Sustainable Value Enhancement

Our corporate governance is geared towards sustainable value enhancement. We take responsibility along the entire value chain for our customers, our employees, society and the environment.

The main financial key performance indicators for the Volkswagen Group are described in the “Results of Operations, Financial Position and Net Assets” chapter. Nonfinancial key performance indicators also attest to the effectiveness of our Company’s value drivers. These include our 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 constantly aware of our responsibility towards our customers, our employees, society and the environment. In this chapter, we show how we increase the value of our Company in a sustainable way using examples from the areas mentioned.

Corporate Social Responsibility and Sustainability

Thanks to its corporate culture, Volkswagen is better suited than almost any other company to combine a modern understanding of responsibility and sustainability with the traditional values of running a business to form an integrated CSR approach.

In the traditional sense, corporate social responsibility (CSR) means that a company actively contributes to charitable measures and social welfare, in the form of donations or corporate volunteering. Although such a contribution is expected of a company, it is a voluntary service in recognition of its social responsibility. Today, CSR is considered to be an integrated component of a company’s core competency. CSR is therefore oriented on Volkswagen’s strategic goals and comprises a concept of corporate responsibility along the entire value chain. While under the traditional definition of CSR, various stakeholders ask how funds are used, the question posed under the new definition is how a company generates its funds. This relates both to responsibility for social and ecological standards at the company’s own production sites and along the supply chain, and for the product itself.

Sustainability means simultaneously striving for economic, social and environmental goals in a way that gives them equal priority. Consequently, to us this means creating enduring value, facilitating good work, and using the environment and resources with care. Our integrated CSR concept is aimed at ensuring that we recognize and manage at an early stage risks and development opportunities in the areas of environment, society and governance at every step along the value chain, and further improve our reputation. This is how CSR contributes to increasing our Company’s value in a long-term and sustainable way.

Management and coordination

Our integrated CSR management concept is closely linked with the functional areas at all levels of the Company. The Group Board of Management is also the supreme sustainability board in the Company. It regularly receives information on the issues of responsibility and sustainability from the Group CSR & Sustainability steering group, whose members include senior executives from central Board of Management business areas in addition to the Group Works Council and representatives of the brands and regions. This steering group is responsible for our sustainability strategy, on the basis of which the Group aims to become the most sustainable automaker in the world by 2018. The steering group formulates the strategic goals and statements on CSR and sustainability, establishes and monitors the Company-wide CSR management indicators, and makes decisions about sustainability reporting.

Since 2006, our CSR & Sustainability office has coordinated all CSR activities within the Group and the brands, using standardized structures, processes and reports. It strategically aligns the CSR activities and guides internal management processes and stakeholder relationships. The CSR project teams in the Group as well as the brands and regions work on current topics across business areas, such as sustainability in supplier relationships and stakeholder management. Since 2009, the international CSR coordinators of all brands and regions have exchanged information each year.
GROUP MANAGEMENT REPORT
Sustainable Value Enhancement

With our IT-based sustainability management system and the integration of key performance indicator systems, we have created the basis for comprehensive and timely CSR and sustainability reporting in the Group. This increases transparency and the quality of the data, so that we can monitor CSR risks more easily and identify opportunities.

**Code of Conduct and guidelines**

Our Code of Conduct, which is applicable throughout the Group, provides guidance for our employees in the event of legal and ethical challenges in their daily work. It embodies the Group values of closeness to customers, maximum performance, creating value, renewability, respect, responsibility and sustainability. All employees are equally responsible for adhering to these principles.

International conventions, regulations and internal rules are also key guidelines for our conduct. We also acknowledge our commitment to the “Declaration on Social Rights and Industrial Relationships at Volkswagen” (Volkswagen Social Charter), the Charter on Labor Relations and the Temporary Work Charter, all of which address fundamental human rights, labor standards and principles.

**Strategic stakeholder management**

Volkswagen continually exchanges information and views with its stakeholders, whose diverse demands and expectations directly affect the Group’s economic success and therefore flow into the Company’s knowledge management processes at an early stage. In order to meet such requirements in a targeted way, we developed a stakeholder management concept, which analyzes economic, ecological and social challenges in a systematic process along our value chain. We communicate with the various stakeholders openly, constructively and equitably. We use many instruments to do this: dialogs, workshops, symposiums, public debates, social media, questionnaires, evaluations and projects.

We document stakeholder dialogs in an IT-based stakeholder management system that is customized for the Volkswagen Group, and publish them in our annual sustainability report to make our interaction with stakeholders transparent and understandable. Stakeholder management is steered and coordinated by the Group CSR & Sustainability steering group, the Group’s project team, and the brands and regions. Since we selectively choose relevant departments for the project teams, we are also able to respond to the many requirements of the stakeholders concerned within a short time.

A key component of external stakeholder management is the ability to help shape national and international corporate networks: we are represented on the board of the leading European business network for corporate social responsibility, CSR Europe, for example. Within Germany, we are represented on the board of econsense, the Forum for Sustainable Development of German Business. Along with numerous other companies, we have signed the “Code of Responsible Conduct for Business” initiative.

Since 2002, we have also been committed to the UN Global Compact, the largest and most important CSR initiative in the world. Over 10,000 companies and other stakeholders from more than 130 countries work together to shape a more sustainable and equitable world economy. The Volkswagen Group and its brands make a significant contribution to this initiative. Scania reinforced this by signing the Global Compact in 2013.

The values of the Global Compact comprise ten principles governing human rights, labor standards, environmental protection and the fight against corruption. We achieved the “Global Compact Advanced Level” in 2013 again due to our progress report on implementing these principles at our locations. Furthermore, we use our expertise to help other companies in the Global Compact to embrace their global responsibility, for example through our active participation as a standing member of the advisory board for the “Sustainable Supplier Chain” project.

In 2013, Volkswagen became the first automotive company in the world to sign the CEO Water Mandate. This sub-initiative of the UN Global Compact is a multi-stakeholder organization that tackles the many problems related to water worldwide with the cooperation of companies, the UN Secretariat, nongovernmental organizations and governments, and develops long-term solutions.

**Materiality matrix**

We learn which issues are important for the security of the Company’s future from our comprehensive dialog with our stakeholders. We systematically evaluate these issues using the latest international sustainability studies and benchmark them against the guidelines and conventions that Volkswagen is committed to. Internal bodies discuss and weight the issues identified as part of a continual materiality analysis process. We discuss these important challenges for our Company and the automotive industry in detail at both brand and Group level. The result is the map for our sustainability strategy: a matrix of the key issues.
CSR Projects
The many and varied CSR projects initiated and managed by the Volkswagen Group around the world are based on the following key principles:

- They are compatible with the Group’s principles while at the same time addressing a specific local or regional issue.
- They demonstrate the diversity in the Group and in the social environment in which the projects are implemented.
- They are the result of close stakeholder dialog with the local players involved in implementation.
- Project management is the responsibility of the local units working on the project.

The Volkswagen Group supports a large number of projects that promote the arts and culture, education, science, health and sport, or that serve to develop regional structures and conserve nature. These projects make CSR a learning platform for all brands and in all of the Company’s regions. Our extensive cooperation with the German Red Cross and the German Nature and Biodiversity Conservation Union (NABU) are good examples of this.

The German Red Cross represents an idea that is just as topical today as it was 150 years ago: people helping fellow people in need. Humanity, public spirit and responsibility – these are the values on which Germany’s largest mass movement with the richest tradition is based, and which we also share in the Volkswagen Group. That is why we are promoting sound, balanced social development, in Germany and at our other international locations. As part of its strategic partnership, the Volkswagen Group thus helps the German Red Cross to find even more people who are willing to volunteer their time. This goal is central to the partnership, in conjunction with strengthening the Red Cross’s rescue service.

NABU has worked with Volkswagen AG for many years and, since the end of 2012, this alliance has been based on a new, expanded cooperation and advisory agreement. NABU is a strategic partner for Volkswagen on the Group’s path to becoming the most environmentally friendly automobile manufacturer in the world.

RESEARCH AND DEVELOPMENT
Research and development activities in the Group again concentrated on two areas in 2013: expanding its product portfolio and improving the functionality, quality, safety and environmental compatibility of our products.

Focus of our research and development activities
We plan to cut the average CO₂ emissions of the Volkswagen Group’s new European passenger car fleet to 120 grams per kilometer by 2015. We have already succeeded in reducing CO₂ emissions over the past five years by 23 grams of CO₂ per kilometer to 128 grams of CO₂ per kilometer. Since 2012, the CO₂ emissions for vehicle
Manufacturers’ new European passenger car fleets have been regulated by law: for 2013, the emissions of 75% of the new vehicle fleet had to comply with the statutory level of 130 grams of CO2 per kilometer. The figure for the Volkswagen Group in the reporting period was 117 grams of CO2 per kilometer. We currently offer a total of 438 model variants (engine-transmission combinations) that emit less than 130 grams of CO2 per kilometer. For 324 model variants, we are already below the threshold of 120 grams of CO2 per kilometer. Of these, 54 model variants are even below 100 grams of CO2 per kilometer (see chart on page 118).

A focus of the Technical Development function in 2013 was on continuing to roll out the Modular Transverse Toolkit. After the first models to be based on the Modular Transverse Toolkit – the Audi A3, the new Golf and the SEAT Leon – were launched in the market in 2012, further derivatives of these models followed during the reporting period, as well as the new ŠKODA Octavia. Other vehicles, such as the Golf Sportsvan that has already been unveiled, will follow.

Automatic driving functions promote predictive driving and offer the potential for increasing efficiency. They make steering safer by reducing the probability of human error, and increase comfort. They also enhance the flow of traffic, thus contributing to the better use of infrastructure. In the near future, a roadworks assistance function will help to reduce or completely avoid accidents around roadworks, for example. We are also conducting research into highly and fully automated driving.

Another focus of our research and development in the past year was on mobile online services. These promote comfort, safety and traffic efficiency and support the vision of cooperative, environmentally friendly and accident-free driving. Volkswagen’s Group Research function proved that these technologies are practicable in the grant-assisted project it completed in mid-2013 entitled “Safe and Intelligent Mobility Test Field Germany” (simTD). The first elements we tested were warnings about danger zones and the ends of traffic jams, intervention by active safety systems and information about traffic light phases.

When it comes to our ambitious target to reduce CO2 emissions, lightweight construction for large series is becoming increasingly important. The cooperation between Group Research and the production and components departments is accelerating research into lightweight construction and its future production technologies within the Group. Since 2012, we have also been researching economic lightweight construction technologies as part of the public-private partnership “Open Hybrid LabFactory” in collaboration with the Lower Saxony Research Center for Vehicle Technology (NFF) at the Technical University of Braunschweig and other industry partners. We agreed on a contractual framework in 2013 and established the focuses of our research and technology activities. The aim is to have around 200 researchers from industry and science jointly developing hybrid lightweight structures by the end of 2015.

We are constantly extending the use of virtual technologies in our processes, so as to speed up and improve the vehicle development, production, or service process. Smartphones play an increasingly key role in this. The primary focus is on augmented reality technology, in which the real world is recognized and enriched with virtual information. The Audi brand already employs this technology, and Volkswagen is making use of it for the first time in the XL1. Further applications are being developed by Volkswagen’s Group Research function. In addition, Volkswagen uses virtual technologies to improve the ergonomics of work sequences in production, for example.

Recognizing new developments in society, technology, politics, the environment and the economy at an early stage is an important basis for innovations and business success. This is why Group Research constantly addresses the latest social and technological trends. It has established interfaces to key global automotive markets to do this. Research offices in China, Japan and the USA
observe technological areas relevant to the automotive industry, conduct cooperative projects with research institutions and local companies, and thus capture new data for the Volkswagen Group.

**Innovations incorporated into vehicles**

The “Automotive INNOVATIONS Awards” are presented every year to vehicle manufacturers by the Center of Automotive Management, an independent organization that conducts empirical research on automobiles and mobility. In fiscal year 2013, the Volkswagen Group won in the “Most Innovative Automotive Company”, “Best Manufacturer: Conventional Drives”, “Best Manufacturer: Alternative Drives” and “Best Manufacturer: Connected Car” categories, once again underscoring its innovative power.

The following are some examples of our innovations in the past fiscal year:

The innovative highlight for the Volkswagen Passenger Cars brand was the XL1, produced in a limited run. With a drag coefficient of 0.189, it is the most aerodynamic series vehicle in the world. Thanks to high tech lightweight construction, it weighs just 795 kg. The XL1 emits only 21 grams of CO₂ per kilometer and consumes just 0.9 l of diesel per 100 km with its plug-in hybrid system, consisting of a two-cylinder TDI engine with 35 kW (48 PS), an electric motor with 20 kW and a seven-speed direct shift gearbox (DSG). This also makes it the world’s most economical series automobile with a combustion engine.

The e-up! was launched in 2013 – our first vehicle with a purely electric drive. Its 60 kW (82 PS) electric motor, in combination with an 18.7 kWh lithium-ion battery, gives it a range of up to 160 km. The e-up! can be charged using a 230 volt electric socket, a wall box installed on the customer’s premises, a public AC charge point, or via a DC fast charging station featuring the combined charging system (CCS), which charges the vehicle up to 80% within just 30 minutes.

The Audi brand presented the first notchback model in the compact premium segment with the A3 saloon in the reporting period. Fitted with a 1.4 TFSI engine and the new cylinder-on-demand technology, the vehicle consumes only 4.8 l per 100 km and emits 111 g/km of CO₂. In addition, this new member of the A3 family not only features a low weight thanks to its lightweight construction, but also a large number of high-end infotainment and driver assistance system solutions.

In our new Audi A8, we are using Matrix LED technology for the first time, which sets new standards for headlights in terms of design and technology: the high beam headlights are divided into 25 individual segments whose light-emitting diodes can be separately switched on and off or dimmed depending on the situation. This allows the system to respond to other vehicles with great precision. The headlights also offer intelligent curve lighting, new-look daytime running lights and indicators with dynamic signaling.

Porsche proved its expertise in hybrid technology in 2013: the Panamera S E-Hybrid is the first plug-in hybrid in the luxury class. With its 416 PS combined maximum output, the E-Hybrid accelerates from 0 to 100 km/h in 5.5 seconds. Its top speed is 270 km/h. In purely electric mode, the Panamera S E-Hybrid travels 36 km, with a top speed of 135 km/h. The vehicle uses an average of just 3.1 l of fuel per 100 km, corresponding to CO₂ emissions of 71 grams per kilometer. It also offers an entirely new range of comfort functions, which can also be activated and accessed via a smartphone app. These include the display for the battery’s charge status and range, preheating or precooling the vehicle, and guiding the driver to the parked vehicle.

The Porsche 918 Spyder is ringing in a new era in sports car manufacturing. Designed as a high-performance hybrid from the ground up, it marries the performance of a super sports car with the virtually silent drive of an electric vehicle. Its combined maximum output of 652 kW (887 PS) catapults the hybrid from 0 to 100 km/h in 2.8 seconds. When the vehicle is started, the “E-Power” mode is activated as standard if the battery charge level is sufficient.

Scania Streamline is responsible for the new long-distance models of the G and R ranges, which are optimized for low fuel consumption. Alongside improved aerodynamics and a complete air deflector package, a new version of the Scania Opticruise transmission contributes to this. The economy mode is fully integrated into the Scania Active Prediction predictive cruise control. Combined with the new generation of Euro 6 engines, up to 8% of fuel can thus be saved in long-distance driving.

MAN successfully launched the series production of Euro 6 technology for trucks and coaches. Proven technologies were combined in an intelligent manner and optimally matched with each other. All Euro 6 diesel vehicles feature a comprehensive efficient concept comprising needs-driven exhaust gas recirculation, diesel particulate filters and special exhaust gas after-treatment.

Since June 2013, Audi has been producing a synthetic natural gas – Audi e-gas – and channeling it into the public network. The core element of the newly constructed plant in Lower Saxony is a methanation plant provided by MAN. The 16-meter high unit was designed and manufactured at MAN’s Deggendorf location. Using renewable power, the plant produces climate-neutral fuel that can be both saved and transported via the existing infrastructure.
A glimpse into the future – study and concept vehicles

In this section, we describe selected concept vehicles and studies that we presented in 2013 alongside the numerous series vehicles.

The Volkswagen Passenger Cars brand presented the twin up! study at the Tokyo Motor Show. Featuring a plug-in hybrid system with a combined maximum output of 55 kW (75 PS), the four-door’s combined consumption is a mere 1.1 l per 100 km. This innovative city specialist shares specific elements of its drive system – diesel engine, electric motor and direct shift gearbox (DSG) – with the world’s most economical car, the XL1. The twin up! can travel up to 50 km in purely electric – and thus emission-free – mode.

The Volkswagen Passenger Cars’ mid-size SUV study, the CrossBlue, is a masculine six-seater that combines the imposing presence of a SUV with the space of a van. Its innovative plug-in hybrid system with a total output of 225 kW (306 PS) comprises a 140 kW (190 PS) TDI engine, two electric motors (40 kW and 85 kW), a six-speed direct shift gearbox (DSG) and an electric propshaft. The CrossBlue shows how Volkswagen could expand the range of models in the US with a mid-size SUV in the five-meter class.

Audi celebrated the 30th anniversary of the Sport quattro by introducing the Sport quattro concept car, a dynamic coupé study that continues the quattro’s long tradition. The Sport quattro concept car boasts a plug-in hybrid drive with a combined maximum output of 515 kW (700 PS). The 110 kW electric motor and twin-turbocharged 412 kW (560 PS) V8 engine propel the lightweight sports car from 0 to 100 km/h in just 3.7 seconds. Its rectangular twin headlights use pioneering Matrix LED technology.

The Audi nanuk quattro concept car, a crossover study, was developed in close cooperation with the designers from Italdesign Giugiaro, and marries the dynamism of a high-performance sports car with Audi’s quattro expertise on the street, on the race track and off-road. The sports car for young and old is powered by a 400 kW (544 PS) V10 TDI engine.

Driven by its passion for innovation and alternative solutions, Lamborghini commemorated its 50th anniversary with the unveiling of the Egoista: powered by a 440 kW (600 PS) V10 engine, this supercar is a sports car of superlatives that wows with its masculine design. The interior of this one-off is extremely rational and is made for one person only.

Leveraging synergies increases efficiency

A number of studies during the reporting period proved that Volkswagen AG is investing more than any other company in research and development. In order to make even better use of these resources in the future to contribute to the Company’s success, additional synergies are being leveraged by way of cross-brand cooperation to develop technologies. To ensure this, a Group Board of Management Technology Committee was formed; it defines the efficient development and implementation of core technologies in the Group that make us competitive in the long term. This relates in particular to strategic key technologies that a brand on its own could only finance with difficulty. In addition, the individual brands use our modular toolkits, which ensure that we can benefit from the synergy effects that exist both between models in one series and across all series and brands.
Pooling strengths with strategic alliances
The Volkswagen Group is systematically pressing ahead with research into and the ongoing development of high-voltage battery systems for electric and plug-in hybrid drives in cooperation with expert battery manufacturers. We continued and intensified these cooperative projects in 2013. VOLKSWAGEN VARTA Microbattery Forschungsgesellschaft mbH & Co. KG, which we formed in 2010 with VARTA Microbattery GmbH in Ellwangen, successfully continued its work and achieved important research results in the field of electric vehicle batteries in the reporting period.

Our collaborative projects with the Budapest University of Technology and Economics and the Lawrence Berkeley National Lab – as well as with other national and international partners – are also in the area of battery research.

We continued our cooperation with Daimler AG in 2013 to produce the Crafter; this arrangement will continue until 2016.

Integrating external R&D expertise
In addition to our own internal resources, the expertise of our suppliers is extremely important in our development process; it will help us to systematically advance our new model rollout in the coming years. The early-stage, close collaboration between our internal and external resources guarantees that we can successfully complete projects with the quality we expect in reduced development times. We draw on external expertise particularly in creative processes and in the area of virtual technologies and megatrends.

We also use external capacity for support services, downstream processes such as series management, and activities that are not customer-facing but generate improvements. We are systematically expanding our cooperation with subsequent series suppliers in order to be able to tap their expertise in the development phase of modules and components.

Numerous patents filed
In the reporting period, we filed 5,948 patent applications for employee inventions, around half of them in Germany. This large number and the technical quality of the ideas submitted in 2013 demonstrates once again the innovative power of our top team. The patents filed related mainly to innovations in the technology areas of modular infotainment, driver assistance systems, alternative drive technology and intelligent lightweight construction.

Key R&D figures
The total research and development spend in the Automotive Division for fiscal year 2013 increased by 23.4% year-on-year. Alongside new models, the main focus was on the electrification of our vehicle portfolio and increasing the efficiency of our range of engines; the proportion accounted for by alternative drive technologies again increased. The capitalization ratio rose to 34.2% (27.5%). Research and development costs recognized in the income statement in accordance with IFRSs increased to €10.2 billion (€8.9 billion). This meant that their ratio to sales revenue in the Automotive Division amounted to 5.8% (5.1%).

On December 31, 2013, the Research and Development function – including the equity-accounted joint venture companies in China – employed 43,756 people Group-wide (+4.0%), corresponding to 7.6% of the total headcount.

<table>
<thead>
<tr>
<th>RESEARCH AND DEVELOPMENT COSTS IN THE AUTOMOTIVE DIVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>-----------------------------------------------------------</td>
</tr>
<tr>
<td>Total research and development costs</td>
</tr>
<tr>
<td>of which capitalized development costs</td>
</tr>
<tr>
<td>Capitalization ratio in %</td>
</tr>
<tr>
<td>Amortization of capitalized development costs</td>
</tr>
<tr>
<td>Research and development costs recognized in the income statement</td>
</tr>
</tbody>
</table>
**PROCUREMENT**

Procurement focused its work in the reporting period on safeguarding new vehicle start-ups, developing new procurement markets and ensuring continuity of supply to production.

**Procurement strategy**

Procurement makes an important contribution to the implementation of the Group Strategy 2018 with its procurement strategy. It continues to pursue four goals derived from the Group strategy: first, to provide market-centric premium quality and innovations at competitive prices; second, to meet cost targets and ensure the profitability of our products over their entire lifecycle; third, to safeguard our global volume growth through the permanent availability and consistently high quality of procured components; and fourth, to continue to raise employee satisfaction and the attractiveness of the procurement function.

We have assigned action areas to each of these goals. Each action area has concrete programs comprising precisely defined measures and responsibilities. These strategic elements are standardized and implemented throughout the Group, which enables us to take advantage of opportunities across all brands and all regions, pool strengths and minimize weaknesses and risks at the same time.

**Continuous process optimization program**

Continuous process optimization has become a core component of the global procurement organization. In 2013, our experts also continued work on improving and standardizing a large number of workflows worldwide as part of our process optimization program, in particular at the interface with processes in other functions. This enables us to reduce frictional losses and create synergies. For example, we improved requirements planning for equipment variants, enabling capacity for procured components to be planned significantly more precisely.

In 2013, we also began benchmarking the indicators, comparing them across all of the procurement organizations. This enables us to more quickly recognize and take advantage of best practice processes and areas for improvement.

**Supply situation for procured components and raw materials**

The supply situation in 2013 was dominated by the continued growth of vehicle sales in China, the steady increase in demand for vehicles based on the Modular Transverse Toolkit (MQB) and the ongoing trend toward vehicles with high-quality equipment levels. This in turn drove up our need for procured components. However, in cooperation with our suppliers, we made available the capacities needed to supply the component and vehicle plants.

Unplanned events in 2013, for example fires in China, also led to production shortfalls at our suppliers. Together with suppliers, our established cross-business area task force helped to guarantee the security of supplies at all times.

We also added additional suppliers to our INCA integrated capacity management system, which we use to safeguard our supply. 4,100 suppliers already manage their capacities in the Group online, which gives them an insight into the requirements forecasts for their parts for a planning horizon of up to 24 months.

In 2013, the global economy continued to grow, albeit at a slower pace year-on-year. The prices for most input and raw materials fell slightly on the spot markets. This was attributable to the sluggish demand from the industrialized nations and the relatively moderate growth in China. Crude oil prices remained volatile and reacted strongly to speculation and political uncertainty.

Economic effects also impacted prices for iron ore, coking coal and rare earths. The prices for these input materials are at a low level compared with the record highs in 2011; compared with 2012, the 2013 prices were similarly volatile and at a comparable level. China did not come close to exhausting its 2013 export quotas for rare earths set by the government; nevertheless, there were no supply shortages for components containing rare earths.

**Procured component and supplier management assure quality within the supply process**

Procured components management is firmly established in the Volkswagen Group’s global procurement organizations in the brands and regions. Tool and process experts support new vehicle start-ups around the world using Group-wide standards. As the automotive industry becomes more complex, we have helped suppliers secure parts for our series production.

Enhancing procured components management in the engines and transmissions areas is a particular focus for implementing the Group-wide growth strategy. Procured component management will strengthen its activities in this action area in the future.

In addition, the “Quality in Growth” program is focused on safeguarding start-ups in the context of internationalization and on managing the subcontractor structure. We hold cross-business area discussions with suppliers on best practices and lessons learned.

Other tools for preventive safeguarding of vehicle start-ups include simulated series production at the suppliers as part of preliminary series production and a multi-step performance test across all business areas. This enables us to identify supplier problems related to volume and quality in good time and to counteract any potential risks.
Developing new procurement markets

In order to achieve the cost targets derived from the Group Strategy 2018, we are developing affordable procurement markets under the C3 Sourcing (Cost-Competitive Country Sourcing) program.

In the reporting period, we took additional measures to integrate these activities in the markets. These include common sourcing – bundling volumes between different procurement markets. These common market-wide requests for the same or similar components will generate synergies for the participating locations and projects. This type of transregional awarding strategy is a win-win situation for Volkswagen and its business partners, as the latter can thus offer more affordable prices because of higher volumes and can become established competitors in new regions.

One example of targeted volume bundling and integration with local procurement markets and structures is our common sourcing activities in China: we achieved our cost targets by bundling request volumes. At the same time, we integrated 700 new suppliers into our systems environment. In the future, they will participate in global tenders and thus have the opportunity to export their products outside local markets.

Sustainability in supplier relationships

Since 2006, procurement has followed the requirements of the “sustainability in supplier relationships” concept, supporting our goal to become the most sustainable automobile company in the world by 2018. This concept helps secure the global volume flows as it avoids situations in which suppliers fail to deliver.

The “requirements for sustainability in relations with business partners” are a key component of the concept we use to expect and promote sustainability efforts from our suppliers. This takes into account both social and environmental standards.

In the reporting period, we again deepened our relationships with suppliers in order to supportively monitor sustainability requirements and to minimize sustainability risk: we surveyed them in detail on the current status of their implementation of our requirements and remedied any deficits together. We also provided more in-depth training in 2013 via our Internet-based training module.

Consistently implementing the “sustainability in supplier relationships” concept as well as providing intensive training for our own employees enables us to systematically reduce both procurement-relevant sustainability and supplier risk and to meet customer and capital market requirements.

Purchasing volume

The Volkswagen Group’s purchasing volume mainly comprises production materials, services and investments. In the reporting period – including the Chinese joint venture companies – it saw an increase of 4.9% to €135.0 billion. Suppliers in Germany account for a share of 37.3% (38.8%).

<table>
<thead>
<tr>
<th>PURCHASING VOLUME BY BRAND AND MARKET</th>
<th>2013</th>
<th>2012</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volkswagen Passenger Cars</td>
<td>79.0</td>
<td>77.0</td>
<td>+2.5</td>
</tr>
<tr>
<td>Audi1</td>
<td>23.6</td>
<td>22.7</td>
<td>+4.3</td>
</tr>
<tr>
<td>ŠKODA</td>
<td>6.5</td>
<td>6.6</td>
<td>−1.5</td>
</tr>
<tr>
<td>SEAT</td>
<td>3.9</td>
<td>3.7</td>
<td>+6.7</td>
</tr>
<tr>
<td>Bentley</td>
<td>0.7</td>
<td>0.6</td>
<td>+9.7</td>
</tr>
<tr>
<td>Porsche2</td>
<td>3.7</td>
<td>1.4</td>
<td>x</td>
</tr>
<tr>
<td>Volkswagen Commercial Vehicles</td>
<td>2.4</td>
<td>2.4</td>
<td>+1.3</td>
</tr>
<tr>
<td>Scania</td>
<td>6.4</td>
<td>5.2</td>
<td>+22.3</td>
</tr>
<tr>
<td>MAN</td>
<td>8.8</td>
<td>9.1</td>
<td>−3.4</td>
</tr>
<tr>
<td><strong>Volkswagen Group</strong></td>
<td><strong>135.0</strong></td>
<td><strong>128.7</strong></td>
<td><strong>+4.9</strong></td>
</tr>
<tr>
<td>Europe/Remaining markets</td>
<td>87.9</td>
<td>88.1</td>
<td>−0.3</td>
</tr>
<tr>
<td>North America</td>
<td>6.3</td>
<td>6.2</td>
<td>+2.3</td>
</tr>
<tr>
<td>South America</td>
<td>8.9</td>
<td>8.0</td>
<td>+12.0</td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>31.9</td>
<td>26.4</td>
<td>+20.6</td>
</tr>
</tbody>
</table>

1 Audi includes Lamborghini and Ducati (from August 2012).
2 Porsche from August 2012.
PRODUCTION
In fiscal year 2013, the Volkswagen Group again expanded its production network and increased its global production volume by 5.1% to 9.7 million vehicles. Productivity improved by 5.7% year-on-year despite difficult conditions in many markets. In the European market, declining volumes impacted productivity trends for some vehicle segments. However, this was more than offset by the increasing unit sales in China and the Group’s systematic implementation of its production system.

“Production 2018” strategy
The goal of our “Production 2018” strategy, which the Production function pursues in all Group brands and all regions, is to build the world’s most powerful and most fascinating automotive production system. The core objectives comprise enthusiastic customers, a higher earnings contribution, a global production network as well as a high level of attractiveness for employees. These objectives were assigned 13 challenges. Measures have been formulated for each of these challenges to improve production processes and connect them across all brands and all regions worldwide. This will ensure that our strategy is implemented sustainably and that our organization is prepared to meet future requirements.

Production locations
The Volkswagen Group’s global production network grew in 2013 from 99 to 106 locations. At the end of the reporting period, it consisted of 61 passenger car, commercial vehicle and motorcycle factories as well as 45 powertrain and component plants.

The Group’s 100th location opened in Silao, Mexico, back in spring 2013; this engine plant is the fourth production site in North America. This was followed by the MAN commercial vehicle plant in St. Petersburg and then by a total three vehicle plants in China – in Urumqi, Foshan and Ningbo. In addition, operations also began at a new engine plant in Changchun and, at the end of the year, a production location in Foshan for axles and struts, in order to safeguard the local supply of components to Chinese plants.

With 68 vehicle and component locations, Europe remains at the heart of our production network; 28 of these plants are located in Germany alone. The Asia-Pacific region is increasingly important, with 22 locations, 17 of which are in China. North America now has four production sites; the number of production sites in South America (nine sites) and Africa (three sites) remained unchanged in the reporting period.

Construction of Audi’s first automobile factory in North America has been underway since May 2013 in San José Chiapa, Mexico. The highly efficient production facility, with an annual capacity of 150,000 vehicles, is expected to start production from mid-2016; Audi’s next generation of the Q5 will be produced here.

Starting in 2015, Audi will begin production for the local market, laying the foundation for further growth in South America: the new Audi A3 saloon and the Audi Q3 will be produced in Volkswagen do Brasil’s Curitiba plant. Volkswagen do Brasil is also expanding this plant to accommodate production of the new Golf, thus bringing our most advanced production technology, the Modular Transverse Toolkit (MQB), to Brazil starting in 2015.

Construction for a new vehicle plant began in May 2013 in Changsha, China, where an end-to-end automobile production facility with an annual capacity of 300,000 vehicles is being built for the Shanghai-Volkswagen joint venture by 2015 in the Southern central region of China.

We expanded our production partnerships as well as our production network in the reporting period. In Russia for example, our partner GAZ has been producing the Jetta at its Nizhny Novgorod site since the first half of 2013, and began production of the ŠKODA Octavia shortly thereafter.

The ASEAN region plays an important role in our growth strategy. It has high potential demand and is extremely diverse, for example in terms of its culture, income, vehicle requirements and customs and tax legislation. This is why we developed country-specific, long-term production concepts to support our local sales activities as part of our strategy for the largest markets in this region.

Our involvement in Indonesia started with local vehicle assembly in 2009 and has developed very positively in recent years. Because of the great success seen in this market, we opened a new assembly facility with greater capacity in Cikampek together with our local partner Indomobil in December 2013. In addition, we expanded the product portfolio in the last year to include the Tiguan and the new Golf. This brings the number of models assembled there to six for the Volkswagen Passenger Cars, Audi and Volkswagen Commercial Vehicles brands.

In Malaysia, we are currently expanding our local production in cooperation with our local partner DRB-HICOM. A new CKD production facility opened in 2013 at its site where up to 40,000 vehicles a year can be assembled. Currently, the Polo, Jetta and Passat models are being produced there.

We are also examining potential new production locations in the rest of the ASEAN region in order to achieve our ambitious unit sales targets.

New start-ups and production milestones
The Volkswagen Group implemented 27 new production start-ups in 2013, ten of which were new or successor products.

A highlight for the Volkswagen Passenger Cars brand was the start of production of the Golf estate in May 2013 at the Zwickau location. The start of manufacturing in Bratislava of the first fully electronic series vehicle – the e-up! – in July marked another mile-
STONE. AUDI KICKED OFF THE SERIES PRODUCTION OF THE AUDI A3 SALOON IN MAY AT ITS EXPANDED PRODUCTION FACILITY IN GYŐR, HUNGARY. THE ŠKODA BRAND ROLLED OUT PRODUCTION OF THE SEVENTH GENERATION OF THE OCTAVIA COMBI IN MLADÁ BOLESLAV IN MARCH AND EXPANDED ITS PRODUCT RANGE IN AUGUST TO INCLUDE THE RAPID SPACEBACK. THE SEAT BRAND ROUNDED OFF ITS LEON FAMILY IN MARTORELL, SPAIN, IN SEPTEMBER WITH THE LEON ST. BENTLEY BEGAN PRODUCTION OF THE SECOND GENERATION OF THE FLYING SPUR IN CREWE IN THE UNITED KINGDOM.

WE BEGAN PRODUCTION OF THE NEW GOLF IN CHINA IN JULY, THE FIRST TIME THAT THE NEW GENERATION OF THE BESTSELLING MODEL IS BEING PRODUCED OUTSIDE EUROPE; THIS ALSO MARKED THE START OF OPERATIONS AT OUR NEW FOSHAN SITE.

THE GROUP IS CONTINUING ITS SUCCESS STORY IN THE SOUTH AMERICAN SMALL CAR SEGMENT IN TAUBATÉ IN BRAZIL, WHERE IT HAS BEEN PRODUCING THE UP! SINCE THE FOURTH QUARTER. FINALLY, AT THE END OF 2013, PRODUCTION OF THE FIFTH SERIES FROM PORSCHE STARTED IN LEIPZIG: THE MACAN.


FLEXIBILITY IN PRODUCTION

WE DESIGN OUR PRODUCTION LOCATIONS TO BE AS FLEXIBLE AS POSSIBLE. WE ADAPT EXISTING VEHICLE PLANTS FOR MULTIPLE BRANDS, CONVERTING THEM INTO MULTIPLE-BRAND PLANTS. THIS ALLOWS US TO REACT MORE EASILY TO CHANGING MARKET REQUIREMENTS, EXPLOIT CROSS-BRAND SYNERGIES, IMPROVE PROCESSES AND REDUCE INVESTMENTS.


OUR CUSTOMERS INCREASINGLY WANT MORE CUSTOMIZED VEHICLES. A GROWING OFFERING OF VEHICLE AND POWERTRAIN DERIVATIVES ENABLES US TO CATER TO THIS WISH. THANKS TO THE MODULAR TOOLKITS DEVELOPED BY THE GROUP, WE CAN PRODUCE A WIDE VARIETY OF VEHICLE AND DRIVE CONCEPTS WITH A MINIMUM OF EFFORT USING A UNIFORM VEHICLE ARCHITECTURE. USING MODULAR TOOLKITS ACROSS ALL BRANDS – ACCOMPANIED BY THE RESULTING STANDARDIZATION AND SYNERGIES IN THE PRODUCTION PROCESS – ALLOWS US TO EFFICIENTLY PRODUCE DIFFERENT MODELS ON A SINGLE PRODUCTION LINE.

WE ARE ALSO STANDARDIZING OPERATING EQUIPMENT, SYSTEMS, PRODUCTION AREAS AND EVEN ENTIRE FACTORIES. THIS MAKES US SIGNIFICANTLY MORE FLEXIBLE WHEN WE ARE ADAPTING OUR PLANTS TO ACCOMMODATE MULTIPLE BRANDS, ACCELERATING AND SAFEGUARDING NEW VEHICLE START-UPS.

THE GROUP’S PRODUCTION SYSTEM

OUR GROUP PRODUCTION SYSTEM WAS INTRODUCED IN 2007 AND INVOLVES EMPLOYEES IN OPTIMIZING CORPORATE PROCESSES. SINCE THEN, WE HAVE SYSTEMATICALLY APPLIED ITS PRINCIPLES AND METHODS TO ALL BRANDS AND AREAS IN THE GROUP, ANCHORING IT IN EACH OF THEM. WE ARE SUCCESSFULLY INCREASING QUALITY, PRODUCTIVITY, ERGONOMICS, LEADERSHIP AND TEAMWORK BY USING A CONTINUOUS IMPROVEMENT PROCESS.
(CIP) in the Company. Additional process and organizational improvements are intended to make Volkswagen number one in the automotive industry by 2018 in terms of customer satisfaction, its attractiveness as an employer, profitability and growth.

The introduction of the Group’s production system was an important step toward to creating a value-driven company with coordinated processes. Throughout the world, we are implementing these principles and methods at the brand and regional locations and are continuing to systematically enhance the production system in order to safeguard what we have accomplished to date for the long term.

Our ambitious growth objectives also create a challenge for logistics. The “Neues Logistik Konzept” (NLK – New Logistics Concept) manages the difficulties arising from the increasing volume of materials and the widening variety of components. We are using this to make our material and information flows even more efficient throughout the Group. Initially, our focus was on making significant improvements in providing materials to our assembly lines. In the future, we will turn our attention more strongly towards the upstream transportation and logistics processes between our locations and our suppliers, where potential synergies are high. These mainly result from smaller inventories, greater transparency as well as more stable processes and higher quality information.

Efficient production

To achieve our goal of becoming the world’s most sustainable automobile manufacturer, we have begun to redesign production processes at all locations along end-to-end ecological lines. Our aim is to align economics with ecology. We demonstrably cut costs and conserve the environment by using resources efficiently and cutting emissions. For example, we recorded CO2 savings of over 229,000 t in 2013 by implementing more than 1,260 measures to improve energy and environmental processes in the production of passenger cars and light commercial vehicles in the course of a system-based exchange of best practices. At the same time, there is also an economic benefit as this corresponds to cost savings of more than €28 million each year.

The Group’s brands are implementing the Volkswagen Group’s ecological reorganization by means of their own cross-disciplinary strategies. For example, the Volkswagen Passenger Cars and Volkswagen Commercial Vehicles brands are bundling all ecological measures related to efficient use of resources and lower emissions in production in their holistic “Think Blue. Factory.” program, which was launched in 2011 under the motto “More sustainability – less environmental impact.” When we systematically share knowledge between the locations and across trades, we benefit from our employees’ collective expertise. “Think Blue. Factory.” is part of “Think Blue.”, the Volkswagen brand’s holistic initiative promoting ecological sustainability.

Other brands have launched initiatives to reveal potential, develop strategies and solutions, and take action in order to meet the Volkswagen Group’s sustainability goals. Examples include the ŠKODA brand’s “GreenFuture” initiative, the SEAT brand’s “ECOMOTIVE Factory” initiative and the MAN brand’s climate strategy.

Here are a few examples of ecological activities that were implemented successfully in the reporting period:

In order to exploit existing energy-saving potential, an energy value stream analysis pilot project was implemented in the paint shop and body shell production facility at the Bratislava plant. The first step was to determine how much energy is needed for production and where there are potential savings so that consumption can be reduced in the next step. Our aim with this measure is to target energy savings of 49,000 MWh and CO2 savings of 9,800 t. At the same time, these savings will cut costs by €700,000 each year.

The location of the Emden plant is being leveraged to save energy by using geothermal energy. When the body shell production building was built, geothermal piles were set into the ground. These piles harness the coldness in the ground to cool equipment during the production process. This measure offers savings of 12,000 MWh of energy and 25,000 m³ of water and also cuts our costs by €70,000 a year compared with a cooling tower that would otherwise be needed.

The Pamplona plant can reduce or avoid waste thanks to its successful waste strategy. It prepares a list of the types of waste that can be reused. In addition, it identifies which processes create waste so that new process workflows can be developed to reduce or reuse waste. Already, 380 t of paint sludge have been cut, saving us €60,000 a year. The structured approach enshrined in this waste strategy is also being rolled out at other Volkswagen Passenger Cars and Commercial Vehicles plants, reducing the amount of waste they produce.

The Braunschweig plant can save 34,380 m³ of water by using conductivity-based spray water metering in its paintshops. This also makes a difference in costs: this optimization measure saves approximately €232,000 each year.

In 2013, SEAT completed the third and final construction phase of its “SEAT al sol” solar rooftop park at its Martorell plant in Spain. A total of 53,000 solar panels cover an area of 276,000 m² and were installed on the roofs of production facilities and delivery areas. With an annual capacity of 15,000 MWh of electricity, this helps SEAT cut its CO2 emissions by 7,000 t/year.

As the Volkswagen Group’s ecological restructuring takes place, it is essential to get employees even more involved. For this reason, the training center in Chemnitz that is open to all Group employees developed an energy training program in 2013 that reproduces a realistic production environment and simulates different energy...
Brand diversity in the Volkswagen Group

The “Volkswagen – Das Auto,” slogan unites the three core messages that distinguish the Volkswagen Passenger Cars brand: its products are innovative, offer enduring value and are responsible. Customers worldwide associate quality, reliability and German engineering skill with Volkswagen Passenger Cars. Global brand management focuses on the wishes and preferences of customers, today and in the future. They are the starting point for developing innovations that are driven by demand while remaining affordable. This is our competitive advantage: based on this, the Volkswagen Passenger Cars brand aims to become the most innovative volume manufacturer with the best quality in each class in the medium to long term.

In the premium segment, Audi has become one of the strongest car brands worldwide under the slogan of “Vorsprung durch Technik.” Its objective is to become the market leader in this segment. To do this, the Audi brand relies heavily on its progressive, high-quality and sporty image. The numerous honors and awards it has received attest to the brand’s strategy of innovative engineering solutions and an emotional design language.

With its “Simply Clever” slogan, ŠKODA has become one of the fastest emerging brands, particularly in Europe and China. The brand image is defined by a compelling value proposition and an attractive design, coupled with intelligent ideas for the use of space that are technically simple but offer sophisticated, practical details.

The Spanish SEAT brand is aiming for stronger growth, particularly in Europe, by sharpening its brand profile and focusing on its distinctive brand values: it is dynamic, young and design-oriented. The brand claim – “Enjoyneering” – characterizes the brand’s passionate perfectionism and emotional technology leadership.

Sports car manufacturer Porsche’s brand values are a combination of opposites: exclusivity and acceptance, tradition and innovation, performance and suitability for daily use, design and functionality. Porsche’s philosophy is “to achieve maximum output from minimum input” while adhering to high quality standards.

Exclusivity, power and elegance – these are the qualities demonstrated by our Bentley, Bugatti and Lamborghini brands in the luxury vehicle segments. They round off the Volkswagen Group’s brand diversity in the passenger cars segment.

Volkswagen Commercial Vehicles stands for superior mobility with its three core values – reliability, economy and partnership. The brand offers a range of different transportation solutions at the highest levels of engineering for different customer groups. The vehicles are tailored to meet the individual transportation needs of customers in retail and craft businesses, as well as civil authorities and service providers. Private customers value the brand’s family-friendly MPVs and recreational motor homes.

The Swedish Scania brand follows the core values of “customer first”, “respect for the individual” and “quality”. This successful company has been manufacturing high-performance trucks and buses featuring extremely innovative technology for over 100 years. The brand offers its customers efficient transport solutions backed by service offerings and financial services.

The core values of the MAN brand are reliability, innovation, dynamic strength and openness. At the same time, these values are key success factors for MAN, one of the leading European manufacturers of commercial vehicles, engines and mechanical engineering equipment. As well as trucks and buses, the company manufactures diesel engines, turbomachinery, turnkey power plants and special gear units.

Ducati is one of the most famous manufacturers of premium motorcycles. Its emotionally charged products thrill the Italian brand’s customers with their premium quality craftsmanship, uncompromising performance and challenging dynamics.

Think Blue.

“Think Blue.” is the Volkswagen Passenger Cars brand’s ecological sustainability policy. It is Volkswagen’s answer to, among other things, the question of how individual mobility can be reconciled with sustainable practices. “Think Blue.” is contributing to the Volkswagen Group’s objective of being the most sustainable automobile manufacturer in the world by 2018.

In addition to the international “Think Blue. Factory.” program, which aims to conserve resources and lower emissions in the vehicle and components plants, another example of the “Think Blue.” range of activities is an initiative at Volkswagen dealers in Germany. Starting in 2014, all partner operations will be provided with advice on eco-efficiency that will suggest concrete measures for running an environmentally friendly dealership.

The Volkswagen Passenger Cars brand was also a partner of the 2013 One Young World Summit in Johannesburg. Around 1,300 young people from 190 countries discussed topics such as sustainable development with experts and celebrities. Twenty-five young international Volkswagen Passenger Cars brand employees provided information on “Think Blue.” at the summit, participating in discussions so as to identify trends and challenges for the Company to address.
Customer satisfaction and customer loyalty
The Volkswagen Group’s sales activities focus consistently on making our customers satisfied customers – this is the top priority for us. We further increased the satisfaction of our vehicle buyers, after-sales customers and dealership partners with the measures and process improvements we implemented in 2013.

The Group brands regularly measure the satisfaction of their customers, focusing on products and services and derive measures from the survey results to improve customer satisfaction even further.

Measured in terms of customer satisfaction with their products, the Audi and Porsche brands are among the leaders in the core European markets in comparison to other Group brands and their competitors. The other brands in the Group also score higher than competing brands.

Customers are loyal to our brands and trust them when they are satisfied with our products and services. The extent of this trust is impressively illustrated by our loyalty figures, which we measure on a regular basis. The Volkswagen Passenger Cars brand, for example, has maintained a high level of customer loyalty in its core European markets for several years in a row. The loyalty of Audi, Porsche and ŠKODA customers has likewise kept these brands in the upper rankings in a competitive comparison for a number of years.

Structure of Group sales
The Volkswagen Group’s multibrand structure helps promote the independence of our brands. Nevertheless, we use cross-brand sales activities to increase sales volumes and market share and increase sales efficiency, while cutting costs and lifting earnings contributions.

In the reporting period, we strengthened dealer profitability in particular. This was achieved firstly with cost-cutting programs and secondly by expanding the business volume for each dealer. Our distribution network strategy, which calls for us to work with strong partners and leverage all business fields, as well as the difficult economic situation in some countries led to the distribution network being restructured. The focus is on a close working relationship with dealers and their profitability. We use Group companies to manage our wholesale business in over 20 markets. A central department makes sales activities more transparent and more profitable, as well as creating synergies between the different brands. Wholesale companies can learn quickly and efficiently from the best practices adopted by individual firms. The central department is instrumental in helping us achieve the goals laid down in the Group’s Strategy 2018.

Following the integration of Porsche Holding Salzburg, we reorganized trading activities in the Volkswagen Group so as to be able to take full advantage of this company’s specific skills. The majority of the Group’s proprietary trading activities are now managed by Porsche Holding Salzburg. The company is a key element for strengthening our position in the emerging markets; for example, it took over the function of importer in Chile in March 2013. We also systematically and rapidly expanded their presence in China in the reporting period.

Fleet customer business further expanded
Our relationships with fleet customers are often of a long-term nature. This customer group guarantees more stable vehicle sales than in the private customer segment in a volatile environment. The Volkswagen Group has an established base of business fleet customers in Germany and the rest of Europe in particular. Our extensive product offering enables us to satisfy custom mobility needs from a single source. This allowed us to largely defend our well established position in Europe in 2013.

The e-mobility challenge for Group sales
The Volkswagen Group’s e-mobility strategy covers the development of customer-centric products and business models to complement its range of electric vehicles.

In the reporting period, we entered into partnerships with green energy utilities such as “LichtBlick” and installation service providers for the charging infrastructure, including Bosch. These partners will help us provide our customers with comprehensive vehicle-related offerings. When selecting products and partners, we took great care to preserve the identities of our brands while, at the same time, generating maximum synergies for the Group.

We also provided additional sales and after-sales services to our electric vehicle customers.

Used car business
The used car business is the fourth key source of income in our dealer organization after the new car, services and parts businesses. We ensure its profitability by providing efficient processes and systems, highly qualified employees as well as clear guidelines and management tools.

We focus on professional used cars management at both the wholesale and retail levels. Customer-driven financial services lay the foundation for attractive product packages. In addition, our proprietary used car brands were further strengthened and rolled out internationally so as to ensure customer offerings also meet their needs. Cross-brand activities implement examples of best practice throughout the Group, ensuring economies of scale and leveraging synergies.

We established and standardized processes for used cars at all distribution levels, enhanced and increasingly harmonized the underlying IT infrastructure and introduced uniform management performance indicators.
To achieve long-term success in our used car business, we attach considerable importance to stable residual values – in the interest of our customers as well – and have set up system-based reporting functions for this purpose.

**QUALITY ASSURANCE**

The satisfaction of our customers worldwide is crucially driven by the quality of our products and services. Customers are satisfied and loyal only when their expectations of a product or service are met or even exceeded. Reliability, appeal and service determine the quality perceived by the customer throughout the entire product experience. Our objective is to surprise and excite our customers in all these areas so that we can win them over with our outstanding quality. We continued to improve our high level of quality in 2013, thus contributing to growth and to increasing the value of the Volkswagen Group.

Our Quality Assurance consistently focuses on customer wishes and integrates them into product requirements. It ensures that Volkswagen, as the manufacturer, and its products comply with all the legal requirements, defines high quality targets and standards and supervises compliance with them. In addition, Quality Assurance also identifies the cause of any defects and manages the process for eliminating them.

**Focus on customer wishes**

The global growth of the Volkswagen Group poses additional challenges for Quality Assurance. New vehicle projects in the different regions throughout the world are subject to the widest variety of customer desires. In light of this, identifying specific regional factors and prioritizing them is an important task for Quality Assurance so that they can then be integrated into new products, but also so they can be reflected appropriately in the production of established vehicle models. Examples of important factors include the available fuel quality, road conditions, traffic density, country-specific usage patterns and not least local legislation. The Volkswagen Group’s strong growth outside of Europe means that the main focus of Quality Assurance is on conditions in the BRIC markets.

We mainly use studies and customer surveys to capture customer requirements in the different markets.

**Product and supplier quality**

In the reporting period, a large number of product start-ups and several new plants starting to operate again made high demands on Quality Assurance. We maintained the high quality of the previous year for the Group and continued to reduce the number of repairs. Our suppliers also made significant contributions to this. We expect sustainable practices from them as well as delivering the highest product quality and reliability of supply.

New vehicle projects entail innovative technologies that must be established in the markets without any problems. This is why Quality Assurance analyzes these projects long before customers experience a new product. The goal is to make products even better and more reliable, while successfully implementing all customer wishes in the new projects and continuing to factor in regional requirements and needs.

In 2013, we continued to standardize our defect elimination process and can now react even more quickly to vehicle problems and help our customers even faster. This both increases customer satisfaction and reduces warranty and ex gratia repair costs for Volkswagen.

**Service quality**

The Service area is also focused on improving the quality of its offerings worldwide. In 2013, we therefore optimized the warranty and ex gratia repair instruments. As the direct interface with customers, the dealership operation offers other starting points: we can identify at an early stage any problems that may be revealed in the emotional moment of vehicle handover and correct them systematically.

We began recalibrating the processes at the interface between markets and dealers in 2012. We successfully continued this project in 2013 and positioned Technical Service even closer to the market, enabling us to recognize and prioritize market disruptions in good time. This is an important condition for being able to quickly start the process for eliminating defects and taking effective measures in services and product ranges so that customer satisfaction continues to grow.
Excellent performance, the success that comes from it and participation in its rewards are at the heart of Volkswagen’s human resources strategy. Only a top team can deliver the excellence that is necessary for Volkswagen to become number one in international automotive production. This human resource policy maxim applies throughout the Group.

As of December 31, 2013, the Volkswagen Group, including the Chinese joint ventures, employed 572,800 people, 4.2% more than at the end of fiscal year 2012. Significant factors in this increase were the volume-related expansion of the workforce in the growth markets, in particular in China, and the recruitment of specialists and experts in Germany, among other places. Volkswagen AG, Volkswagen Sachsen GmbH, AUDI AG and Volkswagen Financial Services AG hired a total of 4,828 temporary employees on a permanent basis in 2013. MAN and Porsche took over 543 temporary employees into the core workforce in Germany.

The ratio of Group employees in Germany to those abroad remained unchanged in the past year: 45.4% of employees worked in Germany at the reporting date, the same as at the end of 2012.

Vocational training at Volkswagen
Vocational training is a key factor in the development of Volkswagen’s outstanding team. This is why Volkswagen has continued to expand its international commitment to the dual education and training system in the vocational groups in recent years. In December 2013, the Group trained 17,703 employees in vocational training worldwide, 12,611 of whom were in Germany.

Dual vocational training and education along German lines now exists at a large number of sites abroad and is in the process of being established at others. For example, Volkswagen offers this at its site in Pune, India, and the Kaluga site in Russia by working together with local business partners and academics.

In 2013, 12 vocational trainees at Volkswagen in Chattanooga, USA, completed a vocational training program in the field of mechatronics for the first time. Local partners here include Tennessee Technology Center, Chattanooga State Community College, Tennessee Technology University and the University of Tennessee-Chattanooga.

Back in 2012, SEAT switched its vocational education and training system in Spain over to the dual model and has integrated the facility more closely as a training location since then.

Every year, the Group Board of Management and the World Works Council present the “Best Apprentice Award” to Volkswagen’s best vocational trainees around the world. This prize was awarded for the thirteenth time in November 2013 in Braunschweig. 40 vocational trainees from 15 countries received the honor.

Volkswagen supports particularly talented vocational trainees in its talent group for young specialists. This is a key instrument for guiding employees who are outstanding at both a professional and personal level through the transition from vocational traineeship to professional practice. In December 2013, 196 talented young people took part in this two-year development and training program; 270 have already completed it.

After completing their vocational training, young people at the start of their career have had the opportunity since 2006 to take part in the “Wanderjahre” (Years Abroad) program, spending twelve months at one of the Group’s international locations. Today, 35 Volkswagen Group locations in 19 different countries participate in this development program.

The focus of Volkswagen’s vocational training is on professional development, but participants also benefit from a series of supplementary programs and opportunities. For example, Volkswagen vocational trainees have a more than twenty-year tradition of involvement with the Auschwitz memorial site. Prepered and supervised by the International Auschwitz Council and Volkswagen Group Academy, vocational trainees from Volkswagen, its subsidiaries and investees and Polish young people travel to Auschwitz six times a year for two weeks in each case to help maintain the memorial. More than 2,400 young people from Germany and Poland have participated in the program so far.

Developing university graduates
Volkswagen uses a differentiated approach to support its young academic talent: the Student Talent Bank and the Academic Talent Pool.

Volkswagen has been using the Student Talent Bank since 1998 to develop particularly high-achieving students in both functional and interdisciplinary areas. Since then, nearly 2,300 students have qualified for inclusion in the Student Talent Bank thanks to their committed approach during their internship at Volkswagen. Volkswagen supports these former interns during their further studies and invites them to presentations and seminars by specialists or on excursions to Volkswagen locations, for example.

Talented students are added to the Academic Talent Pool just before they complete their degree or doctorate. This recruiting tool puts selected high potentials on the radar screen at the Company, allowing them to be considered for a qualified entry-level position in one of the functional areas.

Every vocational trainee has a more than twenty-year tradition of involvement with the Auschwitz memorial site. Prepared and supervised by the International Auschwitz Council and Volkswagen Group Academy, vocational trainees from Volkswagen, its subsidiaries and investees and Polish young people travel to Auschwitz six times a year for two weeks in each case to help maintain the memorial. More than 2,400 young people from Germany and Poland have participated in the program so far.

The focus of Volkswagen’s vocational training is on professional development, but participants also benefit from a series of supplementary programs and opportunities. For example, Volkswagen vocational trainees have a more than twenty-year tradition of involvement with the Auschwitz memorial site. Prepared and supervised by the International Auschwitz Council and Volkswagen Group Academy, vocational trainees from Volkswagen, its subsidiaries and investees and Polish young people travel to Auschwitz six times a year for two weeks in each case to help maintain the memorial. More than 2,400 young people from Germany and Poland have participated in the program so far.
Volkswagen’s StartUp Direct trainee program gets university graduates off to a flying start in the Company. Over a two-year period, participants in the program not only work in their own department and familiarize themselves with the Company, but also attend supplementary training seminars. Alternatively, university graduates with an international focus can enter the StartUp Cross program. This 18-month international program includes a three-month international placement. Over 2,700 trainees have gained their first experience of Volkswagen in one of these two programs since then. In 2013 alone, Volkswagen AG employed a total of 360 university graduates, around 30% of whom are women.

The Volkswagen Group’s StartUp Europe trainee program has offered young engineers from Southern Europe an opportunity to gain international work experience since 2012. This Volkswagen program is designed to attract international talent and is initially targeted at university graduates from Spain and Portugal. The graduates start off in the relevant company abroad before moving to a Group company in Germany for up to 21 months. They may be offered permanent positions after completion of the two-year program.

The Volkswagen Group is also driving forward uniform global training and professional development standards for master craftsmen and future executives and managers. These standards were rolled out at additional Group locations in Germany and abroad. Overall, 322 master craftsmen qualified at Volkswagen in the reporting period, including 84 abroad.

There are also many tailored training opportunities for other professions in the Group. First and foremost is Volkswagen AG’s Volkswagen Group Academy, which offers a broad range of courses. These include personal development programs, interdisciplinary seminars and courses, and specialized training options designed for the particular needs of individual vocational groups. In the reporting period, 86,316 participants received further training at the 10,060 seminars held by Volkswagen Group Academy lasting a total of 213,678 participant days. In the area of specialist skills development (e.g. factory automation, robotics, applications engineering and business), 56,554 participants took part in 7,591 seminars lasting for 126,976 participant days. In the field of “crossfunctional skills development” (which includes leadership skills and personal development), 29,762 participants attended 2,469 training courses for a total of 86,702 participant days. To ensure that its range of training options always keeps pace with the Company’s training needs, an additional 369 new training courses were developed in 2013.

Professional development at university level: the AutoUni

The AutoUni, which operates under the Volkswagen Group Academy umbrella, ensures the availability of specialized academic knowledge within the Volkswagen Group. The educational offerings, which are developed in conjunction with the partner universities, are tailored to the needs of the vocational groups. With its eight institutes, the AutoUni offers numerous lectures, conferences, programs and cooperative study modules at university level. Cooperative study modules are used to study scientific topics in more detail and finish with an exam. Programs at the AutoUni, which is based in Wolfsburg, are being rolled out internationally, a process that dates back several years. In 2013, they were extended to the Group sites in Bratislava, Mladá Boleslav, Martorell, Shanghai and Beijing, among other places. One of the focuses was on future mobility: electric traction, innovative drivetrains and lightweight construction as well as sustainable transportation systems.
The AutoUni is also heavily involved in the Group’s doctoral student program. More than 420 doctoral students were supervised in 2013 at the various Volkswagen Group companies in Germany. The doctoral students conduct research on ambitious PhD thesis topics that are relevant for the Company. During this time, they work closely with the department they have been assigned to in the Group, which also appoints a supervisor within the Company for them. The AutoUni supports doctoral students by providing seminars on academic writing and its doctoral colloquium offers the opportunity to present ongoing dissertations and discuss them in public within the Group.

**Advancement of women, family-friendly HR policies**

Volkswagen’s corporate culture places a very high value on both job and family. For Volkswagen, family-friendly human resources policies are a key success factor along the road to becoming one of the world’s leading employers. In spring 2011, the Volkswagen Group proposed individual goals to raise the proportion of women at Volkswagen in Germany for the long term as part of a voluntary commitment.

A pioneering instrument is the quota for the university graduates we hire. Volkswagen hires the year’s best university graduates in the necessary fields and then trains them further. It is guided in this by the proportion of female graduates in each field of study. Consequently, approximately 10% of graduate engineer recruits have to be women. For electrical engineering, the ratio is also 10% and for business and economics 50%. Averaged across all fields of study relevant to Volkswagen, the individual ratios produce an overall goal of at least 30% women among the university graduates hired.

**Proportion of women Volkswagen Group in Germany**

*as of December 31, 2013*

<table>
<thead>
<tr>
<th>%</th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total vocational trainees</td>
<td>27.4</td>
<td>26.8</td>
</tr>
<tr>
<td>Industrial vocational trainees</td>
<td>21.4</td>
<td>20.9</td>
</tr>
<tr>
<td>Commercial vocational trainees</td>
<td>53.2</td>
<td>52.3</td>
</tr>
<tr>
<td>Students in traineeship schemes</td>
<td>31.4</td>
<td>31.3</td>
</tr>
<tr>
<td>Total management</td>
<td>9.8</td>
<td>9.3</td>
</tr>
<tr>
<td>Management</td>
<td>11.2</td>
<td>11.0</td>
</tr>
<tr>
<td>Senior management</td>
<td>7.9</td>
<td>7.0</td>
</tr>
<tr>
<td>Top management</td>
<td>4.8</td>
<td>5.5</td>
</tr>
</tbody>
</table>

* Excluding Scania, MAN and Porsche.

Volkswagen approaches female students at an early stage. For example, it uses its Germany-wide Woman DrivING Award and the Woman Experience Day to focus on female engineering students and graduates so as to recruit them for technical positions at Volkswagen.

This increased proportion of qualified women joining the Company will enable us to steadily lift the proportion of female executives in the coming years. The Volkswagen Group is aiming to have 30% women at all levels of the management hierarchy in Germany in the long term. In line with this, the proportion of women at the Volkswagen Group in Germany increased from 9.3% (2012) to 9.8% (2013). 40 women at Volkswagen AG participated in the Company’s mentoring program in 2013, which is designed to support them as they transition to management.

Volkswagen also has the goal of raising the proportion of women among its skilled workers and master-level workers in Germany to 10%. In 2013, 30 women at Volkswagen AG took part in the master craftsman mentoring program.

With 27.4% female vocational trainees in 2013, and especially with 21.4% in the industrial and technical area, the Volkswagen Group is one of the leaders in the automotive industry in Germany. We aim to increase this to around 30%. Volkswagen therefore specifically recruits female talent, for example by offering special information days for industrial and technical vocational training at Volkswagen and career experience days for young women. The Company has participated in the national “Girls’ Day” in Germany for years and offered roughly 2,200 schoolgirls a behind-the-scenes look into careers in the automotive industry in the reporting period.

In addition to hiring and supporting talented female employees, Volkswagen is attempting to systematically improve its employees’ work/life balance. This includes a high level of working time flexibility and a range of part-time and shift models, as well as easing the transition back into the workforce for employees on parental leave. Teleworking and the associated use of new IT and communications technologies allow employees to find their own individual work/life balance.

Another step toward becoming a family-friendly company is the constant expansion of a range of childcare options. Since 2013, childcare is now available during school vacations at all Volkswagen AG locations for the first time. Volkswagen Sachsen GmbH and Volkswagen Osnabrück GmbH also added childcare during school vacations as of the reporting period; this has been implemented at AUDI AG since 2011.

The Volkswagen Group’s experience with near-site childcare facilities has been positive. For example, MAN offers company childcare facilities at its Munich and Augsburg locations. Volkswagen Financial Services AG’s “Frech Daxe” kindergarten is one of the largest company childcare facilities in Germany. Childcare has been available at Volkswagen Group of America’s Chattanooga location since 2012.
Performance incentives and bonus arrangements

Systematically encouraging and recognizing achievements and switching to remuneration systems that allow employees to share in the Company’s success for the long term are another component of our human resources strategy. Universal and uniform criteria for skills development and performance evaluation have been in place at Volkswagen AG since 2010. These apply to the entire workforce – from vocational trainees to senior executives. The criteria are underpinned by concrete incentive systems in the remuneration structure.

Volkswagen AG’s employees covered by collective pay agreements have a remuneration system that comprises three key elements:

› basic pay in the form of a competitive monthly salary,
› a performance-based remuneration component, which recognizes the achievements of each individual employee, and
› the right to a bonus arrangement anchored in the collective pay agreements.

This three-tier remuneration system has proven its worth as a tool for the workforce to participate in the Company’s success. At the same time, it helps recognize individual achievements while maintaining competitiveness. It is therefore being increasingly implemented as the standard throughout the Group.

Employee participation

Employees can actively help shape the Company by participating in the opinion survey. This uniform, Group-wide employee survey gathers information about employee satisfaction once a year. Following the survey, the results are discussed together by supervisors and employees. Complaints and problems are addressed, as are suggestions on how to better organize work. The measures agreed are then implemented before the next survey. The opinion survey was conducted for the sixth time in 2013. A total of 121 locations and companies in 40 countries were included in the survey. More than 400,000 of the over 450,000 employees invited to participate took part. This corresponds to a participation rate of 89%.

Employees from Porsche, MAN, Volkswagen Group Retail Deutschland GmbH and Volkswagen Group Polska Sp. z o.o took part for the first time. The sentiment rating is a key parameter for the opinion survey, in addition to the level of employee participation. In 2013, this was 79 (79) out of 100.

Another instrument – and one whose success depends significantly on employee involvement and participation – is the “Volkswagen Way”. This has been an integral feature at Volkswagen for six years. It aims to safeguard competitiveness and employment in equal measure. It focuses on a permanent improvement process.
that aims to achieve continuous process optimization in the areas of productivity and quality, ergonomics, leadership and teamwork. In the reporting period, a particular focus was on optimizing overarching workflows. In addition to the “Volkswagen Way”, the Group also has similar programs designed to optimize processes and structures. For example, during production, a uniform Group-wide production system is used for all brands.

Employees use their creativity, knowledge and initiative to take responsibility for process and product improvement under the Ideas Management program. Employees have submitted approximately two million ideas since 1949 using the suggestion scheme in place at that time and today’s Ideas Management program, saving nearly €3,000 million at Volkswagen AG and Volkswagen Sachsen GmbH locations. Ideas Management is an important leadership and motivational instrument for line supervisors. It also helps make work at Volkswagen safer and more compatible with good health.

### IDEAS MANAGEMENT IN THE VOLKSWAGEN GROUP*

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideas suggestion</td>
<td>532,053</td>
<td>536,532</td>
</tr>
<tr>
<td>Suggestion implemented</td>
<td>412,795</td>
<td>380,475</td>
</tr>
<tr>
<td>Savings in € million</td>
<td>312.5</td>
<td>358.1</td>
</tr>
<tr>
<td>Bonuses in € million</td>
<td>34.9</td>
<td>34.1</td>
</tr>
</tbody>
</table>

* 31 (30) participating production locations.

Preventive healthcare and occupational safety

Healthcare management at Volkswagen is much more than classic preventive healthcare and occupational safety. The comprehensive healthcare management system that is in place at Volkswagen also covers aspects of work organization, ergonomics, leadership and prospects for all individuals.

The “CheckUp”, a free, comprehensive medical examination, was made available to all employees at Audi in 2006 and at Volkswagen in 2010. This tool helps to maintain and improve employees’ health, fitness and performance. The high level of diagnostic quality is widely acknowledged by employees: nearly 61,000 Volkswagen check-ups and almost 60,000 Audi check-ups have been performed to date.

Now that the check-ups have been established at the German locations, associated internal and external prevention and training programs are now being systematically expanded. In addition, the large-scale rollout of the Volkswagen CheckUp was continued at the international locations. Existing screening programs were adapted to meet the Group-wide standard represented by the CheckUp, for example at ŠKODA AUTO a.s. in 2013. More than 15,000 ŠKODA check-ups have already been performed since then.

At the same time, Volkswagen uses improvements along the entire product development process to guarantee that the quality of workplaces and the strains on employees that arise as a result of production are already taken into account in the planning and design stages of vehicle models. The common objective is to combine ergonomically state-of-the-art workplaces and innovative work processes, using a mix of science and practical experience. The deployment of occupational assistants on the production lines means that employees are able to receive advice and guidance directly at their workplace about how to implement their workflows more ergonomically.

In the course of our management development programs, line supervisors are taught to give stronger consideration in their leadership practices to the link between leadership and employee health. We have also implemented compulsory training modules on occupational safety for all prospective managers since the beginning of 2012. In the same way, the training components for prospective master-level craftsmen were standardized in 2013.

Using the Group occupational safety management system, all Group companies covered by it analyzed their existing occupational safety organizations and processes. The results are available throughout the Group in a central database system. This includes the systematic communication of examples of good practice identified in the Volkswagen Group.
Social benefits

Volkswagen AG tops up the benefits provided by social insurance institutions, such as sick pay, and supports dependents when an employee dies. All Volkswagen AG employees are also insured by a group accident insurance policy against accidents resulting in death or disability. Volkswagen AG also grants short-term loans in exceptional cases of economic hardship.

Employees in the Group companies in Germany and abroad enjoy additional benefits. Depending on the location, these include transportation and subsistence allowances, affordable housing, monthly childcare allowances as well as subsidies towards selected leisure activities. Additional preventive healthcare services or supplementary pension insurances round off this offering on a location-specific basis.

Volkswagen AG and its brand companies and subsidiaries operate an occupational pension system, making an important contribution to their employees’ retirement income. The direct pension commitment at Volkswagen AG comprises the basic pension and the retirement benefits under contributory pension schemes I and II. While the basic pension and contributory pension scheme I are funded by the employer, contributory pension scheme II offers employees the opportunity to provide for their own retirement income through deferred compensation. Direct insurance is another opportunity for employees to provide for their own retirement income through deferred compensation.

Volkswagen AG’s Time Asset is an instrument that gives staff the opportunity to retire earlier. Since 1998, employees have been able to make contributions from their gross salary and time credits. The accumulated Time Asset credits can be used for paid early retirement.

EMPLOYEE BREAKDOWN¹
as of December 31, 2013

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocational trainees in the Group</td>
<td>17,703</td>
<td>16,714</td>
<td>15,021</td>
<td>10,545</td>
<td>9,846</td>
</tr>
<tr>
<td>Industrial</td>
<td>13,174</td>
<td>12,508</td>
<td>11,249</td>
<td>7,799</td>
<td>7,439</td>
</tr>
<tr>
<td>Commercial</td>
<td>4,529</td>
<td>4,206</td>
<td>3,772</td>
<td>2,746</td>
<td>2,407</td>
</tr>
<tr>
<td>Passive stage of partial retirement</td>
<td>9,501</td>
<td>7,804</td>
<td>4,488</td>
<td>4,778</td>
<td>7,070</td>
</tr>
<tr>
<td>Group’s active employees</td>
<td>545,596</td>
<td>525,245</td>
<td>482,447</td>
<td>384,058</td>
<td>351,584</td>
</tr>
<tr>
<td><strong>Employees</strong></td>
<td>572,800</td>
<td>549,763</td>
<td>501,956</td>
<td>399,381</td>
<td>368,500</td>
</tr>
<tr>
<td>Europe</td>
<td>424,964</td>
<td>410,427</td>
<td>378,030</td>
<td>290,159</td>
<td>278,779</td>
</tr>
<tr>
<td>America</td>
<td>61,796</td>
<td>61,193</td>
<td>58,072</td>
<td>54,571</td>
<td>48,529</td>
</tr>
<tr>
<td>Africa</td>
<td>6,356</td>
<td>6,461</td>
<td>6,602</td>
<td>6,546</td>
<td>5,608</td>
</tr>
<tr>
<td>Asia</td>
<td>78,672</td>
<td>68,704</td>
<td>58,540</td>
<td>47,607</td>
<td>35,123</td>
</tr>
<tr>
<td>Australia</td>
<td>1,012</td>
<td>978</td>
<td>712</td>
<td>498</td>
<td>461</td>
</tr>
<tr>
<td>Percentage of female employees in the Group</td>
<td>15.5</td>
<td>15.2</td>
<td>14.7</td>
<td>14.2</td>
<td>14.2</td>
</tr>
<tr>
<td>Female graduate recruits² (in %)</td>
<td>35.3</td>
<td>29.2</td>
<td>30.5</td>
<td>23.6</td>
<td>22.4</td>
</tr>
<tr>
<td>Number of accidents at work³ (thousands)</td>
<td>1.9</td>
<td>1.7</td>
<td>1.8</td>
<td>1.9</td>
<td>1.9</td>
</tr>
<tr>
<td>Accident value³</td>
<td>0.003</td>
<td>0.003</td>
<td>0.003</td>
<td>0.004</td>
<td>0.004</td>
</tr>
</tbody>
</table>

¹ Including the Chinese joint venture companies.
² Volkswagen AG
³ Production locations excluding Scania, MAN (also excluding Porsche in 2012, also excluding Audi Brussels in 2009); accident value = number of accidents at work x 1,000 /number of hours worked.
INFORMATION TECHNOLOGY (IT)

The communication society, the nearly universal information technology support for business processes and the development of new locations continually pose new challenges to the IT functions of large companies. An adequately equipped IT infrastructure, both technologically and quantitatively, is the foundation for stable IT systems and thus for optimal IT support.

Ensuring that new developments in the application landscape are passed on efficiently to the different corporate locations and incorporated into business processes and the sales network is just as vital as having a modern IT infrastructure. The IT staff are responsible not only for programming the systems at all of the Volkswagen Group’s brands, but also for supporting users in Technical Development, Production and Sales. This is how applications tailored to the exact needs of the users are created. Volkswagen’s factory planners can use the “digital factory”, for example, to virtually walk through the future production buildings long before the ground is broken. IT support ensures that employees on the production line can build the right vehicle at the right time using the Group-wide “Fertigungs-, Informations- und Steuerungssystem” (FIS – Production, Information and Control System). Expert teams on the ground develop solutions that can be applied globally and across brands for all of these IT services. In this way, Volkswagen establishes IT standards in its business areas that also form a basis for leveraging potential synergies.

In addition, customers expect to find innovative communications technology and IT in the Volkswagen Group’s vehicles – such as networking the vehicle to the Internet, or apps tailored to meet individual needs. The Audi brand’s “Audi Connect” system has been further developed into a modular system that can be used by other brands in the Group. The “Car Net” services introduced with the Golf GTI are based on the same approach, for example. The services are operated across all the brands through regional data centers. Data security is another top priority alongside functionality. Volkswagen applies the highest security standards when transferring data between vehicles and data centers.

Volkswagen’s employees are systematically educated and trained so that, combined with reliable IT security systems, the risk of sensitive data being accessed by unauthorized persons is reduced. A Group-wide information security campaign that addresses the management of sensitive data has been in place since 2012.

ENVIRONMENTAL MANAGEMENT IN THE GROUP

The Group has set itself the target of becoming the most sustainable automobile company in the world by 2018. The Group’s environmental strategy is the framework through which the Company will become a leader in ecological terms.

By 2018, we aim to reduce energy and water consumption, emissions and waste in relation to vehicles at all of our sites by 25% compared with 2010. The charts on page 138 illustrate our progress in fiscal year 2013. The collection of key environmentally relevant consumption and emissions data on the basis of VW standard 98,000, which is applicable throughout the Group, is subject to a continual improvement process. The information that must be calculated using special algorithms is particularly affected by these optimization measures. Additionally, the integration of new Group brands and locations requires adjustments in the time series that have already been reported. The improved and updated environmental data collection process aims to increase the degree of accuracy and consistency of the information gathered.

Alongside efficient and resource-friendly production as well as the design of intelligent mobility concepts for the future the development of environmentally friendly vehicles is also one of our key action areas: we aim to reduce the CO₂ emissions of our European new vehicle fleet to 95 g/km by 2020. In addition, every new model generation is designed to be 10% to 15% more efficient than its immediate predecessor.

In order to successfully implement our environmental strategy, we must model all environmentally relevant aspects in our organizational and decision-making processes, both in product development and production at all locations. This is why we have a holistic environmental management program, which has already been established in the Group for many years. The main pillars of this are the Group’s globally applicable environmental principles for products and production and the environmental goals of the Technical Development function. Since 2010, these efforts have been supported by a Group-wide energy management system. Teaching our employees about ecological issues is also an important factor in reaching our goals. For this reason, we employ environmental protection experts and environmental officers around the world, who help to build a broad foundation for environmental protection within the Group.

Since 1995, Volkswagen’s German locations have voluntarily participated in the EU’s Eco-Management and Audit Scheme as well as worldwide in the environmental certification process under international standard ISO 14001. Since 1996, the environmental management system used by Volkswagen’s Technical Development function has been certified in accordance with ISO 14001 and, since 2009, additionally in accordance with ISO/TR 14062. By means of recertifications and external validations, we also confirmed our role as a trailblazer in the reporting period.

Our Group environmental strategy takes a holistic approach that takes into account the lifecycles of our products. To do this, we chose a modular structure whereby the modules are oriented on business areas along the entire value chain. Thus we not only address environmental issues relating to production and the products themselves, but also in logistics or recycling, for example. We defined a fixed committee and reporting structure to manage...
Climate protection
Based on our environmental strategy, protecting the climate is one of our key challenges because we have a special responsibility as a company that produces over 9.7 million vehicles a year. This applies not only to the production conditions at our own production sites, but also to the supply chain and the products over their entire lifecycles.

We consider climate change and the resulting risks and opportunities in all of our strategic decisions. These decisions are based among other things, on information provided by the CSR & Sustainability steering group and the Group’s CO₂ steering group. A key instrument is the “CO₂ Registry” management and analysis tool, for example. This analyzes every one of the Group’s vehicle projects over the entire production process with regard to their CO₂ emissions, based on the requirements for CO₂ savings laid down in our Group environmental strategy.

We established a Group Expert Network for Climate and Energy to facilitate the exchange of knowledge and experience between all brands and regions. The Network’s focus, alongside exchanging best practice approaches, is to discuss issues with international scientific experts (for example, representatives of the International Energy Agency) and other stakeholders (for example, the World Business Council on Sustainable Development).

Water management
Water is not just a means of subsistence, but also a means of production and a source of energy. In many parts of the world, however, there is no basic provision of this essential commodity. In automobile production, it is impossible to avoid using water, however – in washing processes in mechanical manufacturing or process cooling, for example. Volkswagen is aware of its responsibility and thus uses this valuable resource sparingly. Using water sparingly is also laid down in the Group’s environmental principles: three of the 22 environmental principles for production relate directly to the issue of water.

Volkswagen has participated in the Water Disclosure Project (WDP) since 2011. This nonprofit organization collects information on water management in a comprehensive annual survey, and analyzes and evaluates the data. Volkswagen is the only German automotive group to agree to publish the results. We are thus trailblazers when it comes to the disclosure and transparency of our careful use of water and newly developed solutions for sustainable water management. Furthermore, since 2013, Volkswagen has been the first automotive company in the world to support the CEO Water Mandate.

Volkswagen has set itself the goal of reducing water consumption per vehicle in all plants by 25% by 2018 compared with 2010. During the reporting period, we implemented numerous measures in the plants to do this, showing that we are reducing the overall pollution of bodies of water attributable to vehicle production and at the same time ensuring a secure water supply.

The Foshan plant was the first facility in China to be awarded the Triple-Star Green Building Award – the highest state award for environmentally friendly factory planning. Almost all waste water at this location is treated and reused using state-of-the-art membrane technology. In engine production at the Salzgitter plant, no industrial waste water is created either because waste water containing oil is separated into oil and water in vacuum evaporators. The water claimed in this process is used to prepare emulsions. This helps us save 30,000 m³ of water a year. We also use energy-efficient evaporators at other Group locations, such as the Slovakian plant in Martin or the Plockowice plant run by VW Motor Polska. We use the resulting distillates as recycled water and for cleaning. Additionally, the amount of liquid and dangerous waste containing oil is being reduced by up to 40%.

The significant requirement for cooling water in the industrial production of automobiles means that there is also considerable potential for water savings in this area. When a new combined cycle power plant was constructed in Kassel, a nanofiltration plant was commissioned that helps save water in cooling tower operation. Thanks to this nanofiltration plant, we can treat waste water containing salt so that the water can be reused, allowing fresh water to be saved and up to 70% less waste water to be discharged.

The waste water cleaned in Volkswagen’s sewage treatment plants meets the highest global standards. We guarantee this by using state-of-the-art biological waste water purification technology, for example in the Pune plant in India. There we use a membrane bioreactor: the combination of microbial breakdown and filtration through extremely fine membranes means that over 99% of all biologically degradable components can be removed from the pre-treated industrial waste water. Thanks to this process, the water can be reused at the site.

We are also proving the high quality of our sewage treatment plants and waste water in a cooperative project between Volkswagen Slovakia and Comenius University in Bratislava: together we have been breeding crayfish that are supplied with purified waste water from the Volkswagen sewage treatment plant. The water provides optimal living conditions for the threatened crayfish. Volkswagen is supporting the return of crayfish to their natural habitat by reintroducing the farmed animals into the wild.
### ENERGY CONSUMPTION*
*in kilowatt hours per vehicle*

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2012</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,205</td>
<td>2,213</td>
<td>2,519</td>
</tr>
</tbody>
</table>

### CO₂ EMISSIONS*
*in kilograms per vehicle*

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2012</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>883</td>
<td>895</td>
<td>1,096</td>
</tr>
</tbody>
</table>

### VOC EMISSIONS (VOLATILE ORGANIC COMPOUNDS)*
*in kilograms per vehicle*

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2012</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.62</td>
<td>3.73</td>
<td>4.13</td>
</tr>
</tbody>
</table>

### DISPOSABLE WASTE*
*in kilograms per vehicle*

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2012</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20.1</td>
<td>20.7</td>
<td>23.3</td>
</tr>
</tbody>
</table>

### FRESH WATER CONSUMPTION*
*in cubic meters per vehicle*

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2012</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.33</td>
<td>4.25</td>
<td>4.54</td>
</tr>
</tbody>
</table>

* Production of passenger cars and light commercial vehicles. Prior-year figures adjusted.
Noise reduction

Responsible concern for the environment means that an automobile manufacturer must consider the full range of its vehicles’ effects. Increasingly, this includes the topic of traffic noise. Volkswagen is facing up to this responsibility, not only by developing ever quieter vehicles, but also through extensive activities to reduce overall traffic noise. Our goal is to better understand the influence that cars have on traffic noise so as to identify which tasks will be assumed in the future by vehicle manufacturers and when – as part of a comprehensive approach – there is a need for cooperation with other participants.

We developed a so-called noise level tool in collaboration with the internationally renowned firm of Lärmkontor GmbH, Hamburg. Using this tool, we will be able to compare measures to quantitatively reduce noise in a model city in terms of its effect on the noise level on the whole as well as on the number of those affected. The control variables of the noise level tool include traffic volume, the proportion of passenger cars and commercial vehicles, speed, road surface, engine noise and rolling noise. The innovative feature of the tool is that it indicates noise pollution, illustrating how much noise is “perceived” by how many of the city’s inhabitants. Looking exclusively at the sources of noise produced – that is, the emissions – would give a skewed picture of the effectiveness of noise-reduction measures. Our focus on those affected by noise is also demonstrated by the continual exchange we maintain with representatives of municipal authorities, which we intensified in 2013. For example, Volkswagen is participating in the city of Wolfsburg’s measures to reduce noise.

These activities are examples of our contribution to ensuring that future steps towards reducing noise are better coordinated and that funds can be used more selectively.

Lifecycle assessment

Reducing fuel consumption and the associated reduction of emissions are important measures for improving the environmental credentials of our vehicles. However, these alone do not reduce a car’s environmental impact to a minimum. After all, this does not begin when it starts being driven by the customer. The raw materials for the vehicle must also be produced, and materials and components manufactured – and this long before the wheels of a new car turn for the first time.

To be able to reduce the environmental impact of a vehicle to a minimum, the entire product lifecycle is considered when vehicles are developed. This means that the assessment of the potential environmental impacts of new vehicles, components and materials begins before they are even produced: effectively from the first idea and design sketches, through production and the subsequent usage phase, down to disposal. Volkswagen uses the environmental impact study – or lifecycle assessment – in accordance with ISO standards 14040 and 14044 as a tool for this. Using environmental impact studies, we determine where improvements have the greatest effect and develop targeted innovations accordingly. We call this approach lifecycle engineering.

The Volkswagen brand publishes environmental ratings to inform its customers, shareholders and stakeholders about its success stories in environmentally responsible vehicle development and lifecycle assessments. Environmental ratings for new vehicle models demonstrate ecological advancements in direct comparison with the predecessor model. For the communication to be credible, it is important that the results and evaluations in the environmental impact studies meet internationally recognized quality standards and are transparent, comparable and understandable. In order to ensure this, the results of the lifecycle assessments are reviewed, confirmed and certified by independent experts, in accordance with the requirements of ISO 14040.

External environmental awards

The Volkswagen Group and its brands and projects received numerous awards for environmental protection and sustainability in 2013. Here are some examples:

For the second time, the Volkswagen eco up! heads the environmental vehicle list published by Verkehr Club Deutschland (VCD), the German association for sustainable mobility. It is on a level with the ŠKODA Citigo CNG and SEAT Mii Ecofuel models produced by other Group companies, with the three being named the most environmentally friendly vehicles of the year. The VCD’s evaluation considers CO₂ emissions, drive-by noise and the specific emission standard met by the vehicle.

The magazine “verkehrsrUNDSCHAU”, together with its sister publication “Trucker”, awarded the Volkswagen Crafter the “Green Van 2013” environmental prize, rating it the most environmentally friendly transporter. Key to its success was primarily its categorization in the enhanced environmentally friendly vehicle (EEV) emission standard for all performance classes, alongside its low consumption.

The strategic stakeholder dialog between Volkswagen and the German Nature and Biodiversity Conservation Union e.V. (NABU) is also seen externally as an example of best practice. This once again received second place in the 2013 European Change Communications Award in the “Strategy large” category and was a finalist in the 2013 PR Report Awards in the “Responsibility/CSR” category.

Finally, the Volkswagen Group received the German Investors’ Award for Responsible Business Practices, which is sponsored and awarded by the magazine publisher DuMont and Deutsche Asset & Wealth Management. The jury praised the way sustainability is anchored in the core business and the responsible attitude towards all stakeholders and towards nature.
Biodiversity
Together – and in connection with – climate change, the dramatic loss in species, ecosystems and genetic diversity is one of the greatest challenges of our time. The United Nations has therefore declared the current decade as the UN Decade on Biodiversity.

Every company’s value added depends – directly or indirectly – on nature’s achievements. And every company has an impact on nature and ecosystems, to their benefit or detriment. The loss of biodiversity means that the quality of the “services” provided to us for free by natural ecosystems also suffers. An economy that acts to maintain and use biodiversity sustainably does so in its own long-term interests.

Protecting natural resources has been a corporate goal at Volkswagen since 2007, consistent with the UN’s Convention on Biological Diversity. We continued to drive forward integration of this topic with our processes and systems in the reporting period. As an industrial enterprise, we contribute to protecting biodiversity primarily by reducing greenhouse gas emissions and other environmental impacts caused by production. Initiatives in nature and species conservation and in promoting and integrating biotopes – together with expert project partners – supplement our biodiversity management activities.

Volkswagen again actively used the “Biodiversity in Good Company” corporate initiative we co-founded as a platform for learning and dialog and supported its further national and international integration. For example, we participated in the kick-off event for “Enterprise Biological Diversity”, a platform of associations initiated by the German Federal Ministry for the Environment in 2013, the management of which was entrusted to the “Biodiversity in Good Company” initiative. Our cooperation in the research project studying the impact of product systems on biodiversity, led by the Fraunhofer Institute for Building Physics with the cooperation of the Federal Agency for Nature Conservation, the Federal Ministry for the Environment and the German Federal Environmental Agency, served to operationalize the goal of protecting biodiversity from a corporate perspective.

As part of a long-term strategic stakeholder dialog, Volkswagen also receives expert advice from the largest and most important environmental organization in Germany, the Nature and Biodiversity Conservation Union e.V. (NABU), whose core concerns are nature and species conservation. The common objective of Volkswagen and NABU is to translate pure dialog into concrete projects that contribute to protecting biological diversity.

The following examples from the reporting period illustrate this:

- Thanks to the German Moor Conservation Fund established by Volkswagen Leasing GmbH and NABU in 2011, the rewatering program for moors in Germany was extended.

- Support for Europe’s largest river restoration project on the Lower Havel river took on a new level of quality when we made a donation to reconnect the Schliepenlanke oxbow lake in Rathenow.

- The “Willkommen Wolf!” wolf conservation initiative continued with a roadshow through zoological gardens and animal parks, with 40 stops overall.

We provide continual updates about these and other projects at www.mobil-fuer-mensch-und-natur.de, which presents the development of the alliances. For example, Volkswagen is protecting water habitats in and around the entire Allertal valley in Lower Saxony in collaboration with the Federal Agency for Nature Conservation and the Otter Center in Hankensbüttel.

Volkswagen promotes the conservation of nature and species diversity not only in Germany, but also in other international Volkswagen Group locations and all around the world. This includes Volkswagen de México’s “Por amor al planeta” program, for example, which conducts scientific research into biodiversity in nature reserves among other things, and also the public-private partnership project between Volkswagen do Brasil and the São Carlos Ecological Park to protect the habitats of endangered species such as the Cerrado wolf, the Andean condor and the Andean bear.

Fuel and drivetrain strategy
In fiscal year 2013, we made further progress towards implementing our vision of sustainable mobility. Efficient and sustainable drivetrains are a highly important strategic issue for Volkswagen and part of the product strategy. We are not only working to continuously optimize existing drivetrains but also – as in the past – pursuing a variety of alternative concepts, and especially electric traction. At present, our customers around the world primarily choose conventional engines to drive their vehicles. Until carbon-neutral and sustainable mobility is a reality, electrified drive technology and conventional combustion engines will continue to coexist in the future. This coexistence will be flanked by a steady increase in the share of carbon-neutral energy sources, in the form of renewable power for electric vehicles, for example, or carbon-neutral fuels such as the next generation of biofuels. Of particular significance here are biomethane, which is generated from waste materials, and synthetic natural gas. The latter is produced in electrolysis and methanation plants fueled by renewable wind power. Today, almost carbon-neutral mobility is already a possibility using sustainable natural gas. Volkswagen has continually expanded its offering of vehicles with CNG drives in recent years. It addition, we are examining innovative renewable fuels that bind CO₂ during production and that put carbon-neutral mobility within grasping distance.
From today’s perspective, the combustion engine looks set to serve as the broad basis for drive technology in the coming years. This is particularly true for growth markets such as Russia, India and the Far East. Given the need to use resources responsibly, it is crucial to further optimize combustion engines so as to facilitate sustainable, forward-looking mobility. We have developed an entirely new generation of petrol and diesel engines in response to this challenge. These drivetrains were used in the successor models for the Audi A3 and Golf for the first time in 2012, and will be successively added to the Volkswagen Group’s vehicle range in the future.

All the new engines feature turbocharging, direct injection and a start-stop system as a standard feature. Alongside intelligent thermomanagement for reducing mechanical and energy losses, they also make use of other fuel-saving technologies such as demand-driven auxiliary power unit management and variable valve management. In addition, they feature energy recuperation. We have been using active cylinder management in many Group vehicles with petrol engines since 2012. This automatically switches off individual cylinders when they are not needed without the driver noticing. This innovative technology cuts fuel consumption by up to 0.5 l per 100 km, depending on the engine and driver profile involved. Active cylinder management is increasingly being used in new models.

Driver profile selection is another means of reducing fuel consumption. In 2012, it was integrated into a volume model – the new generation of the Golf – for the first time; it is now also available in other Volkswagen Group vehicles. The driver can select the eco, normal and sport modes as desired. Engine and gear management as well as auxiliary power units and the air conditioning are activated as necessary according to the driver’s selection.

The Group’s efficiency models show what can be achieved by combining efficient conventional drives and vehicle innovations such as low rolling resistance tires and aerodynamic measures. At Volkswagen, they are available under the “BlueMotion” label, at ŠKODA they are known as the “GreenLine” models and at SEAT they go by the name of “ECOMOTIVE”. With CO₂ emissions of 87 g/km and fuel consumption of only 3.3 l per 100 km, the Polo BlueMotion is one of the most environmentally friendly and economical five-door vehicles in the world. The Golf BlueMotion, with its new 1.6 TDI engine, uses an average of only 3.2 l of fuel per 100 km, while its CO₂ emissions are a mere 85 g/km. The ŠKODA Octavia GreenLine emits only 85 g/km of CO₂ and uses 3.2 l of diesel per 100 km. The eco up! – available since the end of 2012 – has CO₂ emissions of just 79 g/km with its 1.0 CNG engine.

The Audi and Porsche brands provide impressive proof that premium-segment diesel engines can also be dynamic and economical. The twin turbocharged 3.0 TDI engine in the Audi SQ5 TDI has an output of 230 kW (313 PS) and uses a mere 6.8 l of diesel...
Porsche offers the Cayenne S diesel with a twin turbo-charged 4.2 l V8 diesel engine and an output of 281 kW (382 PS), consuming just 8.3 l of diesel per 100 km.

The successful TSI, TFSI and TDI engines, ideally combined with the Group’s innovative direct shift gearboxes (DSGs), offer a good starting point for efficient vehicle propulsion now and in the future, as they can be combined on a modular basis with electrical components to produce hybrid drives. The plug-in versions of such vehicles can be recharged via electrical outlets and – depending on the model concerned – can cover between 20 and 80 km in purely electric mode.

When it comes to drive electrification, hybrids are a core topic for the Volkswagen Group, especially plug-in hybrids. They are currently the best way of supplementing petrol and diesel engines, because they combine the benefits of two technologies and hence meet a number of customer expectations: an unlimited range thanks to their combustion engines, an attractive electric drive unit for day-to-day urban use, no restrictions on speed, hill-climbing ability or trailer loads, and substantial potential for reducing CO₂ emissions. The Volkswagen Group is mounting a major push for this technology. Integration into the modular toolkit strategy is a significant element of this. This technology underscores the importance of e-mobility within the Group, giving it a firm, long-term place in its product strategy. Combined drives are already available today in a large number of vehicle classes in the form of the hybrid versions of the Jetta, Touareg, Audi Q5, Audi A6, Audi A8, Porsche Cayenne S and Porsche Panamera S models.

In 2013, we rang in the age of pure-play e-mobility in the Group with the market launch of the e-up! The e-Golf will be launched in spring 2014. The Group brands performed extensive trials, including with customer involvement, with purely electric vehicles and plug-in hybrids in the reporting period and were able to further optimize the technology, its suitability for daily use and user requirements for subsequent series production.

Alongside purely electric vehicles, a range of plug-in hybrid vehicles from many of the Group’s brands will be launched around the world in the coming years.

Mass mobility using electric vehicles still faces some challenges, however. In the area of battery chemistry, developing high-performance batteries and building up technological expertise are both vital to increasing the range and hence the attractiveness of electric vehicles. Another challenge is integrating electric cars into the existing infrastructure. Questions still need to be answered with respect to the recharging strategy to be adopted (“smart grid”), how to construct an end-to-end infrastructure, particularly of rapid charging stations, and how to book charging points and bill the electricity provided; these questions must be answered together with governments, municipal authorities and utilities. In our opinion, an intelligent combination of the automotive, power generation and telecommunications sectors offers the opportunity to ease the transition to e-mobility for our customers, or to make it attractive for them. A broad range of new services, such as mobile online services or intelligent recharging, could play an important role in this.

Volkswagen will manufacture not only the bodywork but also the core components of electric cars: the electric motor and the battery system. The motors will be manufactured in the Kassel plant, while the battery modules will be assembled into battery systems at the Braunschweig facility.

Thanks to our conventional and alternative technologies and the modular toolkit strategy, which allows innovations to be incorporated rapidly into different vehicles, the Volkswagen Group is optimally positioned to meet the challenges that the future will bring.

REPORT ON POST-BALANCE SHEET DATE EVENTS
There were no significant events after the end of fiscal year 2013.