Fair wages

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.

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 performance appraisal meetings for this purpose. Supervisors evaluate their employees based on their performance and share confidential feedback with them.

Around 8,300 employees (starting from a specific wage group) and managers primarily from development and commercial administration worldwide participate in the

objective agreement and performance appraisal process. In 2017 around 72% of participants were male, while 28% were female. Supervisors receive training in "leading with objectives". They arrange clear, unique, manageable and motivating assignments and achievable results with their employees.

With respect to gross annual income the income ratio of women to men across all employee groups is just under 90%. Differences can be found in personal paths through life and development (e.g. part-time employment), which all have an impact on wages earned. The three main locations in Coburg, Bamberg and Würzburg with a total of nearly 7,400 employees were used to calculate the income ratio. Collective wage agreements apply directly to about 40% of jobs at Brose. Only core staff members are counted here.

## Bonuses for business success

Contractually agreed or voluntary profit-sharing bonuses paid out to our employees depend on the results of the corporate group and the respective business divisions

or regions and whether employees achieve their personal objectives. Our company does not offer any stock-based, long-term performance incentives.

## Additional company benefits

At its German locations in Coburg, Bamberg and Würzburg and the regional headquarters in Detroit and Shanghai Brose also offers a comprehensive compensation package that includes a monthly fixed salary and a variable, performance-based remuneration component along with a variety of additional benefits. This includes a company pension plan, for instance. The plan is either insurance-based or structured as a direct commitment depending on the country. The contri-

bution level depends on the employee's own contribution or income. Additional company benefits from Brose tailored to the locations and/or plants can include hiring bonuses ("Bring a friend"), anniversary bonuses, per diem and event allowances or supplying workwear and equipment. Company sports programs, discounts on merchandise from the Brose company shop and car and e-bike leasing offers can supplement any benefits package offered by the respective location or plant.

## Good working conditions: Health and society

Our company is always developing new, family-friendly, employee-oriented HR concepts. These concepts have a long-term focus, incorporating economic, social and demographic trends. Whether internationalization, an aging society, personalization or changing social values: the associated changes have a sustained impact on working environment, collaboration and types of employment.

Brose has a number of options in its toolbox to face these developments head-on. We increase employee retention and work satisfaction, decrease absences and secure the future viability of Brose as a company to recruit qualified new employees.

Alongside the motivating working environment we call the “Brose Arbeitswelt” we also offer flexible working hours and a wide range of flex-time models. They not only help us meet our business requirements, they also enable employees to balance their personal and professional lives.

Comprehensive programs that promote a good work-life balance and a broad spectrum of health services are two other ways of expressing our corporate culture and are an essential element of our corporate strategy. Employee and Family Services plays a key role here. It promotes family-friendly HR concepts, offers personal consultations to our employees, raises awareness to promote health-conscious lifestyles and encourages active engagement and personal responsibility.

## Global health management

As part of a contemporary, internationally connected health management system our family-owned company invests in ergonomically optimized workstations, health-oriented worksteps, numerous health programs, balanced, high-quality catering services and local and international sporting events. This exceptional range of services is tailored to our people's needs and helps enhance our employees' health and productivity in administration and production – which is becoming increasingly important now that people are working longer over the course of their lives. Preventative measures are the focus – both at work and outside work. They promote the wellbeing of our employees and improve their personal quality of life.

Additional key fields of action as part of our family-friendly HR policy include in-house childcare, support for family members who need special care and maintaining employability in light of demographic developments. Like our health management program we also use structured communication and other methods of addressing employee groups in a targeted way to increase acceptance and use of these services. Additional campaigns and innovations allow us to make sure that employees remain aware of relevant topics.

## Exemplary child care: The Brose Kids Club

The Brose Kids Club is at the heart of childcare at Brose. It is established at the headquarters in Coburg and in the largest production facility in the Brose Group – Ostrava in the Czech Republic. Around 7,000 people are employed in these two locations alone.

Employee children from ages six to 18 can visit education and childcare facilities in Coburg and Ostrava. The Kids Club provides supervision for children in the afternoon, during school breaks and in emergencies. Beyond childcare, education is a primary objective: the Children's and Youth Academy offers training courses for different age groups. The Kids Club also offers dual-language care (English).

We even offer childcare for small children three years and under. Full-time daycare is available in Coburg via cooperation agreements with external service providers and in Ostrava in Brose's own Kids Club. Employees can also book care on an hourly basis depending on their individual needs.

In addition to this, around 8,000 salaried employees in Germany have taken advantage of the parental leave program governed by local law. About two-thirds of these employees were men. Virtually all employees returned to the company when their parental leave was over.

## Care: A strong network

More and more of our employees must now care for family members with special needs. Our family-owned company supports employees who take on this responsibility with the "Care Network", which offers contact and coordination points to help them more effectively balance their work with their need to care for their families.

The network comprises the company's own Employee and Family Services, volunteers, personally affected employees and our medical team. It offers concrete help, enables em-

ployees involved in care to exchange experiences and raises awareness among the workforce and managers of the challenges of caring for a loved one.

Employees can also take time off to care for family members. In addition to legal provisions we also offer a care sabatical, our company's own concept for periods of leave: employees have the option of taking leave for a period of four or eight weeks with alternative wage models in the event of an acute care situation.

## Keeping an aging workforce fit

Demographic change is not only apparent in our population; it is also reflected in our workforce. The average age is already over 42 at our major plants in Coburg, Hallstadt and Würzburg alone. More than 2,000 employees work there in total, which constitutes over 85% of all production employees in Germany.

Although they belong to the segment of the population that is particularly affected by musculoskeletal disorders, cardiovascular disease as well as colds and flu, production employees have so far made little use of the company's own programs. Now that people are working longer over the course of their lives, maintaining their employability is one of the central purposes of our occupational health management system.

It is not just about health promotion measures alone. Employability means actively participating in social and work life, and this also depends on the long-term relationship between a person's skills and their work. This is why Brose aims to maintain the ability to learn and health of the individual – and increase awareness of the problems facing our

production employees with a targeted demographic campaign. Beyond using the campaign to raise awareness and holding annual health campaigns, we will also implement the following measures to maintain the employability of our employees in production and administration now that people are working longer over the course of their lives:

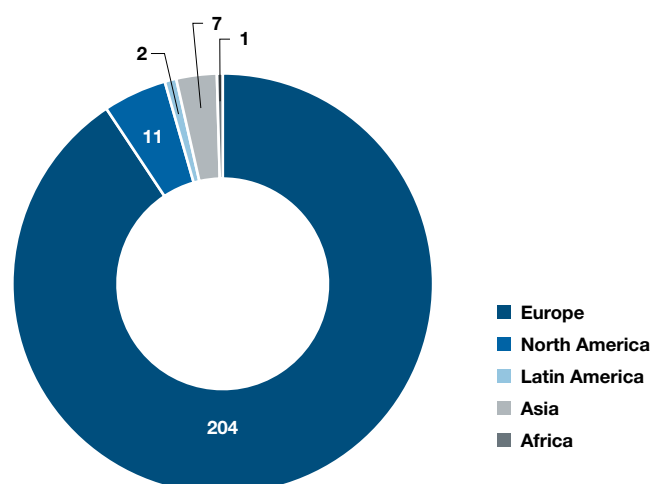
- Fast and effective treatment of musculoskeletal disorders in the company's own health center by means of Medical Training Therapy (MTT)
- Sport and health pass at our German locations
- Setting up working groups in specific areas of production with employees whose performance is impacted by health issues
- Increased use of job rotations in production to help our production employees avoid unbalanced posture and repetitive strain
- Prevention of repetitive strain in production and administration with regular stretching and loosening exercises
- Information events on healthy eating, handling stress, preventing addiction or quitting smoking
- Creating a balanced age structure within our workforce.

## Work-related accidents

Our goal is to prevent work-related accidents in production and administration. 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.

The number of reportable work-related accidents in 2016 is shown in Figure 1. Accidents resulting in more than three days of lost time are indicated as reportable. The provisions set forth by the German professional societies are valid group-wide. There were 225 such accidents in the group in 2016. In these figures 222 workers in plant functions and three employees in the business divisions were affected, while no employees in central functions experienced such

1. Number of work-related accidents >3 days in 2016



accidents. Most accidents occurred in Europe (204), while only eleven were reported from North America, two from Latin America, seven from Asia and one from Africa. There were no fatal accidents in the Brose Group in 2016.

Key figures recorded include the number of reportable work-related incidents per thousand employees in Figure 2 and the "Accident severity" (days lost/number of incidents) in Figure 3.

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.

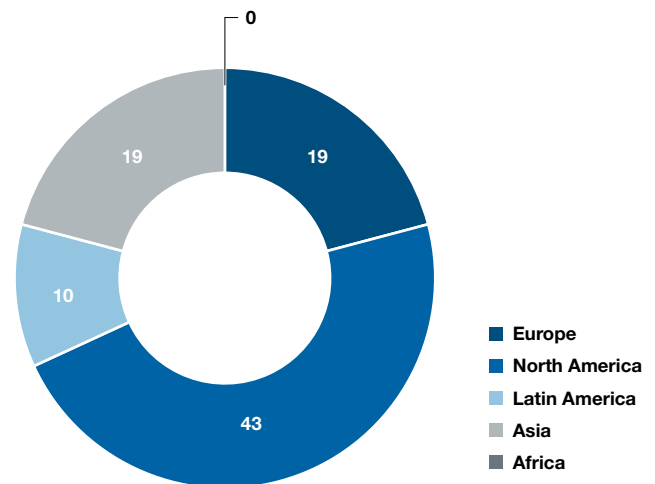
The number of incidents per thousand employees is 12 for the group as a whole. Europe exceeded the group average with values between 19 and 23 incidents, while the remaining regions had a maximum of five incidents per thousand employees.

Accident severity in the group was 19.6. North America experienced the highest severity level (43) and Africa

ca the lowest (0). Working conditions and preventative measures are comparable in all of the Brose Group's locations. However, accident rates and lost time tends to be higher in Western countries. This has to do with different regional and social standards and cultural behavioral norms, which can interpret the severity of an injury in different ways.

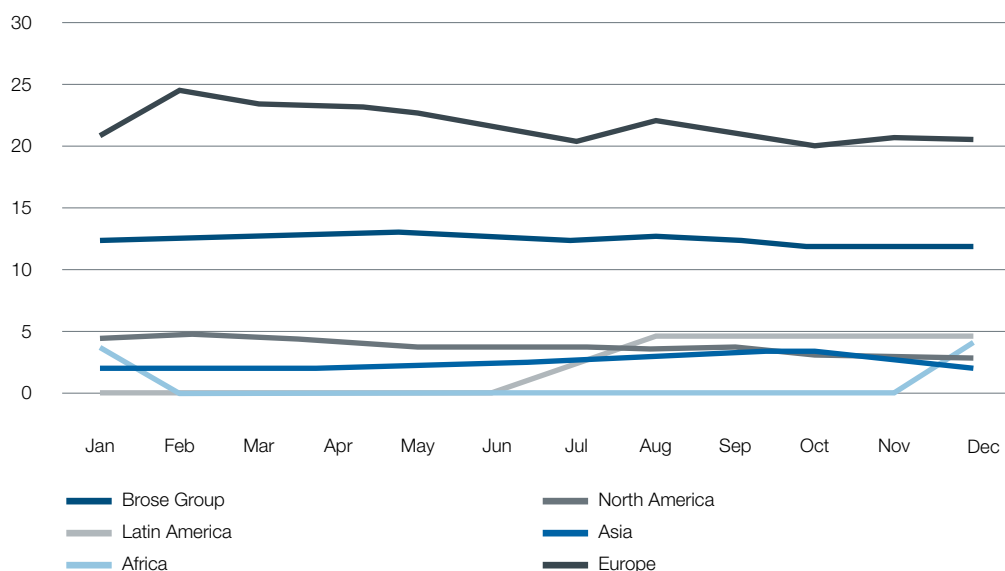
### 3. Accident severity in 2016

number of days lost per number of accidents



### 2. TMQ3 2016

Incidents per 1,000 employees, by region



## Outstanding employer awards

Brose is 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. Brose once again ranked among the top 100 companies in the 2017 “Trendence Graduate Barometer”. The company ranked 91st in the “engineers” category and 95th in the “economists” category among 12,000 survey participants. Brose placed 95th among the top 100 employers in the 2017 Universum Survey of over 9,000 engineers. For the third time in a row, we were ranked in the employer branding survey con-

ducted by human resource consulting firm Randstad, placing 2nd in the automotive suppliers category. In China the “Top Employer Automotive 2015” study by the international Top Employers Institute ranked Brose as one of the best national employers in the industry. The company scored points with its exemplary working conditions, programs for developing young talent and a systematic performance management concept, all of which are aligned with the corporate culture. Another award is the designation as a “MINT Mindful Company 2017”, which Brose received for its commitment to fostering young academics with qualifications in mathematics, information technology, natural sciences and technology (MINT). The survey asked 17,000 MINT students and graduates in the area to name their preferred employer.

## Regular employee surveys

Brose has conducted employee surveys for years. Solid studies document how satisfied employees are with their workplace and how strongly they identify with the company. This is why topics such as working conditions, management, company principles and solidarity are at the forefront of these surveys. Most of the surveys conducted in the past had a regional focus. The first global survey was carried out in the Brose Group between July 2015 and June 2016. Over 21,000 employees at 50 locations in every region were surveyed. 87% followed the call. More than 900 managers received about 200 separate analysis reports for their area of responsibility.

About 3,200 measures were developed at locations throughout the Brose Group in response to the survey. Main focuses included working conditions and the FIRST company principles – in particular Respect and Success. Our employees would like to be more actively involved in decision-making and change processes. They also appreciate self-critical root cause analysis and thorough error resolution. In addition, they want supervisors to identify work overloads and take actions to achieve a good balance between work and private life.



## 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.

Competitions also offer important impetus for the continuous improvement process. They help us see where we stand compared to other companies. Awards such as “Fam-

ily-friendly company in Upper Franconia”, the “Success factor family” innovation award for our Brose Kids Club, “Helping Hands” presented by the Bavarian Red Cross for our involvement in helping employees care for family members with special needs or the Corporate Health Award seal of excellence for the exemplary range of services found in our health offers are all proof that Brose is among the leading industrial firms in Germany whose company health management program is structurally and strategically integrated in its business processes and promotes an enterprise-wide culture of health.

## Attractive benefits

Brose is also always expanding its range of voluntary benefits tailored to the needs of its locations. Alongside our comprehensive health management system, our family-owned company also offers employees a company-private pension plan among other benefits. We also offer car leasing, which enables employees save taxes. Brose also launched an e-bike leasing campaign for employees at its German locations featuring the slogan “Keep fit, protect the environ-

ment 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. Our employees can lease up to two e-bikes with a Brose drive for themselves and family members who live in the same household. Employees have the option of purchasing their bikes at their residual value when the term of the lease expires.

## Pension plan

Obligations arising from the pension plan for the Brose Group worldwide were 486 million euros (according to IFRS) as at 31 December 2016. Preparations are currently underway to provide basic financing for the pension obligations in Germany as part of a Contractual Trust Agreement (CTA). A coverage rate of over 50% is planned. 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 foreign pension plan model relies on a combination of employee and employer contributions as part of a deferred compensation plan featuring insurance-backed solutions.

## Corporate diversity

Our corporate group is present on virtually every continent. Around 65% of our employees work in our foreign locations. Together we currently represent over 80 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, networked thinking and action.

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 par-

ticular, Brose has spent years supporting measures that get young women interested in technical career profiles early on in life.

A selection of these activities ranges 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 to support professional growth in responsible technical and management positions.

## A global team

An appreciation of “otherness” is a matter of course for us and a key to global business success. We explicitly document this in our company principles, in particular under the principle “Respect”.

We value employees with a strong global orientation – a valuable asset that enables them to collaborate well, understand their environment and act effectively. This includes an understanding of other cultures and the ability to handle ambiguity and diversity. Specifically tailored intercultural training courses help employees act with confidence on an international stage, free of any fear of contact or reservations in dealing with others.

Almost two thirds of all Brose employees work outside of Germany. Every workday is international due to cross-border and cross-language communication between loca-

tions and project teams. Many employees in development, production and administration today constantly work in a global network – within our company and with customers, partners and suppliers. And more and more employees go to foreign locations to work for a certain period of time.

Qualified employees can work in another country for anywhere from three to up to twelve months. We offer temporary assignments so that our employees can broaden their professional, language and intercultural horizons while transferring their knowledge to different regions. Longer foreign assignments are also possible.

## Social commitment – Sponsoring activities at Brose

As a family-owned company accepting social responsibility in the communities surrounding our global locations is a matter of course. This is why Brose is involved in the areas of sport, education, culture and society.

Sport requires talent, a willingness to do your best, ambition, discipline, passion and team spirit. All of these characteristics are in 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.

This is why we have sponsored basketball in particular for many years now. This ball sport is highly dynamic and fascinates viewers with intelligent interaction between talented individual players. This fits well with our company. Our involvement in the clubs in Bamberg, Bayreuth, Würzburg and Coburg has helped make Franconia a bastion of professional basketball in Germany. But young athletes or international motor sport series are also an established part of Brose's commitment. Brose received the Bavarian Sports Prize in the category "Outstanding advocate of sports" in July 2017. We also continue to support activities in the following areas:

### Culture

Culture is not only an expression of but also a driving factor behind important social values. These include openness, advocacy and a high standard of quality. We share and promote these values.

Brose has supported the Bamberg Symphony since 2005. It celebrated its 70th anniversary in March 2017. What we are most passionate about is introducing young people to classical music. Twice a year symphony concerts are hosted for students at discounted rates. We also support the Bamberg Symphony Gustav Mahler Conducting Competition – one of the world's foremost events for talented young conductors, which takes place every three years. 381 young musicians from a total of 64 countries entered in 2016, of which 14 – eleven male and three female conductors – were invited to Bamberg.

Bamberg's old town center has been a World Heritage Site since 1993. The Bamberg World Heritage Run is designed to bring this message closer to people. It builds a bridge

between culture and sport enthusiasts from around the world. Every two years around 12,000 athletes from all age groups and 40,000 spectators meet to take part in an all-day event featuring sport, entertainment and culture. Routes of different lengths take runners past many of the city's most beautiful sights. Brose has supported this event since 2005.

### Social responsibility

Brose sees accepting responsibility as one of its social obligations. This is why we support charitable organizations – especially in places that need it most.

One highlight is an employee program to integrate refugees at its three Franconian locations Coburg, Bamberg and Würzburg. In 2016 60 refugees and recognized asylum seekers received assistance from 60 employees working on a purely voluntary basis to prepare them for living and working in Germany. Brose supported this campaign in part by funding training for the sponsors along with German courses and psychosocial counseling for those affected. Brose also gave refugees an opportunity to see how operations work in the respective region.

Our employees helped the migrants help themselves and begin paving the way for successful integration early on so that they would be able to live an independent, self-reliant and satisfying life. This project, which we implemented in a joint effort with the Bildungswerk der Bayerischen Wirtschaft (Educational Institute of the Bavarian Employers' Associations, "bbw") and authorities from the three cities, was the only one of its kind in Bavaria. Nearly all of the refugees found career prospects.

In addition, Brose provided major support for the "Hallo-App Deutsch für Kinder" developed and published by Vision Education in Germany. Foreign children can access the app from smartphones and tablets to learn the basics of the German language. The app is free thanks to the support of sponsors like Brose.

Our company is also offering refugees the opportunity to work as machine operator apprentices. Brose has already welcomed four refugees to its apprenticeship training program as part of the "3+1" pilot model spearheaded by the Coburg Chamber of Commerce (IHK). Brose provided all of

the financing for the apprenticeship positions. The length of the training program is extended because this concept – the only one of its kind in Germany – combines language training and vocational studies with a corporate apprenticeship.

### Education

Our company's innovative strength is largely dependent on the expertise of our employees. This is why we are involved in the areas of science and research.

One example is our support for the "Germany Scholarship" jointly awarded by the Federal Ministry of Education and Research and businesses. Brose has offered these scholarships to students at the universities of applied sciences in Coburg, Bamberg, Bayreuth, Würzburg and Wuppertal annually since 2011 and in Ingolstadt since 2015. The scholarship is awarded to highly gifted students in the fields of engineering and economics who demonstrate exceptional promise and with whom we have personal contact. If needed, we offer internships or allow scholarship recipients to fill positions as working students. The stipend has provided financial support for 14 scholarship recipients each year since 2015.

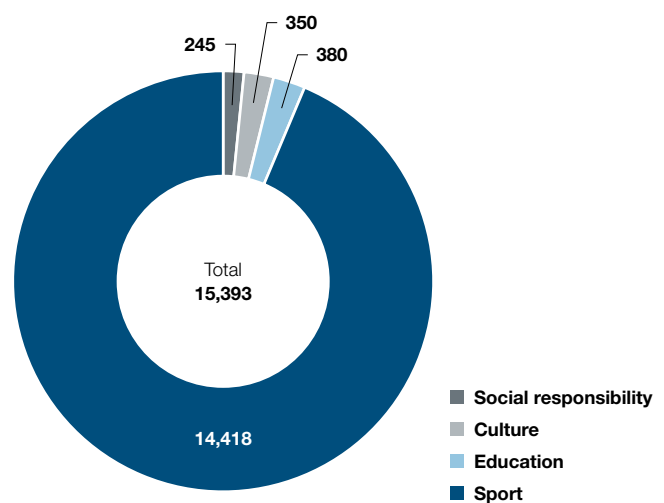
We cooperate with the Northern Institute of Technology (NIT) in Hamburg to foster new talent in the field of technology and engineering. NIT is a globally respected organization. Since 2009, we have sponsored two students from Germany and abroad who major in mechatronics and international production management and wish to complete their Master's degrees here. Brose pays tuition fees, provides the internship position students require to complete their Master's thesis and supports scholarship recipients until they successfully complete their degrees.

We are also involved in polymer research. Every year university professors from the Scientific Alliance of Polymer Technology (WAK) present their award for forward-thinking Master's or Doctor's theses in their field of expertise. This helps cement Brose's relationships with current and future specialists in the field. Our business interest in polymer research has also led us to sponsor one of the awards since 2007. The award was presented for two theses in 2016. The Master's thesis by a graduate of the University of Erlangen-Nürnberg received a 3,500 euro cash prize and a dissertation by a graduate with a doctorate in engineering from the University of Duisburg-Essen received a 5,000 euro cash prize.

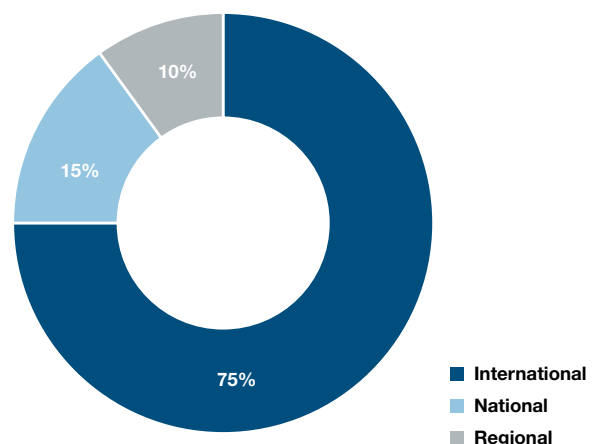
Overall, we invested more than 15 million euros in the community in 2017.

#### 4. Investments in the community in 2017

in thousands of euros



#### 5. Coverage of investments in the community in 2017









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