

Sustainable Value Enhancement

Our goal is to run our business responsibly along the entire value chain. Everyone should benefit from this – our customers, our employees, the environment and society. Our future program TOGETHER – Strategy 2025 represents the biggest change process in the Company's history. The starting point is our vision of being one of the world's leading providers of sustainable mobility.

The main financial key performance indicators for the Volkswagen Group are described in the "Results of Operations, Financial Position and Net Assets" chapter. Nonfinancial key performance indicators also attest to the efficiency of our Company's value drivers. These include the processes in the areas of research and development, procurement, production, marketing and sales, information technology and quality assurance. In all of these processes, we are aware of our responsibility towards our customers, our employees, the environment and society. In this chapter we provide examples of how we are increasing the value of our Company in a sustainable way.

SUSTAINABILITY

The Volkswagen Group is committed to sustainable, transparent and responsible corporate governance. The biggest challenge we face in implementing this at all levels and at every step in the value chain is the complexity of our Company, with its twelve brands, more than 642 thousand employees and 120 production locations. In order to tackle this challenge in the best way possible, we follow the Sustainable Development Goals (SDGs) formulated by the United Nations and the recommendations of the German Corporate Governance Code. In addition, we coordinate our sustainability activities across the entire Group. We have also put in place a forward-looking system of risk management and a clear framework for dealing with environmental issues in a future-oriented manner, for employee responsibility and for social commitment across our brands and in the regions in which we operate.

For us, sustainability means simultaneously striving for economic, social and environmental goals in a way that gives them equal priority. The future program TOGETHER – Strategy 2025 places sustainable growth at the heart of our strategic

target dimensions: we want to be an excellent employer and a role model for the environment, safety and integrity, to excite customers and to ensure that we achieve competitive profitability. By 2025, we aim to make the Volkswagen Group the world's number one in e-mobility. We will therefore set new priorities with Roadmap E. We also want to ensure that we recognize opportunities and risks in the areas of environment, society and governance at an early stage at every step along the value chain. Our corporate social responsibility (CSR) activities will contribute toward enhancing our Company's reputation and value in the long term.

Management and Coordination

The Volkswagen Group has created a clear management structure to coordinate the Group's activities as regards sustainability and CSR. Its highest committee is the Group Board of Management, which acts as the Sustainability Board at the same time. It is regularly briefed by the Group Sustainability steering group on issues related to the topics of sustainability and corporate responsibility. The members of the Group Sustainability steering group include executives from central Board of Management business areas and representatives of the Group Works Council and the brands. The steering group's tasks include identifying the key action areas, making decisions on the strategic sustainability goals, monitoring by means of indicators the extent to which these goals are being met and approving the sustainability report.

The sustainability office supports the steering group. Its duties include coordinating all sustainability activities within the Group and the brands. It is also responsible for stakeholder dialog at Group level, for example with sustainability-driven analysts and investors. In addition, CSR project teams work across business areas on topics such as reporting, stakeholder management and sustainability in supplier

VOLKSWAGEN GROUP'S KEY ACTION AREAS



relationships. This coordination and working structure is also largely established across the brands and is constantly expanding. Since 2009, the Sustainability & CSR coordinators for all brands and regions have come together once a year to promote communication across the Group, create uniform structures and learn from one another. This Group CSR meeting has proven its worth as an integral part of the Group-wide coordination structure.

Sustainability Council

As part of its efforts to continuously improve and expand its sustainability management, the Volkswagen Group appointed an international Sustainability Council in 2016 made up of renowned experts from the academic world, politics and society. The members of the council establish their own working methods and areas of focus independently and consult with the Board of Management, senior managers and the employee representatives regularly for the purposes of consultation, exchanging information and initiating action.

The key issues in 2017 were the challenges created by global CO₂ emissions and the regulatory requirements to be met post-2025, as well as the Company's transformation process. The Volkswagen Group is initially providing €20 million in funding for projects proposed and promoted by the Sustainability Council for the years 2017 and 2018. The first projects relate to innovation and cultural change in the area of sustainable mobility, an international crisis prevention initia-

tive as a result of climate change and an academic study on the future shape of the transport and climate policy framework.

Materiality analysis

Two developments in 2017 continued to influence the detailed analysis as to which issues are material to the Volkswagen Group: the realignment of the Group via the future program TOGETHER – Strategy 2025, and dealing with the consequences of the diesel issue.

After analyzing and identifying topics that are material to the Company, we derived 18 key action areas that we will use to achieve our goal of being one of the world's leading providers of sustainable mobility. The analysis was based on external studies, industry analyses and stakeholder surveys carried out by our brands, internal guidelines such as our corporate strategy and Group environmental strategy, and key factors identified by the Volkswagen Group's strategy committee.

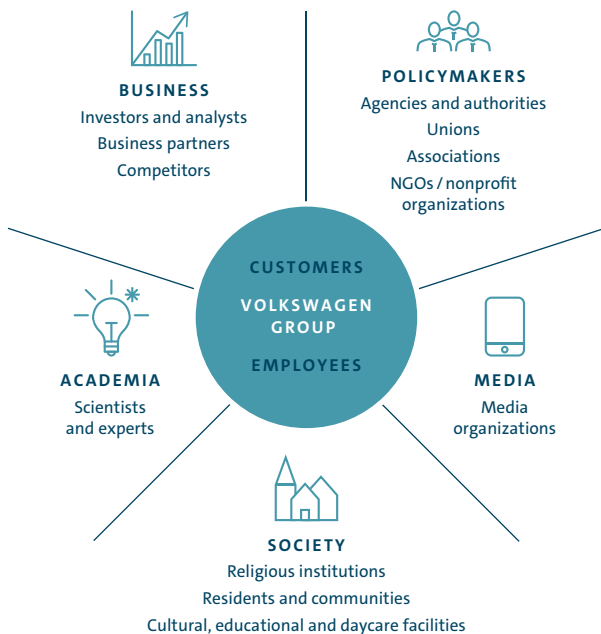
As the details of the new Group strategy have not yet been finalized, we are still in the process of specifying the content of the key action areas and defining corresponding values, targets and indicators. As an enterprise with global operations, we also take account of the options available to us for influencing and implementing the SDGs formulated by the United Nations.

Principles and guidelines

Voluntary commitments and principles that apply throughout the Group form the basis and backbone of our strategic sustainability goals. In addition, our sustainability model provides the framework for sustainable and responsible action. The Volkswagen Group's revised Code of Conduct published in 2017 applies to the entire Group and helps managers and employees alike to deal with legal and ethical challenges in their day-to-day work.

We expressly support the United Nations Global Compact, an agreement between the UN and the business world aimed at enhancing the social and ecological aspects of globalization. As long ago as 2002, the Volkswagen Group made a commitment to promoting human rights, labor standards, environmental protection and combating corruption. In 2013, this commitment was extended to include the so-called CEO Water Mandate, the aim of which is to ensure the careful management of water resources. Since the emergence of the diesel issue, we have agreed on a temporary suspension of our membership. Our objective is to ensure that our actions are in line with the declarations of the International Labor Organization (ILO), the principles and conventions of the Organisation for Economic Co-operation and Development (OECD) and the international covenants of the United Nations on basic rights and freedom.

STAKEHOLDERS OF THE VOLKSWAGEN GROUP



We have also established our own internal guidelines in the shape of the Volkswagen Social Charter, the Charter on Labor Relations, the Charter on Vocational Education and Training, and the Charter on Temporary Work, all of which apply to the Group as a whole. Environmental protection activities are shaped both by the environmental policy and by the principles for products and production, which apply throughout the Group.

Strategic stakeholder management

Our stakeholders are individuals, groups, or organizations who materially influence or are influenced by the way in which the Group reaches its corporate decisions and the implications of those decisions. The role of stakeholder management is to manage the many demands placed upon us

such that the Group can integrate them into its decision-making processes. This includes sharing knowledge, jointly developing solutions for the problems we face and using transparent criteria to make decisions.

Our customers and our employees are our key stakeholders. Around this core, we have defined twelve types of stakeholders in five clusters. This classification is the product of a stakeholder assessment in which we regularly identify the Group's key stakeholder groups.

The aim is to open up decision-making processes and systematically enhance the Group's sustainability management through constructive criticism. In this context, we take a holistic approach to stakeholder management.

RESEARCH AND DEVELOPMENT

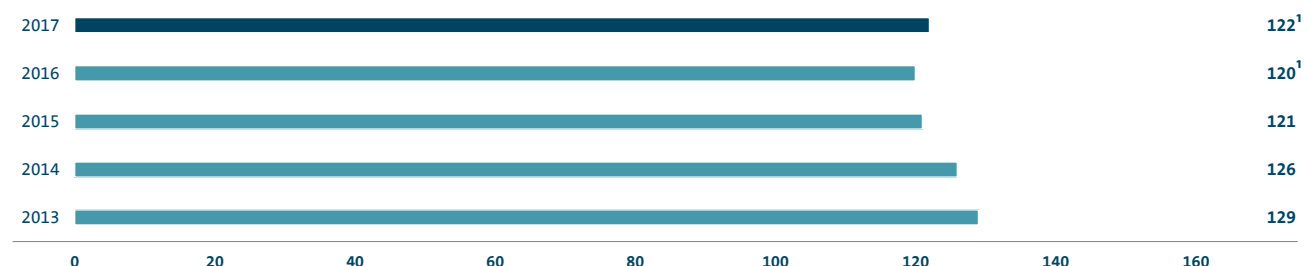
Forward-looking mobility solutions with brand-defining products and services would be unthinkable without technological innovations. This makes our research and development work essential for sustainably increasing the value of the Company.

Together with our Group brands, we have formulated a strategy for networking development activities across the Group and launched numerous initiatives based on our future program TOGETHER – Strategy 2025. At the heart of this is an efficient, cross-brand development alliance characterized by a close network of experts, collaboration on an equal footing, an innovative working environment and the pooling of development activities. With this alliance, we aim to make use of synergy effects across the Group and act as a role model for the environment, safety and integrity. The alliance is playing a major part in the Volkswagen Group's transformation into a leading provider of sustainable mobility and helping to make the Group fit for the future.

Based on this strategic focus, we concentrated in the reporting year on continuing to develop promising mobility solutions, establishing technological expertise to strengthen our competitiveness, expanding our range of products and services and improving the functionality, quality, safety and environmental compatibility of our products and services.

CO₂ EMISSIONS OF THE VOLKSWAGEN GROUP'S EUROPEAN (EU28) NEW PASSENGER CAR FLEET

in grams per kilometer



1 Subject to official publication by the European Commission in the annual CO₂ fleet monitoring report.

Fuel and drivetrain strategy

The Volkswagen Group's new passenger car fleet in the EU (excluding Lamborghini and Bentley) emitted an average of 122 g CO₂/km¹ in the reporting period and was thus well below the 2017 European limit of 130 g CO₂/km. The small year-on-year increase is mainly attributable to the new measurement techniques to be applied and the decline in the proportion of diesel vehicles included in deliveries. As small-volume manufacturers, the Lamborghini and Bentley brands each have an independent fleet for the purposes of the European CO₂ legislation; Bentley complied with its individual target, Lamborghini was slightly above its target.

As part of a Group-wide initiative – and with a view to the legal regulations on emissions – we are currently developing a forward-looking vehicle and drivetrain portfolio: to achieve our goal of sustainable mobility, we have set ourselves the objective of increasing drive system efficiency with each new model generation – irrespective of whether the means of propulsion is a combustion engine, a hybrid, a plug-in hybrid, a purely electric drive, or a fuel cell drive system.

We anticipate that by as early as 2025, one in four new Volkswagen Group vehicles worldwide will have a purely electric drive; depending on the market development, this could be up to three million electric vehicles a year. The Volkswagen Group has launched a comprehensive electrification offensive in the form of Roadmap E. By 2025, we plan to offer our customers around the world more than 80 new electric models, including some 50 purely battery-driven vehicles and 30 plug-in hybrids. By 2030, the Volkswagen Group aims to electrify its entire model portfolio – from high-volume models to premium vehicles. This will mean

offering at least one electric version of each of our approximately 300 models across all Group brands. We are therefore planning to invest more than €20 billion in industrializing e-mobility by 2030, involving, amongst other things, the development of two new electric platforms for vehicles with a range of up to 600 km. Examples include the Volkswagen I.D. family of concept vehicles, the Audi e-tron and Porsche's Mission E.

To enable sustainable, affordable mobility for as many people as possible, we will continue to offer the full range of drivetrains – from conventional combustion engines to pure electric drive. From today's perspective, the combustion engine looks set to serve as the broad basis for drive technology in the coming years. In the interest of using resources responsibly, it is therefore essential for combustion engines to be further optimized. We use clean technologies to purify exhaust gases. All our new diesel vehicles are now fitted with an SCR catalyst as standard. From 2018, all our petrol engine cars will have particulate filters.

In addition to electric drives and more efficient combustion engines, renewable, reduced-CO₂ fuels (in gas or liquid form) will also play an ever-greater role. We are committed to expanding the natural gas (CNG) infrastructure and are extending our model range accordingly. We are also intensively researching options for producing fuels from renewable electricity, enabling carbon-neutral operation of combustion engines. Projects such as Audi e-gas (power-to-gas) and SEAT's SMART Green Gas (waste-to-gas) are examples of our commitment in this area.

Last but not least, we are working under Audi's leadership to make fuel cell technology ready for market.

It is more important to us than ever to rigorously pursue our modular approach. We are reducing the number of individual modules so that we can make a large product portfolio economically viable. Over the long term, we will reduce the number of versions of conventional combustion engines in the Group by more than a third, for example.

This will create capacity for developing and producing new hybrid and electric drives.

Life cycle engineering and recycling

Innovations and new technologies for reducing fuel consumption are not enough on their own to minimize the effect of vehicles on the environment. That is why we examine the entire product life cycle of our vehicles – from the extraction of raw materials to the production of components and the provision of fuel and energy during vehicle use to their final disposal. We identify the stages of the life cycle at which improvements will have the greatest effect and develop appropriate solutions. We call this life cycle engineering. Recycling, for example, is an important means of reducing environmental impact and conserving resources. When developing new vehicles, we therefore pay attention to the recyclability of the required materials, use high-quality recycled material and avoid pollutants. At the end of their lives, our vehicles are 85% recyclable and 95% recoverable. In implementing the Aluminum Closed Loop project in 2017, we created a closed circuit for aluminum beyond our Company boundaries for the first time. Aluminum scrap was returned directly from our press shops to the supplier for reuse in vehicles.

Leveraging synergies increases efficiency

When developing vehicles, we cooperate closely with our brands to leverage synergies. The strategy formulated by our development alliance aims, for example, to make the Group more competitive in the long term by deploying resources more effectively and efficiently in the research and development of new mobility-related technologies, products and services. In our Group-wide development alliance, the brands not only work with each other, but also for each other on key technologies, forming broad networks of expertise to address the topics of the future. In the reporting year, we consolidated the Group's activities and responsibility for the development, procurement and quality assurance of all battery cells in the Center of Excellence under the umbrella of the Volkswagen Passenger Cars brand. Pilot production will also start here, with the aim of building up manufacturing expertise for our Group.

Our modules are also managed centrally to reduce costs, capital expenditure and complexity. With the aid of a Group

initiative, we are seeking to reduce expenditure in the toolkits while at the same time implementing a wide-reaching electrification offensive and focusing on autonomous systems. We will achieve this through a considerable reduction in complexity using streamlined, non-overlapping yet synergistic platforms. The individual Group brands are using the modular toolkits, thus creating synergies between the various models of a model line and across model lines. The streamlined toolkits are creating the financial leeway for development work on the future trends of digitalization and autonomous driving. As part of the TOGETHER – Strategy 2025 program, the high-volume passenger car brands have introduced model line organization through a Group initiative, consequently strengthening the brands' responsibility for the success of vehicle projects, improving project work across different business areas, accelerating decision-making and improving the result-orientation of projects.

Under the umbrella of Volkswagen Truck & Bus, MAN and Scania are continuing to work together on core drivetrain components based on the lead engineering principle. They have expanded their development work in the fields of electrification and autonomous driving.

We are also creating synergy effects by continuing to closely share best practices, for instance in virtual development and testing. Finally, the centralized development and consolidation of IT systems is helping to promote cooperation across brands, make development activities more comparable and reduce the Group's IT costs.

Sustainable mobility, connectivity and automated driving

Mobility is a prerequisite for economic growth. But while the need for constant mobility is rising, natural resources are dwindling. This calls for holistic mobility concepts to minimize environmental impact. Such solutions need to be efficient, sustainable, customer-oriented and accessible anytime and anywhere.

We are researching and developing such pioneering concepts and solutions in our Group-wide alliance. In shaping the future of mobility, we are looking not only at the automobile but at all modes of transport and transport infrastructures, at people's mobility habits and at other relevant factors. Innovative technologies such as connectivity and automated driving are enabling us to take completely new problem-solving approaches. We want to take advantage of these to contribute to a comprehensive mobility system of the future and to help shape our industry's digital transformation.

Another initiative of our future program TOGETHER – Strategy 2025 is the establishment of a cross-brand mobility solutions business. Our mobility business MOIA, which we founded in 2016, is to become one of the leading providers of innovative transport services and will develop profitable, globally applicable business models over the next few years. Strategic investments and partnerships are also being sought. In the reporting year, MOIA conducted service tests for its ride-pooling concept – an organized ride-sharing system with a driver – among other products in Hanover over several months with selected participants, gathering valuable experience. These and other activities will help to make Volkswagen one of the world's leading providers of efficient and convenient smart mobility services by 2025, with a portfolio encompassing all brands and both “mobility-on-demand” and “vehicle-on-demand” services.

In December 2017, Volkswagen Truck & Bus launched the digital brand RIO. This cloud-based, multi-vendor platform serves the entire transport and logistics ecosystem. For the first time, everyone in the supply chain – shippers, forwarders, carriers, loaders, dispatchers, drivers and recipients – will be connected. RIO will offer digital solutions for all the players involved in the transport system. It will work closely with customers to tailor solutions to the needs and demands of the market and continuously enhance them.

On the road to autonomous driving, the Volkswagen Group has further improved its assistance systems and automated driving functions in 2017 and fitted them in vehicles. The strategic objective is to market highly automated driving functions for private vehicles, shared mobility systems and commercial mobility providers as a core competency of the Group from 2021. With the presentation of the Sedric concept vehicle and a look ahead at the Sedric family – from fully autonomous city vehicles to luxurious long-distance mobility, spectacular sports cars, self-driving urban delivery vehicles and heavy trucks – the Volkswagen Group has introduced

its vision of an autonomous mobility system. Particularly in cities, these vehicles will enable completely new forms of individual mobility – even for user groups that have so far been excluded. A balanced combination of different vehicle sizes will also reduce the space required for parking and optimize urban transport as a whole.

Autonomous driving in the complex urban environment places heavy demands on technology. We are dedicated to meeting these challenges. Led by Audi, the Volkswagen Group founded Autonomous Intelligent Driving GmbH in 2017. This new company will develop a Group-wide system for self-driving vehicles. The reporting year also saw the presentation of the Audi A8 – an innovation highlight with up to 41 driver assistance systems. The AI Traffic Jam Pilot – the first automated driving function in a production vehicle – deserves special mention. In traffic jam situations on multi-lane highways it enables Level 3 automated driving as defined by international standards at speeds of up to 60 km/h. This means that drivers no longer need to continuously monitor the system. Depending on national legislation, the driver may also perform other permitted tasks while the vehicle is in motion. This results in a high degree of convenience and safety. Audi will gradually introduce the AI Traffic Jam Pilot into series production in various countries: its introduction requires clarification of the respective national legal framework and adjustment and testing of the system accordingly; different national approval processes and deadlines must also be complied with.

Using the new AI functions, Porsche is working on improving active driving safety as well as the acceptance of assistance systems and automated driving functions among car drivers. Its current focus is on Grip Prediction, a technical solution to predict how much grip the road surface will offer and adjust driving speed for longitudinal and lateral movement. Vehicle data from prototypes, combined with local weather data, is the basis for this.

Pooling strengths with strategic alliances

The future program TOGETHER – Strategy 2025 plans to transform our core business and to establish a new mobility solutions business area at the same time. It is decisive to the success of this plan that we place our great innovative strength on even broader foundations.

Growth in the mobility sector is currently a global phenomenon, above all in the economy segment. As part of a Group initiative, Volkswagen is therefore increasingly entering local partnerships to develop and offer economy products in line with the market. This is helping us to identify regional customer needs more precisely, to adjust our product range accordingly and to establish competitive cost structures. In future, we will therefore concentrate to a greater extent on partnerships, acquisitions and venture capital investments, and will manage investment selection centrally so as to generate maximum value for the Group and its brands.

Developing battery technology as a core competency has also been defined as a strategic initiative of the Volkswagen Group. The battery accounts for 20 to 30% of the cost of materials in electric vehicles; in future, it will be one of the most important components for differentiating between products. We have already pooled our in-house expertise in battery cells in a Center of Excellence and also plan to accelerate the development of expertise and technological change through intelligent partnerships. We anticipate that our own electric fleet with lithium-ion batteries will require a battery capacity of more than 150 GWh a year in the period to 2025. To cover this enormous demand, we are inviting tenders for long-term strategic partnerships in China, Europe and the USA with a global order volume of more than €50 billion in the period to 2025. Looking ahead, we are already preparing for the next generation: together with partners, we aim to develop solid-state batteries to market maturity with ranges of more than 1,000 km.

In 2017, MAN and the Austrian Council for Sustainable Logistics consortium signed an agreement to jointly develop

and test fully electric-powered trucks. The results will feed into the series development of electric trucks for urban delivery traffic.

Our mobility business MOIA is currently working with Hamburger Hochbahn AG to develop a new, environmentally friendly mobility service for Hamburg: a shuttle-on-demand service with environmentally friendly electric vehicles is due to launch in 2018 to complement public transport and as an alternative to the private car.

We are actively involved in public projects to help shape the framework conditions for the approval and introduction of our own self-driving system. The experience we are gathering here will benefit the Group brands and thus also our customers.

As part of the joint involvement of our Group brands Volkswagen Passenger Cars, Audi and Porsche in the pan-European High-Power Charging (HPC) joint venture IONITY, a comprehensive charging infrastructure is being built to safeguard long-distance mobility: by 2020, it is planned to jointly build and operate fast-charging stations at 400 locations along major transport arteries in Europe.

Volkswagen Commercial Vehicles launched the Urban Logistics project initiative in the reporting year together with universities and businesses. The project partners are bringing together a wealth of promising ideas – such as intelligent connectivity, smart mobility solutions, digital communication and control technologies and the use of electric-powered delivery vehicles – to create practical solutions for districts or whole cities.

Our Material Research team plays a major role in the Open Hybrid LabFactory, a public-private partnership in which various industry and research partners work together to develop lightweight construction solutions for mass production. Given the growing importance of e-mobility, automotive lightweight construction is a key technology for future competitiveness. Less vehicle weight increases the range of electric vehicles.

Key R&D figures

In fiscal year 2017, we filed 6,566 (6,465) patent applications worldwide for employee inventions, around half of them in Germany. The fact that an increasing share of these patents is for cutting-edge fields impressively underscores our Company's innovative power. These fields include driver assistance systems and automation, connectivity, alternative drive systems and lightweight construction.

The Automotive Division's total research and development costs in the reporting year were 3.9% lower than in the previous year; their percentage of the Automotive Division's

sales revenue – the R&D ratio – came to 6.7 (7.3)%. Along with new models, the main focus was on the electrification of our vehicle portfolio, a more efficient range of engines and digitalization. The capitalization ratio was 40.0 (42.1)%. Research and development expenditure recognized in profit or loss in accordance with IFRSs increased to €11.6 (11.5) billion.

As of December 31, 2017, our Research and Development departments – including the equity-accounted Chinese joint ventures – employed 49,316 people (+2.6%) Group-wide or 7.7% of the total headcount.

RESEARCH AND DEVELOPMENT COSTS IN THE AUTOMOTIVE DIVISION

€ million	2017	2016
Total research and development costs	13,135	13,672
of which capitalized development costs	5,260	5,750
Capitalization ratio in %	40.0	42.1
Amortization of capitalized development costs	3,734	3,587
Research and development costs recognized in profit or loss	11,609	11,509
Sales revenue	196,949	186,016
Total research and development costs	13,135	13,672
R&D ratio	6.7	7.3

PROCUREMENT

In fiscal year 2017, the main task for Procurement was once again to safeguard the necessary supplies and to help create competitive, innovative products and optimize cost structures. We also continued to digitalize procurement processes and expand cooperation with suppliers under the Volkswagen FAST (Future Automotive Supply Tracks) initiative.

Procurement strategy

The Group-wide procurement strategy with the vision, TOGETHER – best in customer value and cost, was put into operation in 2017. Six goals were agreed in consultation with the brands and regions:

- › Access to supplier innovations
- › Active cost structures
- › Forward-looking structures
- › People, expertise and attractiveness
- › Supply chain excellence
- › Group-wide synergies

To achieve these goals, more than 100 measures had already been drawn up by the end of 2017 as part of the following initiatives and are now being implemented:

- › “Value sourcing” aims to systematically integrate suppliers into the development process from an early stage.
- › “Greenfield costs” refers to commercial and technical activities to optimize component costs.
- › “Innovation & partnerships” ensures that procurement is an integral part of the processes and decisions related to both topics.
- › “Software” is driving the necessary changes to processes, structures and competencies resulting from the purchase of software and its increasing importance to the Group’s added value.
- › “Digital supply chain” encompasses an IT system integrating all core procurement processes into a single solution and forming the basis for a digital network including all procurement partners.
- › “Sustainability” supports the Group’s objective of leading the automotive industry in this area, including the supply chain.
- › “Employees, strong team, organization” directs attention inward and lays the foundation for the strategy’s success with flat hierarchies, freedom for employees and a culture of respect and trust.

The first successes of these initiatives are already apparent. Integrating suppliers into several vehicle projects at an early stage, for example, has enabled faster achievement of material cost targets whilst also improving quality from the market and customer perspective. We have also ordered implementation of specific innovations for our products from

several suppliers to enable customers to take advantage of them at an early stage. In addition, it was decided to separate hardware and software in the procurement processes and establish a new organizational division, Connectivity Procurement. The first pilot projects with new IT solutions were launched in 2017 as part of the “Digital supply chain” initiative. These are gradually being rolled out throughout the Group. Pilot projects to factor sustainability aspects into the contract award process have also already been initiated.

Volkswagen FAST – Supplier network as the basis for success

FAST is the central initiative of Group procurement, introduced in 2015 with the aim of making the Volkswagen Group and its supply network future-proof. The goal of FAST is to successfully implement the key topics of innovation and globalization by involving suppliers at an earlier stage and more intensively. The FAST initiative enhances the quality and speed of collaboration with our key partners, and thus enables us to coordinate global strategies and points of technological focus even more closely. The common goal is to make impressive technologies available to our customers more quickly and to implement worldwide vehicle projects more effectively and efficiently.

From 55 FAST suppliers in 2016, the network grew to 64 suppliers over the past fiscal year. We presented the Group’s key topics and projects at the FAST Summit, which took place in the reporting year for the third time. In addition, at the FAST Forum, relevant decision makers discussed how FAST can be made even more effective for Volkswagen and suppliers.

Digitalization of supply

We are working systematically to implement a completely digitalized supply chain. This will help us to ensure supply, leverage synergies throughout the Group and become a leader in cost and innovation. We are therefore creating a shared database and using innovative technologies to enable efficient, networked collaboration in real time – both within the Group and with our partners. Since the successful launch of our new Group business platform ONE KBP in April 2017, we have been working together with our suppliers on one platform. A cloud-based, Group-wide data strategy was also agreed in 2017. This will enable us to identify supply risks in the supply chain even faster in future.

Structure of key procurement markets

Our procurement is organized at global level, with a presence in the key markets around the world. This ensures that production materials, investments in property, plant and equipment, and services can be procured worldwide to the quality required on the best possible terms. Networking of

the brands' procurement organizations enables us to leverage synergies across the Group in the various procurement markets.

In addition to the brands' procurement units, the Volkswagen Group operates eight regional offices. In emerging markets, we identify and train local suppliers to generate cost advantages for all the Group's production sites. In familiar and established markets, the regional offices support access to the latest technologies and innovations.

Supply situation for purchase parts and upstream materials

Systematic avoidance of bottlenecks was a constant focus of procurement. Natural disasters such as earthquakes and tornadoes impacted the availability of upstream materials. We were able to avoid adverse impacts on the Group's production thanks to Group-wide management of capacity and demand.

Management of purchase parts and suppliers

Purchase parts management is a core component of the global procurement organization. With our experts in tools and industrialization, along with standardized processes and approaches, purchase parts management makes a substantial contribution to ensuring successful production start-ups for vehicles and powertrains all around the world. Against the backdrop of increased complexity in the automotive industry, we also help to safeguard supplies for series production. As part of the pre-production process, we simulate series production at suppliers to identify any gaps in production or quality at an early stage and take countermeasures. Purchase Parts Management works closely with Quality Assurance at the production sites and conducts multi-stage performance testing.

Sustainability in supplier relationships

Global compliance with sustainability standards in human rights, occupational safety, health and environmental protection and combating corruption is our basic requirement for successful collaboration with our suppliers. It is also a contractual stipulation of the underlying business relationship. We continuously enhanced the concept of sustainability in our supplier relationships in 2017. We have added detail to our Volkswagen Group requirements for sustainability in relations with business partners (Code of Conduct for Business Partners) concerning human rights and occupational safety and extended the reporting options for infringements by suppliers.

Another focus in 2017 was to raise awareness of sustainability risks among Procurement staff and our suppliers and to inform them on options for averting risk. By the end of the reporting period, around 29,000 supplier locations had completed our online training program. In the Asia-Pacific, South America and European regions, among others, we also trained more than 700 employees at 356 suppliers in face-to-face events on the topic of sustainability and informed them about region-specific challenges. In addition, we raised awareness of sustainability risks in the supply chain with face-to-face events for over 2,000 Procurement employees.

We also substantially intensified our supplier checks in the reporting year with regard to sustainability. We commissioned sustainability audits from an external service provider at 321 suppliers. In 60 cases, the findings resulted in an action plan to improve the suppliers' sustainability performance. In addition to these local audits, more than 25,000 supplier locations submitted a self-declaration on the topic of sustainability. In around 1,500 cases, their sustainability performance was improved through specific measures.

Setting the course for the future

In 2017, procurement was defined by vehicle connectivity and e-mobility, which have led to new groups of materials. The amount of software in our purchase parts is constantly increasing. Procurement is taking on an important role here with cost-effective structuring of licensing agreements and the standardization of software modules. We reacted early by pooling competencies to make our structure even more effective.

PRODUCTION

Our global, cross-brand production network safeguards the processes from the supplier to the factory and assembly line, and from the factory to dealers and customers. Enduring efficiency is a prerequisite for our competitiveness. We meet challenges of the future with holistic optimizations, pioneering innovations, flexible supply streams and structures, and an agile team. In fiscal year 2017, the global vehicle production volume surpassed the previous year's level and reached 10.9 million units. Productivity increased by around 5.9% year-on-year, despite the continuing difficult conditions in many markets.

“Intelligently networked” production strategy

Production is supporting the future program TOGETHER – Strategy 2025 with their “intelligently networked” functional area strategy. By intelligently connecting people, brands and machines, we aim to pool the strengths and potential of our global production and logistics and take advantage of the resulting synergy effects. We are guided in this by four goals:

- > Versatile production network
- > Efficient production
- > Intelligent production processes
- > Future-ready production

We have used nine initiatives to create content clusters in which expert teams work on the strategic topics relevant for production in the Group. Examples include the competitive design of our global production network, the reduction and offsetting of environmental impact throughout the production process, and digitalization with its implications for production and working processes and for collaboration. The overarching aim is to increase productivity and profitability.

With the production strategy, we have laid the foundations for the successful and sustainable enhancement of our production. We use regular reviews to ensure that we constantly adapt our activities to the current challenges.

Global production network

With twelve brands and 120 production locations, aspects such as consistent standards for product concepts, plants, operational equipment and production processes are key to forward-looking production. These standards enable us to achieve synergy effects, respond flexibly to market challenges, make optimal use of a flexible production network and realize multi-brand locations. Currently, almost half of the 40 passenger car locations are already multibrand locations. One example is the Bratislava site, which produces vehicles for the Volkswagen Passenger Cars, Audi, Porsche, SEAT and ŠKODA brands. We will add other multi-brand locations in future, for example, in Tianjin, China.

The Volkswagen Group has set itself the goal of becoming one of the world's leading providers of battery-powered vehicles (BEV) by 2025. The basis for this is the introduction of the Modular Electric Toolkit (MEB), which we will use to expand our range with a new BEV family.

In order to design multibrand projects and for e-mobility to be cost-effective in conjunction with existing concepts, it is important to make production highly flexible and efficient. Making maximum use of potential synergy effects is also a decisive factor for the success of future vehicle projects. Using common parts and concepts as well as identical production processes will enable reduced capital expenditure and provide the opportunity to better utilize existing capacities. The future will also see electric vehicle projects at multibrand locations such as Anting, China.

We are constantly enhancing our production concepts and aligning them with new technologies. The targeting process anchored in our strategy serves to realize ambitious targets in individual projects as part of a cross-divisional approach.

The “components” business is also helping to safeguard the Group's future with its own initiatives. With around 80,000 employees worldwide, it is an integral part of the Group and plays a central role particularly in the core competency of engines and transmissions. The “components” business has been reorganized within the Group as part of a Group initiative. The aim is to boost our competitiveness, optimize investment, raise our efficiency, make a major contribution to the trends of the future, enable a coordinated entry into e-mobility and develop new business areas.

Production locations

The Volkswagen Group's production network is comprised of 120 locations in which passenger cars, commercial vehicles and motorcycles, as well as powertrains and components are manufactured.

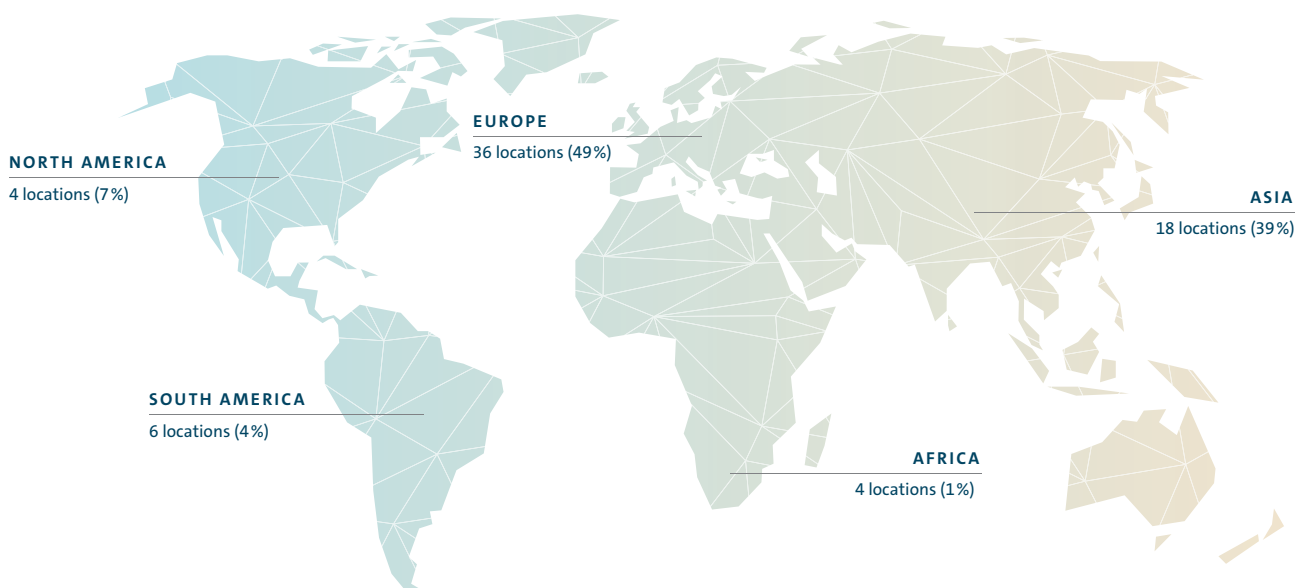
With 71 locations, Europe remains our most important production region for vehicles and components. There are 28 sites in Germany alone. The Asia-Pacific region has 31 locations. We have five locations in North America and nine in South America. The Group operates four locations in Africa.

2017 saw 62 production start-ups: 26 for new products and 36 for product upgrades and derivatives.

Capacity utilization of the locations in the Volkswagen Group's production network is further enhanced by supplying them with complete knock-down (CKD) kits for local assembly.

VEHICLE PRODUCTION LOCATIONS OF THE VOLKSWAGEN GROUP

Share of total production 2017 in percent



The Group's production system

With our global Group production system, we aim to continuously and sustainably improve our production workflow at all the brands' and regions' locations. Our goal is to ensure the excellence of processes in production and production-related environments.

We are increasing the amount of attention we give to further strengthening the Group's production system and increasing its presence. Leadership and individual responsibility are the foremost topics, embedded in a culture of appreciation and collaboration.

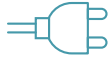
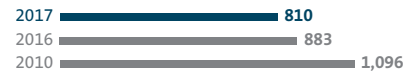
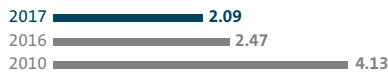
A factory must work at optimal capacity so as to continue manufacturing high-quality products that give customers maximum benefits at competitive prices. This is made possible by the standardization of production processes and operating equipment at an early stage, based on the principle of so-called "concept consistency". This ensures that common design principles, joining techniques and joining sequences, but also installation and connection concepts are applied in the brands' development and production areas. The principle of "concept consistency" is fundamental for creating efficient logistics and manufacturing processes.

New technologies and product innovations

With our manufacturing technologies, we create Group products that fulfill the highest standards of functionality, quality and design. In recent years, for example, vehicles with multicolored paintwork have become popular, particularly those with color-contrasting roofs. Until now, this two-tone paintwork has required the vehicles to pass through the paint shop twice during production. Volkswagen is working with process partners in a joint project to develop a new technology that can significantly reduce the workload for multicolored designs. This technology was implemented for the first time in 2017 at the Pamplona site, initially for the new Polo. Other vehicles and locations are set to follow.

In the foreseeable future, the Volkswagen Group will also be able to offer more individually customized paintwork than previously possible thanks to the availability of digital printing.

Where the design and introduction of new production technologies are concerned, affected staff are involved in the redesign of workplaces and processes from the outset. This is an important prerequisite if new technologies and solutions are to find the necessary acceptance.

KEY ENVIRONMENTAL INDICATORS FOR PRODUCTION IN THE VOLKSWAGEN GROUP¹**ENERGY CONSUMPTION**
in kilowatt hours per vehicle-17.9%²**CO₂ EMISSIONS**
in kilograms per vehicle-26.1%²**VOC EMISSIONS³**
in kilograms per vehicle-49.4%²**DISPOSABLE WASTE**
in kilograms per vehicle-43.3%²**FRESH WATER CONSUMPTION**
in cubic meters per vehicle-17.1%²¹ Production of passenger cars and light commercial vehicles. Prior-year figures adjusted.² Change 2017 as against 2010.³ Volatile organic compounds (VOCs).**Environmentally efficient production**

One element of the production strategy is the environmentally exemplary production initiative. This involves us working on four key issues in the period leading up to 2025:

- › Setting and achieving ambitious environmental targets for production
- › Developing a long-term vision for environmental targets in production and rolling it out across the Group
- › Strengthening employees' environmental awareness and integrating relevant environmental aspects into processes
- › Achieving top positions in renowned environmental rankings

In this context, the Volkswagen Group has set itself the goal of reducing the five key environmental indicators of energy and water consumption, waste for disposal, and CO₂ and VOC emissions in production by 45% for each vehicle produced by 2025 – starting from 2010 levels. This objective applies to all of the Group's production locations and is derived from our environmental requirements for production processes, which are anchored in the Group's environmental principles. The charts above show the development of these indicators.

We are encouraging networking and communication between the brands worldwide in order to leverage synergies. Our environmental experts meet regularly in working groups; in addition, we train our employees on the topic of environmental protection.

To identify and implement savings at the locations, the Environmental Task Force – a team from Group Research Environment – analyzes manufacturing processes, site infrastructure and resource and energy flows in production and evaluates their impact on the environment. With experience from more than 30 analyses, the team can systematically reinforce and spur on the transfer of measures.

We record and catalog environmental measures in an IT system and make these available for a Group-wide exchange of best practices. In the reporting period, around 1,600 implemented measures in the area of environment and energy were documented in this system. They serve to improve infrastructure and production processes for passenger cars and light commercial vehicles. These activities are beneficial from an environmental and economic perspective.

With a series of effective, innovative measures, we once again promoted the reduction of environmental indicators in the reporting period while at the same time improving production processes. The following examples show the extent to which the measures have contributed to strengthening production processes and achieving targets:

One important lever for reducing energy consumption is tailoring the operation of all facilities according to demand. Improving ventilation in the halls at the Bratislava site has resulted in savings of 15,000 MWh and 200 tonnes of CO₂.

Measures have also been implemented in energy generation and consumption. For example, five German locations switched to 100% CO₂-free power in the reporting period. This is saving 165,000 tonnes of CO₂ per year at the Volkswagen Passenger Cars and Porsche brands.

As part of an upgrade to the paint shop at Volkswagen de México, new electrostatic painting robots were installed. These have reduced paint consumption on the production lines by up to 19%, resulting in a VOC reduction of up to 152 tonnes per year.

Green logistics

Logistics is contributing to the Volkswagen Group's focus on the environment by analyzing the emissions of the entire transport chain. The Green Logistics initiative promotes alternative means of transport and sustainable, energy-efficient transport systems, thereby reducing greenhouse gas emissions.

Universal environmental principles were defined during the reporting period and used to create strategic guidelines and rules. These are designed to ensure that our environmental standards in logistics processes are implemented globally.

In logistics, this means, for instance, avoiding transports, shifting goods to more environmentally friendly means of transport, or improving the implementation and use of modern technology and alternative drive systems.

An important starting point for reducing CO₂ emissions is the selection of the mode of transport. One of the most efficient options in terms of transport capacity is maritime transport. To further improve the environmental sustainability of ship transport, Volkswagen Group logistics will put two charter ships powered by liquefied natural gas (LNG) into service in 2019.

In September 2017, we held an LNG Truck Day to dispel doubts and reservations regarding the new technology and actively support the expansion of the LNG fuel station network in Germany. Among others, regional freight for-

warders, gas providers and representatives from the German Federal Ministry of Transport and Digital Infrastructure and the Federal Ministry for Economic Affairs and Energy took part.

In mid-2017, Volkswagen Sachsen GmbH's Zwickau plant and the Porsche factory in Leipzig presented fully electric, 40-tonne trucks suitable for highway driving. With automated driving functions, the vehicles are intended for short-cycle, on-time transport. Two trucks were fitted with electric drive systems and batteries in the eJIT (electric-powered just-in-time mobility) research project. The e-trucks reach a speed of 85 km/h and have a range of 70 km.

SALES AND MARKETING

As part of our future program, we have developed a sales and marketing strategy aimed at exciting customers on a whole new level under the slogan "customer delight". We regard ourselves as an innovative and sustainable mobility provider for all commercial and private customers worldwide – with a unique product portfolio encompassing twelve successful brands and innovative financial services.

We will implement the TOGETHER sales strategy step by step over the coming years. In the focus area of new sales, for example, we are realizing innovative sales and service concepts together with our sales partners. In the focus area of the customer ecosystem, we are implementing platforms for a seamless and safe digital brand experience at all customer touchpoints – this is enabling us to meet ever-growing customer expectations as well as increased data protection standards. In the focus area of steering, we are optimizing how our brands capitalize profitably on market opportunities.

Optimal coverage of markets, customer segments and customer budgets are at the heart of a strategic Group initiative. To this end, we are establishing automobile-specific customer segmentation to steer the positioning of our brands. At the same time, we are examining global markets for potential revenue sources. In 2017, we rolled out this methodology in Europe and China and agreed on the region-specific, customer-oriented brand territories for product positioning. Starting in 2018, the new methodology will be applied in the Volkswagen Group's product processes; other markets will also be included.

Customer satisfaction and customer loyalty

The Volkswagen Group aims its sales activities at exciting its customers. This is our top priority, as excited customers remain loyal to our brands and recommend our products and

services to others. In addition to satisfaction with our products and services, we value our customers' emotional connection to our brands. It is important for us to retain customers and win new ones. To measure our success in this area, we collect data on and analyze three strategic indicators for the major passenger car-producing brands:

- Net promoter score. Proportion of customers who would recommend us to others minus the proportion of customers who would not recommend us. In terms of customers' willingness to recommend them, the Porsche and ŠKODA brands lead the core European markets when compared to other Group brands and competitors.
- Loyalty rate. Proportion of customers of our car brands who have bought another Group model. The loyalty of Volkswagen Passenger Cars, Audi, Porsche and ŠKODA customers has kept these brands in the upper loyalty rankings in comparison with competitors for a number of years. Compared to other manufacturer groups, the Volkswagen Group therefore holds the top spot in terms of loyalty, with a considerable margin over the competition.
- Conquest rate. Newly acquired passenger car customers as a proportion of all potential new customers. Here, too, we have a top ranking, primarily thanks to the good scores achieved by the Volkswagen Passenger Cars brand.

In the core European markets, the downward trend in brand image and brand trust at the Volkswagen Passenger Cars brand following the diesel issue did not continue in 2017. Instead, the first signs of recovery were evident. Porsche remains in top position in the image ranking.

We also use a strategic indicator to measure the satisfaction of customers with our products and services in the truck and bus business:

- Customer satisfaction. In the markets relevant for the Volkswagen Group, we aim to be one of the industry leaders in terms of the satisfaction rate for our commercial vehicle brands. To evaluate these criteria, we use customer satisfaction studies, which delivered positive satisfaction figures in line with our targets in the reporting period.

In the financial services business, we use two strategic indicators:

- Customer satisfaction. In addition to looking at customer satisfaction with our products, we measure this by examining reviews of our service staff; both aspects are an indicator for our customer and service focus. The results continued their positive trend in 2017. To achieve our goal of very high customer satisfaction throughout the financial services business by 2025, we regularly evaluate what action is needed and how ideas can be shared and implemented across different countries.

- Customer loyalty. Trust in and loyalty to our services rely on customer satisfaction with our product range and service. The loyalty scores that are regularly calculated based on product sales to our customers are currently impressive proof of customers' trust in our financial services. Ambitious targets underscore the focus on customers and on fulfilling their needs at Volkswagen Financial Services.

E-mobility and digitalization in Group Sales

By 2025, as part of our Roadmap E, we aim to offer our customers around the world more than 80 new electric models, including around 50 pure battery-driven vehicles and 30 plug-in hybrids. This campaign will be complemented by vehicle-related, customer-focused offers, such as customized charging infrastructure solutions and mobile online services. This is turning the Volkswagen Group from an automotive manufacturer into a mobility service provider, posing completely new sales challenges.

We are making highly targeted use of the opportunities of digitalization in sales. Our actions are guided by a clearly defined strategy that requires extensive cooperation between the brands to achieve the greatest possible synergies. Our aim here is to create a completely new product experience for our customers – one which impresses with its seamless customer communications, from the initial interest in purchasing a vehicle, to servicing and ultimately to the sale of the used car. In the process, we are opening up new business models and opportunities in every aspect of the connected vehicle – in particular with regard to mobility and other services. Vehicles are becoming an integral part of the customer's digital world of experience. We take great care to make all processes transparent so that customers always retain control of their own data.

We also gear our internal processes and structures to the pace of digital innovation. The result is project teams operating across different business areas, new forms of cooperation, a more intensive relationship with the international start-up scene, a consolidation of venture capital expertise – as a form of supporting innovative ideas and business models – as well as new lean systems and cloud-based IT solutions.

Fleet customer business

Our business relationships with fleet customers are often long-term partnerships. In a volatile environment, this customer group guarantees more stable vehicle sales than the private customer segment.

The Volkswagen Group has an established base of business fleet customers in Germany and the rest of Europe in

particular. Our extensive product range enables us to satisfy their individual mobility needs from a single source.

In fiscal year 2017, the share of fleet customers in total registrations in Germany remained stable at 14.1 (14.1)% amid a 2.7% growth in the market. The Volkswagen Group's share of this customer segment decreased to 44.7 (47.1)%. Outside Germany, we recorded growth in the Group's share of registrations by fleet customers in Europe to 25.2 (24.5)%. Overall, the Volkswagen Group's share in Europe remained constant at 28.9 (28.9)%. This shows that fleet customers still have considerable confidence in the Group.

After Sales and Service

In addition to individual service, the timely provision of genuine parts is essential in ensuring passenger car customer satisfaction in After Sales. The genuine parts supplied by our passenger cars brands and the expertise of the service centers represent the highest level of quality and ensure the safety and value retention of our customers' vehicles. With our global after-sales network including more than 120 of our own warehouses, we ensure that almost all our authorized service facilities around the world can be supplied within 24 hours. We regard ourselves as a complete provider of all products and services relevant to customers in the after-sales business. Together with our partners, we ensure the worldwide mobility of our customers. The partner businesses offer the entire portfolio of services in all vehicle classes. We are continuously expanding our range of tailored services in order to improve convenience for our customers and increase customer satisfaction.

Around the world, our commercial vehicles business also prides itself on products of the highest quality and on customer focus. Our range of trucks, buses and engines is complemented by services that guarantee fuel efficiency, reliability and good vehicle availability. The workshop service and service contracts offer customers a high degree of certainty, in addition to a high level of quality. We are reducing servicing times and costs with a view to reducing vehicles' total operating costs and helping them retain their value.

In the Power Engineering segment, we help our customers ensure the availability of machinery with MAN PrimeServ. The global network of more than 100 PrimeServ locations guarantees excellent customer focus and offers, among other things, replacement parts of genuine parts quality, qualified technical service and long-term maintenance contracts.

GROUP QUALITY MANAGEMENT

The quality of our products and services plays a key role in maintaining customer satisfaction. Customers are particularly satisfied and remain loyal when their expectations of a product or service are met or even exceeded. Appeal, reliability and service determine quality as it is perceived by the customer throughout the entire product experience. Our objective is to positively surprise and excite our customers in all areas and thus win them over with our outstanding quality.

Strategy of Group Quality Management

We embody outstanding quality and ensure dependable mobility for our customers worldwide – this is the strategic goal that guides the work of Group Quality Management. Along with the brands' quality organizations, Group Quality Management plays an active role at all stages of product creation and testing. Through this work, we make an important contribution to successful product start-ups, high customer satisfaction and low warranty and goodwill costs.

We have further enhanced the Group Quality Management strategy as part of our future program TOGETHER – Strategy 2025. Focal areas include digitalization, new technologies and business areas as well as uniform processes, methods and standards at all brands.

Increasing progress in digitalization is also a major challenge for the Volkswagen Group: an increasing number of digital products and services are being developed and brought to market. To continue to ensure the familiar level of quality and safety amid this diversity, we must adapt our quality measures accordingly. The increase in functional diversity and complexity of driver assistance systems, extending all the way to autonomous vehicles, means that software is growing in scope. Here we need to enhance the methods we use to support selected critical features of software development and safeguard quality requirements. We are also taking advantage of the progress in digital technology to further optimize our own processes and structures. For example, we use virtual measurement technologies or big data analyses when vehicles on the market encounter quality problems.

In this context, Group Quality Management has further developed its strategy in consultation with the Group brands. This comprises the following four goals:

- › We will excite our customers with outstanding quality by understanding the features of the quality that resonates with them and implementing these in our products.
- › We will contribute to competitive products with optimal quality costs by ensuring robust processes, thereby reducing the expense involved in testing each vehicle.
- › In critical business processes, we will reinforce the principle of multiple-party verification and monitor achievement of milestones even more closely.
- › We will become an excellent employer by promoting every single employee's personal development even more intensively.

To achieve our goals, we have been working on a total of 15 quality initiatives since mid-2016. All are focused on the topics that will be decisive to the future success of the quality organizations at the Volkswagen Group.

Contributing to the Group's strategic indicators

We use a strategic indicator to measure the contribution of Quality Management at the major passenger car-producing brands.

- › Tow-in 12 MIS. This figure shows the number of vehicles that need to be towed to a dealer per 1,000 vehicles after 12 months in service. It includes all Group vehicles categorized as tow-in by dealers in the German market. In the 2016 production year, the Volkswagen Group's tow-in statistics in the German market improved slightly compared with 2014 and 2015. Of the six brands featured, Volkswagen Passenger Cars, Audi and ŠKODA saw their performance improve, while the SEAT, Porsche and Volkswagen Commercial Vehicles brands recorded a slight downward trend.

We also use a strategic indicator to measure our success for trucks and buses:

- › Claims per vehicle 12 MIS Truck. This figure incorporates the number of claims related to liability for material defects per 1,000 vehicles after 12 months in service. MAN and Scania each collect this data for their products from across the globe. Through systematic quality management, both brands continued to exhibit a downward trend in the reporting period.

Legal and regulatory compliance

The diesel issue showed that we must check the compliance of our products more intensively. We have therefore reinforced application of the principle of multiple-party verification – which involves mutual support and control

between the divisions – and introduced important additional processes, including in software security. At the Volkswagen Passenger Cars brand, for example, the development of software will be accompanied by quality milestones from 2017: The principle of multiple-party verification safeguards the systems and components or parts that directly influence a vehicle's safety, type approval and functioning and therefore require increased vigilance. At the series production stage, we are working even harder to carry out conformity checks on our products with the participation of all business units involved and to perform assessments on this basis. This applies particularly to emissions and fuel consumption.

We are also placing greater emphasis on our quality management system than before, reinforcing the process-driven approach Group-wide across all business areas. Quality management in the Volkswagen Group is based on the ISO 9001 standard: the requirements of this standard must be met to obtain the type approval for producing and selling our vehicles. We conducted numerous system audits in the reporting period to verify that our locations and brands comply with the requirements of the standard, which was revised in 2015. The major focus was on the risk assessment for non-compliance with agreed processes. To ensure that these and other new requirements as well as official regulations are implemented and complied with, Group Quality Management is available to support the quality management consultants.

With these and other measures, Group Quality Management is helping to ensure that we not only meet all legal requirements imposed on us as a manufacturer, but that our products do as well.

Observing regional requirements

Our customers in the different regions of the world have very diverse needs as far as new vehicle models are concerned. Another important task of Group Quality Management is to identify and prioritize these regional factors so that they can be reflected in the development of new products and the production of established vehicle models – together with other important criteria such as the quality of locally available fuel, road conditions, traffic density, country-specific usage patterns and, last but not least, local legislation. We mainly use market studies and customer surveys to determine region-specific customer requirements.

The perceived quality of our vehicles must be at a level commensurate with that of our competitors. We therefore redesigned the vehicle audit during the reporting period and tailored it more closely to regional customer needs. Every brand works together with the individual regions to decide

the responsibility of the brands and enables us to invest less in features that do not resonate with customers. To make the results comparable, consistent quality benchmarks apply across all markets and regions. For more than 40 years now, auditors have therefore been deployed around the world to ensure compliance with these benchmarks by carrying out an assessment from the customer's perspective of the vehicles that are ready for delivery. We continually revise the quality benchmarks on which such audits are based to adapt them to the changing requirements.

EMPLOYEES

The Volkswagen Group is one of the world's largest employers in the private sector. As of December 31, 2017, the Group, including the Chinese joint ventures, employed 642,292 people, 2.5% more than at the end of 2016. The ratio of Group employees in Germany to those abroad remained largely stable over the past year. At the end of 2017, 44.8 (44.9)% of employees worked in Germany.

Human resources strategy and principles of the human resources policy

With the new human resources strategy "Empower to transform", the Group is continuing with key and successful approaches of its human resource management. These include the pronounced stakeholder focus in corporate governance, comprehensive participation rights for employees, outstanding training opportunities, the principle of long-term service through systematic employee retention and the aspiration to appropriately balance performance and remuneration. At the same time, the new human resources strategy is setting innovative trends. Hierarchies are being dismantled and modern forms of working such as agile working – whereby most responsibility for the work organization is transferred to the teams – are set to be expanded. In the future, cooperating robots will ease heavy physical work in factories and digital processes will simplify administration. The Company's human resources strategy is based on five overarching objectives:

- › The Volkswagen Group aims to be an excellent employer with all of its brands and companies worldwide.
- › Highly competent and dedicated employees strive for excellence in terms of innovation, added value and customer focus.
- › A sustainable work organization ensures optimal working conditions in factories and offices.
- › An exemplary corporate culture creates an open work climate that is characterized by mutual trust and collaboration.
- › The Company's human resources work is highly employee-oriented while also aiming for operational excellence and providing strategic value-added contributions.

EMPLOYEES BY CONTINENT in percent, as of December 31, 2017



To implement its human resources strategy, the Volkswagen Group will roll out a Group-wide diversity management system, among other programs, in the course of 2018. Varying cultural conditions in the global markets and growing economic momentum demand from Volkswagen an ever-broader range of experience, world views, problem solutions and product ideas. The diversity of our staff offers great potential for innovation in this area, which we aim to make better use of in future. Mandatory rules on the percentage of women in management, combined with targets for the internationalization of senior management, are at the heart of diversity management at Volkswagen.

In line with its corporate strategy, the Volkswagen Group is also driving the transformation in other fields. For example, various cultural change initiatives are concerned with reinforcing flatter hierarchies, a more open form of collaboration and a greater focus on the big picture within the Company's divisions.

The human resources development system was completely revised in 2017 and now offers more transparent paths into management based on greater individual responsibility. The Company's management principles were also revised and new criteria for appointments defined.

TOGETHER – Strategy 2025 is also accompanied by new strategic indicators.

For the passenger car-producing brands, we compile and analyze the following information:

- › Internal employer attractiveness. The indicator is determined by asking respondents, as part of the Group-wide opinion survey, whether they perceive the respective company as an attractive employer. The target for 2025 is 89.1 out of a possible total of 100 index points. A score of 85.2 index points was achieved throughout the Group in the reporting period.

- External employer attractiveness. The ability to recruit top talent is of decisive importance, particularly in view of the Company's transformation into a world-leading provider of sustainable mobility solutions and the associated development of new business units. Once a year, we check the positioning of the major passenger car-producing brands on the labor markets for graduates and young professionals using of this strategic indicator. Rankings in surveys by renowned institutions, in which we aim to achieve top scores for all Group brands, serve as the basis for this.
- Diversity index. As we establish diversity management across the Group, this strategic indicator for the active workforce is used worldwide to report the development of the proportion of women in management and the internationalization of senior management. In particular, it underpins the objective of the human resources strategy, which is aimed at contributing to an exemplary leadership and corporate culture. In 2017, the Group-wide percentage of women in management was 13.8%. We aim to achieve a target of 20.2% by 2025. We aim to increase the level of internationalization in senior management, the uppermost of our three management tiers, from 18.7% in the past fiscal year to 25.0% in 2025.

In the truck and bus business, we look at the opinion survey and cross-brand exchange of employees to identify how well strategic targets are being achieved:

- Opinion survey. The sentiment rating is used to determine the level of employee satisfaction and identification with the company. The sentiment rating is calculated as the average score from all responses regularly submitted as part of the opinion survey. The result in 2017 was in line with the previous year's level.
- Cross-brand exchange and rotation. The aim is to continuously intensify collaboration between the commercial vehicle brands. It is also designed to enable the creation of specialist and international networks. We use this indicator to analyze how many employees have worked at another brand through such rotation. An increasing number of staff took advantage of this personnel development opportunity in 2017.

One strategic indicator has been defined for the financial services business:

- External employer ranking. This involves taking part in an external benchmarking exercised every two to three years. The aim is to enhance working conditions and identify measures to become a top-20 employer by 2025, not just in Europe, but globally. Volkswagen Financial Services AG was most recently represented in various national and international best-employer rankings in 2016. In 12th place, it was among the top European employers in the "Great Place to Work" employer competition.

Training and professional development

At Volkswagen, our capacity for innovation and competitiveness depends to a large extent on the commitment and knowledge of our staff. Training at Volkswagen is organized very systematically on the basis of the so-called vocational groups. A vocational group includes all employees whose tasks are based on similar technical skills and who require related expertise in order to perform their jobs. The skills profiles lay down the functional and interdisciplinary skills for each job and serve as an orientation for training measures.

Volkswagen Group employees have access to a wide range of training measures – from advanced training on general Company-related issues, to specific training within the individual vocational groups, to personal development programs. The educational opportunities and development programs at the Volkswagen Group enable staff to continue to develop throughout their working lives and constantly deepen their knowledge. In this process, they also learn from more experienced colleagues, who act as experts in the vocational group academies – the learning centers of the vocational groups – and pass on their knowledge to others. All training is based on the dual training principle, which combines learning theoretical content with practical experience on the job and by means of specific tasks.

New technologies can usefully complement learning and the transfer of expertise. As the central training organization in the Group, the Volkswagen Group Academy incorporates this idea into different projects. One example of this is the

Education Lab, where the Volkswagen Group Academy conducts training research and analyzes training trends, tests technologies at Volkswagen together with start-ups, thereby introducing new forms of skills development at the Company.

Within the Volkswagen Group Academy, the AutoUni provides the Group with knowledge that is relevant for the future by integrating internal senior experts and collaborating with universities. Its events are offered as programs and as cooperative study modules in a blended learning format, which combines classroom training with online content, and are supplemented by lectures and conferences.

Vocational training and cooperative education

The core component of training at Volkswagen is vocational training or for young people eligible to enter university, cooperative education (dual study programs combining university studies with on-the-job training). As of the end of 2017, the Volkswagen Group had trained 19,207 young people in approximately 50 trades. Volkswagen has introduced the principle of dual vocational training at many of the Group's international locations over the past few years and is continuously working on improvements. Over three-quarters of all the Group's vocational trainees now learn their trade through dual vocational training. Once a year, Volkswagen honors its highest-achieving vocational trainees in the Group with the Best Apprentice Award.

Volkswagen continues to assist in the professional development of young people at the start of their careers even after their vocational training has been completed. Talent groups, for example, are used to promote particularly talented young specialists. These two-year development and training programs accept the highest-achieving 10% of fully qualified vocational trainees at Volkswagen AG and the Zwickau site each year. Fully qualified vocational trainees also have the option to move to a Group company outside Germany for twelve months as part of the "Wanderjahre" (Year Abroad) program. In the reporting period, 31 Volkswagen Group locations in 17 countries took part in this development program. The AGEBI+ program was designed to promote fully qualified vocational trainees who are eligible for university, thus offering students the opportunity to combine practical experience with a degree program in subjects that are critical for Volkswagen's future.

By joining the European Alliance for Apprenticeships in 2017, Volkswagen is also working to promote vocational training outside the Group. The European Alliance for Apprenticeships is a platform that brings together government departments from various countries with other key stakeholders such as businesses, social partners, professional bodies, vocational training providers and youth organizations. The common goal is to strengthen the quality, supply, image and mobility of apprenticeships in Europe.

Development of university graduates

Volkswagen offers two structured entry and development programs for university graduates and young professionals. In the StartUp Direct trainee program, graduate trainees gain an overview of the Company over a two-year period while working in their own department, and take part in supplementary training measures. University graduates interested in working internationally can participate in the 18-month StartUp Cross program. The aim of the program is to get to know the Company in all of its diversity and to build up a broad network. During the term of this program, young professionals become familiarized with several Volkswagen Passenger Cars locations in Germany and other countries by working in various functional areas. Both programs are supplemented by several weeks' experience working in production. In 2017, Volkswagen AG hired a total of 89 graduate trainees as part of these programs, 30.3% of whom were women.

Graduate trainee programs are also available at the Group's international locations such as ŠKODA in the Czech Republic or Scania in Sweden. In addition, the Volkswagen Group has been offering young engineers from Southern Europe, where unemployment especially among young academics remains a major problem, the opportunity to gain international work experience through the StartUp Europe trainee program since 2012. Volkswagen has designed this program for university graduates, who work for three months at a Group company in their home country followed by 21 months at a German Group company.

PROPORTION OF WOMEN

as of December 31

%	2017	2016
Female employees	16.3	16.0
Female vocational trainees ¹	28.8	29.5
Female graduate recruits ²	30.3	26.0
Total management ¹	11.4	11.0
Management ¹	13.2	12.8
Senior management ¹	9.2	8.7
Top-Management ¹	6.5	4.7

1 Germany, excluding Scania, MAN and Porsche.

2 Volkswagen AG

Increasing attractiveness as an employer and target-group-specific development programs

A family-friendly human resources policy is a major component of Volkswagen's appeal as an employer and makes an important contribution to achieving greater gender equality. We are therefore working continuously to develop family-friendly working-hour models and to further increase the proportion of women in management positions. In line with German law on the equal participation of women and men in leadership positions, Volkswagen AG is aiming to have a 13.0% proportion of women at the first management level and 16.9% at the second management level by the end of 2021. As of December 31, 2017, the proportion of women in the active workforce at the first level of management was 10.4 (9.8)% and at the second level of management it was 14.0 (13.5)%.

Targets have been set for every board-level division in the company to encourage women with high potential in their decision to aim for a career in management in the Company. This approach is supported by many different measures including the cross-brand mentoring programs "Mentoring Program Management", "Compass" and the "Career with Children" project.

A large number of company regulations have come into effect at the Volkswagen Group in recent years to improve balancing the demands of work and home life and to allow for individual arrangements. These include flexible working hours, variable part-time work and shift models, leave of absence programs enabling employees to care for close family members, as well as childcare facilities that are close by and/or company-owned, and mobile working.

At Volkswagen AG, which had entered into its works agreement for mobile working in 2016, more than 11,800 employees made use of this flexible working arrangement as of the end of the reporting period.

Preventive healthcare and occupational safety

Volkswagen's holistic healthcare management system extends beyond traditional preventive healthcare and occupational safety. It also covers work organization, workstation design, behavioral ergonomics, psychosocial aspects, rehabilitation and reintegration into working life as well as programs for preventing widespread diseases.

To maintain and improve employees' health, performance and fitness levels, a free and comprehensive voluntary screening, the Check-up, is provided for all employees at almost all production sites.

Another important area for action at the Volkswagen Group is the ergonomic quality of the workstations. The Company is thus highly committed to continuously improving ergonomics along the entire production chain and in all work

AGE STRUCTURE IN YEARS OF VOLKSWAGEN GROUP EMPLOYEES
as of December 31, 2017; in percent



processes. To this end, we collaborate with scientific partners to combine state-of-the-art ergonomic workstations with innovative work processes.

Employee participation

Codetermination and employee participation are important pillars of our human resources strategy. Volkswagen aims to promote high levels of expertise and a strong sense of team spirit. This includes employees' opinions, assessments and constructive criticism being heard.

With the opinion survey, a uniform, Group-wide poll, the Company regularly gathers information regarding employee satisfaction. Based on the results, we then implement follow-up processes in which proposals for improvement are developed and monitored until implementation is complete. Over 570,000 employees from 156 locations and companies in 48 countries were invited to take part in the survey. The participation rate was 79%. The average result based on all responses that are regularly received through the opinion survey – the sentiment rating – is an important parameter in the opinion survey; in 2017 it stood at 78.3 out of a possible total of 100 index points. The score achieved was thus on a par with the previous year.

Idea management is another important means of boosting employee engagement. Using their creativity, knowledge and initiative, our employees contribute their ideas for improvements to streamline workflows, further enhance ergonomics in the workplace, reduce costs and continuously increase efficiency. Idea management enables employees to participate actively in the planning and organizing of their work and is also underpinned by prizes with monetary incentives.

INFORMATION TECHNOLOGY (IT)

With digitalization and networking on the rise, all of our business processes must also be comprehensively provided with digital support. At the same time, the establishment of new locations is placing high demands on networking and coordination. A modern, tailor-made infrastructure and an efficient application landscape are needed to meet these requirements.

Our Group-wide Production, Information and Control System (FIS) enables us to produce vehicles efficiently all around the world – at the right time and with the right equipment. FIS is a key success factor for flexible, cross-brand manufacturing in the global production network.

The growing convergence of different business areas and IT is opening up new opportunities. In production, for example, big data processes help us to analyze faulty machinery and take action at an early stage. Virtual concept vehicles make the product development process even faster and more efficient. Applied research in the field of intelligent human-robot collaboration, and IT systems to control mobile assistive robotics and networked infrastructure (Internet of Things) are also important elements of the digitalization of production at the Volkswagen Group.

The Company's internal network Group Connect helps to network all employees. The platform encourages the transfer of expertise and puts experts in touch with one another.

The newly established IT City serves as the central location for the Group's own IT and digitalization expertise in Wolfsburg. The campus-style office complex has been systematically designed for agile working. In software development centers, we develop applications for a wealth of different uses, thereby maintaining comprehensive in-house expertise in the rapid, demand-oriented development of IT solutions.

Safeguarding data and systems at the Volkswagen Group is another focus of our IT. Over the past fiscal year, we have continued to set up the Information Security Management Systems (ISMS). The Group offers documents, templates and tools to all Group companies and brands in the form of an ISMS toolbox to help them implement their own ISMS. The ISO 27001 standard is one component of this. The key information security processes have been audited and successfully certified within the ISO 27001 framework. This is the most important standard for information security and extends beyond IT to cover issues such as personal security, compliance, physical security and legal requirements.

In 2015, Volkswagen AG co-founded the Deutsche Cybersicherheitsorganisation GmbH – (DCSO). DCSO aims to accu-

mulate specialist knowledge on cybersecurity and become the preferred service provider to German businesses in this field. It conducts security audits and certifies key suppliers and technologies in order to help German companies (especially small and medium-sized enterprises) detect and defend themselves against cyber-attacks and predict them in future. This work also makes our supply chain more secure.

Volkswagen is also capitalizing on digitalization at its in-house IT labs in Wolfsburg, Munich, Berlin, San Francisco and Barcelona. Specialist departments of Group IT, research institutions and technology partners are working closely together at these innovation centers on future trends in information technology, such as artificial intelligence and machine learning, quantum computing, digital ecosystems, intelligent human-robot collaboration and smart mobility. These labs act as test laboratories for the Group, as centers of expertise for these future trends and as liaison offices for start-ups. They enable Volkswagen to experiment with new technologies outside the line organization. Here, the experience and strategic expertise of a large company like Volkswagen is combined with the pragmatism and speed of young start-ups.

ENVIRONMENTAL STRATEGY

Protecting the environment is one of four goals firmly anchored in our future program TOGETHER – Strategy 2025. As a world-leading provider of sustainable mobility, we want to be a role model on environmental issues. We are working towards this goal, taking responsibility for the environment every single day. To this end, we have defined the following target areas:

- › To continuously improve our carbon footprint
- › To continuously reduce harmful emissions
- › To continuously reduce resource consumption

We use the decarbonization index (DCI) as a strategic indicator to document our progress. This measures the products' CO₂ emissions along the entire value chain. The DCI is calculated from the ratio of the carbon footprint to the number of vehicles produced. It encompasses both direct and indirect CO₂ emissions at the individual production sites (Scope 1 and 2) as well as all further CO₂ emissions over the life cycle of the vehicles sold – from the extraction of raw materials, to vehicle use and final disposal (Scope 3). The DCI thus enables transparent, comprehensive tracking of progress toward climate-friendly mobility. We are currently defining the DCI target figures for 2025 together with the Volkswagen Group brands. These targets should then contribute to the achievement of the two-degree target in the

Paris Agreement adopted at the United Nations Climate Change Conference in late 2015.

We are also calculating the environmental impact reduction production indicator. We have set a target for the Group and brands to reduce the environmental impact of production by 45% per vehicle compared with 2010 levels. This key figure includes energy and water consumption, CO₂ and VOC emissions and the volume of waste; the charts on page 146 show the development of these indicators.

In striving to achieve our goal of becoming a role model, we consider the environmental impact throughout the entire product life cycle: from manufacturing (including the supply chain) to use and disposal. In addition to the global challenges of climate change, our approach looks at other important environmental resources, particularly water, soil, air, energy and raw materials. We use major sustainability ratings as our benchmark and aim to achieve top rankings in these.

Organization of Environmental Protection

The Group Board of Management is the highest internal decision-making authority on environmental matters. Since 2012, it has simultaneously functioned as the Group's Sustainability Board. The Group-wide management of environmental protection is the responsibility of the Group Steering Committee for the Environment and Energy, which is supported by numerous specialist bodies.

The brands and companies are responsible for their own environmental organization. They base their own environmental policies on the targets, guidelines and principles that apply throughout the Group. The Group Steering Committee for the Environment and Energy coordinates the brands and companies. It reports on progress to the Board of Management.

Environmental officers from throughout the Group meet regularly for the Group Environmental Conference in order to optimize the environmental focus along the entire value chain.

Our production sites, including the central development areas, are certified in accordance with ISO 14001 or EMAS (100 of 120 production sites in 2017). Many production locations have also certified their energy management systems in accordance with ISO 50001. Since 2009, the "integration of environmental aspects into the product development at the Volkswagen brand" has also been certified in accordance with ISO TR 14062 in Development at the Volkswagen Passenger Cars brand.

Biodiversity

Biodiversity means the variety of life on our planet, and covers the variety of species, the genetic differences within species and the diversity of ecosystems. We rely on it as the basis for our continued existence: healthy food, clean water, fertile soils and a balanced climate. Due to the global decline in biodiversity, the United Nations has declared the current decade to be the "UN Decade on Biodiversity".

Volkswagen has been committed to protecting biodiversity since 2007 and is a founding member of the Biodiversity in Good Company e.V. initiative. In our mission statement, we have committed to supporting the protection of species at all of our locations. For this, we are collaborating with local suppliers. Our membership in Biodiversity in Good Company e.V. has been temporarily suspended as a result of the diesel issue.

Protecting biodiversity is an integral part of our environmental management. We contribute to achieving the targets of the UN Convention on Biological Diversity (CBD) by reducing greenhouse gas emissions and utilizing resources as efficiently as possible. Volkswagen supports networking between the various players in the fields of business, politics, society and academia with a view to increasing public awareness of biodiversity conservation and to increase knowledge of the issue.

SEPARATE NONFINANCIAL GROUP REPORT

The combined separate nonfinancial report of Volkswagen AG and the Volkswagen Group in accordance with sections 289b and 315b Handelsgesetzbuch (HGB – German Commercial Code) for fiscal year 2017 will be available on the website https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2017/Nichtfinanzieller_Bericht_2017_d.pdf in German and at https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2017/Nonfinancial_Report_2017_e.pdf in English by no later than April 30, 2018.

REPORT ON POST-BALANCE SHEET DATE EVENTS

There were no significant events after the end of fiscal year 2017.