

# 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 enhanced Group strategy TOGETHER 2025<sup>+</sup> describes this transformation in the Company. With our new vision “Shaping mobility – for generations to come” we aim to make mobility sustainable for present and future generations.

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 provide information on 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 want to increase the value of our Company in a sustainable way.

## SUSTAINABILITY

For us, sustainability means simultaneously striving for economic, social and environmental goals in a way that gives them equal priority. As one of the largest industrial companies, we wish to put our creative powers to good use worldwide for the benefit of people and the environment. We have thus developed a sustainable style of company management and put in place the necessary management structures.

We have anchored our goal to sustainably shape mobility for present and future generations in our Group strategy TOGETHER 2025<sup>+</sup>. In addition, we want to be an excellent employer and a role model for the environment, safety and integrity. Sustainability is thus at the center of our corporate actions.

A particular challenge when implementing our strategic goals on all levels of the value chain is the complexity of our Company, with its twelve brands, more than 670 thousand employees and 124 production sites. At the same time, we are guiding our Group through the furthest-reaching process of change in its history. The transformation sweeping our entire industry is dominated especially by the transition to e-mobility, digitalization and new mobility services. We want to

master these challenges and become a leading company for individual mobility in this electric and connected age.

Protecting the climate is currently the greatest global challenge affecting all three sustainability dimensions. We want to provide our own highly unique answer to this and have decided on an ambitious decarbonization program. With the implementation of this program we want to be a carbon-neutral company by 2050. We are assuming a pioneering role by making this voluntary commitment based on the Paris Climate Agreement. To this end, we are guided by the specifications of the Task Force on Climate-Related Financial Disclosures (TCFD); for more information, please see our Sustainability Report for fiscal year 2019.

In the field of digitalization we also want to help shape the transformation and are pressing ahead with developments in our vehicles and mobility services on the one hand and in our operating processes and management on the other. The digital transformation requires us not just to develop new technologies and be able to harness them, but also to come up with a forward-looking human resources strategy that takes our employees along this path of change and ensures that they are trained and that their jobs are secured.

## Parameters and guiding principles

Our actions are determined by the Volkswagen Group Essentials as the foundation of values and the basis for our shared corporate culture. The Volkswagen Group Essentials support managers and employees in overcoming legal and ethical challenges that arise in their daily work. At the same time, we are guided in our activities by a large number of internal guidelines on sustainability. These include the Volkswagen Social Charter, the Charter on Labor Relations, the Charter on Vocational Education and Training, and the Charter on Temporary Work.

On this basis, our objective is to ensure that the Volkswagen Group's actions are in line with international agreements and frameworks such as the Sustainable Development Goals (SDGs) of the United Nations (UN), the declarations of the International Labor Organization (ILO), the principles and conventions of the Organization for Economic Co-operation and Development (OECD) and the UN covenants on basic rights and freedoms.

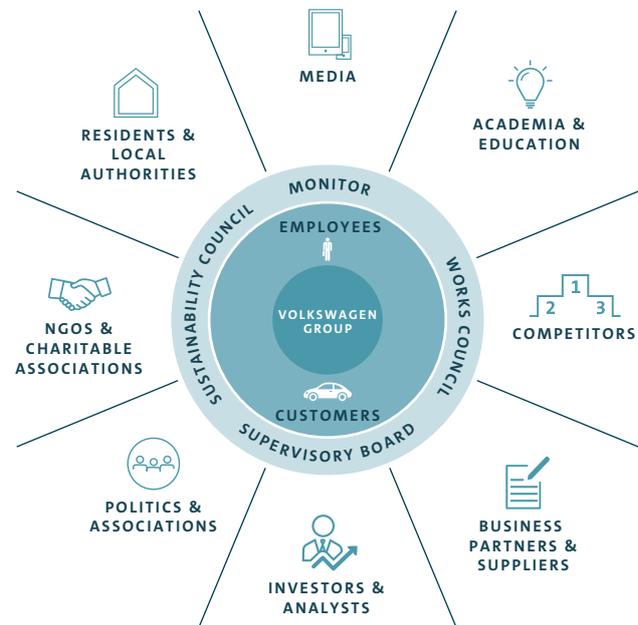
We have developed our own guiding principles for the different aspects of sustainability in conjunction with the so called mission statements. These pithy, focused statements underscore our goals, programs and measures. In this context, we created the Group's new "goTOzero" environmental mission statement in 2019 which represents our goal to achieve net carbon neutrality with a business approach that is as environmentally friendly as possible. In the implementation of its environmental mission statement, Volkswagen is primarily focusing on the four areas of climate change, resources, air quality and environmental compliance.

We take a similar approach in the area of social sustainability, where we aspire to act responsibly and fairly to all stakeholders as a good corporate citizen. Within the Company, the cornerstones of this mission statement are the characteristics of an attractive employer such as employee profit participation plans, job security, career development opportunities and equal opportunities. Externally, we seek dialog with society, initiate and support social projects and encourage our staff to take responsibility for the community.

#### Management and coordination

The structure and workflows of core processes in Group-wide sustainability management were refined in the reporting period. The related specifications, structures and processes will subsequently be codified in a separate Group policy. The core elements include assumption of overall responsibility for sustainability by the Chairman of the Board of Management of Volkswagen AG, specification of the competence of the responsible Board members for specific sustainability management concepts and development of rules of procedure by the Group Sustainability Steering Committee. The members of this steering committee include managers from central Board of Management business areas and representatives of the brands and the Group Works Council. The steering committee defines concrete strategic goals and programs, establishes measures for uniform further development of sustainability management across divisions, brands and regions and decides on fundamental sustainability issues. It also handles the enhancement of Group-wide sustainability management. The offices of the Group Sustainability Steering Committee are part of the Group's Sustainability function.

#### THE VOLKSWAGEN GROUP'S STAKEHOLDERS



#### Strategic stakeholder management

Our stakeholders are individuals, groups, or organizations who have a material influence on or are materially influenced by the course or the result of corporate decisions. Our customers and employees are at the center of our stakeholder network. Based on our annual stakeholder assessment we have identified eight more external stakeholder groups of equal value around this core. The Group's supervisory and advisory bodies such as the Supervisory Board and the Works Council, the Sustainability Council and the Monitor appointed by the US Department of Justice, act as a special interface between internal and external stakeholders.

We understand stakeholder management as systematic, continuous interaction with key stakeholder groups in line with our TOGETHER 2025+ Group strategy. Stakeholder management aims to systematically record expectations and use feedback from our stakeholders to critically reflect on strategic planning processes.

To be able to systematically incorporate our stakeholders' suggestions and recommendations, we have given our stakeholder management an organizational structure in the form of external committees. At Group level these are the Sustainability Council and the Stakeholder Panel. The Panel is comprised of 300 national and international opinion leaders. In addition, we offer our stakeholders a broad range of opportunities for interaction and feedback channels including regular discussion panels with stakeholders, stakeholder surveys and international cooperative projects.

THE VOLKSWAGEN GROUP'S KEY ACTION AREAS



**Sustainability Council**

The Volkswagen Group appointed a Sustainability Council in September 2016, initially for the period until 2020, to provide assistance with sustainability issues. This is made up of internationally renowned experts from the academic world, politics and society. The Council establishes its own working methods and areas of focus independently, has far-reaching rights for the purposes of exchanging information, consultation and initiating action, and consults regularly with the Board of Management, top management and the employee representatives.

The projects initiated in 2018 started to deliver results in 2019:

- > The Open Source Lab on Sustainable Mobility organized, among other things, dialog events on the use of open data in the field of mobility and drew up position papers on this topic.
- > The international program for forecast-based civil protection financing implemented initial mechanisms.
- > The research project on traffic policy instruments for reaching international climate targets published initial brief studies.
- > Visiting professors at the open labs began their work.
- > The project for the strategic focus of sustainability at Volkswagen reached its first milestones.

In addition, the Council decided on three new initiatives: a research project on distribution effects and acceptance of

climate-friendly fiscal policy, a study on the effects of digitalization and e-mobility on employment, and a commitment to a sustainable cobalt supply chain. Furthermore, the Sustainability Council formulated further recommendations for how technological, political and cultural change should be organized to win back trust and lay the foundations for future success.

**Materiality analysis**

The development of our new corporate vision “Shaping mobility – for generations to come” in 2019 played a key role in identifying the topics that are material for the Volkswagen Group. We seek to provide answers to the challenges of today and tomorrow with our enhanced Group strategy TOGETHER 2025+. Our goal is to make mobility sustainable for our own and for future generations. With electric drives, digital connectivity and autonomous driving, we want to make the automobile cleaner, quieter, more intelligent and safer.

As the starting point for our materiality analysis, we are oriented towards the SDGs formulated by the United Nations, which describe the social challenges facing companies. Based on the results of the analysis we conducted in the reporting year, we have defined 16 key action areas. Key action areas were revised, restructured and grouped together in the fiscal year. In order to identify key topics, we took into account external studies, sector and media analyses, ratings, stakeholder surveys, internal and external guidelines and codes, the TOGETHER 2025+ Group strategy and the individual departmental strategies.

As the details of our Group strategy have not yet been finalized, we are still in the process of specifying the content of the key action areas based on values, targets and KPIs.

**Corporate citizenship**

As a good corporate citizen, we aim to be a constant source of economic impetus for local structural development and equal opportunities. We have always believed in the importance of recognizing our social responsibilities toward our stakeholders. The main focus of our corporate social engagement activities is on supporting future, educational and community projects at many of our sites across the world. In 2019, the brands and companies launched or continued over 520 projects and initiatives worldwide.

**CSR PROJECTS**

<https://csrprojects.volkswagenag.com/csr-projects.html#all>

## CO<sub>2</sub> 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 CO<sub>2</sub> fleet monitoring report.

### RESEARCH AND DEVELOPMENT

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

Together with our Group brands, we have launched measures based on our future program TOGETHER 2025<sup>+</sup> to link development activities across the Group. At the heart of this is an efficient, cross-brand development alliance characterized by a close network of our experts, collaboration on an equal footing, an innovative working environment and the pooling of development activities. The aim is to make use of synergy effects across the Group and act as a role model for the environment, safety and integrity. The development alliance is playing a major part in driving the Volkswagen Group's transformation and helping to make the Group fit for the future.

In view of this strategic focus, we concentrated in the reporting period on continuing to develop forward-looking 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.

We use a strategic indicator in Europe and the United States to measure the effectiveness of our measures to reduce emissions when driving:

- > CO<sub>2</sub> fleet emissions. The Volkswagen Group's new passenger car fleet in the EU (excluding Lamborghini and Bentley) emitted an average of 124 g CO<sub>2</sub>/km<sup>1</sup> in the reporting period, a value that is below the 2019 European target

of 130 g CO<sub>2</sub>/km. The low year-on-year increase was mainly attributable to rising demand for SUVs. As small volume manufacturers, the Lamborghini and Bentley brands each have an independent fleet for the purposes of the European CO<sub>2</sub> legislation and were both above their individual targets. In the United States, the regulation of fleet emissions is different to that in Europe, for example in terms of the underlying test process, the period of evaluation, which corresponds to the model year rather than the fiscal year, and the calculation period, which comprises three model years. In fiscal year 2019, we complied with the regulations that apply to our greenhouse gas account in the United States, subject to any notification by the authorities.

### Fuel and drivetrain strategy

With a view to the legal regulations on emissions, we are currently developing a forward-looking vehicle and drivetrain portfolio: we have set ourselves the objective of increasing drive system efficiency with each new model generation – irrespective of whether it is a combustion engine, a hybrid, a plug-in hybrid, or a purely electric drive system. The Volkswagen Group closely coordinates technology and product planning with its brands so as to avoid breaches of fleet fuel consumption limits, since these would entail severe financial penalties.

We anticipate that one in four new Volkswagen Group vehicles worldwide will already have a purely electric drive by the year 2025; depending on market development, this could be up to three million electric vehicles a year. As part of our electrification offensive, we aim to offer our customers worldwide up to 75 completely battery electric vehicles and approx-

imately 60 hybrid models by 2029. By 2030, the Volkswagen Group aims to have electrified its entire model portfolio – from high-volume models to premium vehicles. This will mean offering at least one electric version – battery electric, hybrid or mild hybrid vehicles – of each of our passenger car models across all Group brands. To this end, in addition to the Modular Electric Drive Toolkit (MEB), we are also developing an all-electric platform for our premium and sports brands – the Premium Platform Electric (PPE).

The Volkswagen Group is committed to achieving the goals of the Paris agreement on climate change and is pursuing the objective of making its vehicle fleet completely carbon neutral by 2050.

To enable sustainable, affordable mobility in the future for as many people around the world as possible, we offer a range of drivetrains with a focus on electrification. From today's perspective, conventional combustion engines look set to continue to make up the lion's share of drive technology in the coming years. In the interest of using resources responsibly, it is therefore essential to further enhance this engine segment and systematically consolidate it for specific markets. Powertrain measures such as significantly more sophisticated exhaust gas purification or mild hybridization of our vehicles, as well as vehicle measures such as optimized aerodynamics or reduced rolling resistance will be necessary to fulfill future emissions standards. With the new Golf 8 we are placing a greater focus on efficient and sustainable mobility in the volume segment. The Golf's new petrol mild hybrid drivetrain significantly reduces fuel consumption. With its ability to shut the engine off when coasting and to give an electric boost when the car drives off, it provides attractive functions related to efficiency and driving comfort.

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. For example, we will reduce the number of versions of conventional combustion engines in the Group by more than a third in the long term. This will create capacity for the development and production of new hybrid and electric drives.

#### Life cycle engineering and recycling

On their own, technological innovations for reducing fuel consumption are not enough to minimize the effect of vehicles on the environment. We consider the environmental impacts we cause throughout the entire life cycle and at all stages of the value chain. These include the manufacturing process with the associated extraction of raw materials, the

production of materials, the processes at our suppliers and our own production operations at our sites, the use phase with the resulting vehicle emissions and the necessary supply of fuel, and ultimately the recycling of the vehicle at the end of its life cycle. 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. We therefore already take the recyclability of the required materials into consideration when developing new vehicles, use high-quality recycled material and avoid pollutants. Under the European Directive on end-of-life vehicles, passenger cars and light commercial vehicles must be 85% recyclable and 95% recoverable. Our vehicles registered in Europe comply with these standards.

#### Leveraging synergies increases efficiency

When developing vehicles, we cooperate closely with our brands to leverage synergies. The joint strategy of our development alliance involves, for example, making the Group more competitive and viable 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 therefore not only work with each other, but also for each other on key technologies, forming cross-brand networks of expertise to address topics of importance for the future. For example, we have consolidated the Group's activities in and responsibility for the development, procurement and quality assurance of all battery cells in a central Center of Excellence under the umbrella of the Volkswagen Passenger Cars brand. In the Center, a pilot line for cell production was put into operation in 2019 to build up expertise for the Group in the area of cell design but also throughout the entire value chain.

We also manage our modules centrally to reduce costs, capital expenditure and complexity. We are seeking to reduce expenditure in the modular toolkits, while at the same time facilitating widespread electrification and a focus on autonomous systems. We want to achieve this through a considerable reduction in complexity using streamlined platforms that synergize but do not overlap. To this end, the individual Group brands draw on the modular toolkits, thus creating synergies between the various models of a product line, as well as across product lines. By streamlining the toolkits, we are giving ourselves the financial leeway needed for developments in the future trends of digitalization and autonomous driving. The high-volume passenger car brands have intro-

duced a product line organization, thus strengthening their responsibility for the success of vehicle projects, improving project work across different cross-departmental areas, accelerating decision-making and intensifying the focus on project results.

We are also leveraging synergies by constantly sharing best practices, for instance in virtual development and testing. Last but not least, the centralized development and consolidation of our IT systems is also helping to strengthen cooperation across the brands, make development activities more comparable and reduce the Group's IT costs.

#### **Sustainable mobility, connectivity and automated driving**

Mobility is a basic prerequisite for economic growth. However, while the need to be mobile at all times is rising, natural resources are dwindling. This calls for comprehensive mobility concepts to minimize the environmental impact. Such solutions need to be efficient, sustainable, customer-oriented and accessible any time and anywhere.

We are researching and developing such concepts and solutions in our Group-wide alliance: when 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. Innovations such as digital connectivity and automated driving allow for new approaches to solving problems. We strive to utilize these and thus to play our part in a comprehensive mobility system for the future and to help shape our industry's transformation.

We are focusing on establishing a cross-brand business area for mobility solutions. We aim to make our mobility business MOIA a scalable and profitable business model.

In its pursuit of autonomous driving, the Volkswagen Group further improved its assistance systems and automated driving functions and introduced these in vehicles in 2019. The 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. The Volkswagen Group has presented its vision of an autonomous mobility system by unveiling the Sedric family, comprising fully autonomous vehicles for short- and long-distance mobility, as well as sports cars, self-driving delivery vehicles and heavy trucks. These vehicles will enable new forms of mobility in both cities and rural areas, particularly for user groups that have so far been excluded from access to mobility.

Autonomous driving in complex urban environments places especially heavy demands on technology. We are dedicated to meeting these challenges. Our Autonomous Intelligent Driving GmbH is working on developing a Group-wide system for self-driving vehicles.

As part of the TOGETHER 2025+ strategy, we are working with the Software-enabled Car Company module to make software one of the core competencies of the Volkswagen Group. Starting on January 1, 2020, we brought together all of our interests and subsidiaries that develop software for vehicles and digital ecosystems in the Car.Software organization, an independent entity with Group responsibility. This first step involved around 3,000 employees. Up to the middle of 2020, experts from the various Group brands and regions will also work together under the umbrella of the Car.Software organization.

The Car.Software organization is developing software for five applications within the Group: a uniform vehicle operating system "vw.os" for all Group vehicles as well as its connectivity with the Volkswagen Automotive Cloud; a standardized infotainment platform; all assistance systems including highly automated driving and parking; functions for connecting the drivetrain, chassis and charging technology; and ecosystems for all the brands' mobility services and digital business models. By 2025, all new vehicle models across the Group will be based on uniform, cross-brand software solutions. In pursuing this approach, we intend to generate economies of scale in the Group in order to reduce costs for software in the vehicle for all brands.

#### **Pooling strengths with strategic alliances**

The aim of our future program TOGETHER 2025+ is 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 strongly defined through regional innovation activities. Volkswagen therefore concentrates its strategic venture capital activities and partnerships in the Group's international innovation ecosystem and provides central support to the brands in the identification and implementation of technologies that will safeguard our competitive position. This approach helps us to identify regional customer needs more precisely, to adjust our product range accordingly and to establish competitive cost structures. We therefore rely to a greater extent than in the

past on partnerships, acquisitions and venture capital investments. We manage investment selection centrally so as to generate maximum value for the Group and its brands. It is against this backdrop that we have formed an alliance with the Ford Motor Company. This involves an intended collaboration regarding the development of vans and mid-sized pickups. In addition, we plan to invest with Ford in Argo AI, a company that is working on the development of a system for autonomous driving. This alliance allows both car companies to integrate Argo AI's self-driving system into their own models independently of each other. The system is supposed to make fully automated driving possible and to open up new opportunities, particularly for ride sharing providers and delivery services in urban areas, from the use of fully automated vehicles. In addition, Ford intends to use the Modular Electric Drive Toolkit (MEB) developed by Volkswagen for a zero-emissions volume model that should be offered in Europe starting in 2023. The aim of the cooperation is to place both Volkswagen and Ford in a position that enables them to improve their competitiveness, tailor their products to better meet the needs of customers worldwide and at the same time to leverage synergies related to cost and investment. The completion of the Argo transaction is subject to the approval of various official authorities and other conditions.

The strategic partnership with Microsoft enables us to accelerate our transformation into a mobility service provider

with a fully connected vehicle fleet and our Volkswagen We digital ecosystem. Together, we will press ahead with software development for the automobile of tomorrow and new services for our customers. Our IT expertise and solutions will thereby be comprehensively strengthened and expanded.

Battery technology is to become a core competency 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 when differentiating between products. We have already pooled our in-house expertise in battery cells in a Center of Excellence and at the same time intend to accelerate technological change and the development of expertise through intelligent partnerships. We anticipate that we will need a battery capacity of more than 150 GWh a year in the period to 2025 just to equip our own electric fleet with lithium-ion batteries. To cover this enormous demand, we have defined strategic battery cell suppliers for our most important markets and the first MEB models, and we aim to initiate further long-term strategic partnerships in China, Europe and the USA. The joint venture formed with Northvolt AB will build a 16 GWh battery cell factory in Salzgitter. Looking ahead, we are already preparing for the next generation: we intend to bring solid-state batteries to market readiness in partnership with other companies.

Our Group brands Volkswagen Passenger Cars, Audi and Porsche are involved in the pan-European High-Power Charging (HPC) joint venture IONITY, under which a comprehensive charging infrastructure is being built to safeguard long-distance mobility: after building 200 fast-charging stations in 2019 and with 65 more in construction, we plan to have around 380 of a total of 400 stations in operation along major transport arteries in Europe by the end of 2020.

We support the design of the framework conditions for the approval and introduction of our own self-driving system by our active involvement in public projects. The experience we are gathering here will benefit the Group brands and thus also our customers.

#### Key R&D figures

In fiscal year 2019, we filed 7,614 (7,639) patent applications worldwide for employee inventions, the majority of them in Germany. The fact that an ever increasing share of these patents is for important cutting-edge fields 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 period amounted to €14.3 (13.6) billion and were 4.9% higher than in the previous year; their percentage of the Automotive Division's sales revenue – the R&D ratio – came to 6.7 (6.8)%. Along with new models, the focus was primarily on the electrification of our vehicle portfolio, a more efficient range of engines, digitalization and new technologies. The capitalization ratio was 36.1 (38.4)%. Research and development expenditure recognized in profit or loss in accordance with IFRSs increased to €13.2 (12.1) billion.

As of December 31, 2019, our Research and Development departments – including the equity-accounted Chinese joint ventures – employed 54,947 people (+5.8%) Group-wide, corresponding to 8.2% of the total workforce.

#### RESEARCH AND DEVELOPMENT COSTS IN THE AUTOMOTIVE DIVISION

€ million	2019	2018
Total research and development costs	14,306	13,640
of which capitalized development costs	5,171	5,234
Capitalization ratio in %	36.1	38.4
Amortization of capitalized development costs	4,064	3,710
Research and development costs recognized in profit or loss	13,199	12,116
Sales revenue	212,473	201,067
Total research and development costs	14,306	13,640
<b>R&amp;D ratio</b>	<b>6.7</b>	<b>6.8</b>

## PROCUREMENT

In fiscal year 2019, the main task for Procurement was once again to safeguard supplies, and to help create competitive, innovative products and optimize cost structures. In addition, we continued to drive digitalized procurement processes forward.

### Procurement strategy

The enhanced Group strategy TOGETHER 2025+ stands for more speed, focus and stringency, also within the Procurement division, and is driving faster change. The focus in 2019 was on implementing the concepts developed in the procurement strategy. Procurement's key performance indicators were revised as part of a combined system of targets for Group Components and Procurement. Alongside the targets for material and investment costs and the timely award of contracts, the system of targets now gives greater weight to sustainability aspects and the achievement of carbon neutrality in the supply chain.

Target-costing strategies are becoming increasingly important in Procurement. They allow costs to be made transparent and concepts to be influenced in the early stage of product development by focusing on calculatory potentials. They also provide approaches for worldwide benchmarking and the exchange of best practices.

A cross-divisional strategic value chain management has been implemented to support profitable growth and safeguard the availability of hard- and software that is strategically relevant and/or crucial for ensuring supplies. Going forward, the newly formed committee for "Strategic Value Chain Management" will be responsible for taking strategically important "make", "buy" or "partner" decisions.

The growing volume of software and the new partners and suppliers this entails necessitate adjustments to the process chain and Procurement's award criteria. In future, the newly formed "Corporate Sourcing Committee Digital Car" will be in charge of the optimal award of contracts for vehicle and vehicle-related software. It will thereby create a key interface to the board-level management function with responsibility for Digital Car & Services, which was established at the Volkswagen Passenger Cars brand in 2019.

### Volkswagen FAST – Supplier network as the basis for success

With the FAST (Future Automotive Supply Tracks) initiative, Group Procurement is instrumental in advancing the Volkswagen Group and its supply network with a view to partnerships and future-viability.

Thanks to the program, which was launched in 2015, Volkswagen was able to expand its portfolio of strategically

important partners again in the reporting period. With the partners Microsoft, Infineon, Cree/Wolfspeed and AVL List, the priority in 2019 was above all on strengthening partnerships in the area of zero-emission and autonomous mobility.

FAST facilitates the regular exchange of information so that both sides are strongly positioned to cope with the future challenges facing the automotive industry. Based on a set of criteria, a comprehensive assessment of the previous year is disclosed to the suppliers so that improvements can be made together. Alongside the existing supply relationships, strategic agreements on globalization and innovation are still core issues of this exchange.

FAST partners are prioritized in the cross-divisional innovation process in that they are given the opportunity to present innovations to representatives from the Procurement and Technical development divisions at upper management level in strategy meetings. FAST partners are invited to attend relevant innovation events at which they can contribute their expertise. At the annual FAST Summit, talks were given on the strategic direction of e-mobility and a zero-emission future. The program will continue to be updated and refined in order to take full advantage of the potential from the FAST initiative.

### E-mobility

A key task for Procurement is to safeguard supplies for the rapidly growing requirements of the e-mobility offensive through 2025 with a view to sustainability and optimizing cost structures in the process.

The adjustments to our organizational structures in Group Procurement are designed to let us focus on high-voltage batteries and e-resources. Through benchmarking and requirements-based training, we are increasing the purchasing expertise of our procurement organization in the area of the e-mobility offensive.

When awarding contracts to our e-mobility partners, we provide clear requirements in relation to sustainable supply sources, transparent, traceable supply streams, and energy- and carbon-optimized supply chains. We pool global demand from the European, American and Asian markets and award Group contracts with the goal of cost leadership for e-mobility solutions. To this end, we take steps to ensure diversification and localization of the supplier portfolio in an effort to reduce economic and geopolitical risks.

### Digitalization of supply

We are working systematically to implement a completely digitalized supply chain. This is intended to help us to ensure

supply and leverage synergies throughout the Group in order to take a leading position in terms of 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. The objective of our functional area strategy for Procurement is to standardize transactions with our suppliers in the future and automate them where possible. This will not only reduce transaction costs but will also accelerate business processes. Potential supply risks can be reported automatically in order to identify measures and alternatives faster together. The cornerstone for the future of Procurement was laid in 2018 in the form of Group Procurement's digitalization strategy. This strategy aims not only to eliminate the weaknesses of Procurement's IT system environment but also to increase the organization's effectiveness, efficiency and future viability.

#### Structure of key procurement markets

Our procurement process 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 growth markets, we identify and train local suppliers to generate cost advantages for all Group production sites. We are also putting a focus on start-ups and software suppliers. 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 safeguarding of the supply of purchase parts is one of Procurement's goals. Adverse effects on production in the Group caused by unforeseeable events such as natural disasters were minimized to the best of our ability.

#### Management of purchased parts and suppliers

Today's market environment is characterized by persistent segmentation, diversification and globalization. We face these challenges with our purchased parts and supplier management, which supports and supervises the supplier processes. From development to series production, we focus on safeguarding the industrialization processes of the purchased parts at the individual supplier locations. The complexity of the components requires regular monitoring

of manufacturing capacity. It is vital that we identify any disruptions at an early stage and take rapid action to remedy these. Close cooperation with the quality assurance units at the production sites is crucial for our vehicle projects by ensuring a stable supply of purchased parts to start-up and series production.

#### Sustainability in supplier relationships

Successful relationships with our business partners are based on observance of human rights, compliance with occupational health and safety standards, active environmental protection and combating corruption. These sustainability standards are defined in the contractually binding Volkswagen Group requirements for sustainability in relations with business partners (Code of Conduct for Business Partners). At the same time, the documents signed contain the expectation that any sub-suppliers will be subject to the same obligation. We use the management system to review compliance with the requirements, which since 2019 has been an explicit condition for award of contract.

In our recently introduced sustainability rating we determine suppliers' sustainability performance by means of self-disclosures and on-site audits. By the end of 2019, we had received 12,646 self-disclosures and the findings of 1,331 audits. As a rule, contracts are not awarded to suppliers who fail to comply with regulations or do not implement these adequately. Tying award decisions to sustainability criteria is one of the strongest levers for enforcing these. We address existing sustainability risks and violations of sustainability principles by systematically implementing measures; this also includes the upstream supply chain. Depending on the severity, these may entail the inclusion of stipulations and measures in performance specifications for suppliers. In connection with the introduction of the sustainability rating, we have once again stepped up our focus on advanced training for suppliers: in fiscal year 2019, around 1,100 suppliers in seven countries took advantage of the training programs.

Due to the Group's transformation into a provider of sustainable mobility solutions, decarbonization and responsible raw material sourcing were two particularly important topics in 2019. Here we significantly expanded our activities in order to meet our own and external requirements. We systematically anchored the use of renewable energy in the specifications for battery suppliers and agreed measures to reduce CO<sub>2</sub> emissions in a series of workshops with strategic suppliers. Our commitment to sustainability in connection with raw materials was equally emphatic. By focusing on battery raw materials and their potential adverse effects on people and the environment in the upstream chain, we

significantly expanded our activities beyond our direct contractual partners. Key activities included the performance of audits, work with certified smelters and development of a sustainability standard for mines.

The basis for most of these measures is supply chain transparency. To increase this, we implemented a series of pilot projects in 2019 including blockchain projects for tracking individual supply chains and auditing critical subsuppliers at neuralgic points of high-risk supply chains. Worthy of note is the Responsible Sourcing Blockchain Network (RSBN), in which we, along with other large corporations, aim to track the cobalt supply chain and make it more sustainable.

#### COMPONENTS BUSINESS

A realignment of the Group-wide components business was decided on as part of the enhanced Group strategy TOGETHER 2025+ and implemented as of January 1, 2019. The aim is further improvement of future viability and competitiveness through cross-brand management of component activities and a value creation strategy coordinated throughout the Group. Synergies will be leveraged across both traditional technologies and topics of the future to advance the progressive transition to e-mobility.

The components business manages some 75 thousand people worldwide. The focus of their expertise is the development and manufacture of vehicle components. In order to realign these competencies in a future-oriented way, it was decided as part of the Group strategy to combine components activities around the world into an independent entity, Volkswagen Group Components, under the umbrella of Volkswagen AG.

The entity has been re-organized into new business areas: Engine and Foundry, Transmissions and Electric Drive Systems, Chassis, Seats and Battery Cells. In each of the business areas, innovative power and competitiveness will be increased through an economical product portfolio that is viable for the future with a continuously optimized product range and economies of scale exploited across all business areas. Group Components in the Volkswagen Group will be responsible for the development and production of battery systems and electric drives for new electric vehicles as well as for the development and pilot production of battery cells and the management of production partners. There are also plans to reuse the battery cells in innovative reutilization concepts such as the flexible fast charging station and then recycle

them in a climate-friendly manner. Moreover, further strategic initiatives will be implemented in Group Components' central strategy program "ONE MISSION 2025". Using innovative digitalization strategies such as robot-controlled process optimization, the transition process to new topics of future relevance will be accelerated.

#### 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, forward-looking innovations, flexible supply streams and structures, and an agile team. In fiscal year 2019, the global vehicle production volume was slightly under the previous year's level, reaching 10.8 million units. Productivity increased by around 4.0% year-on-year, despite the continuing difficult conditions in many markets.

#### "Intelligently networked" production strategy

Production is supporting the enhanced Group strategy TOGETHER 2025+ with its functional area strategy, "Intelligently Networked". 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 strategic goals:

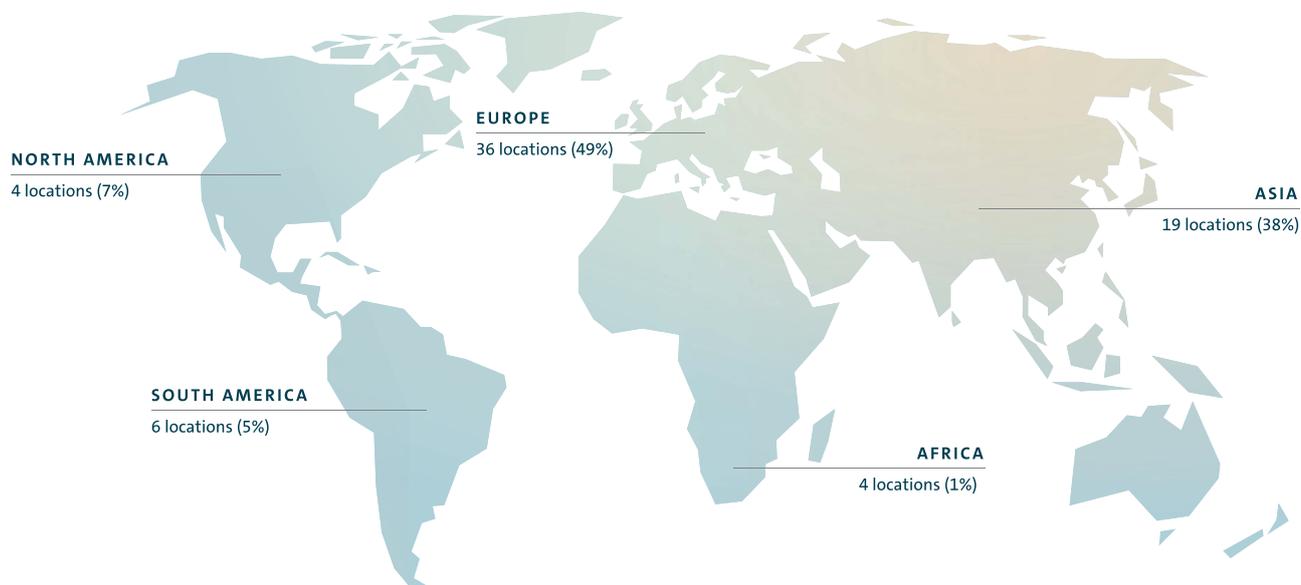
- > Versatile production network
- > Efficient production
- > Intelligent production processes
- > Future-ready production

With division-specific initiatives we have created 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 align our activities to the current challenges.

## VEHICLE PRODUCTION LOCATIONS OF THE VOLKSWAGEN GROUP

Share of total production 2019 in percent



### Global production network

With twelve brands and 124 production locations, aspects such as consistent standards for product concepts, plants, operating 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 multibrand locations. Currently, almost half of the 45 passenger car locations are already multibrand locations. The Bratislava site continues to serve as a prime example in the Group, producing vehicles for the Volkswagen Passenger Cars, Audi, Porsche, SEAT and ŠKODA brands.

The Volkswagen Group has set itself the goal of becoming a world-leading provider of battery electric vehicles by 2025. The basis for this is the introduction of the Modular Electric Drive Toolkit (MEB), which we are using to complement our range with additional battery-electric vehicles. We have been manufacturing battery-electric vehicles based on the MEB in Zwickau, the Volkswagen Group's first electric car factory, since 2019.

In order to design multibrand projects and electric 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 enables reduced capital expenditure and provides the opportunity to better utilize existing capacities. The future will also see electric vehicle projects at multibrand locations such as Zwickau, Germany and 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.

### Production locations

The Volkswagen Group's production network is comprised of 124 locations in which passenger cars, commercial vehicles and motorcycles, as well as powertrains and components are manufactured.

With 72 locations, Europe remains our most important production region for vehicles and components. There are 28 sites in Germany alone. The Asia-Pacific region has 33 locations. We have six locations in North America and nine in South America. The Group operates four locations in Africa.

2019 saw 89 production start-ups: 29 for new products and successor products, and 60 for product upgrades and derivatives.

Capacity utilization of the locations in the Volkswagen Group's production network is further enhanced by sup-

plying the locations with complete knock-down (CKD) kits for local assembly.

#### The Group's production system

The aim of the Group's production system is to continuously and sustainably improve production workflows at all the Group brand and regional sites. The Group's production system is the key component for achieving excellence in processes in production and production-related environments; we are strengthening this on a continuous basis and increasing the extent to which it is used.

Leadership and individual responsibility are indispensable factors; they are made visible by treating each other with respect and are part of our culture.

Having our factories working at optimal capacity enables us to manufacture high-quality products that give customers maximum benefits at competitive prices. This is made possible by the standardization of production processes and operating equipment early on in the line, based on the principle of concept consistency. This ensures that common design principles, joining techniques and joining sequences, but also installation and connection concepts are applied in the development and production areas at the brands. The principle of concept consistency establishes a foundation for creating efficient logistics and manufacturing processes.

#### New technologies and digitalization roadmap

3D printing is still one of the key technologies for Industry 4.0 and digitalizing the automotive value chain. It is successfully used in select sites of the Volkswagen Group in the manufacture of components and also operating equipment. The process opens up wholly new opportunities in the areas of development, design and production. Due to the digital nature of the technology, which requires no tools whatsoever, components and operating equipment can be flexibly implemented directly from digital drawings, and completely new designs and component geometries can be created.

Developments for large-scale automotive production applications point to considerable potential for the future. To this end, Volkswagen leverages the diversity of the Group, achieved through close collaboration between its brands, and cooperates with leading technology providers and research institutions. Alongside new technologies, moving the IT architecture over to a cloud-based platform solution will be the main task in the coming years on the road to digitalized manufacturing. This will bring the Volkswagen Group closer to the project for the future Industry 4.0. The cloud-based platform with its simplified data exchange is a vital prerequisite for making innovations available rapidly across

all sites. Examples include intelligent robotics and data analysis functions for analyzing and comparing cross-plant processes. The cloud-based platform can be used to scale new applications directly to all sites so that specific services and functions can be put into operation in the area of production and logistics at the Volkswagen Group. The entire project will take several years to be implemented. Volkswagen is creating its industrial cloud as an open platform with the goal of incorporating companies from the entire value chain. In the long term, the Volkswagen Group aims to integrate its global supply chain with over 30,000 sites of more than 1,500 suppliers and partner companies into the cloud, creating a constantly growing, worldwide ecosystem.

#### Environmentally efficient production

We are planning the production of tomorrow with our functional area strategy, "Intelligently Networked". Emissions levels and the use of resources at Volkswagen Group locations require particular attention. The goTOzero Impact Factory program is developing specific steps for more sustainable production, with a vision of a factory that has no adverse environmental impact. Decarbonization, biodiversity and zero plastic waste in production are key elements of this program.

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 provide training to our employees in environmental protection.

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 1,240 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 were once again able in the reporting period to reduce environmental indicator levels, such as those incorporated in the decarbonization index (DCI), while at the same time improving production processes.

#### GoTOzero Impact Logistics

To help achieve the goals of the Group's goTOzero environmental mission statement in the area of logistics, Group Logistics is collaborating with colleagues from the brands in the goTOzero Impact Logistics initiative. This builds on the preceding Green Logistics initiative. Emissions are reduced by continuously optimizing the production and transport

network. The use of new low-emissions technologies for transporting production materials and vehicles will also be analyzed and accelerated.

The measures the Volkswagen Group is taking to achieve carbon-neutral logistics include moving shipments from road to rail and CO<sub>2</sub> exemption of rail transport in collaboration with Deutsche Bahn AG. In addition, Group Logistics is putting the world's first liquefied natural gas (LNG) powered roll-on/roll-off (RoRo) charter ships into service for transporting vehicles across the North Atlantic and is promoting the use of LNG trucks by freight forwarders working for Volkswagen.

#### SALES AND MARKETING

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.

Together with their sales partners and importers, our passenger car brands agreed on a procedure for integrating innovative products and services into the sales network. The priority thereby is the safe handling of customer data and the way in which this is processed for digital products and services or in connection with the vehicle purchase. The legal requirements for handling customer data have been tightened in many countries. At the same time, new Group vehicles that are permanently connected to the internet are about to be launched. We are increasingly investing in distribution systems and processes with the goal of further digitalizing and improving the individual customer experience in all distribution channels.

The Volkswagen Group's financial strength and profitability is attributable to an extensive portfolio of strong brands. The objective of our Best Brand Equity strategic module is to continuously sharpen the brand profiles and demarcate the respective vehicle segments – that are served by the brands – as clearly as possible. Our aim in this endeavor is to achieve high market saturation with maximum efficiency and a low level of cannibalization of the brands in question. Market positioning is an important element for increasing brand values. To this end, we are establishing automobile-specific customer segmentation to steer the positioning of our brands. It will be continuously applied in the strategy and product process.

#### Customer satisfaction and customer loyalty

The Volkswagen Group aims its sales activities at exciting its customers. This is our top priority, as satisfied 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 compile and analyze two strategic indicators for the passenger car-producing brands:

- > Loyalty rate. Proportion of customers of our passenger 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 rankings in the core European markets in comparison with competitors for a number of years thanks to their faithful customers, even though these Group brands have seen a slight decrease in the loyalty rate. Compared to other manufacturer groups, the Volkswagen Group continues to hold a top spot in the core European markets 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, the Volkswagen Group has a top ranking in comparison with competitors, primarily thanks to the good scores achieved by the Volkswagen Passenger Cars brand.

In the core European markets, the figures of the Volkswagen Passenger Cars brand relating to brand image and confidence in the brand stabilized further in 2019. Porsche remains in top position in the image ranking.

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

- > Customer satisfaction. Satisfaction of our customers results from a customer-oriented product range and the service focus of our staff. In the annual assessment, these two aspects serve as suitable indicators for the critical evaluation as to whether we will achieve our customer satisfaction target of 90% in 2025. In 2019, we were within the expected range with a satisfaction rate of 83 (82)%. Our goal is to satisfy our customers completely. To do so, we are developing suitable measures at country level.
- > Customer loyalty. Trust in and loyalty to our services rely on customer satisfaction with our product range and service. The re-entering contract rates (defined as financing and leasing agreements for repurchases of new Volkswagen Group vehicles) that have been surveyed up to now based on product sales to our customers are being revised in the context of changing customer needs and the development of the product offering at our financial services companies.

#### E-mobility and digitalization in Group Sales

As part of our electrification campaign, we aim to offer our customers worldwide up to 75 completely battery-electric vehicles and approximately 60 hybrid models by 2029. This campaign will be complemented by vehicle-related, customer-focused offerings, such as customized charging infrastructure solutions and mobile online services. The Volks-

wagen Group is thus transforming from an automotive manufacturer into a mobility service provider, posing completely new challenges for sales.

We are making highly targeted use of the opportunities of digitalization in sales, which include an improved customer approach. 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 the customers of our brand – one which impresses with a seamless communication process, from the initial interest in purchasing a vehicle, to servicing and ultimately to the sale of the used car. In doing so, we are opening up new business models relating to 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 also align our internal processes and structures to the methods and new forms of working created by 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 – and new lean systems and cloud-based IT solutions.

#### Fleet customer business

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, especially in Germany and the rest of Europe. Our extensive product range enables us to satisfy their individual mobility needs from a single source.

In the German passenger car market, which expanded as a whole by 5.0% in 2019, the share of fleet customers in total registrations was 14.8 (13.6)%. The Volkswagen Group's share of this customer segment increased to 44.1 (44.0)%. Outside Germany, the Group's share of registrations by fleet customers in Europe was up slightly at 25.6 (25.2)%. The upward trend shows that fleet customers' confidence in the Group remains on a high level.

#### After Sales and Service

In addition to individual service, the timely provision of genuine parts is essential to ensure passenger car customer satisfaction in After Sales. The genuine parts supplied by our passenger car brands and the expertise of the service centers stand for quality and ensure the safety and value retention of

our customers' vehicles. With our global after sales network including more than 130 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.

In the Digital After Sales project, we are modernizing processes and IT systems in After Sales. By adopting an approach that focuses product and service development on the specific needs of both dealers and customers, we aim to reduce the time needed for administrative tasks at the dealers through automated, interrelated services and also stabilize existing IT systems and boost efficiency. Innovative digital after-sales services will additionally improve the customer experience.

Around the world, our commercial vehicles business also prides itself on products of quality and on customer focus. Our range of trucks, buses and engines is complemented by services that guarantee fuel efficiency, reliability and wide 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 the vehicles' total operating costs and helping to 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.

#### QUALITY

The quality of our products and services plays a key role in maintaining customer satisfaction. Customers are particularly satisfied and 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 our customers and inspire enthusiasm in all areas, and thus to win them over with our outstanding quality.

In the reporting period, we transferred operational tasks such as damage analysis from the Group to individual brands and rearranged strategic topics at Group level. This will underpin the principle "The Group manages the brands, the

brands manage the regions and the regions manage the factories” and strengthen networks across the brands at the same time.

#### Strategy of Group Quality

When enhancing our future program, we also reviewed our functional area strategy in depth and coordinated it with the brands. We continue to embody outstanding quality and ensure reliable mobility for our customers worldwide. This is the strategic goal that guides our actions. Group Quality and the brands’ quality organizations play an active role at all stages of product emergence and testing, making an important contribution to successful product launches, high customer satisfaction and low warranty and goodwill costs.

Advancing digitalization continues to be a major challenge for us: software is increasingly becoming a priority for the Group as the importance of smart functions in our products and services grows. In the reporting year, we sharpened the focus of our activities on the “Automotive SPICE” process assessment model that we use to improve our processes, in order to ensure future viability in the field of software-based system development. In doing so, we are staying abreast of the progressive regulation, for example of autonomous driving functions.

Furthermore, we are developing Group-wide standards on cybersecurity so as to protect the users of our vehicles against possible attacks. The UNECE (United Nations Economic Commission for Europe) provides for corresponding certification and homologation in the future to ensure that companies can guarantee that these aspects are dealt with properly. This gives rise to the need for Volkswagen to review its organizational structures and processes and adjust these as required. In this context, we have begun to implement an Automotive Cyber Security Management System (ACSMS) that will be incorporated into the quality management system.

The strategy of Group Quality developed in this context comprises the following four goals:

- > We will excite our customers with our outstanding quality by understanding what exactly they perceive as quality and implementing this 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 the personal development of every single employee even more intensively.

To achieve our goals, we are working on a variety of quality initiatives. All are focused on the topics that are decisive to the success of the quality organizations in the Volkswagen Group.

#### Contributing to the Group’s strategic indicators

We use a strategic indicator to measure the contribution of Group Quality in the major passenger car-producing brands at the top level of consideration.

- > Tow-in 12 MIS. This indicator shows the number of vehicles that need to be towed to a dealer per 1,000 vehicles after 12 months in service (MIS). It includes all Group vehicles categorized as tow-ins by dealers in the German market. It also includes vehicles which, after being taken to a repair workshop, are unable to continue driving without restriction. The number of Volkswagen Group tow-ins in the German market has fallen fairly steadily in the last five years. All six brands featured saw their performance improve year-on-year. The brands’ ratios for the 2018 production year are within or slightly above the target corridor in each case. Quality is the Volkswagen Group’s top priority. All of the Group brands are therefore striving to continuously reduce the number of vehicles that need to be towed to a dealer.

#### Legal and regulatory compliance

The legal and regulatory compliance of our products is paramount in our work. In our processes we employ the principle of multiple-party verification, which involves mutual support and control between the divisions. Software development is accompanied by quality milestones at all brands, whereby all systems, components and parts that directly influence a vehicle’s safety, type approval and functioning and therefore require particular vigilance are safeguarded through multiple-party verification. At the series production stage, we are also ensuring even more stringently than before that the conformity checks on our products are carried out and assessed with the participation of all business units involved. This applies particularly to emissions and fuel consumption.

We are also dedicating even more attention to our quality management system than before, reinforcing the process-driven approach Group-wide across all business areas. The quality management system in the Volkswagen Group is based on the standard ISO 9001. This standard must be com-

plied with for us to obtain type approval for the manufacture and sale of 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. Particular focus was placed on assessing the risk of non-compliance with defined processes. Our quality management consultants pay attention to ensuring that these and other new requirements, as well as official regulations, are implemented and complied with; they are supported in this endeavor by a central office in Group Quality.

With these and other measures, the quality organizations are helping to ensure that we as a manufacturer and our products meet the legal and official requirements.

**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 is therefore 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.

To ensure that the perceived quality of our vehicles is at a level commensurate with that of our competitors, we take regional customer needs into account in our vehicle audits. Every brand works together with the individual regions to decide how its product is to be positioned there. This enables us to strengthen the responsibility of the brands and invest less in features that do not resonate with customers. To ensure that the audit returns comparable results, consistent quality benchmarks apply across all brands and regions. We are continually adapting these to changing requirements. For more than 40 years now, we have been deploying auditors around the world to assess, from the customer’s perspective, those vehicles that are ready for delivery and to ensure that these vehicles comply with the benchmarks defined.

**EMPLOYEES**

The Volkswagen Group is one of the world’s largest employers in the private sector. On December 31, 2019, we employed a total of 671,205 people, which includes the Chinese joint ventures. This figure represents a 1.0% increase compared with the end of 2018. The ratio of Group employees in Germany to those abroad remained largely stable over the past year; at the end of 2019, 44.3 (44.1)% of the workforce worked in Germany.

**EMPLOYEES BY MARKET**

*in percent, as of December 31, 2019*



**Human resources strategy and principles of the human resources policy**

With the functional area strategy for Human Resources – “Empower to transform” – the Group is continuing with key and successful approaches in its human resources policy. These include the pronounced stakeholder focus on 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 – an approach whereby most of the responsibility for the work organization is transferred to the teams – are set to be expanded.

In the Human Resources division, we are guided within the framework of our strategy by five overarching objectives:

- > The Volkswagen Group, including all of its brands and companies, aims to be an excellent employer worldwide.
- > Highly competent and dedicated employees strive for excellence in terms of innovation, added value and customer focus.
- > A forward-looking work organization ensures optimal working conditions in factories and offices.
- > An exemplary corporate culture creates an open work environment that is characterized by mutual trust and collaboration.
- > The Company’s human resources work is highly employee-oriented, strives for operational excellence, and yields strategic value-added contributions.

During the implementation of our enhanced future program TOGETHER 2025<sup>+</sup>, we paid particular attention in the reporting period to the level of achievement regarding the goals set by the applicable strategic KPIs. For the passenger car-producing brands, we compile and analyze the following information:

- > Internal employer attractiveness. This indicator is determined by asking respondents, as part of the 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 85.6 index points was achieved in the reporting period, contrasted with 84.2 points in the previous year. The scope of this survey extends beyond the brands that manufacture passenger cars.
- > External employer attractiveness. The ability to recruit top talent is of decisive importance, particularly in view of the Company's transformation into one of the world's leading providers of sustainable mobility solutions and the associated development of new business fields. We use this strategic indicator to check the positioning of the major passenger car-producing brands on the labor markets once a year with regard to graduates and young professionals. Rankings in surveys conducted by renowned institutions, in which we aim to achieve top scores for the Group brands featured, serve as the basis for this. In fiscal year 2019, the Audi, Volkswagen Passenger Cars and Volkswagen Commercial Vehicles brands recorded slight improvements year-on-year, and partly achieved the targets set, while Porsche, ŠKODA and SEAT fully reached and even exceeded them in some cases.
- > Diversity index. Given the cultural diversity in our global markets and the growing economic momentum, success in a highly competitive marketplace requires an ever-wider range of experience, world views, problem-solving solutions and product ideas. The diversity of our workforce provides potential for innovation in this area, which we aim to make better use of in future. As we establish diversity management across the Group, this strategic indicator is used as a percentage of the active workforce worldwide to report the development of the proportion of women in management and the internationalization of top management. In particular, it underpins the objective of the human resources strategy, which is aimed at contributing to an exemplary leadership and corporate culture. The proportion of women in management amounted to 14.3% in 2019, up on the prior-year level; we aim to raise this figure to 20.2% by 2025. We aim to increase the level of internationalization in top management, the uppermost of our three management tiers, to 25.0% in 2025; in the past fiscal year this was 18.4 (19.2)%.

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

- > External employer ranking. This involves taking part in external benchmarking, in general once every two years. The aim is to position ourselves as an attractive employer and derive appropriate measures to achieve a ranking among the top-20 employers by 2025, not just in Europe, but globally. Volkswagen Financial Services AG was represented in various national and international best-employer rankings the last time it participated in 2019. Coming in 11th place, it was among the top European employers in the "Great Place to Work" employer competition.

The implementation of our enhanced Group strategy TOGETHER 2025<sup>+</sup> has been accompanied by a work package that we defined with the Excellent Leadership module under the slogan "versatility, integrity, strong leadership" to drive the change toward a cooperative management culture that places even more focus on integrity. Management development and training will undergo fundamental change and an even more systematic approach to succession planning will be taken to ensure that the Group has the right people available for the right positions at the right time.

We continued to implement our new system for staff development across the Group in 2019. Going forward, the development paths that lead to management will be characterized by greater individual responsibility, transparency and practical relevance, and will include employees from different levels of the hierarchy in the evaluation of candidates.

To address the challenges of the transformation with success, the Group and the employee representatives have signed agreements for the future that will position the Group's individual brands more efficiently and also structure employee career prospects. The Volkswagen Passenger Cars brand's roadmap for digital transformation is one example, as is the Audi brand's Audi.Zukunft agreement, both of which were announced in fiscal year 2019.

We are also driving large-scale cultural change to achieve greater openness and transparency in line with our corporate strategy. The seven Volkswagen Group Essentials define the shared underlying values and the foundation for cultural change across all of the brands and companies:

- > We take on responsibility for the environment and society.
- > We are honest and speak up when something is wrong.
- > We break new ground.
- > We live diversity.
- > We are proud of the work we do.
- > We not me.
- > We keep our word.

Group-wide activities such as team dialog and the role model program encourage employees to analyze the Group Essentials and incorporate them into all work processes. In the role model program, managers from all brands improve the corporate culture together with their staff.

#### Training and professional development

At Volkswagen, our capacity for innovation and our competitive position largely depends on the commitment and knowledge of our employees, particularly during the transformation.

Staff training at Volkswagen is organized systematically and according to vocational groups. These comprise all employees whose tasks are based on similar technical skills and who require related expertise in order to perform their jobs. A skills profile lays down the specialist and interdisciplinary skills for each job and serves as a guide for training measures.

Volkswagen Group employees have access to a wide range of training measures – from further training in general Company-related issues to specific training or personal development programs. Thanks to these opportunities, Volkswagen employees are able to further develop and steadily deepen their knowledge throughout their working lives. In this process, they are also able to learn from more experienced colleagues, who pass on their knowledge as experts in the vocational group academies. Training measures are based on the dual training principle, which combines theoretical content with practical experience on the job by means of specific tasks.

The range of learning opportunities is being expanded continuously. In 2019, the Volkswagen Group Academy commenced initial partnerships with renowned external training portals to expand online learning, for example on IT topics. The Company will set aside additional funds for the personnel skills transformation brought on by digitalization. This will be used for special training for the groups of employees and departments affected by the transformation. In addition, Volkswagen is striking out in new directions with the Faculty 73 program and is training the software developers who are needed for the digital transformation internally. The first academic year started in 2019 with about 100 participants. The program is designed for employees and also external applicants with IT affinity and an interest in software development.

As part of the Volkswagen Group Academy, the AutoUni conveys knowledge to the Group that is relevant for the future on the key issues of digitalization and IT by engaging external and in-house senior experts in addition to universities.

#### 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 2019, the Volkswagen Group trained 19,399 young people. We have introduced the principle of dual vocational training at many of the Group's international locations over the past few years and are continuously working on improvements. Once a year, Volkswagen honors its highest-achieving vocational trainees in the Group with the Best Apprentice Award.

Even after their vocational training has been completed, young people at the start of their careers are encouraged to continue their professional development in our Company. This is why we promote particularly talented young specialists in talent groups. These two-year development and training programs accept the highest-achieving 10% of fully qualified vocational trainees at Volkswagen AG each year. In addition, fully qualified vocational trainees have the option of working at a Group company outside Germany for twelve months as part of the "Wanderjahre" (Year Abroad) program. In the reporting period, 33 Volkswagen Group locations in 16 countries took part in this program.

Last but not least, we developed the AGEBI+ program, which promotes fully qualified vocational trainees who are eligible for university and wish to combine a degree program in subjects that are crucial for Volkswagen's future with closely related practical experience.

#### 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 two years 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 here is to get to know the Company in all its diversity and to build up a broad network. During their participation in the program, young professionals become familiarized with several locations in Germany and other countries by working in various departments. Both programs also include several weeks' experience working in production. In 2019, Volkswagen AG hired a total of 246 graduate trainees as part of these programs, 31.7% of whom were women.

Young people can also take part in graduate trainee programs at the other Group companies as well as at the Group's international locations, such as ŠKODA in the Czech Republic, SEAT in Spain or Scania in Sweden.

**PROPORTION OF WOMEN**

as of December 31

%	2019	2018
Employees	16.8	16.5
Vocational trainees <sup>1</sup>	24.1	25.6
Graduate recruits <sup>2</sup>	31.7	28.7
Total management <sup>3</sup>	12.1	11.5
Management <sup>3</sup>	13.7	13.1
Senior management <sup>3</sup>	9.7	9.1
Top management <sup>3</sup>	7.4	6.1

1 Germany, excluding Scania.

2 Volkswagen AG

3 Germany

**Increasing attractiveness as an employer and development programs for specific target groups**

A family-friendly human resources policy is a major component of Volkswagen's attractiveness as an employer; in particular, it contributes to greater gender equality. We are working continuously to develop family-friendly models for working time models and to increase the number of women in management positions. In line with German law on the equal participation of women and men in leadership positions (Führpos-GleichberG – German Act on the Equal Participation of Women and Men in Leadership Positions in the Private and Public Sectors), Volkswagen AG is aiming to have a 13.0% share of women at the first management level and 16.9% at the second management level by the end of 2021. As of December 31, 2019, the proportion of women in the active workforce at the first level of management was 11.4 (10.7)% and at the second level of management it was 16.4 (15.4)%.

We have set targets for every board-level division at Volkswagen AG regarding the development of the proportion of women in management to encourage women with high potential to advance within the Company. This approach is supported by many different measures ranging from cross-brand mentoring programs to a quota system for the management selection procedure and targets for the share of women among external hires.

In recent years, a large number of company regulations have also come into effect in the Group to make it easier for employees to balance the demands of work and home life and allow staff to arrange their own individual working model. These include flexible working hours, variable part-time work and shift models, leave of absence programs enabling employees to care for family members, childcare services that are associated with the company or are company-owned, and mobile working.

**AGE STRUCTURE IN YEARS OF VOLKSWAGEN GROUP EMPLOYEES**

as of December 31, 2019; in percent



At Volkswagen AG, which entered into its works agreement for mobile working already back in 2016, more than 23 thousand employees were making use of a more flexible working arrangement as of the end of the 2019 fiscal year.

**Preventive healthcare and occupational safety**

Preventive healthcare and occupational safety are key human resources policy topics in the Volkswagen Group. In fiscal year 2019, we underpinned these with a corresponding Group policy. This defines basic requirements and objectives relating to occupational health and safety, laying down rules for the organization thereof as well as the responsibilities of the Group, brands and companies.

In addition to fulfilling statutory requirements, Volkswagen's Health department places strong emphasis on preventive approaches with regard to health, fitness and performance. Employees are given the opportunity to have regular check-ups followed by a talk in which they receive offers that draw on recent scientific findings for improving their individual health. Another task of the Health department is to advise the Group on any potential impact on employee health resulting from new production technologies introduced throughout the production chain and in all work processes. One example of this is a pilot project conducted in 2019 by Audi BKK and the Hanover Medical School (MHH) to reduce the risk factors associated with metabolic syndrome, such as high levels of body fat, blood lipids and blood pressure. Telemonitoring of these levels, exercise programs, nutritional consultations and individual support, combined with modern technology such as wearables (electronic aids worn on the body), have led to significant improvements, particularly among shift workers.

### 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 criticisms being heard.

We brief our employees extensively on upcoming changes so as to involve them in strategic decision-making as early as possible. In forming cooperative labor relations characterized by social peace, we are guided by universal human rights and the standards of the International Labour Organization (ILO). Building on these principles, we have agreed various charters and declarations with the European and the World Works Councils which set out the principles of labor policy in the Volkswagen Group as well as individual employee rights.

With the opinion survey, a poll of 180 companies of the Group, the Company not only regularly gathers information regarding employee satisfaction, but also inquires about the shape of our corporate culture and the manner in which, for example, compliance requirements are implemented. Based on the results, follow-up processes are implemented in which measures are developed and executed. Over 620,000 employees in 50 countries were invited to take part in the survey. The participation rate was 81%. The average result from all of the answers provided for the questions in the opinion survey – the sentiment rating – is an important parameter of the survey; in 2019 it stood at 80.0 out of a possible total of 100 index points. The score achieved in 2019 was thus higher than the previous year's figure, which amounted to 78.9 points.

In addition, we also encourage our employees' involvement by means of Idea Management. Employees have the opportunity to put their creativity and knowledge to use in the form of ideas for improvements, thus contributing to streamlining workflows, further enhancing ergonomics in the workplace, reducing costs and continuously increasing efficiency. Through Idea Management employees can actively participate in the planning and design of their work. The system also provides monetary incentives by offering set rewards.

### INFORMATION TECHNOLOGY (IT)

Volkswagen is working hard on strengthening its digital competencies with a view to shaping and safeguarding the Company's future viability. To this end we are continuously upgrading our IT systems so that they are sustainable in the

long term and are progressively moving our systems and applications over to new cloud platforms. Our primary concern is further increasing the efficiency of the IT systems used throughout the Company and standardizing these as far as possible. We are also concentrating on building up our expertise and specialist IT knowledge, especially in key digital technologies such as artificial intelligence and the use of new IT technologies in products, services and business processes.

To safeguard the development of core competencies in our Company in the fields of technology, digitalization and autonomous driving, we are building up IT resources that will help shape and push the Company's digital transformation.

The Group IT Steering Committee was formed in fiscal year 2019 for this purpose. In addition to managing the Group's IT portfolio, this steering committee will enable synergies to be leveraged more efficiently and promote communication with departments on IT projects. Group-wide planning and management of portfolios will ensure coordinated use of budgets and resources in the development, implementation and use of IT solutions within the Group.

Volkswagen is embracing digitalization in the Company at its in-house IT labs, for example. The labs act as centers of innovation and expertise that conduct research and experiment with new technologies. Here, Group IT, research institutions, technology partners and policy-makers are working closely together on future trends in information technology. At the same time, the labs function as liaison offices for start-ups. This allows the experience and strategic expertise of a large company like Volkswagen to be combined with the pragmatism and speed of young start-ups. Highly specialized experts at the IT labs in San Francisco and Munich, for example, are working on exploiting the potential of quantum computers for areas that have a commercial application. The focus here is on optimization of flows of traffic and simulation of materials and alloys. Initial experimental projects are also investigating opportunities for combining the potential of quantum computers with self-learning systems (quantum machine learning).

In addition to topics such as data analytics (process for the systematic analysis of data in electronic form) and decentralized databases, which allow network participants to jointly process and store data (distributed ledger technologies), the IT labs are used to realize knowledge transfer throughout the entire Company, and to make new technologies usable for the Company. For instance, numerous "bot"

projects are being implemented to automate business processes (robotic process automation). Self-learning systems will intelligently analyze data to assist staff in recurring administrative work steps by preparing these activities independently and giving them to staff for a decision.

The further convergence of different business areas with IT is also opening up opportunities.

In production, for example, big data processes help us to analyze faulty machinery and take action at an early stage. Big data refers to data volumes that are too vast and too complex to be analyzed and evaluated using manual or conventional methods. Production processes are also safeguarded by artificial intelligence and camera systems (computer vision). The systems and equipment in the factory are combined into an integrated overall system. This will allow efficiency to be increased and digital pilot projects to be integrated into the existing architecture much more easily than before. Applied research in the field of intelligent human-robot collaboration and IT systems to control mobile assistive robotics are also important elements of the digitalization of production at the Volkswagen Group.

Group IT is likewise contributing its expertise in the field of research and development in conjunction with the different departments. For instance, digitalized work tools such as the “virtual concept vehicle” make the product development process faster and more efficient.

Value creation in sales is being increased with the help of advanced analytics (a process for systematic analysis of future events and behavior), for example on distribution parking lots for vehicles and in sales planning.

The “IT for everyone” initiative aims to give all employees at Volkswagen AG access to digital media and work tools. The objective is to further improve communication and collaboration among production and administrative employees. An important issue in this connection is the growing volume of official work being performed on mobile devices. The Company’s internal network Group Connect promotes knowledge transfer and networking among all employees. The platform puts experts in touch with one another across brands and internationally. In software development centers we develop cross-brand software for digital ecosystems and for new business processes in the Group. We thereby maintain in-house expertise in the rapid, demand-oriented development of software and IT solutions. This capability will become increasingly important as the Company’s digital transformation evolves.

At the new software development center established in Lisbon in 2019, software architects, designers and developers are working together on IT projects in the areas of sales and marketing and on the connected car, among other things. The project work is flanked by a lean, agile development process based on the simultaneous work of teams of two (pair programming).

Cutting-edge technologies for the industrial internet of Things are being developed at the new software development center in Dresden. In collaboration with a leading cloud provider, Amazon Web Services, we are working on a digital production platform that will enable Volkswagen to significantly reduce its production costs in the future.

Safeguarding data and systems at the Volkswagen Group is another focus of our IT. In order to also protect our customers against cyberattacks and ensure that our solutions are in conformity with national and international legislation, we are continuing to implement an integrated, cross-brand, cross-regional Information Security Management System (ISMS) as part of the Protected Customer program. 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. Key central information security processes have been audited and certified within the international ISO 27001 framework. This is the most important standard for information security and extends beyond IT to also cover issues such as human resource security, compliance, physical security and legal requirements. One of the aims of the program, which is set to run until 2021, is also to safeguard the complete life cycle of our vehicles and the digital mobility services.

In fiscal year 2019, another focus of IT was on continuing the systematic implementation of the European General Data Protection Regulation (GDPR), which was combined in a Group program and rolled out in all corporate functions. In the course of the sustainable implementation of the GDPR, the data protection processes and procedures in place in the brands will be consolidated and standardized further. When new IT solutions are being developed, the requirements will be enforced from the outset. Transparency in the processing and minimization of data is a key goal on which we will continue to work. To ensure sustainable observance of the GDPR, we will systematically press ahead with the establishment of the Company-wide data protection management system begun in this reporting period as well as with the data protection organization.

In 2015, Volkswagen AG co-founded Deutsche Cyber-Sicherheitsorganisation GmbH (DCSO). DCSO is accumulating specialist knowledge on cybersecurity and aims to become the preferred service provider to European businesses in this field. DCSO is a competence center and a managed security service provider for protecting companies against criminal hackers, industrial espionage, government attacks and sabotage.

#### ENVIRONMENTAL STRATEGY

As one of the largest automobile manufacturers, Volkswagen takes responsibility for the environmental impact of its activities. Based on the TOGETHER 2025<sup>+</sup> Group strategy, we have set ourselves ambitious environmental targets with our environmental mission statement. With goTOzero, we aspire to minimize environmental impacts along the entire life cycle – from raw material extraction until end-of-life – for all our products and mobility solutions in order to keep ecosystems intact and to ensure that we have a positive impact on society. Compliance with environmental regulations, standards and voluntary commitments is a basic prerequisite of our actions.

Our focus is on four prioritized action areas:

- > Climate change. We are committed to the 2°C target of the Paris Climate Agreement. By 2025, we plan to reduce the greenhouse gas emissions of our passenger cars and light commercial vehicles by 30% over the total life cycle compared with 2015. We use the decarbonization index to document our progress. We intend to become a carbon-neutral company by 2050.
- > Resources. We intend to reduce production-related environmental impact, maximize our resource efficiency and promote circular economy approaches in the areas of materials, energy and water.
- > Air quality. We are driving e-mobility forward to improve the local air quality. By 2025, the share of battery electric vehicles in our model portfolio shall be between 20% and 25%. The share of electric vehicles in our new vehicle fleet in Europe and China is set to rise to at least 40% by 2030.
- > Environmental compliance. Where integrity is concerned, we aim to become a role model for a modern, transparent and successful enterprise by implementing and monitoring effective management systems that cover the environmental impacts of our mobility solutions over all life cycle stages.

With our future program TOGETHER 2025<sup>+</sup>, we have defined a strategic indicator for the major brands that manufacture passenger cars for the EU28, China and USA regions:

- > Decarbonization index (DCI). This measures the average emissions of CO<sub>2</sub> and CO<sub>2</sub> equivalents (together CO<sub>2</sub>e) over the entire life cycle of the portfolio of passenger cars and light commercial vehicles and is stated in tonnes per vehicle. The DCI encompasses both direct and indirect CO<sub>2</sub>e emissions at the individual production sites (Scope 1 and 2) as well as all further upstream and downstream CO<sub>2</sub>e emissions over the life cycle of the vehicles sold – from the extraction of raw materials to the use of the vehicle and final disposal of old vehicles (Scope 3). As a strategic indicator, the DCI enables transparent, comprehensive tracking of progress toward climate-friendly mobility. The average value was 43.0 t CO<sub>2</sub>e/vehicle in the reporting period; by 2025 the decarbonization index shall be reduced by around 30%.

### Organization of environmental protection

Volkswagen has created an environmental policy that sets out guidelines for environmental decision-making, for the management of projects and for the Group's environmental stewardship. Thus, parameters are set for the conduct and working methods of management and staff in five areas: management behavior, compliance, environmental protection, collaboration with stakeholders and continuous improvement.

The Board of Management of Volkswagen AG is the highest internal decision-making level for environmental issues. The Volkswagen AG's and brand's boards of management take business, social and environmental criteria into account when making key company decisions. The Group-wide management of environmental protection is the responsibility of the Group Steering Committee for the Environment and Energy. Other bodies take responsibility for steering key individual aspects in relation to products such as CO<sub>2</sub> emissions and exhaust gas emissions. These include the Group CO<sub>2</sub> Steering Committee, the Group Steering Committee for Fleet Compliance and Exhaust Gas, and the Group Sustainability Steering Committee.

The Volkswagen Group coordinates the activities of the brands, which in turn steer the measures in the regions. The brands and companies are responsible for their own environmental organization. They base their own environmental protection activities on the targets, guidelines and principles that apply throughout the Group.

We are dedicated to comply with legal and regulatory requirements. Furthermore, we are guided by company standards and targets. Our environmental compliance man-

agement systems shall ensure that environmental aspects and obligations are taken into account in our business operations. Disregard for the rules, fraud and misconduct are treated as severe compliance violations. Compliance with our Environmental Policy Statement and with other Group environmental requirements is evaluated annually and reported to the Board of Management of Volkswagen AG, the respective boards of management of the brands or the managing directors of the companies.

### SEPARATE NON-FINANCIAL 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 2019 will be available on the website [https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2019/Nichtfinanzieller\\_Bericht\\_2019\\_d.pdf](https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2019/Nichtfinanzieller_Bericht_2019_d.pdf) in German and at [https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2019/Nonfinancial\\_Report\\_2019\\_e.pdf](https://www.volkswagenag.com/presence/nachhaltigkeit/documents/sustainability-report/2019/Nonfinancial_Report_2019_e.pdf) in English by no later than April 30, 2020.

### REPORT ON POST-BALANCE SHEET DATE EVENTS

For more information on the offer for the acquisition of all outstanding ordinary shares of Navistar International Corporation by TRATON SE placed on January 30, 2020, please refer to the details provided in the "Events after the balance sheet date" section on page 328 of the notes to the consolidated financial statements.