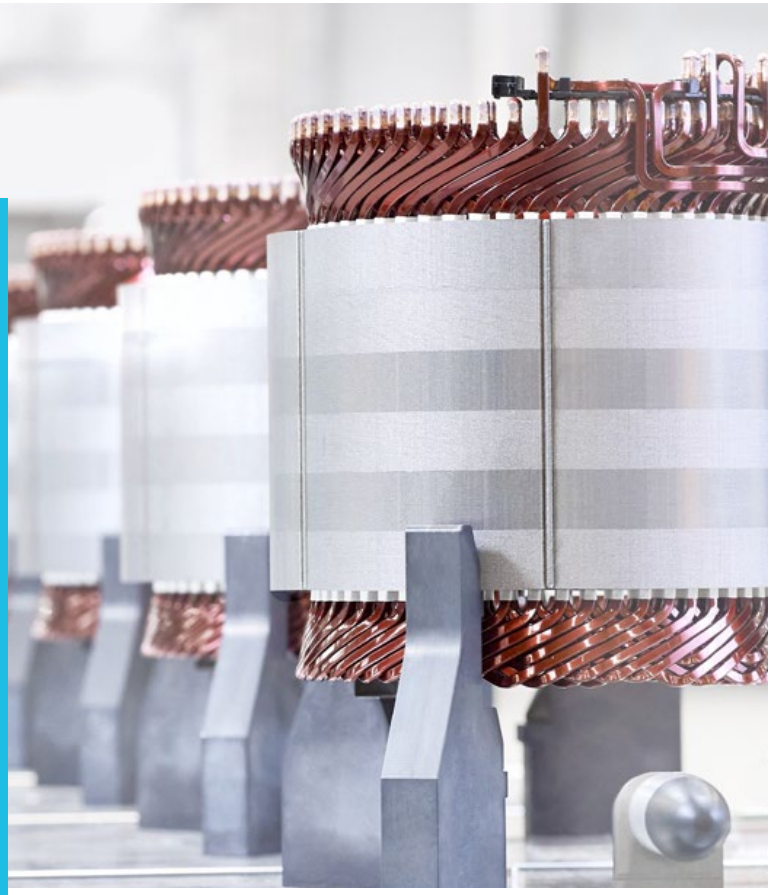
COMBINED MANAGEMENT REPORT



GENERAL INFORMATION AND GROUP PROFILE

CORE VALUES AND GUIDING PRINCIPLES

LONG-TERM THINKING FORMS THE BASIS FOR OUR ECONOMIC SUCCESS.

Long-term thinking and responsible action are an integral part of the BMW Group's corporate identity and continue to form the basis for our economic success. We strive constantly to meet the high expectations our customers have in our products. Our business model is intrinsically linked with the principle of sustainability and we see the two factors as an integral unit. We aspire to be not only the most successful, but also the most sustainable premium provider of individual mobility and always focus on the needs of our customers.

The BMW Group's stance is unwavering: ecological and social sustainability, responsibility for our products and a clear commitment to conserving resources are at the heart of our corporate strategy. We think and manage our corporate affairs in a holistic manner. For instance, we do not limit our understanding of environmental sustainability to the emissions generated by our vehicles, but rather take the entire value chain into account – whether along the supply chain, in our production processes, during the use phase or at the end-of-life recycling stage. We have firmly embedded the principle of sustainability in every aspect of our business. Our primary aim is to balance the interests of economy, ecology and society and thereby contribute to ecological and societal improvement.

Global challenges such as growing urbanisation and the finite nature of natural resources have inspired and motivated us to develop a range of innovative products and services. Climate change is one of the greatest challenges of our time and we are fully committed to the Paris Climate Agreement in order to mitigate its effects. As the BMW Group, we are making our contribution by focusing on developing and improving technologies and services that can effectively help bring about a viable reduction in the global carbon emissions caused by individual mobility. With this strategy we can create a clear competitive advantage by offering our customers emotional, trendsetting mobility solutions that are also made with sustainable principles in mind.

OUR ACTIONS AS A COMPANY HAVE A POSITIVE IMPACT ON THE ECONOMY AND SOCIETY.

We are a company operating on a global scale. As such, we acknowledge our responsibility to contribute to economic prosperity in the countries where we are located. For this reason, we not only aspire to achieve sustained profitable growth for the Group, but also to make a specific contribution towards economic development and improvement in the quality of life at the locations where we operate.

The growth of the BMW Group not only provides a reasonable return for investors, but also attractive salaries for its employees. We also make a positive contribution to society in general at the locations where we operate, firstly by paying the amounts due to public authorities (such as customs duties and taxes) and secondly in the form of social, cultural and corporate citizenship activities. **Corporate Citizenship.**

THE TRANSFORMATION OF MOBILITY AND THE ADVANCE OF DIGITALISATION ARE OPPORTUNITIES.

Mobility patterns worldwide, and hence the entire automotive industry, are currently undergoing profound change. We see this transformation as an opportunity to set new industry standards and innovate in the fields of electrification, connectivity and automated driving.

Digitalisation provides us with an excellent opportunity to take a fundamentally new approach to developing products for the benefit of our customers. We not only react to customer wishes, but also anticipate them through a good understanding of their preferences. Moreover, digitalisation enables us to redesign processes throughout the entire organisation.

WE ARE MOVING FORWARD IN OUR OWN INDEPENDENT WAY.

As societal values as well as demographic and technological conditions change, new demands on mobility solutions are constantly emerging. The ambition to fulfil those wishes and needs is the force that drives us forward. We are taking steps to ensure a viable future for our business by developing innovatively, sustainably and independently.

ORGANISATION AND BUSINESS MODEL

General information on the BMW Group is provided below. There have been no significant changes in the Group's structure compared to the previous year. Bayerische Motoren Werke Aktiengesellschaft (BMW AG), based in Munich, Germany, is the parent company of the BMW Group.

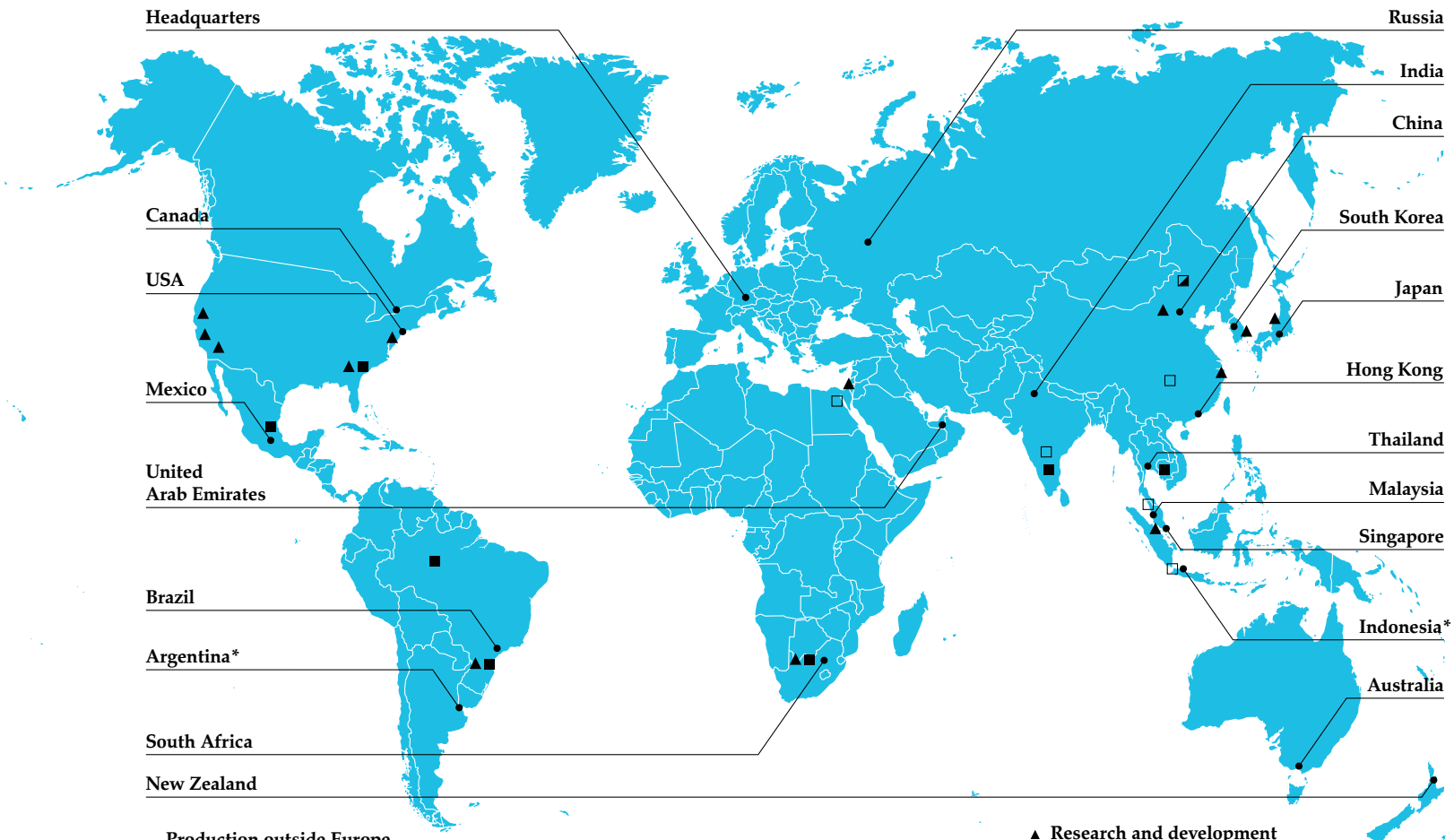
The starting point for the BMW Group's corporate strategy is to act in a consistent manner on a customer-oriented and sustainable basis. Products, brands and services are currently being developed with a clear focus on innovative technologies such as low-emissions drivetrains, digitalisation, connectivity and autonomous driving.

The BMW Group is one of the most successful manufacturers of automobiles and motorcycles in the premium segment worldwide. With BMW, MINI and Rolls-Royce, the BMW Group owns three of the best-known premium brands in the automotive industry. It also holds a strong market position in the premium segment of the motorcycle business. The Group sets itself clear goals in terms of sustainable, individual mobility, resource-efficient value creation, the continued development of its workforce potential and its contribution to society. Sustainability is an integral part of the Group's business model and plays a vital role in ensuring its viability going forward.

Operating on a global scale, the BMW Group employed a workforce of 120,726 people at the end of the year under report. In 2020, the BMW Group consolidated its position as one of the world's most attractive employers. Its leading role in terms of sustainability also contributes to employee loyalty within the BMW Group.

The BMW Group comprises BMW AG itself and all subsidiaries over which BMW AG has either direct or indirect control. BMW AG is also responsible for managing the Group, which is sub-divided into the Automotive, Motorcycles and Financial Services operating segments. The Other Entities segment primarily comprises holding companies and Group financing companies.

BMW GROUP LOCATIONS WORLDWIDE



42
Sales subsidiaries and Financial Services locations worldwide

31
Production and assembly plants

13
Countries with research and development locations

Sales subsidiaries and Financial Services

* Sales locations only.

Production outside Europe

- BMW Group plant Araquari, Brazil
- BMW Group plant Chennai, India
- BMW Group plant Manaus, Brazil
- BMW Group plant Rayong, Thailand
- BMW Group plant Rosslyn, South Africa
- BMW Group plant San Luis Potosí, Mexico
- BMW Group plant Spartanburg, USA
- BMW Brilliance Automotive, China (joint venture – 3 plants)

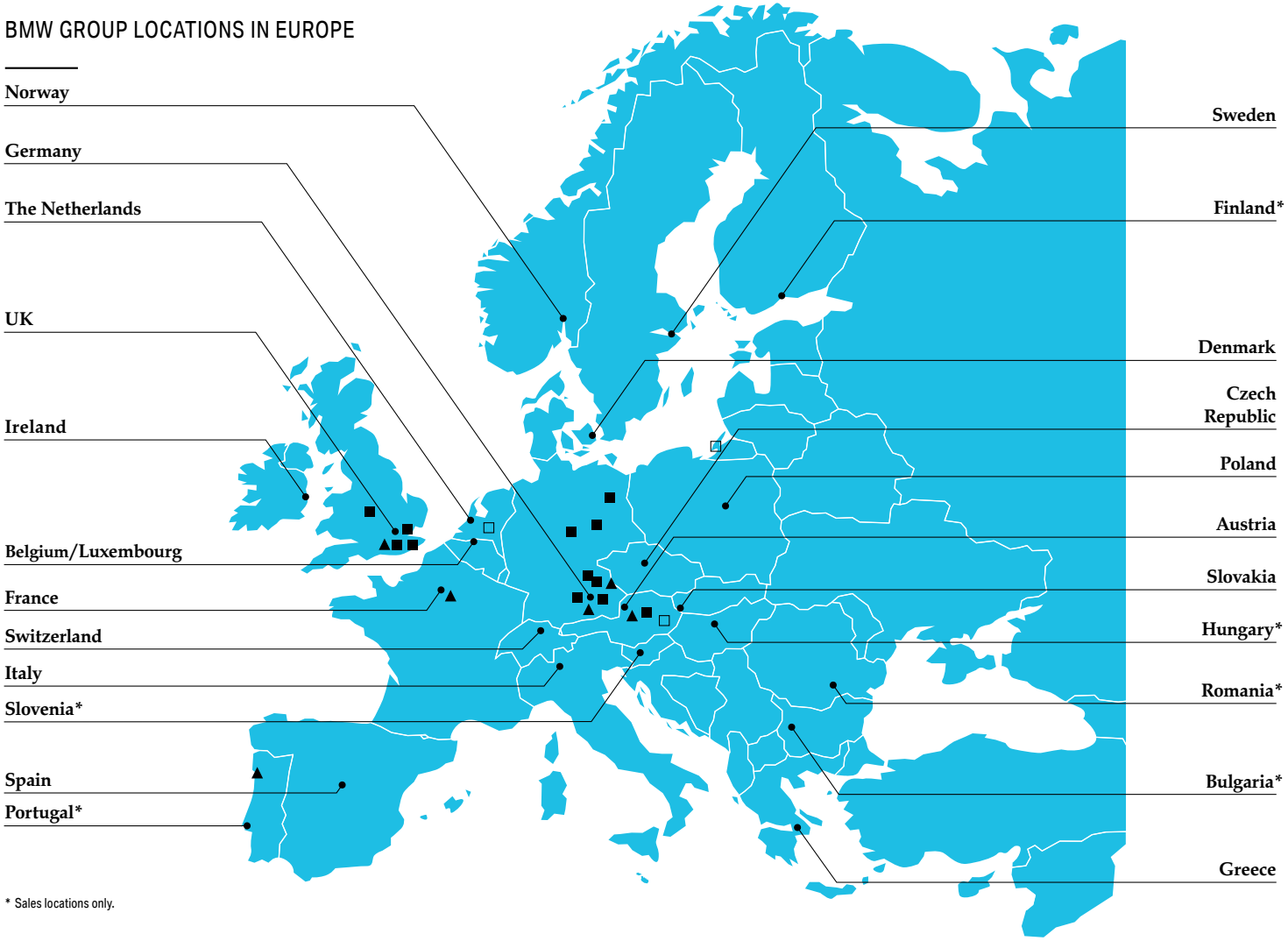
Partner plants outside Europe

- Partner plant, Chongqing, China
- Partner plant, Hosur, India
- Partner plant, Jakarta, Indonesia
- Partner plant, Cairo, Egypt
- Partner plant, Kulim, Malaysia

Research and development network outside Europe

- BMW Group Designworks, Newbury Park, USA
- BMW Group Technology Office USA, Mountain View, USA
- BMW Group Engineering and Emission Test Center, Oxnard, USA
- BMW Group ConnectedDrive Lab China, Shanghai, China, and BMW Group Designworks Studio Shanghai, China
- BMW Group Technology Office, Shanghai, China
- BMW Group Engineering China, Beijing, China
- BMW Group Engineering Japan, Tokyo, Japan
- BMW Group Engineering USA, Woodcliff Lake, USA
- BMW Group IT Technology Office, Greenville, USA
- BMW Group IT Technology Office, Singapore
- BMW Group IT DevOps Hub, Rosslyn, South Africa
- BMW do Brasil, Araquari, Brazil
- BMW Group Technology Office Tel Aviv, Tel Aviv, Israel
- BMW Group R&D Center Seoul, Seoul, South Korea

BMW GROUP LOCATIONS IN EUROPE



* Sales locations only.

■ **Production in Europe**

BMW Group plant Berlin
BMW Group plant Dingolfing
BMW Group plant Eisenach
BMW Group plant Landshut
BMW Group plant Leipzig
BMW Group plant Munich
BMW Group plant Regensburg
BMW Group plant Wackersdorf
BMW Group plant Steyr, Austria
BMW Group plant Hams Hall, UK
BMW Group plant Oxford, UK
BMW Group plant Swindon, UK
Rolls-Royce Manufacturing Plant, Goodwood, UK

□ **Partner plants in Europe**

Partner plant, Born, the Netherlands
Partner plant, Graz, Austria
Partner plant, Kaliningrad, Russia

▲ **Research and development network in Europe**

BMW Group Research and Innovation Centre (FIZ), Munich, Germany
BMW Car IT, Munich, Germany
BMW Group Autonomous Driving Campus, Unterschleißheim, Germany
BMW Group Designworks, Munich, Germany
BMW Group Lightweight Construction and Technology Center, Landshut, Germany
BMW Group Diesel Competence Centre, Steyr, Austria
Critical TechWorks S.A., Porto, Portugal
BMW France, S. A. S., Montigny, France
Rolls-Royce Motor Cars Ltd., Goodwood, UK

PRESENTATION OF SEGMENTS

In order to provide a better insight into the Group as a whole, this report also contains separate presentations of the Automotive, Motorcycles and Financial Services operating segments.

AUTOMOTIVE SEGMENT

The BMW brand caters to a wide variety of customer requirements. Its model portfolio comprises an extensive range of automobiles, including the premium compact class, the premium mid-size luxury class and the ultra-luxury class. Apart from fully electric models such as the BMW iX3*, which was launched in 2020, it also includes state-of-the-art plug-in hybrids and conventional models powered by highly efficient combustion engines. Together with the highly successful models of the BMW X family and the high-performance BMW M brand, the BMW Group meets the diverse expectations and needs of its customers worldwide.

The MINI brand promises driving pleasure in the premium small car segment and, apart from models powered by efficient combustion engines, also offers plug-in hybrid and fully electric variants. Rolls-Royce is the ultimate marque in the ultra-luxury segment, boasting a tradition that stretches back over more than 100 years. Rolls-Royce Motor Cars specialises in bespoke customer specifications and offers the very highest level of quality and service.

The global sales network of the BMW Group's automobile business currently comprises more than 3,500 BMW, over 1,600 MINI and some 140 Rolls-Royce dealerships.

MOTORCYCLES SEGMENT

The Motorcycles business is also clearly focused on the premium segment. The model range currently comprises motorcycles in the Sport, Tour, Roadster, Heritage, Adventure and Urban Mobility categories. BMW Motorrad also offers a broad range of equipment options to enhance rider safety and comfort. The Motorcycles business sales network is organised similarly to that of the automobiles business. Currently, BMW motorcycles are sold by more than 1,200 dealerships and importers in over 90 countries.

FINANCIAL SERVICES SEGMENT

The BMW Group is a leading provider of financial services in the automotive sector. It offers these services in around 60 countries worldwide via companies and cooperation arrangements with local financial services providers and importers. The Financial Services segment's main business is credit financing and the leasing of BMW Group brand automobiles and motorcycles to retail customers. Customers can also choose from an attractive array of insurance and banking products.

Operating under the brand name Alphabet, the BMW Group's international multi-brand fleet business provides financing and comprehensive management services for corporate car fleets in more than 20 countries. These services also include helping customers to manage their fleets on a sustainable and climate-friendly basis.

Financing dealership vehicle fleets serves to support the dealership organisation and rounds off the segment's range of services. **Products and Services**

* See Fuel Consumption and CO_2 Emissions Information.

STRATEGY, GOALS AND MANAGEMENT SYSTEM

STRATEGIC ORIENTATION OF THE BMW GROUP

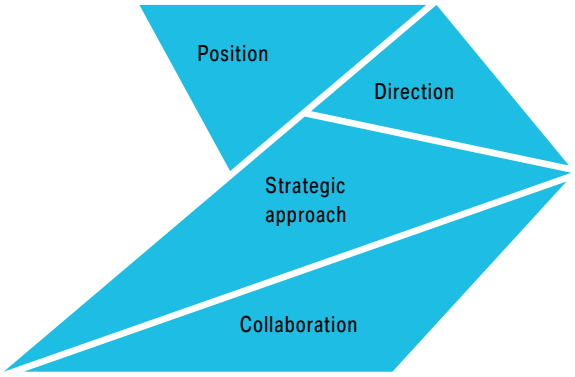
Individual mobility, as the BMW Group understands it, is inextricably linked with conserving the world's natural resources. The BMW Group bases its contribution to the sustainable development of our planet on scientifically derived criteria. With this principle in mind, it combines ecological and social aspects with securing its long-term future in all its activities. The BMW Group views the combination of driving pleasure and responsibility for acting sustainably as a clear factor for differentiation. The outcome is that customers experience outstanding innovative products made by a company focused on sustainability.

However, that is merely the starting point for the BMW Group, which intends to integrate sustainability more strongly than ever in its corporate strategy. The strategy establishes the necessary conditions to fulfill both customer expectations and regulatory requirements regarding emissions in the Group's various markets by offering a wide range of products. Its clear ambition is to ensure that all areas of the company think, manage and demonstrably act in a true spirit of sustainability.

This way of thinking has resulted in the BMW Group reaching the logical strategic decision to move away from pursuing a separate sustainability strategy and presenting a separate sustainable value report. Sustainability is the basic pattern that shapes the BMW Group's strategy. From beginning to end, activities and plans should comprehensively be examined with regard to their economic, ecological and social impacts and the corresponding decisions taken based on an integrated approach. With effect from the financial year 2020, the Group is therefore integrating its reporting. A Group Report of this nature covers a variety of key aspects and endeavours to highlight correlations in a transparent manner. The BMW Group is therefore consciously subjecting all of its activities to a comprehensive external audit, including its activities in the area of sustainability.

THE STRATEGY ARROW – POINTING THE WAY TO THE FUTURE

The BMW Group's strategy comprises four key elements, which are summarised in a strategy arrow that points towards the future.



POSITION – WHAT DOES THE BMW GROUP STAND FOR?

The BMW Group stands for first-class individual mobility and sustained responsibility. These factors provide transparency and reliability for shareholders and investors as well as for partners in the supply chain and the production and sales system, but also for all other stakeholders, political decision makers, the media and the general public.

The BMW Group considers itself as a pioneer and sets standards for the individual mobility of tomorrow. It combines joy and responsibility without compromise and, together with its partners, leads the industry in terms of environmental, social and integrity standards. The BMW Group is committed to complying with the Paris Climate Agreement – with a verifiable track record of continuous improvement. It is promoting the principles of circular economy, both in its corporate philosophy and in close collaboration with its partners – from the supply chain to production, the use phase and the recycling of its products.

DIRECTION – WHAT IS THE BMW GROUP'S DRIVING FORCE?

Its aspiration to manufacture products that will inspire its customers – both today and in the future. That is the force that drives the BMW Group. At the same time, the Group strives to achieve a high level of profitability in order to safeguard its corporate independence and distinctively shape the mobility trends of the future. The integration of ecological and social aspects throughout its entire value chain ensures the continued viability of the BMW Group going forward.

The Group is built on a firm foundation of strong brands and emotional products. In the face of increasingly fierce competition, the BMW Group continues to hone its brand profiles and express them, among other ways, in a unique, characteristic automotive design language. Design arouses emotions and emotion drives desire. At the BMW Group, outstanding design always follows function. The kidney-shaped grille of the new BMW iX, for example, takes on a new role as a smart surface that not only conceals new technologies, but has the ability to self-heal due to the use of innovative materials, so that slight scratches disappear by themselves. **Innovation and Customer Orientation**

The products must deliver what their design promises, i.e. sportiness, quality and emotionality, a fact that applies equally to all drivetrain technologies. The BMW Group is a leading supplier of electrified vehicles, the foundation for which was laid at an early stage by project i with the all-electric BMW i3 in 2013. Meanwhile, the Group is in the middle of its second phase: In order to keep pace with growing market demand, it is expanding its offering of electric drivetrains across all segments. With its flexible platforms and the fifth generation of in-house developed fully electric drivetrains, the BMW Group can offer its customers worldwide a broad and mature range of products. For example, the all-electric MINI Cooper SE* and the BMW iX3* were both launched in the course of 2020 and will be followed by the BMW i4 and the BMW iX* in 2021.

In future, models such as the high-volume BMW 5 Series and the X1 as well as the BMW 7 Series will be available with four different types of drivetrain – all-electric, plug-in hybrid, petrol and diesel. Moreover, the BMW Group is preparing for the third phase of its transformation with a new vehicle architecture starting in the mid-2020s. Over the next ten years, the Group intends to have more than seven million of its electrified vehicles on roads worldwide – at least two-thirds of them all-electric models.

With this aim in mind, the BMW Group is systematically expanding its product range and progressively enhancing both its technologies and its vehicle architectures, the latest of which are entirely centred on fully electric drivetrain systems. At the same time, the Group is taking another major step in terms of digitalised connectivity, not only within the vehicle itself, but also in its corporate processes.

As part of its Performance Programme, the BMW Group is also working to continuously raise its level of efficiency in order to compensate for the high upfront expenditures required for the technologies that will shape the world of tomorrow. Profitability and free cash flow have a high priority within the BMW Group's corporate management system. All the measures and initiatives it takes are therefore aimed at continually developing its strong economic base.

* See Fuel Consumption and CO_2 Emissions Information.

Moreover, to express the importance of its ability to perform in economic terms, the BMW Group has set itself ambitious financial targets in the course of realigning its strategy. In future, the key performance indicators (KPIs) already used in the annual outlook, namely

1. Profit before financial result as a percentage of Automotive segment revenues (EBIT margin Automotive segment) and

2. Return on capital employed for the Automotive segment (RoCE Automotive segment)

will also be integrated as KPIs at the strategic level. The aim is for the Automotive segment's EBIT margin to rise steadily again to between 8 % and 10 % and for the RoCE to reach a level of at least 40 % in the future.

The two segment-related profitability indicators will be supplemented by the KPI

3. Group profit before tax as a percentage of Group revenues (BMW Group EBT margin).

With this strategy, the BMW Group intends to generate a Group EBT margin in excess of 10 %. In terms of KPIs, the equivalent to Group EBT margin for corporate management purposes is Group profit before tax (EBT). ↗ **Management System** and ↗ **Outlook**

With regard to free cash flow, the BMW Group focuses particularly on capital expenditure and the systematic management of working capital.

Even faster digitalised processes and lean structures are key prerequisites for consistently leveraging efficiencies. During the coronavirus pandemic year 2020, for example, advances in digitalisation enabled the BMW Group to maintain direct contact with its customers, despite lockdowns worldwide. Digitalisation is helping to shorten the process of developing new vehicle models by up to one-third. When the BMW Group transitions to the more advanced smart vehicle architectures in 2021, the conventional drivetrain variants will be largely phased out to make way for electrified drivetrains such as mild hybrid, plug-in hybrid and fully electric systems. These results will already begin to take effect from 2022.

Moreover, as one of its efficiency initiatives, the Group regularly assesses how complexity can be reasonably reduced. Complexity arises due to increasingly strict and globally heterogeneous regulatory requirements. The Group-wide Performance Programme also includes making the most of synergies and efficiencies in indirect purchasing as well as in terms of materials and production costs. And it goes without saying that the BMW Group is selectively bolstering its performance with attractive new models – especially in segments generating the highest returns.

STRATEGIC APPROACH – WHERE IS THE BMW GROUP HEADING?

The BMW Group places the strategic emphasis on its customers and their varying requirements worldwide. In the BMW Group, trendsetting technologies, emotional products and individualised customer service merge to create a unique overall experience for customers.

Its strategy is therefore of a dynamic nature. On the one hand, the Group's market environment is characterised by stable trends. This includes people's need for individual mobility, which the BMW Group is convinced will remain strong and grow further in the years to come. On the other hand, however, it needs to be able to respond to uncertain developments both flexibly and with a sense of proportion. These developments can be of a (geo)political nature, but also come in the form of fully unexpected events such as the coronavirus pandemic. In 2020, the Board of Management realigned the core elements of the BMW Group's strategy and focused them on the key technology areas that are expected to shape the future.

Innovative technologies are the key to the future of mobility going forward. By 2025, the BMW Group intends to invest more than €30 billion in research and development to reinforce its role as a leader of innovation. The Group's plans are also an expression of confidence in terms of the way it sees business developing going forward. Its ability to integrate a broad variety of technologies in an overall system is of crucial importance. Companies that succeed in mastering and combining both hardware and software in equal measure are those which will shape the future of the automobile in the long term.

HOW DOES THE BMW GROUP ENSURE COOPERATION?

To achieve its strategic goals, the entire team of some 121,000 employees worldwide needs to work in a spirit of cooperation to implement the strategy, based on the principles of responsibility, appreciation, transparency, trust and openness. The BMW Group therefore works hand in glove with both internal and external partners with the twin aims of achieving maximum effectiveness and joint success.

The Group needs to tackle the entrepreneurial, ecological and social challenges in equal measure to accomplish these aims. Decisions need to be analysed with regard to their interactions and consequences in the overall context. Success is not something to be simply taken for granted, but has to be worked for every day anew. Everyone needs to work hard for "their" company and deliver maximum performance in order to reach the common goal. Success in corporate terms is always the joint success of all BMW Group employees together with their partners. For this reason, it is also a key aspiration of the BMW Group to be an attractive employer.

SUSTAINABILITY PLACED AT CORE OF CORPORATE STRATEGY

Sustainability is intrinsic to the BMW Group's strategic orientation. At the end of July 2020, the Board of Management of BMW AG announced the first details of this strategy and presented targets to which the enterprise will remain committed for the period up to 2030. In this endeavour, the BMW Group is building on a solid foundation. In recent years and decades, it has also repeatedly set standards in sustainability that are acknowledged by external, independent bodies. In 2020, for example, the BMW Group took back industry leadership in the automotive sector in the Dow Jones Sustainability Indices World and Europe. The BMW Group therefore occupies the top spot among automotive manufacturers ↗ **Dialogue with Stakeholders.** It is also in the top CDP grouping for its transparent disclosure of carbon emissions. The principle of continuous improvement has always been a key aspect of the BMW Group's strategy.

The Group has therefore given a commitment to achieve climate neutrality across the entire value chain by no later than 2050. In view of the long-term nature of its targets and the fact that, from today's perspective, the technological and economic route remains uncertain, the BMW Group sets its targets one decade at a time. In 2020, for example, the Group set itself specific goals for the year 2030 based on scientific information. New science-based targets have emerged from the initiative of the same name (SBTI). These targets are fully in line with the requirements of the Paris Climate Agreement and put the BMW Group on the path towards climate neutrality.

Carbon emissions are to be reduced by at least one-third per vehicle over the entire life cycle, from the supply chain to production to the end-of-life phase. The BMW Group expects environmental and social standards to be upheld by all participants in the supply chain, including those delivering critical raw materials. The BMW Group aims to ensure the most sustainable supply chain in the industry.

The new target framework represents a systematic continuation of the ten strategic sustainability goals already announced in 2012, which have been rigorously pursued in the period from 2012 to 2020. These sustainability goals were divided into three main fields of action:

1. **Products and services**
   The increasing electrification of the BMW Group's fleet and the systematic further development of combustion engines made it possible to remain within the fleet CO_2 limit set by the EU in the 2020 reporting period, taking all regulatory requirements and regulations into account. As a result, the Group also achieved the target it set itself in 2012 of halving the carbon emissions generated by its European new vehicle fleet in the period from 1995 to 2020. **Carbon Emissions and Pollutants**

2. **Production and value creation**
   Since 2020, the BMW Group has obtained all of its production-related, externally generated electricity from renewable sources, in line with the target set by the Group. **Renewable Energy**

3. **Employees and society**
   Women accounted for 19.5 % of the BMW Group's total workforce during the year under report (BMW AG: 15.9 %) and therefore above the target range of 15 % to 17 % set for 2020. At 17.8 %, the proportion of women in management positions at BMW Group (BMW AG: 16.2 %) was also within the target range at the end of 2020. The high proportion of women in junior management programmes also forms the basis for a further increase in the number of women in management positions over time. **Employee Diversity**

NEW AND AMBITIOUS TARGET FRAMEWORK BY 2030

The BMW Group is firmly convinced that the fight against climate change and the responsible use of resources will determine the future of our society – and thus also that of the BMW Group. Particularly as a premium manufacturer, the BMW Group aspires to lead the way in promoting sustainability and is therefore also taking responsibility with regard to this key topic.

This also means facing up to the challenges of the future, but also making effective use of opportunities as they arise. With this in mind, the BMW Group focuses on the performance and diversity of its workforce, whereby the proportion of women in management positions at BMW Group is seen as a key performance indicator for the future.

Moreover, the BMW Group is rigorously going one step further by setting itself new and ambitious sustainability targets for 2030. They are an inherent aspect of strategic management and include the upstream supply chain, the Group's own manufacturing operations as well as the customers' use phase.

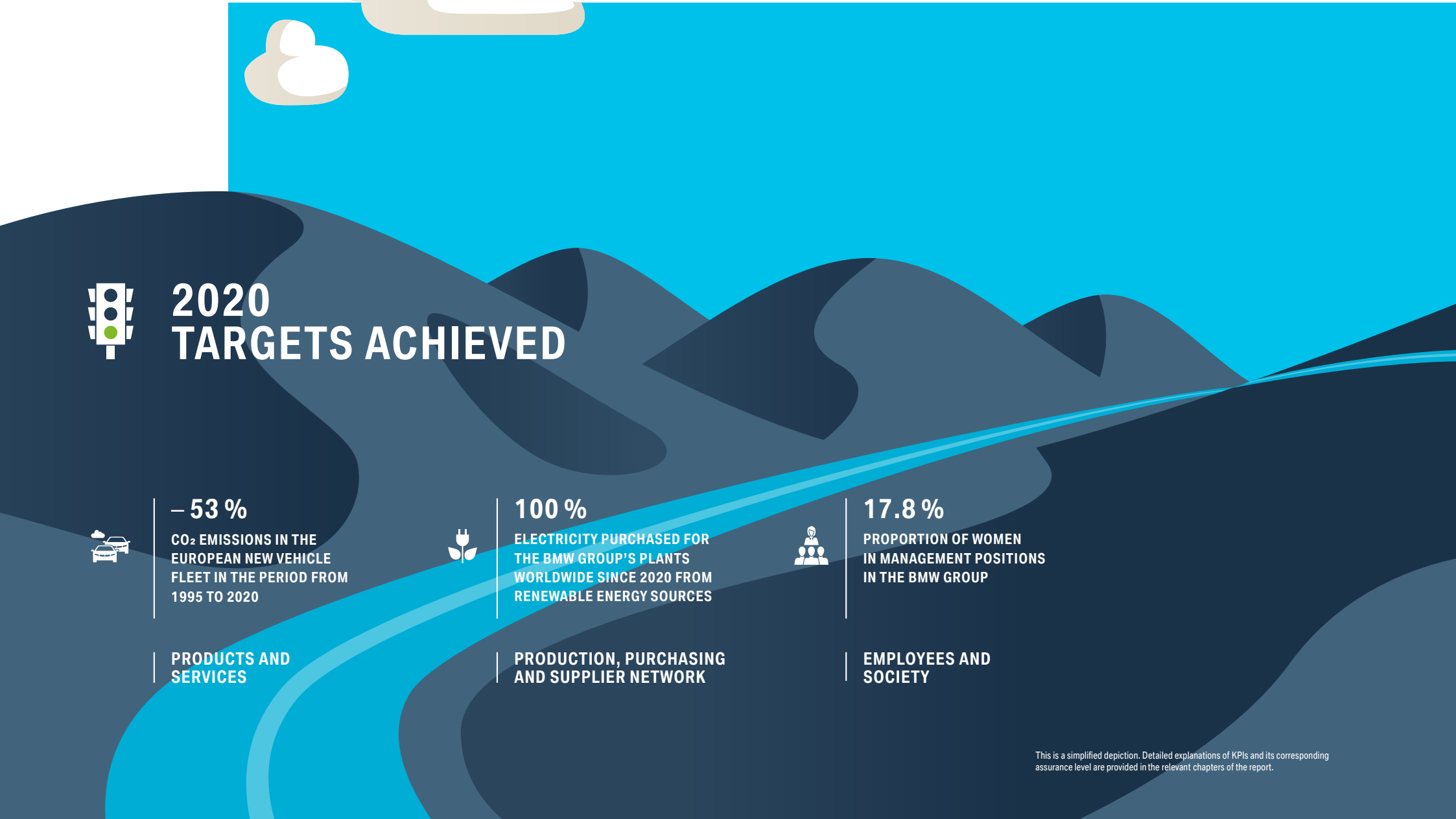
The corresponding key non-financial performance indicators are:

1. CO_2 emissions per vehicle produced
2. CO_2 emissions of the new vehicle fleet*
3. Proportion of electrified vehicles in total deliveries

In future, the key non-financial performance indicators will be supplemented to include CO_2 emissions generated in the supply chain. The corresponding strategic focus is firmly established in every area of the company.

* EU including Norway and Iceland.

Strategic targets 2020



This is a simplified depiction. Detailed explanations of KPIs and its corresponding assurance level are provided in the relevant chapters of the report.

CARBON TARGETS FOR THE VEHICLE'S USE PHASE

By 2030, the carbon emissions generated by BMW Group vehicles are to be reduced by more than 40 % per kilometre driven. The BMW Group has been working successfully for many years to reduce the level of carbon emissions of its new vehicle fleet worldwide. As well as complying with its legal obligations, the Group has always remained true to its voluntary commitments. The early deployment of Efficient Dynamics technologies since 2007 and the ongoing electrification of its vehicle fleet form the dual basis for continued compliance with statutory carbon emissions and fuel consumption limits going forward.

As a pioneer of electric mobility, the BMW Group is in the process of significantly expanding its range. By the end of 2021, it aims to have over one million vehicles powered by either all-electric or plug-in hybrid drivetrains on the road. BMW Group customers will then be able to choose from a range of five fully electric series-produced models.

The BMW Group intends to have 25 electrified models on the road by 2023. The plan is based on flexible vehicle architectures and production systems that enable a model to be manufactured as an all-electric version, as a plug-in hybrid or powered by a conventional internal combustion engine. This approach gives the BMW Group the flexibility to take account of changes in market demand as well as differences in regulatory requirements and infrastructure in the various markets in which it operates. The BMW Group forecasts that demand for its electrified vehicles is set to double by 2021 compared to 2019. According to the BMW Group's forecasts, by 2021 the sale of electrified vehicles is expected to double compared to 2019 figures. By 2025, the proportion of electrified cars in total Group deliveries is expected to rise to at least 25 %. However, Group decarbonisation targets are far more ambitious. By 2030, it aims to reduce carbon emissions per kilometre driven during a given vehicle's use phase by more than 40 % compared to 2019 (Scope 3 downstream). **Carbon Emissions and Pollutants** The target is within the range defined by the SBTI's calculations to limit global warming to between 1.5 and 1.75 degrees Celsius.

CARBON EMISSIONS IN PRODUCTION AND AT BUSINESS LOCATIONS BY 80 %

The BMW Group has a direct influence on the carbon emissions generated at its own plants and locations and has therefore been a leader in terms of resource efficiency in this field for many years. Its underlying aspiration is even more ambitious than the international pursuing efforts of limiting global warming to 1.5 degrees Celsius. Despite having already reduced the level of carbon emissions per vehicle produced by more than 70 % since 2006, the BMW Group intends to additionally reduce carbon emissions per vehicle produced, which are generated directly by its own combustion processes (Scope 1) and indirectly by external energy sources (Scope 2), by a further 80 % by 2030 (base year 2019). Accordingly, by 2030 carbon emissions are expected to have dropped by over 90 % compared with 2006 levels. **Resource Consumption and Resource Efficiency**

Alongside the purchase of electricity, 100 % of which has been obtained from green, renewable sources* since 2020, **Renewable Energy** the BMW Group will continue to systematically invest in optimising its energy efficiency and also intends to exploit the opportunities offered by digitalisation in the process. Even today, the Group's production processes are already highly efficient – for example, by reducing the volume of rejects in car body construction to a minimum and by planning the ongoing maintenance of its machinery on a predictive basis. The BMW Group will also examine the potential for the broader deployment of renewable energy at its various locations worldwide. The use of green hydrogen to generate power can also play a key role.

* Electricity generated from in-house renewable power plants, direct supply contracts for green electricity and certified guarantees of origin.

CO_2 IN THE SUPPLY CHAIN: TREND REVERSAL AND SIGNIFICANT REDUCTION

In view of the increasing number of electric vehicles on roads worldwide, far greater attention will also have to be paid to upstream value creation when it comes to reducing carbon emissions going forward – particularly in light of the energy-intensive production of high-voltage batteries. Due to the greater proportion of electrified vehicles, carbon emissions generated per vehicle in the BMW Group's supply chain are set to rise by more than one-third by 2030 if no countermeasures are taken. At the same time, as the volume of carbon emissions generated during the use phase decreases, the total percentage of emissions caused by the supply chain and attributable to the Group will increase. This situation requires the BMW Group to set its own strategic targets.

The Group not only aims to halt the rise in the level of carbon generated by the supply chain that would be expected without taking countermeasures (Scope 3 upstream), it also intends to reduce emissions per vehicle by at least 20 %* by 2030 (base year 2019). In its efforts to achieve this aim, among other measures the BMW Group is establishing the carbon footprint of the supply chain as a decision-making criterion when awarding contracts. With this end in mind, the Group took the step of initiating a dialogue with its most important suppliers in terms of their carbon footprint during the period under report. The BMW Group is playing an exemplary role in working with well-documented and measurable carbon emission targets for its supply chain.

As a concrete example of the measures taken, the Group has already entered into contractual agreements with its cell manufacturers that only green electricity will be used to produce the fifth generation of battery cells, a move that should lead to a total saving of around ten million tonnes of carbon dioxide over the next ten years.

Moreover, the BMW Group is currently in the process of creating the organisational conditions that enable it to reliably record and document the size of the carbon footprint generated via its supply chain. This, in turn, is the key prerequisite for taking subsequent measures to reduce and effectively manage it, fully in line with the BMW Group's declared strategy of continuous improvement. ↗ **Purchasing and Supplier Network**

Task Force on Climate-related Financial Disclosures (TCFD)

In its reporting procedures, the BMW Group also takes the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) into account in order to report transparently on climate risks and opportunities for operational and financial reporting purposes. Firstly, it reports on this topic in detail in its BMW Group Report and secondly in the CDP questionnaire, which has incorporated the TCFD recommendations since 2018. The BMW Group's 2020 CDP questionnaire is available on the ↗ **BMW Group Website.** The TCFD Index ↗ **TCFD-Index** in the appendix provides a compact overview of the key statements contained in the four TCFD core elements as well as their location in the BMW Group Report and the CDP questionnaire.

* Value rounded for simplification purposes. The target percentage validated in conjunction with SBTI is 22 %.

RESPONSIBLE USE OF RESOURCES – ENTERING THE CIRCULAR ECONOMY

Not only decarbonisation but also the responsible use of resources plays a key part in the BMW Group's strategy. In practical terms, this means primarily avoiding waste or reducing it to an absolute minimum. However, as resources are scarce and many raw materials are only available in limited quantities, the reuse of materials and raw materials in the form of secondary materials is becoming increasingly key for manufacturing processes going forward.

For example, the growing popularity of electric mobility worldwide cannot be covered by primary materials alone in the long term. Furthermore, there is a strong synergy between the conservation of primary natural resources and carbon dioxide emissions. Therefore, from a sustainability perspective, the underlying flows of resources require some rethinking. The BMW Group aims to obtain high-quality secondary materials through promoting a greater degree of transparency in the recycling chain and simultaneously tracing the reuse of (secondary) raw materials within the cycle.

The Group has the clear objective of promoting the circular economy principle by using raw materials even more efficiently in order to protect nature's finite resources.

Even today, vehicles are already required to be 95 % recyclable. However, the proportion of secondary raw materials used to manufacture new vehicles is still comparatively low. In view of this key point, the BMW Group plans to considerably increase this proportion in its vehicles by 2030 – and is already exploring some very far-reaching scenarios. The use of secondary materials again significantly reduces carbon emissions in comparison to primary materials – by as much as 80 % in the case of aluminium, for example. Keeping the extraction of raw materials to a minimum is an ideal way of protecting existing resources. In the case of critical raw materials, for example, any political conflicts in the producing countries could also give rise to risks for the BMW Group's procurement activities, which can be mitigated through the use of secondary products.

Particularly in view of the high-voltage batteries needed to power electrified vehicles, which can entail the use of critical raw materials, the circular economy has a decisive role to play. In close collaboration with the German recycling specialist Duesenfeld, the BMW Group has developed a process that can achieve a recycling rate of up to 96 % – including the graphite and electrolytes these devices contain. The BMW Group already offers all customers who own a vehicle equipped with a high-voltage battery to take the devices back free of charge. The offer also applies to regions where it is not legally obliged to do so.

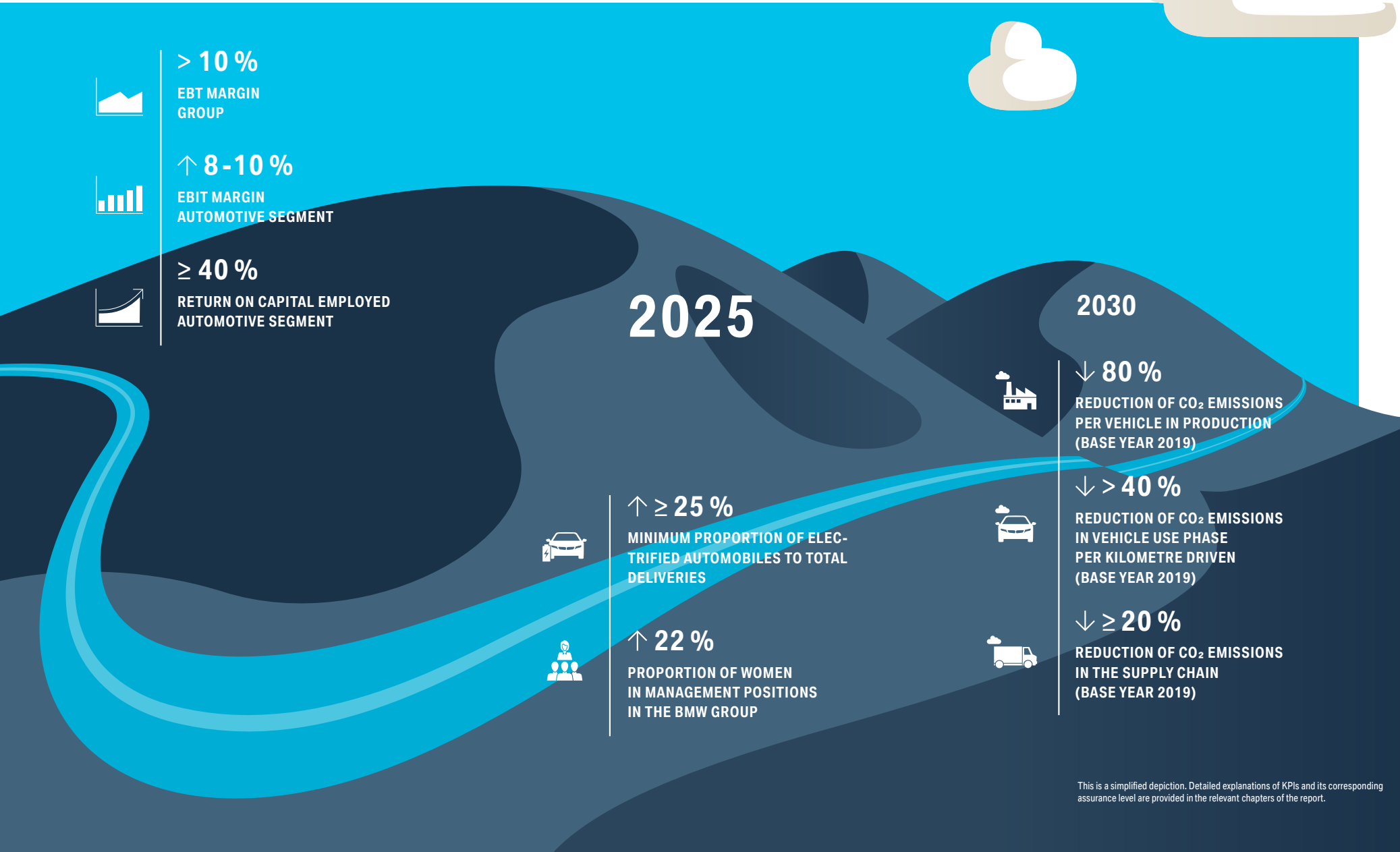
In order to monitor and verify flows of goods on a global basis, the BMW Group is also using digital tools in pilot processes, including blockchain technology. The PartChain project, for example, enables the Group to collect supply chain data using a method that is both verifiable and tamper-proof at all times. In the long term, this technology could enable critical raw materials in particular to be fully traceable from the mine to the smelter.
Resource Consumption and Resource Efficiency

SECURING LONG-TERM SUCCESS

In order to create value for the BMW Group, the environment and society in general, sustainability is integrated throughout the entire value chain and all its underlying processes. And the evidence of how this Group strategy is being implemented underlines its tangible impact. It sets out clear guidelines and points the way forward in terms of how the BMW Group intends to shape the individual premium mobility of tomorrow. The BMW Group will move forward in its own independent way and continue the long-term process of developing on a sustainable and profitable basis.

The BMW Group's strategic goals up to the years 2025 and 2030 respectively are summarised in the presentation below:

Strategic targets



This is a simplified depiction. Detailed explanations of KPIs and its corresponding assurance level are provided in the relevant chapters of the report.

Managing sustainability

The BMW Group's long-term strategic course is determined by the full Board of Management, which is therefore also responsible for implementing the Group's sustainability goals. In 2019, the separate format of the Board of Management's Sustainability Board was fully incorporated into the regular meetings of the Board of Management, enabling sustainability issues to be even more systematically integrated within the BMW Group's decision-making processes. Since then, sustainability has been treated like every other topic and discussed at Board of Management meetings as the need arises. Moreover, all requests for decisions referred to the Board of Management are required to be assessed beforehand in terms of their sustainability. A Strategy and Structure Circle, comprising the top management of the various company divisions, prepares the drafts of decisions to be taken for the Board of Management after also taking sustainability issues into account.

The BMW Group's corporate governance principles are set out in detail in its **Corporate Governance Statement**. **GRI 102-18, 102-19, 102-20, 102-26, 102-27, 102-31, 102-33**

The Group's targets for sustainability are applied at business unit level and overall area of responsibility level. As a consequence, the individual targets set for managers include sustainability aspects and criteria that have an impact on performance-based compensation. **GRI 102-19, 102-28**

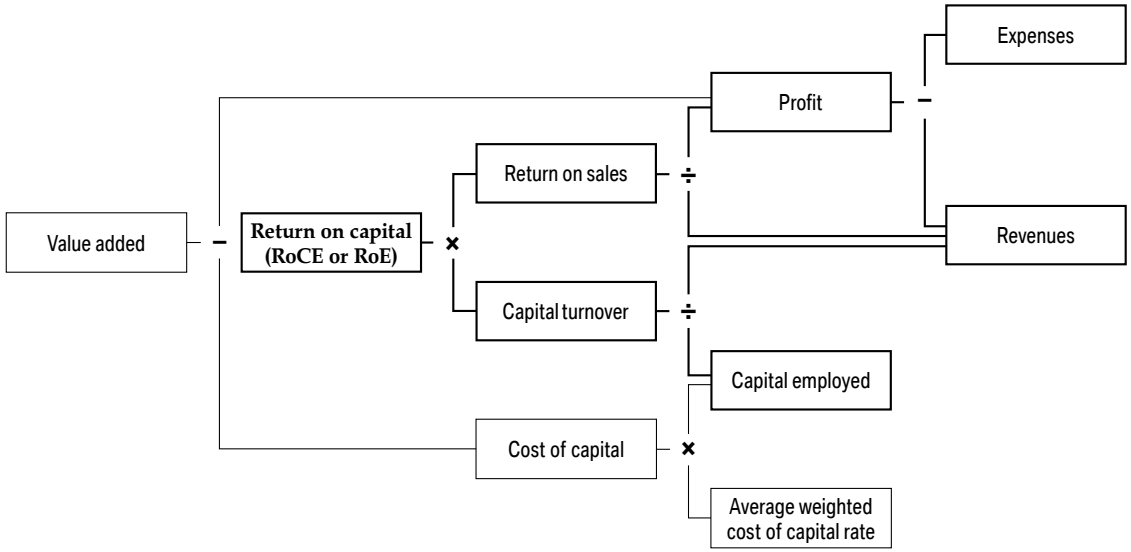
The Supervisory Board decides on the amounts awarded to members of the Board of Management **Remuneration Report**, basing its decisions on the sustainable development of the BMW Group as a whole. Bonuses are partially based on personal performance and assessed primarily according to qualitative criteria. These include ecological innovations (e.g. carbon emission reductions), leadership accomplishments and the ability to manage change processes. Additional criteria include enhancing the company's attractiveness as an employer, progress in implementing the diversity concept and activities that encourage corporate citizenship within the BMW Group. **GRI 102-27, 102-28, 102-35**

MANAGEMENT SYSTEM

The BMW Group's business management system follows a value-based approach that focuses on profitability, consistent growth, value enhancement for capital providers, sustainability, climate protection and job security. Capital is considered to be employed profitably when the amount of profit generated sustainably exceeds the cost of equity and debt capital. This strategy also secures the desired degree of corporate autonomy in the long term.

The BMW Group's internal management system is based on a multilayered structure. Operating performance is managed primarily at segment level. In order to manage long-term corporate performance and assess strategic issues, additional key performance figures are taken into account within the management system at Group level. In this context, the value added serves as one of several indicators for the contribution made to enterprise value during the financial year. This approach is made operational at both Group and segment level through key financial and non-financial performance indicators (value drivers). The link between value added and the relevant value drivers is presented in a simplified form below.

BMW GROUP – VALUE DRIVERS



Due to the very high level of aggregation, it is impractical to manage the business on the basis of value added. This key indicator is, however, used for reporting purposes. In addition, relevant value drivers having a significant impact on business performance and therefore on enterprise value are defined for each controlling level. The financial and non-financial value drivers are reflected in the key performance indicators used to manage the business. In the case of project-related decisions, the target system follows a project-oriented management logic that is based on net present values and profitability performance indicators, thereby providing a fundamental basis for decision-making.

MANAGEMENT OF OPERATING PERFORMANCE AT SEGMENT LEVEL

Operating performance at segment level is managed at an aggregated level on the basis of returns on capital. Depending on the business model, the segments are measured on the basis of return on total capital or return on equity. Specifically, return on capital employed (RoCE) is used for the Automotive and Motorcycles segments and return on equity (RoE) for the Financial Services segment. These indicators combine a wide range of relevant economic information, such as profitability (return on sales) and capital efficiency (capital turnover) to measure segment performance and the development of enterprise value.

AUTOMOTIVE SEGMENT

The most comprehensive key performance indicator used for the Automotive segment is RoCE. This indicator provides information on the profitability of capital employed and the operational business. Value driver analyses can be used to interpret the causes of a change in RoCE and derive suitable measures to influence its development. RoCE is measured on the basis of segment profit before financial result and the average capital employed in the segment. The strategic target for the Automotive segment's RoCE is 40 %.

$$\text{RoCE Automotive} = \frac{\text{Profit before financial result}}{\text{Average capital employed}}$$

RETURN ON CAPITAL EMPLOYED

	Profit before financial result in € million		Average capital employed in € million		Return on capital employed in %	
	2020	2019	2020	2019	2020	2019
Automotive	2,162	4,499	17,026	15,513	12.7	29.0

Capital employed corresponds to the sum of all current and non-current operational assets, less liabilities that generally do not incur interest (e.g. trade payables and other provisions).

Due to its key importance for the Group as a whole, the Automotive segment is managed on the basis of additional key performance indicators that have a significant impact on RoCE and hence on segment performance. These value drivers are the number of vehicle deliveries and the operating return on sales (EBIT margin: segment profit before financial result as a percentage of segment revenues) as the key performance indicator for segment profitability.

Furthermore, the segment manages its compliance with fleet CO_2 targets in regulated markets. This also includes the proportion of total deliveries accounted for by electrified vehicles. Since compliance with regulatory requirements has a significant impact on the company's success, business decisions relating to vehicle projects also take fleet CO_2 requirements into consideration. In order to take account of the increasing relevance of carbon emissions over the life cycle of a vehicle, in 2020 a control logic was agreed upon to measure this factor during the manufacturing phase (supplier network, logistics, production).

MOTORCYCLES SEGMENT

As with the Automotive segment, the Motorcycles segment is managed on the basis of RoCE. Capital employed is determined on the same basis as in the Automotive segment. The strategic RoCE target for the Motorcycles segment is 40 % as in the Automotive segment.

$$\text{RoCE Motorcycles} = \frac{\text{Profit before financial result}}{\text{Average capital employed}}$$

RETURN ON CAPITAL EMPLOYED

	Profit before financial result in € million		Average capital employed in € million		Return on capital employed in %	
	2020	2019	2020	2019	2020	2019
Motorcycles	103	194	687	660	15.0	29.4

The main value drivers include the number of deliveries and the operating return on sales (EBIT margin: segment profit before financial result as a percentage of segment revenues) as the key performance indicator for segment profitability.

FINANCIAL SERVICES SEGMENT

As commonly practised in the banking sector, the Financial Services segment is managed on the basis of return on equity (RoE). RoE is defined as segment profit before tax, divided by the average amount of equity capital in the Financial Services segment. The target is a return on equity of at least 14 %.

$$\text{RoE Financial Services} = \frac{\text{Profit before tax}}{\text{Average equity capital}}$$

RETURN ON EQUITY

	Profit before tax in € million		Average equity capital in € million		Return on equity in %	
	2020	2019	2020	2019	2020	2019
Financial Services	1,725	2,272	15,343	15,146	11.2	15.0

STRATEGIC MANAGEMENT AT GROUP LEVEL

Strategic management and the quantification of financial implications based on long-term corporate planning are performed primarily at Group level. Key performance indicators in this context include Group profit before tax and the size of the workforce at the year end. Group profit before taxes provides a comprehensive measure of the Group's overall corporate performance after consolidation effects and a transparent basis for comparing performance over time.

The information provided by these non-financial performance indicators is complemented by the two financial key performance indicators of pre-tax return on sales and value added. Value added, as a highly aggregated performance indicator, also provides an insight into capital efficiency and the (opportunity) cost of capital required to generate Group profit. A positive added value means that a return on investment above the cost of capital has been achieved.

VALUE ADDED GROUP

	Earnings amount		Cost of capital (equity + debt capital)		Value added Group	
in € million	2020	2019	2020	2019	2020	2019
BMW Group	5,464	7,369	8,061	7,812	–2,597	–443

Value added Group = earnings amount – cost of capital

= earnings amount – (cost of capital rate × capital employed)

Capital employed comprises the average amount of Group equity and pension provisions as well as the financial liabilities of the Automotive and Motorcycles segments employed at the end of the last five quarters in each case. The earnings amount corresponds to Group profit before tax, adjusted for interest expense incurred in conjunction with the pension provision and the financial liabilities of the Automotive and Motorcycles segments (profit before interest expense and taxes). The cost of capital is the minimum rate of return expected by capital providers in return for the capital employed. Since capital employed comprises an equity capital (e.g. share capital) and a debt capital element (e.g. bonds), the overall cost of capital rate is determined on the basis of the weighted average rates for equity and debt capital, measured using standard market procedures. The pre-tax average weighted cost of capital for the BMW Group in 2020 was 12%, unchanged from the previous year.

In order to determine the internal rate of return, risk-adjusted cost of capital rates are based on the average of actual rates in recent years. In light of the long-term nature of product and investment decisions, the following internal rates of return are used in conjunction with segment management:

in %	2020	2019
Automobile	12.0	12.0
Motorcycles	12.0	12.0
Financial Services	13.4	13.4

VALUE-BASED MANAGEMENT FOR PROJECT DECISIONS

Operational business in the Automotive and Motorcycles segments is largely shaped by the life-cycle-dependent character of investment projects, which have a substantial influence on future business performance. Project-related decisions are therefore a crucial element of financial management in the BMW Group.

Project decisions are based on calculations derived from the expected cash flows of each individual project. Calculations are made for the full term of a project, incorporating future years in which the project is expected to generate cash flows. Project decisions are taken on the basis of net present value and the internal rate of return calculated for the project.

The net present value indicates the extent to which the project will be able to generate future net cash inflows over and above the cost of capital. A project with a positive net present value enhances future value added and therefore results in an increase in enterprise value. The internal rate of return of the project shows the average return on the capital employed in the project. In this respect, there are conceptual links between the internal rate of return and the multi-year average RoCE.

For all project decisions, the project criteria and long-term periodic results impact are measured and incorporated in the long-term Group planning. This approach enables an analysis of the impact of project decisions on periodic earnings and rates of return for each year during the term of the project. The overall result is a cohesive management model.

HOW THE BMW GROUP CREATES VALUE

Within the BMW Group, value creation is a comprehensive process involving a broad range of positive factors, some of which interact in complex ways. These factors may be of a financial or a non-financial nature and relate to both tangible and intangible values that are geared towards creating additional value using a minimum of resources. These input factors form the basis that drives the BMW Group's overall performance.

According to the input-output model of the IIRC framework, the factors on both the input and the output side are divided into six different types of capital, which can be distinguished as follows:

1. Financial capital
2. Human capital
3. Intellectual capital
4. Relationship capital
5. Produced capital
6. Natural capital

The BMW Group's financial capital is defined in terms of equity capital and total assets, the latter corresponding to the balance sheet total. An appropriately high equity ratio (i.e. equity as a percentage of total assets) makes a significant contribution to safeguarding the corporate independence of the BMW Group and forms a solid basis for high earnings and therefore stable dividends for the shareholders.

The BMW Group's solid economic base is inextricably linked with its human and intellectual capital. These two precious assets constitute the greatest factor in the enduring success of the Group as a whole and play a key role in tackling the challenges of the future. They combine the knowledge, skills, abilities, strengths and talents of the BMW Group's workforce and are among the most important value factors for the Group.

In its international R&D network, the BMW Group offers its innovation-minded employees excellent conditions that enable them to create the solutions that will shape tomorrow's world. The high degree of motivation to innovate and the willingness to perform, both of which are firmly anchored throughout the entire workforce, are equally expressed in the lively participation in Group-wide ideas management as well as in the outstanding level of employee satisfaction. A key pillar of the BMW Group's personnel development strategy is to develop this success factor in a targeted manner. In addition to its many other levers, the Group attaches great importance to the personal advancement of each individual, which also includes providing opportunities for further training.

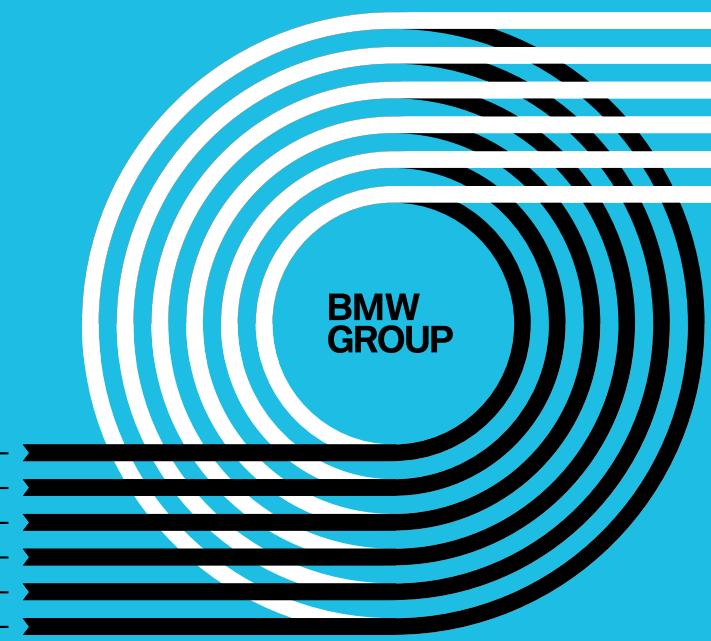
For the BMW Group, innovation means rigorously taking the next step. In this context, it also collaborates closely with its partners in the supplier network. The stable relationships, which have developed over a long period of time in many cases, have created a capital of inestimable value, a fact amply demonstrated not least in the 2020 pandemic year. Even under the challenging conditions of the global lockdown in 2020, the BMW Group's supply chains remained firm; a feat only possible when the partners share common standards and values and can truly depend on one another. ↗ **Purchasing and Supplier Network**

The backbone of the BMW Group's produced capital is formed by the 31 plants in its global production network, across which it manufactured a total of 2.26 million premium vehicles during the 2020 reporting period. Thirteen of these plants (over 40 %) are already producing electrified vehicles alongside conventional models.

Natural capital describes all the renewable and non-renewable resources deployed in the manufacturing process. The BMW Group is an efficiency-oriented company, and for that reason both the enterprise as a whole and its individual employees have always deployed natural resources sparingly as a matter of course. The consistently positive development of these capital indicators in recent years underscores this common corporate identity, a fact additionally confirmed by the assessments of independent rating agencies ↗ **BMW Stock and Capital Markets in 2020.**

All in all, these various aspects form the basis of the BMW Group's enduring success. Even minor changes in individual factors can directly influence the overall result. This holistic BMW Group approach is intended to ensure that all available resources are used in a responsible manner. ↗ **Value Added Statement**

How the BMW Group creates value



Input

Financial capital
216,658 Total assets (€ million)
61,520 Equity capital (€ million)

Human capital
120,726 Workforce at end of year
279 Training and education expenditure (€ million)

Intellectual capital
1,561 Employee ideas implemented in conjunction with CRE8 Ideas Management
6,279 R&D expenditure (€ million)

Relationship capital
79 Proportion of production-relevant purchasing volume within the CDP supply chain programme (in %)
55.5 Purchase volume (€ million)

Produced capital
31 Number of plants
thereof 13 plants producing electrified vehicles

Natural capital
2.12 Energy consumption per produced vehicle (in MWh)
100 Proportion of electricity from renewable energy sources (in %)

Output

Financial capital
1,253 Dividend total (proposal to the Annual General Meeting) (€million)
4,830 Profit before financial result (EBIT) (€ million)

Human capital
12,244 Wages/salaries/ social insurance contributions (€ million)
82 Employee satisfaction (in %)

Intellectual capital
18.2 First-year benefits from implemented employee ideas (CRE8) (€ million)
6.3 R&D ratio (in %)

Relationship capital
60 Proportion of value creation from suppliers (in %)
35 Proportion of suppliers in the CDP Supply Chain programme with an assessment of at least B (in %)

Produced capital
2.33 Deliveries to customers (in million units)
192,662 Deliveries of electrified vehicles

Natural capital
−56.7 Improvement in resource consumption and emissions from vehicle production (in %, average)
−53 Development CO_2 emissions EU new car fleet since 1995 (in %)

This diagram shows an illustrative overview of key performance indicators (KPIs) disclosed in the report. Detailed explanations of KPIs and its corresponding assurance level are provided in the relevant chapters of the report.

Further information is available at: report.bmwgroup.com

COMPLIANCE AND HUMAN RIGHTS

Responsible and lawful conduct is fundamental to the success of the BMW Group. Compliance is an integral part of our corporate culture and the reason why shareholders, customers, business partners and the general public place their trust in us. The Board of Management and the employees of the BMW Group are obliged to act responsibly and in compliance with applicable laws and regulations. The BMW Group also expects its business partners to conduct themselves in the same manner throughout the entire value chain. As an active corporate member of the German Institute for Compliance (DICO), the BMW Group provides practical support for compliance management in Germany and contributes to its further development.

COMPLIANCE AS A CORPORATE FUNCTION

The BMW Group Compliance Management System is designed to ensure that the BMW Group, its representative bodies, its managers and staff act in a lawful manner at all company locations. Particular emphasis is placed on measures to ensure compliance with antitrust legislation and avoid the risk of corruption or money laundering, as well as promoting respect for human rights. Activities to avoid non-compliance with the law are managed and monitored by the BMW Group Compliance Committee. These activities include legal monitoring, internal compliance regulations, communications and training activities, complaint and case management, compliance reporting and compliance controls, as well as following through with sanctions in cases of non-compliance.

REGULAR COMPLIANCE REPORTING TO BOARD OF MANAGEMENT AND SUPERVISORY BOARD

The BMW Group Compliance Committee reviews the effectiveness and efficiency of the Compliance Management System on an ongoing basis. It reports regularly and on a case-by-case basis to the Board of Management and the Audit Committee of the Supervisory Board on all compliance-related issues, including the progress made in refining the BMW Group Compliance Management System, details of investigations performed, known infringements of the law, sanctions imposed and corrective/preventative measures implemented. This also ensures the Board of Management and Supervisory Board are immediately notified of any cases of particular significance. On the basis of this information, the Board of Management keeps track of and analyses developments and trends in the field of compliance and initiates the measures needed to improve the Compliance Management System. The following were among the measures implemented in 2020:

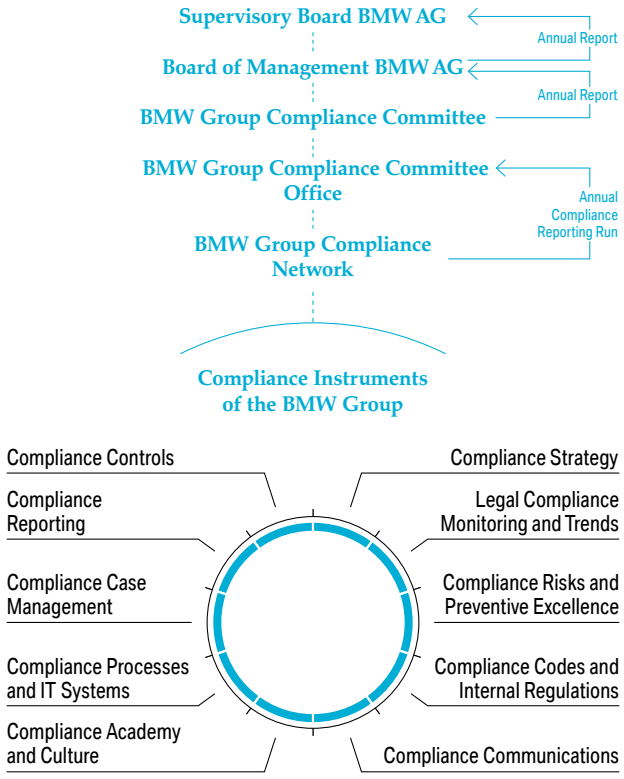
— Board of Management decision of 15 December 2020 establishing a BMW Group Chief Compliance Officer, effective 1 January 2021, to further strengthen compliance management at the BMW Group.

— Creation of six new compliance functions within the Board divisions of BMW AG, with a multi-day onboarding programme for the new Compliance Officers.

— Stepping up antitrust compliance measures.

— A company-wide tone-from-the-top communications initiative highlighting the compliance management culture at the BMW Group. GRI 102-33

BMW GROUP COMPLIANCE MANAGEMENT SYSTEM



COMPANY-WIDE COMPLIANCE NETWORK

The decisions taken by the BMW Group Compliance Committee are drafted in concept and implemented operationally by the BMW Group Compliance Committee Office. The BMW Group Compliance Committee Office has more than 20 employees and forms part of the organisation that reports to the Chairman of the Board of Management. For operational implementation of compliance topics, it is supported by a Group-wide compliance network of around 240 BMW Group Compliance Responsibles (heads of local units) and over 80 local Compliance Officers (heads of local compliance functions). The specific compliance activities required for financial services business are coordinated by a separate compliance department within the Financial Services segment. The BMW Group compliance organisation remained fully operational in 2020, despite the unique demands of the coronavirus situation.

Compliance management in the Financial Services segment

The financial services business entails specific risks arising from the nature of its products and processes. The focus here is on anti-money-laundering measures, compliance with financial sanctions, information privacy and data protection, fraud prevention, and legislative and regulatory monitoring, as well as consumer protection. To address the risks in these areas, a "compliance coordination" function was created within the Financial Services segment as a delegated function of the BMW Group Compliance Committee Office. Based on an annual trend analysis, it identifies new or modified regulatory requirements in the financial services sector and defines the necessary measures. Implementation by BMW Group financial services companies worldwide is tracked on a quarterly basis. Compliance is incorporated into the target management process for the Financial Services segment. Integration of specific targets into strategic management underlines the importance of this topic and helps monitor implementation. A management system is also used to identify risks of non-compliance with internal and external regulations in the early stages.

COMPLIANCE MANAGEMENT SYSTEM AIMED AT ENSURING LAWFUL CONDUCT THROUGHOUT THE GROUP

The various elements of the BMW Group Compliance Management System are shown in the diagram on the previous page ↗ **BMW Group Compliance Management System** and are applicable to all BMW Group organisational units worldwide. The BMW Group Legal Compliance Code and BMW Group Code on Human Rights, which form the core of the Group's Compliance Management System, are supplemented by an internal set of rules. The BMW Group Policy "Compliance" sets out binding strategic requirements for BMW Group compliance management, its premises and basic principles, as well as for implementation in the business departments. The BMW Group Policy "Antitrust Compliance", which establishes binding rules of conduct for all employees across the BMW Group to prevent unlawful restriction of competition, was supplemented by several additional manuals in 2020 and deserves particular mention. The rules set out in the BMW Group Policy "Corruption Prevention" and the BMW Group Instruction "Corporate Hospitality and Gifts" deal with lawful handling of gifts and benefits and define appropriate assessment criteria and approval procedures. The BMW Group Instruction "Anti-money-Laundering" defines company-wide standards for anti-money-laundering for trade in goods and the financial services sector.

Compliance measures are determined and prioritised on the basis of a regular group-wide compliance risk assessment that relies on data-based risk indicators and transaction validation, among other methods.

Various internal media and communications materials are used to raise awareness among staff across all compliance issues, including newsletters, employee newspapers and the compliance homepage in the BMW Group intranet, where employees can find all compliance-related information and training materials. A compliance tone-from-the-top initiative called "Walk-the-Talk" was organised for the first time in 2020 to boost employee awareness of the importance of creating a culture of transparency and trust. Senior managers gave keynote speeches on a wide range of compliance issues at forums and employee meetings.

The training opportunities offered by the BMW Group Compliance Academy are refined on an ongoing basis for specific target groups. As well as imparting knowledge, online and classroom training options with company-specific case studies play an important role in reinforcing compliance in the corporate culture. The online training modules must be repeated by the required target groups every two years and include a final test. Successful completion of the test is confirmed by a certificate. These courses are also offered on an optional basis to all other employees.

More than 42,800 managers and staff worldwide have so far received training in the basic principles of compliance, including the content of the Legal Compliance Code and the topic of corruption prevention, and hold a valid training certificate. Successful completion of the training programme is mandatory for all BMW Group managers. The company makes sure that newly recruited managers and promoted staff receive compliance training. Online training in antitrust compliance is mandatory for managers and staff exposed to the associated risks as a result of their functions or on specific occasions. A total of more than 38,300 managers and employees worldwide have so far completed antitrust compliance training and currently hold a valid certificate. Classroom and virtual training, as well as multi-day coaching sessions, are also held in local markets for all key compliance topics. One main emphasis here is on department-specific antitrust training – an area that was significantly expanded in 2020. GRI 205-2

Any member of staff with questions or concerns relating to compliance is expected to discuss these matters with their managers and with the relevant departments within the BMW Group: in particular, with the BMW Group Compliance Committee Office, Legal Affairs and Corporate Audit. The BMW Group Compliance Contact also serves as a further point of contact and provides non-employees with a system for reporting concerns relating to compliance. Communication with the BMW Group Compliance Contact may remain anonymous, if preferred. BMW Group employees worldwide also have the opportunity to submit information about possible breaches of the law within the company anonymously and confidentially in several languages via the BMW Group SpeakUP Line. The BMW Group assures those providing information that no attempt will be made to determine their identity should they choose to remain anonymous. Unauthorised use is naturally excluded from this. All compliance-related queries and concerns are documented and followed up by the BMW Group Compliance Committee Office using an electronic Case Management System. If necessary, Corporate Audit, Corporate Security, the legal departments or the Works Council may be called upon to assist in the process and address any issues.

Various IT systems support BMW Group employees with the assessment, approval and documentation of compliance-relevant matters. For example, all exchange activities with competitors must be documented and approved in a special compliance IT system. The same applies to verifying legal admissibility and documenting benefits, especially in connection with corporate hospitality. The BMW Group also uses an IT-based Business Relations Compliance programme to ensure the reliability of its business relations. Relevant business partners are checked and evaluated for potential compliance risks. Appropriate measures are implemented to manage compliance risks based on the results of the evaluation. A further IT system is used to verify customer integrity as required under anti-money-laundering regulations. IT solutions for automated reporting of compliance training activities and documentation of all compliance activities conducted by the business units were also under development during the reporting year.

Through the Group-wide reporting system, compliance responsibles across all organisational units of the BMW Group report, on both an ongoing and adhoc basis, on the compliance status of their respective units, on any identified legal risks and incidences of non-compliance, as well as on sanctions and corrective/preventative measures implemented.

Compliance with and implementation of compliance rules and processes are audited regularly by Corporate Audit and subjected to control checks by the BMW Group Compliance Committee Office. Corporate Audit carries out on-site audits as part of its regular activities. The BMW Group Compliance Committee also engages Corporate Audit to perform compliance-specific checks and, if necessary, brings in Corporate Security to investigate suspected cases. Two BMW Group Compliance Spot Checks, sample tests specifically designed to identify potential corruption risks, and an antitrust compliance validation (to identify and audit possible antitrust risks) were carried out in addition in 2020. The organisational units for audit are selected on the basis of a Group-wide compliance risk assessment. GRI 205-1

In an antitrust investigation, the EU Commission alleges that five German car manufacturers colluded with the aim of restricting competition for innovation with regard to certain exhaust treatment systems installed in diesel and petrol-driven passenger vehicles. The current investigation is solely concerned with possible infringements of competition law. For further details, please see the section on Legal Risks within the Report on risks and opportunities and note 10 to the Group Financial Statements.

MANAGERS HAVE UNIQUE RESPONSIBILITY AS COMPLIANCE ROLE MODELS

Managers, in particular, bear a high degree of responsibility and must set a good example with regard to preventing infringements. Managers throughout the BMW Group acknowledge this principle by signing a written declaration, in which they also undertake to make staff working for them aware of legal risks. Managers must, at regular intervals and on their own initiative, verify compliance with the law. It is important to signal to employees that they take compliance risks seriously and that disclosing relevant information is extremely valuable. Managers should remain open to discussion and consider differing opinions. Any indication of non-compliance with the law must be rigorously investigated.

SANCTIONS MANAGEMENT

It is essential for compliance at the BMW Group that employees are aware of and comply with applicable legal regulations. The BMW Group does not tolerate violations of the law. Culpable violations of the law result in employment-contract sanctions and may involve personal liability consequences for the employee involved.

COOPERATION BETWEEN COMPLIANCE AND EMPLOYEE REPRESENTATIVES

Compliance is also an important factor in safeguarding the future of the BMW Group workforce. With this in mind, the Board of Management and the national and international employee representative bodies of the BMW Group have agreed on a binding set of joint principles for lawful conduct. Employee representatives are regularly involved in the process of refining compliance management within the BMW Group.

WORLDWIDE IMPLEMENTATION OF LABOUR STANDARDS AND RESPECT FOR HUMAN RIGHTS

BMW Group models for ensuring compliance with environmental and social standards throughout its value chain are based on various internationally recognised guidelines. This especially applies to the **Guidelines for Multinational Companies issued by the Organisation for Economic Cooperation and Development (OECD),** the **UN Guiding Principles on Business and Human Rights,** the content of the **ICC Business Charter for Sustainable Development** and the **United Nations Environment Programme's (UNEP) Declaration on Cleaner Production.** The BMW Group concentrates on topics and action areas where it can exert its influence as a commercial enterprise. **GRI 102-12, 102-16**

With the signing of the UN Global Compact by the Board of Management of BMW AG in 2001 and the "Joint Declaration on Human Rights and Working Conditions in the BMW Group", which was adopted in 2005 and updated in 2010, the BMW Group has committed to abide by internationally recognised human rights and, specifically, the ILO core labour standards. The BMW Group Code on Human Rights and Working Conditions, which was published in 2018 to provide further clarification, was ratified by the Board of Management and employee representatives. This affirms the BMW Group's commitment to human rights and outlines how it promotes respect for human rights and, specifically, how it implements the ILO Core Labour Standards in its business operations worldwide. The Code was also part of the compliance communications initiative "Walk-the-Talk". The BMW Group conducts specific training on the subject of human rights: for instance, training Purchasing staff to be aware of human rights issues. **GRI 412-2**

In its annual compliance reporting, all organisational units of the BMW Group are also asked for a local risk assessment of potential for human rights abuses. Their responses form the basis for developing further measures for the department to minimise the risks. **GRI 412-1**

Specific human rights risks arise in the supply chain due to the collaborative, cross-border and continent-spanning nature of value creation processes in the automotive industry. For this reason, the BMW Group has integrated respect for human rights into its **Supplier Sustainability Policy** and follows an appropriate risk management process. In addition to the company's international purchasing terms and conditions, BMW Group dealer and importer contracts also contain a clause on compliance and human rights. Human rights obligations are also considered in choosing sites and in important investment decisions. **GRI 412-3**

In order to meet increasing requirements in the area of human rights, the BMW Group discusses various legislative proposals at German and European level through associations and initiatives and participates in the Automotive Industry Dialogue as part of the German government's National Action Plan on Business and Human Rights. The German Federal Ministry of Labour and Social Affairs featured a practical example from the BMW Group on its **CSR website**. As part of its leadership of the **CSR/Human Rights Working Group** of the German Institute for Compliance (DICO), various aspects of human rights management in companies were discussed among members and presented at the **DICO Forum** in October 2020.

INNOVATION AND CUSTOMER ORIENTATION

A constant striving for innovation, for something new and better, is a concept deeply anchored in the corporate culture of the BMW Group – in the thinking of its employees, in its processes and also in the identity of its brands. The benchmark and the goal of the BMW Group's activities is to identify the wishes of customers worldwide in advance, in order to actively help shape trends and thereby drive transformation – a strategy discerniable in production vehicles such as the BMW iX*. In its development work, the BMW Group focuses on two key areas. Firstly, innovative digital solutions that make people's everyday lives easier and at the same time protect the environment, and secondly, as a premium provider in its industry, the Group sees it as an obligation to offer customers a diverse range of customised, efficient drivetrain technologies ranging from all-electric drive systems, to plug-in hybrids and highly efficient internal combustion engines. This also includes hydrogen fuel cell technology, which the Group believes could become an additional option in the long term.

The BMW Group's culture of innovation is most deeply rooted in its global research and development network. However, innovation is a lot more than that for the BMW Group: throughout the entire company it is both the basis and the driving force behind the quest to replace the good with the better. Innovative solutions benefit society in a number of ways: economically, ecologically and socially.

FOCUS ON DRIVETRAIN TECHNOLOGIES

The dynamics of the markets in which the BMW Group operates are largely determined by customer expectations and therefore by demand. The BMW Group therefore focuses on the wishes and needs of its customers. Market expectations have a direct impact on the range of vehicles on offer. How big does the vehicle need to be? Which drivetrain variant fits your own lifestyle? For this reason, the BMW Group offers a broad range of drivetrain systems and aims to offer corresponding electrified models for all of its brands and for every series. Ultimately, a business model is successful and sustainable in the long term by offering tailor-made solutions and assuring customers who are confident in their purchasing decisions. Since 2020, the BMW X3 has been the benchmark in this regard. It is now available in all four drivetrain variants: as an iX3* with an all-electric drivetrain, as a plug-in hybrid or as a model powered by a highly efficient diesel or petrol engine.

* See Fuel Consumption and CO_2 Emissions Information.

THE FIFTH GENERATION OF ELECTRIC DRIVETRAINS: A MAJOR LEAP IN TERMS OF PRODUCTION AND SUSTAINABILITY

Customer-oriented innovations frequently begin with basic research. Built up over many years, the BMW Group's expertise makes sustainable solutions possible. The new, in-house-developed electric motor does not contain any rare earth elements. The latest generation of batteries requires two-thirds less cobalt than its predecessors. The BMW Group also considers the factor of sustainability when sourcing the cobalt it uses. The metal is acquired transparently via a certified process and supplied to the battery cell producers for further processing. Details are available in the chapter Purchasing and Supplier Network ↗ **Purchasing and Supplier Network.** The BMW Group has contractually agreed with the battery cell suppliers for the fifth generation of its eDrive electric drivetrain that only green electricity from renewable sources will be used in their production processes, which should reduce carbon emissions by some ten million tonnes over the next ten years. In this fifth generation of the BMW Group's electric drivetrain, the electric motor, transmission and power electronics are also installed within a compact space. The outstanding efficiency of the drivetrain components and the high energy density of the high-voltage battery enable ranges that conventional electric vehicles can only achieve with significantly larger and correspondingly heavier batteries and therefore lower efficiency. This electric drivetrain was deployed for the first time in the BMW iX3*, which was launched in 2020. From 2021 onwards, further all-electric models such as the BMW iX* or the BMW i4 will be powered by this state-of-the-art technology.

* See ↗ Fuel Consumption and CO_2 Emissions Information.

THE BMW GROUP COVERS THE ENTIRE PROCESS CHAIN FOR ELECTRIC DRIVETRAINS

Whether electric motors, high-voltage batteries, charging equipment or power electronics – since 2011 the BMW Group has gained extensive experience with all the components used in eDrive technology and places its emphasis on in-house developments. By the end of 2022, all German vehicle plants will produce at least one fully electric vehicle. The production system is capable of manufacturing vehicles either with internal combustion engines or electric drivetrains on a single line and can therefore also respond flexibly in terms of the type of drivetrain required by the customer. This level of flexibility in production allows the BMW Group to meet customer expectations in an ideal way. At the BMW Group's Battery Research Centre, work on battery cells is currently focusing on features that provide a high degree of customer value, including energy density, peak power, longevity, charging properties, costs, behaviour at various temperatures and, last but not least, safety. At the same time, the BMW Group is building a pilot plant for lithium-ion battery cells near Munich, making the BMW Group the first automotive manufacturer to singlehandedly cover the entire process chain of electric driving and master it in technological terms.

CAN THE HYDROGEN FUEL CELL SERVE AS A BUILDING BLOCK GOING FORWARD?

The BMW Group is also investing in the enhanced development of hydrogen fuel cell technology. The BMW i Hydrogen NEXT, which is based on the X5, already awakened a great deal of interest among visitors at the IAA 2019. In the long term, hydrogen technology could become a further component in the BMW Group's drivetrain range. If the supply of renewably produced hydrogen can be ensured, this technology will provide an attractive option for combining emissions-free mobility with long-distance capability and short refuelling times. The BMW Group is convinced that different forms of drivetrain will continue to exist side by side in the future, as customer expectations cannot be met with a single solution on an international basis. Beginning in 2022, the BMW Group will present a low-volume series of the BMW i Hydrogen NEXT featuring the second generation of its hydrogen fuel cell drive system. To make this aim a reality, the BMW Group has been collaborating successfully with Toyota Motor Corporation since 2013. The new drivetrain technology will be combined with the fifth generation of the eDrive, which will then generate its energy from a fuel cell instead of a high-voltage battery. The BMW Group has also developed this technology in-house as an overall system. However, the appropriate political and infrastructural framework conditions first need to be created if green hydrogen is to become widely available in sufficient quantities and at competitive prices. Hydrogen can also play a key role in powering heavy-duty and commercial vehicles with the aim of making logistics carbon-neutral going forward. The BMW Group's Leipzig and Spartanburg plants have already been using transport vehicles powered by renewably produced hydrogen for a number of years.

THE BMW iX*: ELECTRIC FROM THE GROUND UP

In November 2020, the BMW Group gave the public its first preview of the BMW iX, the first of which are scheduled for delivery to customers in the course of 2021. Right from the start, the BMW iX was designed exclusively to provide electric mobility that is suitable for everyday use. The vehicle is powered by the fifth generation of BMW eDrive technology, which the BMW Group has developed in-house and consists of twin electric motors, power electronics, charging technology and a high-voltage battery produced without the use of rare earths. Fully electric and featuring four-wheel drive technology, it will enable ranges of over 600 km in the WLTP cycle. Equipped with innovative charging technology and a highly efficient drivetrain, the BMW iX can be charged to enable a range of over 120 km in a mere ten minutes. Thanks to the development of new technologies, the kidney-shaped grille of the BMW iX has now been given a new function as a smart surface where camera technology, radar and other sensor-based features are located behind a transparent exterior. Through the use of innovative materials, the surface of the grille also has a self-healing effect that makes light scratches disappear by themselves. Moreover, as the first 5G-capable model to be made by a premium manufacturer, the BMW iX will also be the BMW Group's technology flagship in terms of digitalisation going forward. In addition, gigabit Ethernet technology is being used for the first time in this innovative vehicle, enabling extremely large volumes of data from sensors and antennas, for example, to be transmitted through the vehicle within fractions of a second and then processed in the centralised high-performance computers of the vehicle's on-board system. Moreover, some of this data is also transmitted to the cloud, analysed and returned to the vehicle fleet, depending on the situation, creating new services for customers. For instance, information on danger spots detected by these vehicles, such as black ice, will be made available to the entire fleet, as well as tips on where a free parking space is most likely to be found upon arrival. When using all these digital technology innovations, the BMW Group places great emphasis on ensuring that drivers and passengers can perceive and operate new features intuitively, effortlessly and without distraction – regardless of how technically complex they may be. These functions are known as shy tech, i.e. technology that only becomes visible when needed.

* See ↗ Fuel Consumption and CO_2 Emissions Information.

ARTIFICIAL INTELLIGENCE – THE BASIS FOR AUTOMATED DRIVING AND INTERACTION WITH THE VEHICLE

Since the end of 2020, over 400 data-driven and AI applications have been helping the BMW Group process and interpret big data throughout all relevant areas of the company. Artificial intelligence is also deployed when it comes to developing an algorithm that enables safe and predictive automated driving features, helping to analyse the approximately 250 million kilometres of "experience" gained to date (as of October 2020). Even now, BMW Group customers are already experiencing the capabilities of AI technologies as they drive. Since the end of 2018, an Intelligent Personal Assistant has been offering them support upon request. Since the second half of 2020, more than 70 % of BMW vehicles have been equipped with the BMW Intelligent Personal Assistant as standard. For example, commands given in natural speech enable drivers to comfortably operate numerous vehicle functions without having to take their hands off the steering wheel.

CUSTOMER-CENTRIC DEVELOPMENT

Via the BMW Group's international development network, the varying regional needs and requirements of its customers worldwide are being incorporated into design, research and development. Group locations worldwide are in direct dialogue with their various regions. The BMW Group conducts an average of 70 customer studies per year in the area of display and operating concepts alone. The Group also researches dialogue formats and upcoming trends.

In a state-of-the-art innovation process, the BMW Group also uses its ability to change perspectives when required. In this respect, it is the first automotive manufacturer to collaborate with Epic Games, a computer games developer. The BMW Group has modified gaming technologies and adapted them for use in vehicle development as well as in production planning and customer presentation at the retail level. In the field of vehicle development, new components and systems can therefore be tested intensively at a very early stage so that they can later be used by the customer simply and intuitively to the greatest extent possible. Technologies originating from the computer games industry such as mixed reality and game engines are key elements that are making an important contribution in this respect. Internationally staffed teams of developers work simultaneously and interactively with one another before hardware prototypes are additionally made available. In a mixed reality environment, technical solutions can be analysed at an early stage on a virtual ride before the first samples are made physically available, effectively cutting testing costs and, last but not least, minimising development times.

The BMW Group operates an international network of research and development locations to ensure that ideas can swiftly and directly become innovations for customers in the form of ideas to offer. The network provides the ideal environment for experts to work creatively in internationally connected teams to promote knowledge transfer and even faster, integrated, flexible collaboration for effectively developing the major trends of the future. This combined network of research and development expertise is continuously being expanded and strengthened in a competence-oriented manner.

INNOVATION CULTURE IN THE MAKING: A NEW CENTRALISED HUB OF THE BMW GROUP'S GLOBAL RESEARCH AND DEVELOPMENT NETWORK COMES INTO BEING.

The Munich Research and Innovation Centre (FIZ) is the main hub of the Group's international network of 14 research and development locations. The first phase of construction completed in the course of enlarging the Munich FIZ went into operation in autumn 2020. On the FIZ campus, the focus is on transformation and the future-related topics of electrification, digitalisation and connectivity. With over 90 petabytes of storage capacity, 100 test benches, 200 laboratories and the directly adjacent prototype construction facility, the FIZ has grown to become one of the largest research and development centres in Europe.

BMW Operating System 7: new features in version 07/20

Digital key: in collaboration with Apple, the BMW Group is the first car manufacturer to offer its customers the option of using their iPhone as a fully fledged digital car key. It unlocks the vehicle at the door handle and the engine can be started when it is placed in the smartphone compartment. Access rights can be shared with other people and configured in the process and there is a specially designed mode for inexperienced drivers.

Navigation/BMW Maps: the cloud-based system has a great many advantages. The route calculation feature combines real-time information with forecast models and therefore acts more dynamically and swiftly than ever. Additional context-based information such as ratings, business opening hours and pictures of interesting places provide BMW Group customers with excellent support. Entering a destination has now been made far more convenient due to the free text function, which uses a single search line and adds suggestions for relevant search terms.

Intelligent Personal Assistant: the BMW Group has revamped the look of the BMW Intelligent Personal Assistant and made it more emotional. The Assistant is able to distinguish between the driver's and the passenger's speech, learns and even leans towards the respective conversation partner.

Apple Car Play allows navigation information from Apple Maps to be displayed on both the head-up display and the info display. Google Android Auto is also integrated: customers can use functions on their smartphones wirelessly within the vehicle and access their apps via touch control without having to directly operate their smartphone. Navigation instructions provided by Google Maps are shown on both the info display and the head-up display.

BMW eDrive zones: plug-in hybrids can use geofencing to detect when they are entering an environmentally restricted zone or a city centre. They then automatically switch to electric mode after previously ensuring that the vehicle's battery is fully charged, enabling them to drive locally emissions-free and almost silently where it has the greatest impact.

Charging management: electrified models are provided with additional information and services via the Connected Charging feature. Public charging stations and their availability are displayed and additional information is also shown, for example on providers, opening hours or suggestions for places of interest and cafes or restaurants nearby.

Finding a parking space: customers can be assisted via various services when searching for a parking space. The on-street parking information, for example, calculates where a parking space is most likely to be free.

ALWAYS UP TO DATE VIA RADIO INTERFACE

The remote software upgrade function keeps BMW vehicles continuously up to date. The software updates can be conveniently downloaded to the vehicle whether at home or on the road and contain improvements or even fully new vehicle features. In autumn 2020, the BMW Group rolled out the most extensive remote software upgrade in its history. The free-of-charge improvements and new attractive features were made available over-the-air to more than 750,000 BMW Operating System 7 (version 07/20) vehicles worldwide.

Moreover, Remote Software Upgrade allows drivers to purchase and activate additional optional features. For example, the Highbeam Assist or Active Cruise Control with the Stop&Go function can also be subsequently installed quickly and easily over the air, even on vehicles that have already been delivered to customers. Customers can therefore benefit from the latest technological developments and have the opportunity to test functions that were not yet needed at the time of purchase for a certain period of time with the option to purchase them.

Apps have been offering customers an effortless connection between their smartphones and the vehicle since 2013. A new generation of the My BMW app has been available on 30 European markets as well as in China and Korea since December 2020. My BMW is the new universal interface to the vehicle and, depending on how it is equipped, also enables selected features to be activated remotely, such as vehicle localisation.

INNOVATION IN PRODUCTION

In production scenarios, innovations can act in two different ways: they serve the purpose of conserving resources and thus further boosting efficiency **Production, Purchasing and Supplier Network,** but they can also help to implement new product ideas and design options. Digitalisation is thus also paving the way for completely new applications that enable owners to customise their vehicles, such as by adding individual equipment features for the MINI. Furthermore, the BMW Group opened the Additive Manufacturing Campus in summer 2020. Production, research and even further training on the subject of additive manufacturing (i.e. 3D printing) are combined under one roof at the location. The Campus is also capable of manufacturing components for series production vehicles.

INSPIRATION AND COOPERATION

The best ideas often come into being when different partners work together. Regional BMW Group Technology Offices are searching for promising young companies worldwide in fields of innovation such as sensor technology, artificial intelligence, battery technology, smart materials, natural user interfaces and smart logistics. Cooperations in which the strengths of the BMW Group complement those of established partners also help to enhance the innovative strength of the BMW Group. **Cooperations and partnerships** For the BMW Group, maintaining its innovation network also includes intensive dialogue with selected colleges and universities. Every year, thousands of students come to the BMW Group to complete an internship or write a scientific thesis. Many Group employees also work as lecturers at universities and higher education institutions. The BMW Group maintains close partnerships with six universities and research institutions to conduct joint research projects that combine knowledge transfer with the training of highly qualified junior staff.

Cooperations and partnerships

To maintain its successful course in the long term, the BMW Group enters into targeted cooperations and partnerships not only with companies from the automotive industry, but also with technology leaders from other sectors. The aim of interacting with external partners is to combine expertise against the backdrop of rapid technological change and make innovations available to customers within the shortest time possible.

BMW Brilliance Automotive (BBA)

BMW Brilliance Automotive Ltd. is a 50:50 joint venture between the BMW Group and Brilliance China Automotive Holdings Ltd., which was founded in 2003. BMW Brilliance Automotive Ltd. produces BMW brand models in one engine plant and two automobile plants in Shenyang, China. Production of the BMW iX3* began there in 2020.

The BMW Group intends to increase its shareholding in BBA from 50 % to 75 %. The BMW Group already signed an agreement to that effect with its partner Brilliance China Automotive Holdings Ltd. (CBA) in 2018. Following approval by the Annual General Meeting of CBA, completion of the agreement remains subject to regulatory approvals.

Spotlight

The aim of Spotlight Automotive Limited (Spotlight), a joint venture between the BMW Group and the Chinese manufacturer Great Wall Motors, is to produce all-electric MINIs for the BMW Group as well as electric vehicles for Great Wall Motors. The joint venture also includes the joint development of battery-powered electric vehicles. Spotlight was established on 27 December 2019, following approval from the Chinese authorities and the first stage of construction has already begun.

Together with the intention to increase its shareholding in BBA, the BMW Group is significantly expanding its presence in China and underlining its commitment on that market.

HERE

Since BMW AG, Daimler AG and AUDI AG acquired the HERE mapping service in 2015, the partners have been working on high-precision digitalised maps that can be linked to real-time vehicle data. Digitalised maps create the basis for the next generation of location-related services, thereby marking the next key step in the evolution of individual mobility. They also form the basis for developing new assistance systems. As an independent platform, HERE has always remained accessible for the automotive industry as well as other partners. In 2020, Mitsubishi Corporation (MC) and Nippon Telegraph and Telephone Corporation of Japan (NTT) jointly acquired 30 % of the business. As a result, the location data and technology platform now has nine direct and indirect shareholders: Audi, Bosch, the BMW Group, Continental, Intel, MC, Mercedes-Benz, NTT and Pioneer.

Toyota Motor Corporation (TMC)

As strong, independent companies, the BMW Group and TMC have been collaborating successfully in various fields since 2011, including fuel cell technology. The BMW Group was primarily responsible for developing a joint sports car platform, and series production of these brand-specific vehicles has been ongoing since the end of 2018.

IONITY

The BMW Group is a founding partner of the IONITY joint venture, the aim of which is to establish a comprehensive, high-performance, high-power charging (HPC) network for electric vehicles. The joint venture represents a vital step towards ensuring that electric mobility also becomes a viable means of transport over long distances, thus establishing it on the market. All IONITY charging points are publicly accessible, brand-independent and designed in accordance with the European Combined Charging System (CCS) standard. The founding partners (the BMW Group, Daimler AG, the Ford Motor Company as well as the Volkswagen Group with Audi and Porsche) all participated in equal measure. In 2019, the Hyundai Motor Group with its Hyundai and Kia brands was accepted as an additional shareholder. The joint venture is, however, also open to further partners.

YOUR NOW

Under the name YOUR NOW, the BMW Group and Daimler AG are offering innovative, customer-friendly solutions for business partners, cities and municipalities looking to make their mobility more efficient and sustainable. The cooperation includes the joint ventures FREE NOW (ride-sharing services) with REACH NOW (on-demand mobility and multimodality), PARK NOW (parking) with CHARGE NOW (charging) and SHARE NOW (car sharing). Further information is available in the chapter ↗ **Mobility Patterns.**

* See ↗ Fuel Consumption and CO_2 Emissions Information.

BMW GROUP PERFORMANCE INDICATORS RELATING TO RESEARCH AND DEVELOPMENT EXPENSES

in %	2020	2019	Change in %-pts.
Research and development expenses as a percentage of revenues	5.7	5.7	0.0
Research and development expenditure ratio[1]	6.3	6.2	0.1
Capitalisation rate[2]	36.6	33.2	3.4

in € million	2020	2019	Change in %
Research and development expenses	5,689	5,952	–4.4
New expenditure for capitalised development costs	2,300	2,134	7.8
Amortisation	–1,710	–1,667	2.6
Research and development expenditure[3]	**6,279**	**6,419**	**–2.2**

[1] Research and development expenditure as a percentage of Group revenues.
[2] Capitalised development costs as a percentage of research and development expenditure.
[3] Research and development expenditure comprises the sum of research and non-capitalised development cost and capitalised development cost (not including the associated scheduled amortisation).

PRODUCTS AND SERVICES

PROMISED

We aim to reduce the **CO_2 EMISSIONS** of our European new vehicle fleet **BY HALF** between 1995 and 2020.

DELIVERED

Mission accomplished. MINUS 53 %.

Pieter Nota
Member of the Board of Management of BMW AG, Customer, Brands, Sales

"Our ambition: to provide the best premium customer experience in the industry.

Premium is also defined in terms of sustainability.

That's why we support our customers in making not only the best, but also the most responsible vehicle choice – including a seamlessly integrated, convenient charging concept for our electric vehicles."

"At the BMW Group, we are creating the digital, emission-free and dynamic driving of the future.

As a tech company, we master 'sheer driving pleasure', today and tomorrow.

We are the only ones to combine dynamic performance and quality with safety and security for customers and data."

Frank Weber
Member of the Board of Management of BMW AG, Development

We made the RIGHT DECISIONS early on.

Christian Miedaner is responsible for CO_2 strategy during the product use phase.

WHY ARE THE CO_2 EMISSIONS OF THE NEW VEHICLE FLEET IN EUROPE THE BENCHMARK?

The EU requirements are among the strictest and most ambitious worldwide. Think of it this way: Once you've met European requirements, it's a lot easier to fulfil those in other markets and regions. Aside from that, Europe is also our biggest sales region.

HOW DID THE BMW GROUP MEET THE TARGETS FOR 2020?

We made the right decisions – important decisions – early on: We offer electrified vehicles in every segment – while continuing to make our conventional drive trains more efficient. We ultimately overfulfilled the targets for 2020. And that's a good thing, because we're not interested in the goals themselves – it's about contributing to environmental responsibility.

CAN YOU GIVE US A GLIMPSE OF THE FUTURE?

We are right on track for the targets for 2021, but the goals for 2030 are a whole other dimension. I know that our product portfolio puts us in a very good position. But the conditions also have to be right – and that means significantly expanding charging infrastructure.

Further information is available at:
report.bmwgroup.com

DESIGN AND PRODUCT SAFETY

BMW Group vehicles combine emotional and functional design with the highest of safety standards. Active and passive safety systems ensure greater safety on the road – not only for BMW Group customers, but for all other road users, too. When manufacturing its products, the BMW Group avoids the use of any substances that are hazardous to health. It also informs its customers about all the various safety aspects of its products and enables them to recognise and handle dangerous situations by providing driver safety training. The BMW Group ensures transparency, informational self-determination and data security when using its customers' data.

FUTURE-ORIENTED DESIGN

The BMW Group is synonymous with future-oriented, emotional vehicle design that unites aesthetics with state-of-the-art technology. It strives to create experiences for its customers through the design of its vehicles. A successful design makes vehicles coveted products that cater to the individual needs of customers the world over. The BMW, MINI, Rolls-Royce and BMW Motorrad brands each have their own independent design language. Designs created by the BMW Group should not only meet the high design standards of a globally leading premium automotive manufacturer, but make technical innovations functional and intuitive to use at the same time.

In order to make future mobility trends perceptible at the earliest stage of design, the BMW Group develops various types of prototypes. Concept vehicles, such as the BMW Concept i4, which was first presented in March 2020, are specifically used to communicate in advance how future series-produced vehicles will look. Vision vehicles such as the MINI Vision Urbanaut, which was unveiled at the BMW Group #NEXTGen event in November 2020, provide the public with a glimpse of how the Group's future mobility concepts could be designed.

The globally operating company Designworks is also a subsidiary of the BMW Group and an inspiring studio that works to create thought-provoking design ideas for both the BMW Group and external customers. In its three studios in Los Angeles, Munich and Shanghai, it creates ambitious visions of the future that are meant to shape and improve our world.

USING SAFETY TECHNOLOGY TO MINIMISE RISKS

The BMW Group not only strives to create an emotional connection between products and its customers via its design, it also designs and builds its vehicles to meet the highest safety standards, as it considers the safety of its vehicles an essential part of its product responsibility.

By including a raft of active and passive safety measures, the BMW Group is able to reduce the risk of accidents and injuries not only for vehicle occupants, but for other road users, too. Above all, these safety measures include optimised chassis tuning, highly effective braking systems, stable passenger compartments and airbags, but also digital driver assistance systems such as active cruise control, collision warning, lane guidance and emergency braking assistants.

REDUCING POLLUTANTS

Right from the design stage of its vehicles, the BMW Group consciously avoids the use of problematic materials and substances and takes active steps to keep emissions within the passenger compartment to a minimum. With this design strategy, the BMW Group seeks to ensure that legal requirements regarding product safety, human health protection and the environment are complied with worldwide for each phase of the product life cycle, including development, use, recycling and disposal. In addition, all BMW, MINI and Rolls-Royce brand vehicles are equipped with passenger compartment air filters as standard, which filter out pollutants and particles such as dust or pollen from the outside air.

In 2020, the BMW Group installed passenger compartment filters featuring nanofibre filter technology for the first time, which keep certain microbial particles and allergens as well as ultra-fine particulate matter from entering the vehicle's passenger compartment. Also in 2020, nanofibre filters were installed for the first time in a Rolls-Royce as standard. From 2021, however, the innovative technology will gradually become available for numerous other BMW Group vehicle models.

COMPREHENSIVE INFORMATION ON SAFETY ASPECTS

The BMW Group provides customers with comprehensive information on the correct use of its products and services. Information on health and safety as well as the proper use of its vehicles is provided in printed form in the integrated owner's manual and is also available electronically via a smartphone app or online. The information is supplemented by notes and additional background information on services, accessories and vehicle components.

DRIVER TRAINING TO PROMOTE GREATER ROAD SAFETY

The BMW Group offers training for BMW and MINI brand automobiles as well as BMW motorcycles in over 30 countries. In the BMW and MINI Driving Experience, it raises awareness of potentially dangerous situations and thus also contributes to road safety in general. Despite global restrictions due to the coronavirus pandemic, the Driving Experience trained over 70,000 participants worldwide at various international locations in 2020.

DATA PROTECTION IS A KEY TASK

The BMW Group views data protection as one of the most important tasks of digitalisation. It takes data protection into account at an early stage in the development of its functions and services in order to ensure transparency, informational self-determination and data security for its customers. In order to maintain this high level of data protection in the long term, the BMW Group's products and services are always developed according to security-by-design principles and continuously tested for security aspects (cybersecurity) throughout their entire life cycle.

The BMW Group's product responsibility also includes the secure transfer of vehicle data to third parties. For this reason, BMW Group vehicles are not directly connected to the Internet, but communicate directly and exclusively with the BMW ConnectedDrive back-end service via a secure connection in a virtual private network. This precaution minimises the risk of unauthorised third parties gaining access to the vehicle or the driver's personal data. The point of access to the Internet is controlled via a gateway. The BMW Group considers the provision of vehicle data via a secured back end (extended vehicle approach in accordance with ISO 20078) the best solution for ensuring data security and thus a high level of data protection.

In May 2017, the BMW Group introduced BMW and MINI CarData for the secure transmission of data to third parties. CarData is already available to BMW and MINI customers across all European markets. Customers can adjust their privacy settings to suit their own personal needs, either within their vehicles or on the ConnectedDrive portal, thereby retaining their right to informational self-determination. They can decide at any time which data to share with service providers (such as workshops, insurance companies and fleet managers) in order to receive customised service offers. The BMW Group has also been offering this service in the USA since April 2020.

Furthermore, the Group works closely with the relevant data protection supervisory authorities to clarify fundamental data protection issues that relate to the increasing connectedness of its vehicles with the environment. For example, as a member of the German Association of the Automotive Industry (VDA) and the European Association of the Automotive Industry (ACEA), the BMW Group supports the principles on data protection they have drawn up. These principles focus on transparency, the informational self-determination of customers and the technical protection of data in their vehicles.

ENSURING SAFETY WITH QUALITY MANAGEMENT

All BMW Group vehicles are subject to stringent safety tests during development and production, some of which are even stricter than those prescribed by law. The BMW Group's quality management does not end at the factory gate, but also extends to vehicles that customers are already using. If any deviations from the Group's strict quality standards are observed in their markets, it systematically follows up on these indications. If necessary, the Group informs the relevant authorities without delay and initiates any measures that may be required.

The BMW Group take voluntary technical action even if there is no immediate danger. Any vehicles potentially affected are checked, and if a fault is detected the corresponding components are replaced. If there is a safety risk of any kind, the BMW Group implements technical measures in collaboration with the relevant authorities. For this reason, the Group has established appropriate committees, processes and organisations that are managed by the Product Support, Technical Actions and Warranty Costs department. **GRI 416-1**

CONTINUOUS FURTHER DEVELOPMENT OF SAFETY SYSTEMS

By systematically developing and improving its safety systems, the BMW Group is helping to reduce the risk of accidents and injuries for all road users. An important indicator of this risk is the European New Car Assessment Programme (Euro NCAP), a scheme for assessing the safety of vehicles in the event of a crash. The results of the most recently assessed vehicles (four top Euro NCAP ratings for the BMW 1 Series, BMW 2 Series Gran Coupé, BMW 3 Series and BMW Z4) once again demonstrate the BMW Group's premium standards in terms of vehicle safety.

In the years to come, the BMW Group will continue working to additionally enhance the safety of its vehicles. Apart from constantly optimising the passive safety of each individual vehicle, the Group is also focusing on improving road safety standards by means of connected and automated driving. This applies, for example, to the BMW iX*, which was unveiled during the year under report and will go into series production in 2021. With its even more efficient sensor technology, the vehicle will be equipped with new and improved automated driving and parking functions and set new standards for the BMW Group.

* See Fuel Consumption and CO_2 Emissions Information.

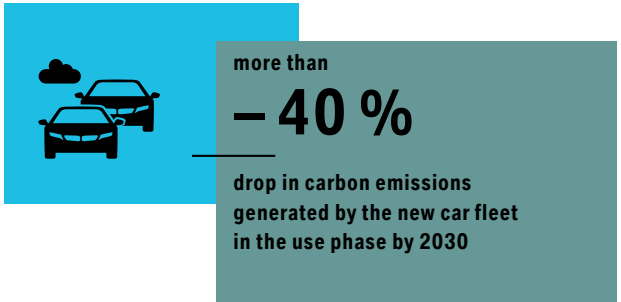
CARBON EMISSIONS AND POLLUTANTS

The fight against climate change is crucial for the future of our society – and thus also for that of the BMW Group. For this reason, it is placing sustainability in the centre of its corporate strategy. In future, the BMW Group intends to be even more systematic in examining not only the economic, but also the ecological and social impact of its corporate decisions. The Group has therefore also committed to the requirements of the Paris Climate Agreement that are relevant to it and set itself the target of establishing a climate-neutral business model across its entire value chain by the year 2050.

In 2020, the BMW Group undercut the EU's manufacturer-specific fleet carbon emissions limit of 104 g/km by achieving a figure of 99 g/km according to internal calculations. At the same time, it also accomplished the goal it set itself in 2012 of halving the carbon emissions generated by its European new vehicle fleet by 2020 compared with 1995. Furthermore, the BMW Group will continue to work successfully on constantly reducing its carbon emissions going forward. The BMW Group aims to provide its customers with the best offers worldwide, also in terms of sustainability. For this reason, the BMW Group's drivetrain technology is based on two factors – highly efficient combustion engines and electric mobility.

NEW TARGETS FOR DECARBONISATION BY 2030

The BMW Group is committed to achieving long-term carbon neutrality by 2050. Guided by this principle, it is taking extensive measures to substantially reduce the carbon and other pollutant emissions generated by its vehicles, as it has done in the past. In the year under report, the BMW Group therefore set itself specific new targets derived from the Science Based Targets Initiative (SBTI) in order to further cut its carbon emissions below the level already achieved and is taking a holistic approach to accomplishing this aim. In this context, the Group intends to achieve a mitigation corridor across all the activities for which it is responsible that corresponds to the defined target set out in the 2015 Paris Climate Agreement, i.e. to limit global warming to between 1.5 and 1.75 degrees Celsius. Within the value chain, this includes all three scopes defined under the umbrella of the Science Based Targets Initiative (SBTI). By 2030, the BMW Group therefore intends to reduce the average carbon emissions generated by its new car fleet in the use phase by 40 % compared to 2019 (Scope 3 downstream). Furthermore, the BMW Group is scrutinising its entire value chain and striving to significantly reduce carbon emissions from the supply chain (Scope 3 upstream), its production processes (Scope 1 and 2) and the entire use phase. These targets have been notified to the SBTI and validated.



Recording carbon emissions from Scope 1 to Scope 3

The carbon emissions generated by a given company are recorded in various categories. The Greenhouse Gas Protocol, a partnership between the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), distinguishes between Scope 1, Scope 2 and Scope 3 emissions, based on their various sources.

Whereas Scope 1 emissions are generated within a company through the combustion of fossil fuels, Scope 2 refers to the indirect emissions caused by the consumption of electricity and heat from externally generated sources of energy. Scope 3 emissions are generated in the upstream and downstream stages of the value chain, both in the supply chain (upstream) and in the subsequent use of products and services (downstream).

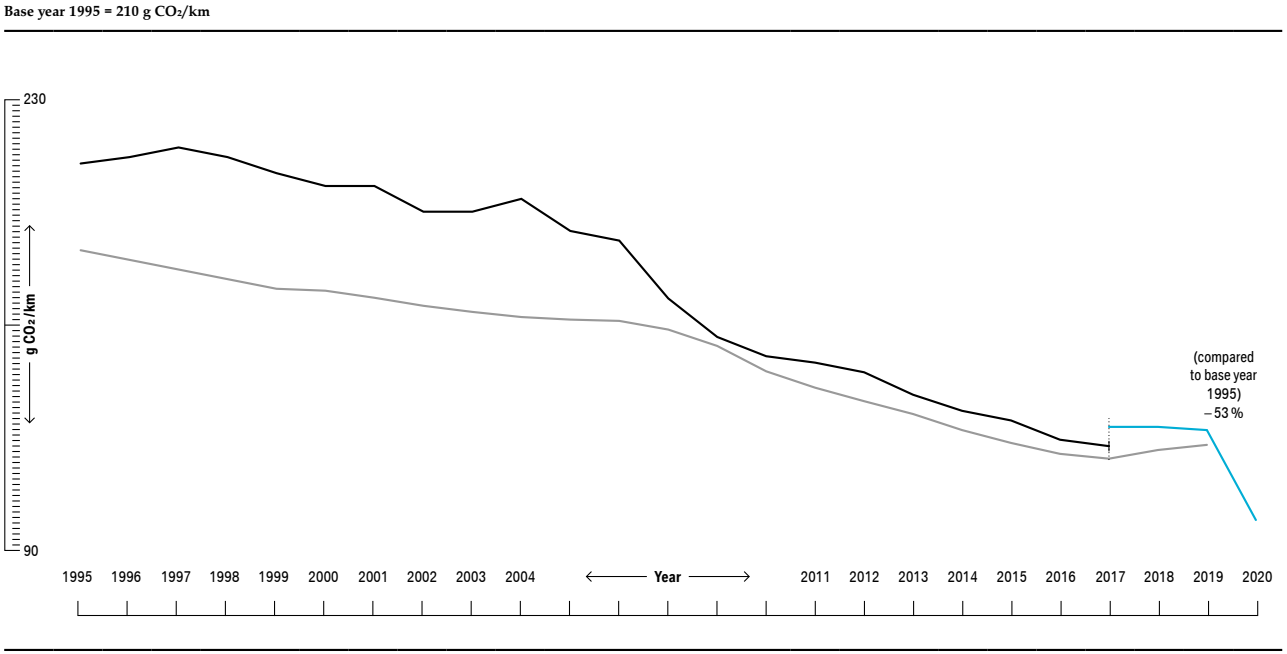
FLEET CARBON EMISSIONS FURTHER REDUCED

The development of sustainable products and services has long been an integral part of the BMW Group's business model. The early fleet-wide use of Efficient Dynamics technologies (since 2007) and the electrification of vehicles (since 2013) are continuously reducing carbon emissions in the long term. These twin factors form the basis for complying with and even undercutting legally prescribed carbon emissions and fuel consumption limits.

Taking all regulatory requirements[1] into account, the average carbon emissions generated by the BMW Group's new car fleet within the EU (including Norway and Iceland) according to the NEDC[2] in the year under report amounted to 99 g CO_2/km[3]. The BMW Group therefore reduced its fleet carbon emissions by 28 g CO_2/km compared to the previous year (2019: 127 g CO_2/km), approximately 5 g CO_2/km below the limit of 104 g CO_2/km applicable to the BMW Group. Between 1995 and 2020, the Group's carbon emissions were reduced by around 53 %. This success was achieved through the consistent electrification of the vehicle fleet and the continuous improvement in the efficiency of combustion engines.
GRI 302-5, 305-5

Worldwide, the BMW Group reduced its fleet average carbon emissions by 5 % compared to the previous year to 133 g CO_2/km[2] in 2020 (simplified internal BMW Group calculation for its core markets EU, USA, China, Japan and Korea) (2019: 140 g CO_2/km).
GRI 305-3, 305-5

DEVELOPMENT OF CO_2 EMISSIONS OF BMW GROUP NEW VEHICLE FLEET IN THE EUROPEAN UNION



– Development of CO_2 emissions of BMW Group new vehicle fleet in the EU from 1995 to 2017 (on the basis of the NEDC test cycle).

– Development of CO_2 emissions of BMW Group new vehicle fleet in the EU (on the basis of the NEDC test cycle; provisional value for 2018). Source: the International Council on Clean Transportation (ICCT), 1995–2009; European Environment Agency (EEA), 2010–2019.

– Development of CO_2 emissions of BMW Group new vehicle fleet in the EU from 2017 to 2020 (on the basis of the WLTP test cycle, retroactively calculated as an NEDC value for the purposes of comparability).[2]

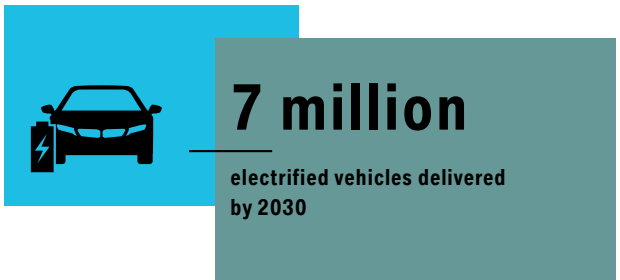
[1] Flexibilities as defined in regulatory requirements: phase-in with 5 g/km, supercredits BEV/PHEV with 7.5 g/km and eco-innovations with 2.4 g/km.
[2] Since 2018, all vehicles in the EU must be licensed according to the new WLTP test cycle. However, the EU Commission will not start using WLTP to calculate fleet CO_2 emissions until 2021. As a result, WLTP fleet emissions must be retroactively calculated as NEDC values for the purposes of reporting until and in 2020.
[3] This is a preliminary internal calculation with a potential tolerance of +/– 0.5 g CO_2/km, as official registration figures have not been provided by all EU states. The EU Commission is not expected to publish official figures until November 2021.

In the USA, the average fleet emissions[1] for the model year (MY) 2020 amounted to 156 g CO_2/km for passenger cars (MY 2019: 157 g CO_2/km) and 186 g CO_2/km for light trucks (MY 2019: 188 g CO_2/km). Fleet-weighted CO_2 emissions in the USA averaged 167 g CO_2/km (MY 2019: 167 g CO_2/km – BMW internal calculation).

In China, average carbon emissions[2] rose slightly to 151 g CO_2/km (2019: 144 g CO_2/km). This is due to lower sales of electrified models in China, while overall sales are increasing. **GRI 302-5, 305-5**

RANGE OF ELECTRIFIED VEHICLES FURTHER EXPANDED

The BMW Group sees wide-ranging opportunities to further reduce fuel consumption and pollutant emissions in the electrification of power trains. This point is particularly relevant against the backdrop of global decarbonisation targets, for example in the EU, China or the USA (particularly California), and the sustainability targets the BMW Group has set itself for 2030. For this reason, the BMW Group again expanded its range of electrified vehicles during the 2020 reporting year. By 2030, the Group plans to have delivered at least seven million electrified vehicles to its customers. **Electric Mobility**



CONVENTIONAL DRIVETRAINS MORE EFFICIENT AND WITH LOWER EMISSIONS

The BMW Group continues to work intensively on reducing fuel consumption and carbon emissions in its conventionally powered vehicles. Since 2007, the BMW Group has been implementing its Efficient Dynamics package of technological measures throughout the fleet, comprising various coordinated measures to reduce fuel consumption. In this context, the Group continued to optimise the efficiency of its combustion engines throughout the year under report by deploying recuperation systems and continuous emissions reduction measures. Recuperation systems utilise the energy recovered from the braking process to supply the vehicle's electrical system and generate additional power for the drivetrain. For this reason they are often referred to as mild hybrid vehicles. **Electrified Vehicles**

Since the early 1990s, the BMW Group has managed to significantly reduce the pollutant emissions generated by its vehicles by deploying new technologies and making improvements to existing ones. In Europe alone, it has reduced the relevant exhaust emissions of the new vehicle fleets for diesel passenger cars in accordance with the threshold values of the standards Euro 1 to Euro 6 from 1992 to 2019 by well over 90 % compared to the level recorded prior to the introduction of the Euro emissions standards. **GRI 305-7** The introduction of new models with even lower-emissions drivetrain technologies has made a significant contribution to this result. In the year under report, the BMW Group also converted all its remaining models to the Euro 6d emissions standard.

The BMW Group expects modern, highly efficient diesel engines to continue playing an important role. As part of its Efficient Dynamics approach, the BMW Group will therefore continue to work on reducing the consumption of conventional drivetrain systems and boosting their efficiency in the foreseeable future. It intends to continue along this route, taking innovative approaches to the combustion engine, aerodynamics and lightweight design. The use of 48-volt technology is another key component in the BMW Group's efforts to reduce its carbon emissions.

Artificial intelligence (AI) can also contribute to cutting carbon emissions and vehicle fuel consumption. The BMW Group is conducting research into how AI could make energy management in vehicles adaptive, enabling energy consumption to be modified to suit the needs of the driver and further improve energy efficiency.

Nitrogen oxide levels are a crucial factor for the air quality in towns and cities. With this point in mind, since mid-2018 the BMW Group has installed a highly effective combination of an NOx storage catalytic converter (NSC) and an SCR system (SCR: selective catalytic reduction) with urea injection technology (AdBlue) in all BMW diesel models as well as in the larger MINI diesels. As part of its continuous further development strategy, the BMW Group has additionally improved the efficiency of its exhaust gas after-treatment technology by utilising an oxidation catalytic converter in conjunction with two SCR catalytic converters. In 2020, this new technique was launched and rolled out across the Group's product portfolio together with the revised generation of its diesel engines.

[1] Basis: USC (United States Combined).
[2] Basis: NEDC (New European Driving Cycle).

With the aim of spreading these innovations for improving air quality as swiftly as possible, the BMW Group offered a scrappage bonus in Germany in 2020. The move was intended to rejuvenate the passenger car fleet and thus contribute quickly and effectively to reducing nitrogen oxide emissions. In 2019 and 2020, there were already first signs of a noticeable reduction in NOx pollution in German cities, partially due to the progressive renewal of the fleets of all automotive manufacturers. **GRI 416-2**

SUCCESSFUL REDUCTION SURPASSES LEGAL REQUIREMENTS

The BMW Group has the clear ambition to meet statutory carbon emissions requirements. Within the EU, the Group succeeded in improving on fleet carbon targets during the year under report. With respect to fleet carbon limits in other regulated markets, the BMW Group is also explicitly aiming to comply with the limits and keep its emissions as far below them as possible, which it again succeeded in doing in the year under report.

The BMW Group supports the development of harmonised national regulations, also on an international basis to the extent possible. Comparable regulations in major markets create reliable, predictable framework conditions that make a key contribution to combating climate change and improving air quality. In view of its commitment to complying with the climate goals enshrined in the Paris Agreement, during the year under report the BMW Group entered into a voluntary agreement with the US State of California to reduce fleet emissions over and above national requirements. The matters agreed therein are valid for every state in the USA – one of the BMW Group's largest sales markets. The commitments made enhance the Group's long-term planning security in the face of political change and are in line with increasingly stringent legislation worldwide designed to reduce vehicle emissions. In view of the growing popularity of electric mobility, for example, the BMW Group sees the rapid expansion and technical harmonisation of charging infrastructure as an urgent requirement. In the USA and Europe in particular, the slow pace of infrastructural expansion is still holding back the spread of electric mobility.

MANAGEMENT OVER THE ENTIRE LIFE CYCLE

In order to meet market-specific fleet requirements and its own even more ambitious decarbonisation targets, the BMW Group is taking an holistic approach to reducing emissions throughout the entire life cycle of its vehicles. This approach is particularly relevant, as – despite the expansion of electric mobility having an overall positive impact on carbon emissions in the use phase – emissions levels in the supply chain are increasing due to the use of more carbon-intensive components, especially those installed in high-voltage battery systems. For this reason, right from the product development stage of new vehicle projects, the BMW Group has defined specific targets for reducing carbon emissions across the entire life cycle. The strategy applies equally to the vehicle development, the supply chain, production, the use phase, and finally recycling at the end-of-life phase.

With this approach of taking the entire vehicle life cycle into account, the BMW Group intends to realise its ambition of achieving substantial improvement from one vehicle generation to the next. The Group implements its targets and assesses its progress during the development process based on a carbon footprint in accordance with the ISO 14040/44 standard. **Electric Mobility**

ELECTRIC MOBILITY

Electric mobility is one of the key topics of the future when it comes to making road travel sustainable and a more pleasant experience. In recent years, the BMW Group has significantly expanded its range of electrified vehicles and related services. It therefore sees itself as one of the leading providers of premium electric mobility, measured on the basis of its cumulative sales volume figures between 2013 and 2020 and in light of the holistic approach it is taking.

The BMW Group's electrified vehicles combine the advantages of sustainable mobility with dynamic drivetrain behaviour. Fully electric battery-powered models (BEVs) generate zero local emissions and can significantly reduce traffic noise levels in towns and cities.

AMBITIOUS TARGETS FOR EXPANDING ELECTRIC MOBILITY

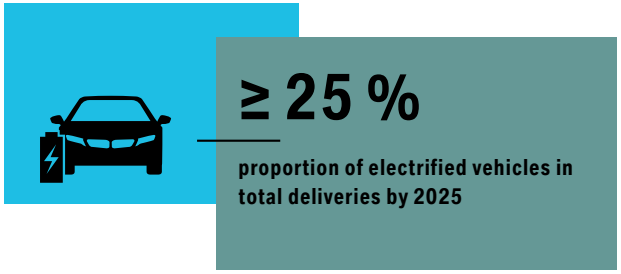
The BMW Group is pursuing the goal of substantially further decarbonising its vehicles and thereby achieving a worldwide reduction in carbon emissions in the use phase (Scope 3 downstream in accordance with SBTI **Carbon Emissions and Pollutants** and Paris Climate Agreement targets. A key part of its product strategy is therefore to systematically continue electrifying its model range. The BMW Group has set itself ambitious targets: by 2025, the proportion of electrified vehicles in its total deliveries is to rise to at least 25 %. By 2030, the BMW Group plans to have delivered at least seven million electrified vehicles[1].

To ensure that it achieves its sales volume targets for electric and plug-in hybrid vehicles, the BMW Group plans to more than double its sales of electrified vehicles by the end of 2021 compared with 2019 figures (2019: 146,158[2] units). Based on its existing plans, the BMW Group will have 25 electrified models on the road by 2023.

PRODUCT OFFERING EXPANDED AND SALES VOLUME INCREASED

The BMW Group is consciously focusing on battery electric vehicles (BEV) and plug-in hybrid technology (PHEV), enabling customers to select the form of drivetrain that best suits their respective mobility needs. In order to serve regionally varying customer requirements, the BMW Group assembles a variety of drivetrain technologies on the same production line.

During the year under report, the BMW Group launched further models with hybrid drivetrains: the BMW X1 xDrive25e[3], X2 xDrive25e[3], X3 xDrive 30e[3], 330e Touring[3], 330e xDrive Sedan[3], 330e xDrive Touring[3], 530e Sedan[3], 530e Touring[3], 530e xDrive Sedan[3], 530e xDrive Touring[3] and 545e xDrive Sedan[3]. These were joined by two additional all-electric models, the MINI Cooper SE[3] and the BMW iX3[3], which has been available in Europe since the end of January 2021. The BMW iX3[3] is already equipped with the technology of the fifth, and thus latest, generation of BMW Group battery cells.



[1] See Glossary.
[2] Retail vehicle delivery data presented for 2020 is not directly comparable to such data presented for previous years. For further information on retail vehicle delivery data, please see Comparison of Forecast with Actual Outcomes.
[3] See Fuel Consumption and CO_2 Emissions Information.

In November 2020, the Group presented the BMW iX[1], featuring new electric drivetrain technology, substantially enhanced connectivity and innovative interior design. The BMW iX[1] also features a range of over 600 km (WLTP) and shorter charging times. The vehicle can be charged for a range of over 120 km in roughly ten minutes.

In 2020, the BMW Group delivered 192,662 electrified vehicles (2019: 146,158 units[2]). Further information is available in the "Automotive segment" section of the **Business Report**.

RANGE INCREASED TO MEET CUSTOMER NEEDS

To enable customers to cover as much of their daily driving as possible emissions-free, the BMW Group is systematically increasing the electric range of its plug-in hybrids (PHEV) and battery-powered electric vehicles (BEV) by introducing new technologies. Hence, for PHEVs, the Group has increased the range of the BMW X5 PHEV[1] from 31 km (2015: NEDC data) to 80 km[3], the BMW 530e PHEV[1] from 45 km (2017: NEDC data) to 60 km[3] and the BMW 330e PHEV[1] from 40 km (2016: NEDC data) to 60 km[3]. In the BEV segment, the range of the BMW i3 BEV[1] increased from 300 km (2016: NEDC data) to 359 km[3].

To further increase the range of its electrified vehicles, the BMW Group is improving both the energy density and the efficiency of its battery cells. For example, the high-voltage battery in the BMW iX3[1] has a 20 % higher energy density and the power density of the electric motor has also been increased by 30 %.

As a matter of principle, the BMW Group takes a differentiated view to increasing the electric range and does not necessarily consider it expedient to aim for a maximum range for all electrified vehicles, and is rather of the opinion that it makes more sense to offer customers tailor-made solutions by producing a fleet of vehicles with varying ranges. Resource use and resource efficiency – advantages that also benefit the customer.

FURTHER INVESTMENTS IN ELECTRIFICATION

The BMW Group invests on an ongoing basis in the planning and development of new vehicle models. The figure of 25 electrified models previous targeted to be on the roads by 2025 has now been brought forward to 2023.

Around half of the 25 models will be offered as all-electric versions. The BMW Group also intends to offer its high-volume models as purely battery-powered versions. From today's perspective, the European Union's target of attaining climate neutrality by 2050, the interim targets discussed in the context of the Green Deal and the similarly ambitious climate policy targets of other countries can only be achieved with a variety of parallel technologies if customers are to continue being offered a range of mobility options that meet their specific and differing needs going forward. Even today, from a global viewpoint there are driving profiles that cannot yet be covered by an all-electric vehicle due to physical or technical restrictions or insufficient access to a viable charging infrastructure.

[1] See Fuel Consumption and CO_2 Emissions Information.
[2] Retail vehicle delivery data presented for 2020 is not directly comparable to such data presented for previous years. For further information on retail vehicle delivery data, please see Comparison of Forecast with Actual Outcomes.
[3] The range has already been determined in accordance with the new WLTP test cycle (Worldwide harmonized Light vehicles Test Procedure) and recalculated to NEDC (New European Driving Cycle) for comparability. The actual range depends on various factors, including personal driving style, route characteristics, the outside temperature, heating, air conditioning, preheating and precooling. Provisional figure.

PHEVs and highly efficient internal combustion engines are therefore a more likely choice in this environment. For these reasons, the BMW X3* is the first model series to be available in two variants, firstly with a combustion engine and secondly as a plug-in hybrid version, thanks to the BMW Group's scalable, modular construction system. The BMW iX3* is also available with its all-electric drivetrain.

Quite apart from battery-powered electric drivetrain systems, the BMW Group also continues to see the potential of fuel cells, a technology embedded in the hydrogen strategy of various countries. The Group is planning to produce a small series of the BMW i Hydrogen NEXT from 2022. Moreover, as an associated partner of H2 Mobility Deutschland GmbH, the BMW Group is interested in establishing the infrastructure required for hydrogen-powered vehicles.

ACHIEVING SUSTAINABILITY OVER THE ENTIRE LIFE CYCLE

The BMW Group considers both decarbonisation targets and market-specific fleet requirements right from the product development stage. In doing so, it defines specific targets that ensure well-balanced optimisation over the entire life cycle.

With its project i, the BMW Group was among the first manufacturers to pursue the aim of reducing carbon and other pollutant emissions as well as the use of critical materials over the entire life cycle of its vehicles right from the very beginning. With the fifth generation of BMW eDrive, the Group reached an important milestone during the year under report. A special feature of the electric motor, which is being installed in the BMW iX3* for the first time (eDrive Gen5), has been designed so that it no longer requires the use of rare earth elements. For the fifth generation of its high-voltage storage system, the BMW Group obtains any critical raw materials it requires from sources outside the known conflict regions. Cobalt that is bought in directly by BMW Group and made available to suppliers is sourced from Morocco and Australia. The lithium used is also from Australia, where it is extracted by means of the so-called hard rock mining process. In addition, the BMW Group has successfully reduced the amount of cobalt required per kWh by two-thirds through the further chemical development of its battery cells. **Purchasing and Supplier Network**

The use of renewable energy in production processes – for example in the manufacture of energy-intensive materials such as carbon fibre reinforced plastic – or the choice of green electricity in the use phase – also help reduce the carbon footprint of the BMW Group's vehicles. Further information on how efficiently and therefore economically and sparingly the BMW Group uses resources in its production processes is provided in the section **Resource Consumption and Resource Efficiency.**

The BMW Group has entered into a contractual agreement with its battery cell manufacturers to ensure that they only use green electricity when producing the fifth generation of battery cells. In a joint technology consortium with battery manufacturer Northvolt, the Group also plans to configure the value chain for battery cells in Europe with sustainability as its top priority.

Other approaches to handling resources in a responsible, sustainable manner include the reuse of batteries, such as in stationary storage systems with the aim of improving the use of renewable energy and promoting recycling. In collaboration with the recycling specialist Duesenfeld, for example, the BMW Group has developed the prototype of a process that enables 96 % of the material from battery cells to be recovered for recycling. Furthermore, the option exists for all customers whose vehicle contains a high-voltage battery for the BMW Group to take the battery back free of charge. This also applies to regions where there is no legal obligation to do so.

The BMW Group manages the implementation of its targets and assesses progress in vehicle development via its Life Cycle Assessment in accordance with the ISO 14040/44 standard. The Group utilises these assessments to record the environmental impacts occurring over the life cycle of a vehicle right from the development stage and make comparisons with predecessor models. However, the BMW Group's approach goes one step further: it breaks down the targets by product and then implements the appropriate measures. These include, for example, the use of green electricity for energy-intensive processes in the supply chain or in production as well as the use of recycled materials such as aluminium or plastics instead of deploying primary resources.

* See Fuel Consumption and CO_2 Emissions Information.

The BMW Group aims to ensure that electric and electrified vehicles make an effective contribution to climate protection not only in the use phase, but also in their overall footprint, including the supply chain. As an example, the environmental report of the BMW iX3* indicates that the greenhouse gas potential values of an all-electric vehicle are around 30 % lower than those of a conventional reference vehicle with a diesel drivetrain when the calculation is based on standard consumption and the European electricity mix. Furthermore, when the electricity used for charging is generated from renewable energy sources, the emissions values are around 60 % lower.

Competence centre for battery cells

In 2019, the BMW Group began pooling its wealth of experience and comprehensive knowledge of battery cell technology in a new competence centre based in Munich. With this strategy, the Group is pursuing the twin aims of further improving its battery cell technology and fully penetrating production processes. Based on the battery technology currently in use, the BMW Group intends to substantially increase the potential range of its electrified vehicles by 2030 by continuing to develop its battery cells, modules and systems. Looking to the future, the focus will be even more on cutting battery system costs in order to make electric mobility more profitable.

The competence centre replicates the entire value chain of battery cell technology, from research and development to the structure and the design of the battery cell to the production of the first prototypes. It takes the complete life cycle of a battery cell into account, from purchasing the raw materials to recycling. Particularly in view of the high-voltage batteries needed to power electrified vehicles, which can entail the use of critical raw materials, the circular economy has a decisive role to play. **Production, Purchasing and Supplier Network**

EXPANDING THE CHARGING INFRASTRUCTURE AND ENABLING FASTER CHARGING

A comprehensive charging infrastructure is a prerequisite for the rapid, widespread deployment of electric mobility. In order to promote this project, between 2015 and 2020 the BMW Group committed itself to improving the charging infrastructure in a total of over 50 projects and has initiated the installation of some 15,000 operational charging points. The BMW Group plans to install a total of 4,100 charging points at BMW Group properties in Germany by the end of 2021. Half of these charging points will be made accessible for public use. Together with other car manufacturers, charging station providers, charging service providers and energy suppliers, the BMW Group is working on simplifying not only access to charging stations, but also the charging process itself.

At European level, in close collaboration with the IONITY joint venture, the BMW Group is in the process of building a high-performance fast-charging network comprising some 400 charging stations along major transport routes by 2021. Fast-charging stations make charging up to seven times faster than standard 50 kW stations. Originally planned for completion by 2020, due to the coronavirus pandemic and the lack of approvals, the BMW Group and its partners were compelled to postpone the construction of certain stations until 2021. To date, 325 of the 400 planned IONITY fast-charging stations have been installed and a further 44 are currently under construction. At powerful and increasingly widespread DC fast-charging points with outputs of at least 150 kW, the BMW iX3* can be charged to achieve a range of over 100 km (WLTP) in around ten minutes.

The BMW Group intends to offer electric mobility to both private customers and companies operating entire fleets and is additionally expanding the BMW Charging product and service portfolio for trendsetting charging solutions at home, on the road and at the workplace. Charging infrastructure for both private and commercial purposes is a key prerequisite for the further expansion of electric mobility. The BMW Group welcomes the support provided by government premiums, as charging options both at home and at the workplace make a key contribution to the overall infrastructure from the point of view of customers.

GREEN ELECTRICITY FOR E-MOBILITY

During the year under report, the BMW Group continued to pursue and expand its approaches to the holistic ecological optimisation of electric mobility both at home and on the road. In addition to BMW Charging and MINI Charging, the Group already offers electricity from renewable sources as well as attractive solar power packages for homes in both Germany and Austria. As part of its strategic investment in the IONITY joint venture, the BMW Group is preparing to broaden its range of services to enter other markets as well as the field of public charging.

* See Fuel Consumption and CO_2 Emissions Information.

IMPROVING POLITICAL CONDITIONS

In the BMW Group's view, there is still a need for political support for electric mobility in many countries and cities. In the EU, for example, market research points to the close correlation between the density of charging infrastructure and the sale of electrified vehicles. This correlation applies not only at member state level, but also in a regional comparison. The BMW Group is therefore seeking dialogue with policymakers to call for measures to be taken to improve consistency on both the supply and the demand sides. In concrete terms, the aim is to improve framework conditions with the aim of stimulating demand for electrified vehicles not only nationally, but also at local level. The focus here is on increasing the number of public charging points and offering usage incentives in everyday life, such as parking spaces reserved for electric vehicles or discounts on parking fees. In Germany, for example, only a few cities have so far taken advantage of the funding opportunities offered by the Electric Mobility Act.

To advocate for improved conditions, the BMW Group is involved, for example, in the National Platform for the Future of Mobility (NPM), in the European initiative EIT Urban Mobility and within the framework of the World Economic Forum. Furthermore, the BMW Group is in dialogue with think tanks such as Agora Verkehrswende and is a member of the International Consultative Committee of China EV 100 as well as at VELOZ, a non-profit organisation dedicated to promoting electric mobility in the US state of California.

MOBILITY PATTERNS

The BMW Group wants to make mobility more sustainable and more convenient to use. In recent years, numerous urban mobility offers have been developed and introduced in cooperation with selected towns and cities. The BMW Group therefore sees its 2020 target of providing sustainable support for changing mobility behaviour by offering integrated mobility services in selected metropolitan regions as having been met.

Moreover, the Group continues to work together with its subsidiaries and in dialogue with the respective cities to find solutions to the increasing density of road traffic and the corresponding rise in noise levels, air pollution and land use. The BMW Group is also meeting these challenges by developing connected vehicles. In view of the growing trend towards vehicle electrification, the Group is therefore making a significant contribution in particular to providing eco-friendlier modes of transport as well as promoting the better use of space in urban areas.

MAKING URBAN MOBILITY SUSTAINABLE WITH SERVICES

The BMW Group is currently working together with three German cities to improve the traffic situation and explore new mobility solutions. The New Mobility Berlin project aims to improve the quality of life within the city. For this reason, the BMW Group is developing tailor-made multimodal solutions, i.e. approaches that incorporate the entire range of transport modes. In selected districts of the city, via its subsidiaries, the BMW Group offers shared fleets of rental cars and e-scooters as an alternative to privately used vehicles. The strategy is intended to encourage better use of the road space occupied by rarely used private vehicles for other purposes going forward.

At the same time, the BMW Group has reached agreements with the cities of Munich and Hamburg, where it has carried out the first pilot projects for making city centres more pleasant to live in. Specific examples of the development of new, sustainable mobility options include the City2Share research project, which focuses on measures to reduce traffic in project districts in Munich and Hamburg, and the "umparken Schwabing-West" project, in which the BMW Group is working to transform public space and enable it to be used more appropriately by offering mobility packages for local residents.

The BMW Group is also involved in various urban platforms via which municipalities exchange information and collaborate on projects, including the **Urban Mobility Platform** in Germany and the international **EIT Urban Mobility Platform** of the European Institute of Innovation and Technology.

Via its subsidiaries, the BMW Group promotes innovative service offerings in the fields of car sharing, driving services, parking and vehicle charging as well as multimodal transport. In 2019, the BMW Group therefore merged its own mobility services in a joint venture with those of Daimler Mobility Services GmbH to create the YOUR NOW service. The common goal of the two companies is to expand the use of on-demand mobility and offer new solutions for cities and municipalities looking to make road use more efficient and sustainable. In this context, the market development and the political-regulatory framework conditions in the cities are continuously being examined and the range of services further developed in collaboration with strategic partners.

The BMW Group has expanded its car-sharing service offering (SHARE NOW) to include a long-term rental of up to 30 days. It also continued to develop FREE NOW into a multimodal mobility platform by adding e-bikes and e-scooters. In 2020, FREE NOW had 46 million registered customers and offers ride services in 17 countries and 153 cities. In the year under report, around 2.9 million customers used the SHARE NOW car-sharing services, which are available in 16 cities and eight countries. The car-sharing fleet currently comprises around 9,500 vehicles, almost one-quarter of which are electrically powered. In 2020, the number of trips decreased due to the coronavirus pandemic.

The CHARGE NOW vehicle charging service currently provides access to around 246,000 public charging points operated by various providers in 32 countries. In addition to its CHARGE NOW services, the BMW Group is working with partners in other markets to provide customers with broad access to charging points. The PARK NOW digital parking service enabled around 45 million customers in around 1,200 cities to pay more quickly and easily for parking spaces on a contactless basis. However, PARK NOW's business performance was also impacted by the coronavirus pandemic in 2020.

The BMW Group and its subsidiaries are working continuously on intelligently interconnecting vehicles, infrastructure and mobility services. The aim here is to make better use of the limited parking space available and reduce traffic congestion. The BMW Group is fully committed to complying with statutory limits for air quality, noise levels and carbon emissions as well as to restoring the quality of life for the residents of urban areas. For these reasons, the BMW Group intends to further intensify its dialogue with towns and cities and make an active contribution to the discussion on more sustainable mobility options as well as tailored traffic management measures. The Group also intends to transfer the results achieved in individual cities to other areas and adapt them on an international basis.

FURTHER DEVELOPING AUTOMATED DRIVING

Automated functions and digitally connected vehicles can help reduce traffic congestion, minimise the risk of accidents and cut emissions levels. These technologies are therefore making a direct contribution to improving the quality of life in cities, and electric mobility in particular is becoming more and more popular at the same time.

The latest BMW models are equipped with state-of-the-art driver assistance systems. In 2021, the BMW Group is taking automated driving a decisive step further with the development of the BMW iX*. It will be the first BMW Group vehicle to offer both automated driving and parking functions via a new modular technology system. The BMW Group sees considerable potential in automated driving and will continue to develop this field intensively over the next few years.

Employee mobility

As the largest single employer in the Munich metropolitan region, the BMW Group has a special role to play in its hometown location and the surrounding urban areas by actively helping to reduce environmental pollution. The Group is planning to have one of the largest company charging networks in place by mid-2021, thereby helping to increase the popularity of electric mobility and reduce carbon dioxide as well as other pollutant emissions.

The BMW Group provides incentives for its employees to use public transport, including benefits such as a discounted monthly ticket within the Munich city area. Around 14,000 employees have chosen this option. The Group also operates a long-established shuttle bus service between its locations. It also provides its staff with rental bicycles and scooters for commuting. Last but not least, as a good example, with its BMW LeaseRad offer, the Group is actively supporting the growing number of employees who choose to ride to work by bicycle and also encourages travelling by bicycle and scooter in general.

* See Fuel Consumption and CO_2 Emissions Information.

The BMW Group is also leveraging vehicle connectivity with its new eDrive Zones technology, which automatically switches plug-in hybrids to fully electric driving mode when entering an environmental zone. The innovation makes it easier for customers to drive emissions-free to the greatest extent possible. The Group has already introduced this function in over 80 European cities.

The safety of its automated systems is a top priority for the BMW Group. For that reason, in 2019 it partnered with 11 leading companies in the field of automated driving to produce a Safety First for Automated Driving (SaFAD) white paper that highlights the importance of safety by design in the development of an industry standard for automated driving. The BMW Group sees this white paper as an important step towards defining industry-wide standards from the testing stage to the approval of highly and fully automated driving functions.

Since 2018, BMW assistance systems have been utilising artificial intelligence to anticipate typically dangerous situations such as the swerving of other vehicles in order to react in good time. The BMW Group can further improve the performance of artificial intelligence in this field by analysing anonymised data taken from real-life activities. Therefore, as a founding member of the European Gaia-X project, it is committed to developing standards for organising data and cloud-based measures with the aim of making traffic management more efficient.

In order to incorporate highly mature new technologies in series production and further raise its level of expertise in the field of automated driving, the BMW Group is building a new development and testing ground in the Czech Republic, which is scheduled for completion in 2022. Complex everyday automated driving conditions can then be tested at the new facility in a realistic but controlled environment.

PREVENTIVELY PROTECTING CUSTOMER DATA

The protection of data and information within the BMW Group is based on the relevant laws and standards, particularly in accordance with the EU General Data Protection Regulation and the ISO/IEC 27001 international security standard. The personal data of customers is only collected, processed or utilised to the extent legally permitted and with the consent of the person in question. Any complaints can be reported to the Customer Interaction Centre, the Data Protection Officer or via the SpeakUP Line and will be dealt with promptly.

In order to protect its digital systems from tampering, the BMW Group systematically searches for possible weak points with a view to closing any potential gaps in good time before approving the respective component. The Group continuously translates any new insights into binding standards. Clear standards regarding data and information protection also apply to any collaborations and partner relationships.

With BMW CarData, the BMW Group introduced a secure, data-protection-compliant and transparent service for the non-discriminatory sharing of vehicle data, initially in Germany in 2017 and since 2018 across Europe. BMW CarData provides BMW Group customers with complete data sovereignty. Customers can decide independently which of their vehicle data are transmitted to other market participants for a specific purpose. The BMW Group has also been offering this service in the USA since June 2020. **Design and Product Safety**

IDENTIFYING POTENTIAL FOR SUSTAINABLE MOBILITY AT AN EARLY STAGE

The BMW Group has combined the topics of sustainability and mobility in its corporate strategy. It analyses the opportunities and challenges arising from changes in mobility demand that result from new types of mobility on offer or regulatory framework conditions. The BMW Group then develops premises for its contribution to sustainable mobility on this basis. In corporate departments for both strategy and communication, the Group has established dedicated teams in a global network and provided them with funding to jointly define sustainability goals and monitor the extent to which they are being achieved. The BMW Group views developments in its main markets in a differentiated manner and engages in collaborative research projects in order to understand the changes, impacts and needs of urban mobility behaviour worldwide at an early stage. The Group is also in regular dialogue with its international stakeholders. One of the aims of these established events is to gain a better understanding of people's mobility needs worldwide and develop new products and services accordingly. **Dialogue with Stakeholders**

PRODUCTION, PURCHASING AND SUPPLIER NETWORK

PROMISED

We aim to reduce

CO_2 EMISSIONS

per vehicle produced.

DELIVERED

Since 2020, the electricity for all BMW Group plants has been sourced from

100 % RENEWABLE ENERGIES.

Dr.-Ing. Andreas Wendt
Member of the Board of Management
of BMW AG,
Purchasing and Supplier Network

"Our expertise in integrating new technologies and products into our production system is unique worldwide. Through innovation and digitalisation, we are setting new benchmarks in terms of efficiency and sustainability. This leads into a new era of automotive production: The next level of our BMW Group production system will be lean, green and digital."

Dr. Milan Nedeljković
Member of the
Board of Management
of BMW AG, Production

"A company is much more than just the sum of its individual employees. It is about sharing the same goals, working together as partners and taking responsibility beyond one's own area. This applies to us at the BMW Group, as well as in cooperation with our suppliers."

We know where **TECHNOLOGY** can still leverage **POTENTIAL**. That's why I'm **OPTIMISTIC** we can reach the high goals we set ourselves.

Jury Witschnig is responsible for environmental protection in production. Patricia Perez Szmak heads the project dedicated to sustainability in the supply chain.

MR WITSCHNIG, ENVIRONMENTAL PROTECTION IN PRODUCTION. WHAT DOES THAT MEAN EXACTLY?

Our goal is clean production. That means minimising our environmental impact in a targeted manner – with regard to water, waste, energy, solvents, etc. We have achieved a great deal in recent years – for instance, reducing the amount of waste by 80 %. And all BMW Group plants worldwide have obtained their electricity from renewable energies since 2020.

THE GOAL IS TO REDUCE CO_2 EMISSIONS IN PRODUCTION BY ANOTHER 80 % BY 2030. HOW WILL YOU DO THAT?

We have already achieved a great deal when it comes to energy efficiency and sourcing green power. And we know where technology can still leverage potential. Our next big topic will be gas consumption.

SUPPLY CHAIN CO_2 EMISSIONS ARE ALSO MEANT TO BE REDUCED BY 2030. MS PEREZ SZMAK, WHY BY ONLY 20 %?

Without corrective measures, expanding electromobility would increase CO_2 emissions in the supplier network by at least a third. We don't just want to stop this increase; we want to reverse it. So, actually, a reduction of at least 20 % is a very ambitious goal.

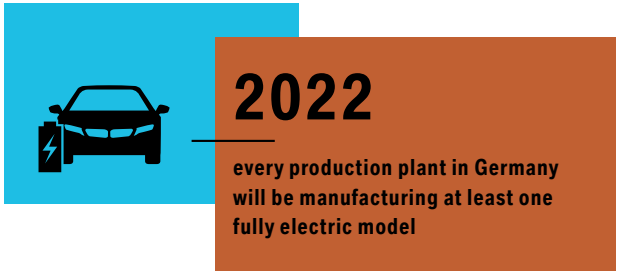
Renewable energies will play a big part in this. A second topic is the reuse of materials – in other words, a circular economy. The best part is: Our suppliers are fully on board with this.

Further information is available at:
report.bmwgroup.com

PRODUCTION NETWORK

The BMW Group's production system is efficient and flexible. It provides customers with a large number of customisation options when choosing their own vehicle. Moreover, during the reporting period the BMW Group's global production system once again demonstrated its ability to respond to highly volatile market developments, even under the demanding conditions of the 2020 pandemic year.

The production network leverages innovative technologies from the fields of digitalisation and Industry 4.0, including applications from the worlds of virtual reality, artificial intelligence, smart logistics and 3D printing.



2022

every production plant in Germany will be manufacturing at least one fully electric model

SYSTEMATIC TRANSFORMATION TOWARDS ELECTRIC MOBILITY

The BMW Group continues to accelerate towards electric mobility and is bolstering its international production network for the increased manufacturing of electrified vehicles. By the end of 2022, every production plant in Germany should have the capacity to produce at least one fully electric vehicle model. The BMW Group's production system is capable of manufacturing both conventional internal combustion and electrically powered vehicles on a single line, enabling it to respond flexibly to changing customer requirements for various drivetrain systems. In 2020, the Group simultaneously manufactured electrified models at 13 locations in its global production network. By the middle of the current decade it will be deploying a new cluster architecture geared to fully electric drivetrains. Initially, the technology will be launched at the future Debrecen plant in Hungary and then transferred to the global production network in a step-by-step process.

Electrification is also becoming increasingly important in terms of drivetrain production. In the year under report, the BMW Group announced the construction of a pilot plant for the near-series production of battery cell prototypes. The aim is to further optimise the production of battery cells in terms of quality, performance and costs. The Battery Cell Competence Centre in Munich already covers the entire value chain in terms of battery cell technology – from research and development to the structure and design of the battery cell as well as its manufacturability.

The Group's Dingolfing plant has assumed a leading role as a competence centre for e-drive systems in the production of electric drivetrain components. It produces battery modules, high-voltage batteries and fifth-generation electric motors for the BMW Group's electrified vehicles. E-motors are also manufactured at the Landshut plant. Production facilities for battery components and high-voltage batteries are also being established at the Group's Leipzig and Regensburg sites. Currently, high-voltage batteries are manufactured at three BMW Group plants, i.e. Dingolfing (Germany), Spartanburg (USA) and Shenyang (China). In Thailand, the BMW Group collaborates closely with a partner that manufactures high-voltage batteries for electrified vehicles that are produced locally. By 2024, the production of internal combustion engines in Europe will be concentrated at BMW Group locations in Steyr (Austria) and Hams Hall (UK).

PRODUCTION SITES IN KEY MARKETS

The BMW Group's production network comprises 31 locations in 15 countries. The Group aims to strike a balance between production and deliveries in the various regions of the world. 20 of the 31 sites are BMW Group plants. Three sites belong to the BMW Brilliance Automotive joint venture in Shenyang (China), which is currently being further enlarged. Eight production sites are operated by partners or contract manufacturers. The same standards of quality, safety and sustainability apply at all locations within the BMW Group's production network worldwide.

Locations	Country	Products
BMW GROUP PLANTS		
Araquari	Brazil	BMW 3 Series, BMW X1, BMW X3, BMW X4, BMW X5
Berlin	Germany	BMW motorcycles, car brake discs
Chennai	India	BMW 2 Series, BMW 3 Series, BMW 5 Series, BMW 6 Series, BMW 7 Series BMW X1, BMW X3, BMW X4, BMW X5, BMW X7, MINI Countryman
Dingolfing	Germany	BMW 3 Series, BMW 4 Series, BMW 5 Series, BMW 6 Series, BMW 7 Series, BMW 8 Series, BMW M Chassis and drivetrain components, e-motors, high-voltage batteries, battery components Rolls-Royce bodywork, pressed parts
Eisenach	Germany	Toolmaking, vehicle components, aluminium tanks for BMW Motorrad
Hams Hall	United Kingdom	Petrol engines, core engine parts
Landshut	Germany	Vehicle and engine components, e-motors and special-purpose motors
Leipzig	Germany	BMW 1 Series, BMW 2 Series, BMW i, BMW M
Manaus	Brazil	Motorcycles
Munich	Germany	BMW 3 Series, BMW 4 Series, BMW M Petrol and diesel engines, high-performance engines for M models Core engine parts
Oxford	United Kingdom	MINI, MINI Clubman, MINI Cooper SE*
Rayong	Thailand	BMW 2 Series, BMW 3 Series, BMW 5 Series, BMW 7 Series BMW X1, BMW X3, BMW X5, BMW X7 Motorcycles
Regensburg	Germany	BMW 1 Series, BMW 2 Series, BMW 4 Series BMW X1, BMW X2, BMW M
Rosslyn	South Africa	BMW X3
San Luis Potosí	Mexico	BMW 3 Series
Spartanburg	USA	BMW X3, BMW X4, BMW X5, BMW X6, BMW X7, BMW M, High-voltage batteries
Steyr	Austria	Petrol and diesel engines Core engine parts High-performance engines for M models
Swindon	United Kingdom	Pressed parts and bodywork components
Wackersdorf	Germany	Distribution centre for parts and components Cockpit assembly Processing of carbon fibre components
Rolls-Royce Manufacturing Plant Goodwood	United Kingdom	Rolls-Royce Phantom, Ghost, Wraith, Dawn, Cullinan*

* See ↗ Fuel Consumption and CO_2 Emissions Information.

Locations	Country	Products
JOINT VENTURE BMW BRILLIANCE AUTOMOTIVE HOLDINGS LTD.		
Dadong (Shenyang)	China	BMW 5 Series BMW X3 BMW iX3*
Tiexi (Shenyang)	China	BMW 1 Series, BMW 2 Series, BMW 3 Series BMW X1, BMW X2
Tiexi (Shenyang)	China	Petrol engines, high-voltage batteries, battery components, production of core engine parts

* See Fuel Consumption and CO_2 Emissions Information.

The BMW Group's four automotive partner plants in Jakarta (Indonesia), Cairo (Egypt), Kaliningrad (Russia) and Kulim (Malaysia) primarily serve their respective regional markets and produce BMW and MINI brand models.

The BMW Group also awards contracts to external partners for the production of specific types of vehicle as well as motorcycles. During the period under report, Magna Steyr Fahrzeugtechnik produced the BMW 5 Series Sedan and the BMW Z4 in Graz (Austria). VDL Nedcar manufactured the MINI Convertible and MINI Countryman models as well as the BMW X1 at its production plant in Born (the Netherlands). In addition, BMW motorcycles are produced at the TVS Motor Company in Hosur (India) as well as at the Loncin Motor Company in Chongqing (China).

HIGH PRODUCTION VOLUME DESPITE PANDEMIC

The coronavirus pandemic caused demand on international automotive markets to fall, in some cases substantially, especially in the first six months of the year. Production volumes were adjusted accordingly and, at 2,255,637[1] BMW, MINI and Rolls-Royce brand automobiles, were below the level recorded one year earlier (2019: 2,564,025[1] units; –12.0 %). The figure comprised 1,980,740[1] BMW (2019: 2,205,841[1] units; –10.2 %), 271,121 MINI (2019: 352,729 units; –23.1 %) and 3,776 Rolls-Royce brand vehicles (2019: 5,455 units; –30.8 %).

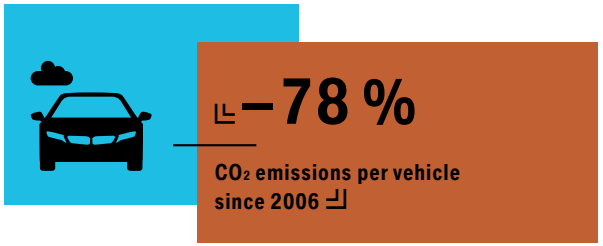
[1] Includes vehicles produced by the BMW Brilliance Automotive Ltd., Shenyang joint venture (2020: 602,935 units; 2019: 536,509 units).
[2] Joint Venture BMW Brilliance Automotive Ltd., Shenyang.
[3] Contract production.

VEHICLE PRODUCTION OF THE BMW GROUP BY PLANT

in units	2020	2019	Change in %
Spartanburg	361,365	411,620	–12.2 %
Dingolfing	231,970	284,907	–18.6 %
Regensburg	199,991	255,804	–21.8 %
Leipzig	200,968	230,284	–12.7 %
Oxford	175,984	222,340	–20.8 %
Munich	143,758	221,077	–35.0 %
Rosslyn	50,760	69,463	–26.9 %
Rayong	25,752	23,700	8.7 %
Chennai	6,228	8,976	–30.6 %
Araquari	8,400	8,208	2.3 %
Goodwood	3,776	5,455	–30.8 %
San Luis Potosí	56,081	25,538	119.6 %
Tiexi (BBA)[2]	311,137	250,241	24.3 %
Dadong (BBA)[2]	291,798	286,268	1.9 %
Born (VDL Nedcar)[3]	125,666	174,097	–27.8 %
Graz (Magna Steyr)[3]	35,747	52,231	–31.6 %
Partner plants	26,256	33,816	–22.4 %
Total	**2,255,637**	**2,564,025**	**–12.0 %**

RESOURCE CONSUMPTION AND RESOURCE EFFICIENCY

The reduction of carbon emissions and the responsible use of resources are important cornerstones of the BMW Group's strategy. Its own plants and locations have a direct influence on both carbon emissions levels and resource consumption. The BMW Group has been committed to resource-efficient production at its plants for many years. This includes checking and monitoring the consumption of resources across the BMW Group's production network. The principle of continuous improvement applies throughout the BMW Group. It invests in efficient technologies and also continually seeks to optimise its existing processes and procedures. This principle has been highly successful, as the Group clearly surpassed its target of reducing resource consumption per vehicle produced by an average of 45 % by 2020 compared to 2006, achieving an overall reduction of 56.7 %. Apart from continuously reducing energy consumption in general, the BMW Group is now focusing on converting its electricity supply to renewable energy sources. Any remaining production-related emissions that cannot yet be avoided will be offset from 2021 onwards.



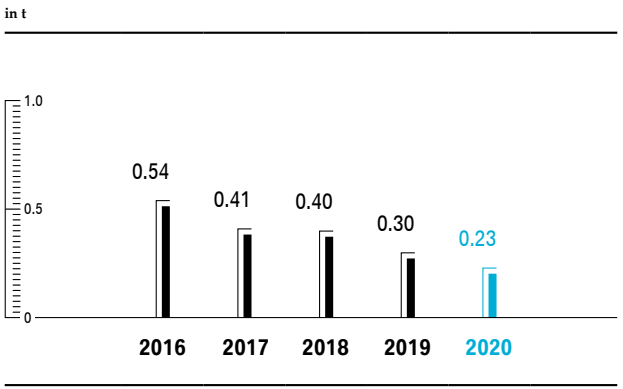
NEW PRODUCTION TARGETS UP TO 2030

The biggest lever for reducing the BMW Group's Scope 1 and Scope 2 emissions is at its production locations, which account for around 90 % of these emissions. The BMW Group has had considerable success in this area and repeatedly set new standards in terms of sustainable production methods. Between 2006 and 2020, carbon emissions per vehicle produced fell by around 78 % by continually improving energy efficiency, generating renewable electricity in-house and entering into direct supply contracts for green power (including guarantees of origin). Nevertheless, the BMW Group has already set itself the next target: compared to 2019, these emissions levels are to be reduced by a further 80 % per vehicle by 2030. As from 2021, the Group will make the remaining carbon emissions from Scope 1 and Scope 2 completely carbon-neutral by using voluntary offset certificates.

CARBON FOOTPRINT IN PRODUCTION REDUCED AGAIN

Carbon emissions per vehicle produced fell by around 23 % to 0.23 t compared with the previous year. The reduction is a result of completely switching the BMW Group's production network to green electricity generated from renewable sources. The BMW Group also managed to reduce the absolute level of carbon emissions generated by the production network to 486,630 t (2019: 697,025 t). GRI 305-4

CO_2 EMISSIONS PER VEHICLE PRODUCED [1, 2]



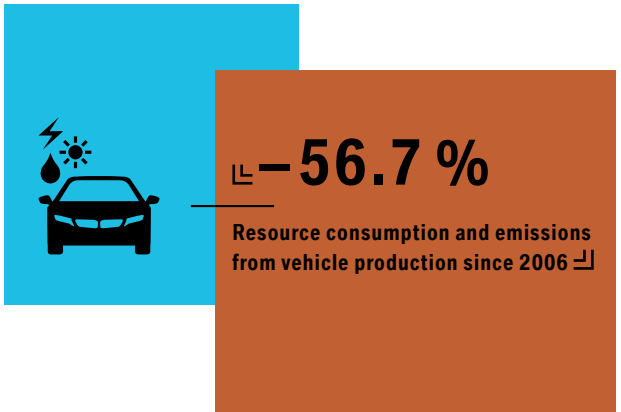
GRI 305-4, 305-5

[1] Efficiency indicator calculated from Scope 1 and Scope 2 CO_2 emissions (market-based method according to GHG Protocol Scope 2 Guidance. Other climate-impacting gases than CO_2 not included) from vehicle production, without motorcycles, minus CHP losses divided by the total number of vehicles produced, incl. BMW Brilliance Automotive Ltd. joint venture, Shenyang/CN, not including the vehicles from the Magna Steyr and Nedcar contract production plants.
[2] The figures for 2016 to 2018 were examined by the external auditor on the basis of a limited assurance engagement.

The absolute volume of carbon emissions fell by 13 % to around 66 million tonnes during the year under report. The main drivers were the reduction in fleet carbon emissions worldwide and the lower production volume due to the coronavirus pandemic. **GRI 302-2, 305-1, 305-2, 305-3, 305-4, 305-5**

BMW GROUP CO_2 FOOTPRINT (CONDENSED VERSION)[1]

in t CO_2/CO_2e	2020	2019
TOTAL EMISSIONS[2]	**65,828,005**	**75,987,119**
Scope 1	642,885	642,259
Scope 2	84,257	302,574
Scope 3	65,100,863	75,042,286



MINIMISING RESOURCE CONSUMPTION AND OTHER EMISSONS

The BMW Group wants to lead the way by keeping resource consumption in its production processes to an absolute minimum. Apart from carbon emissions, further decisive factors are energy and water consumption, the amount of waste sent for disposal and the use of solvents. In recent years, the BMW Group has made a great deal of progress in terms of resource consumption. Between 2006 and 2020, the BMW Group reduced its average resource consumption and emissions generated per vehicle by 56.7 %, an improvement of 6.5 % year on year.

IMPROVEMENT IN RESOURCE CONSUMPTION AND EMISSIONS FROM VEHICLE PRODUCTION SINCE 2006

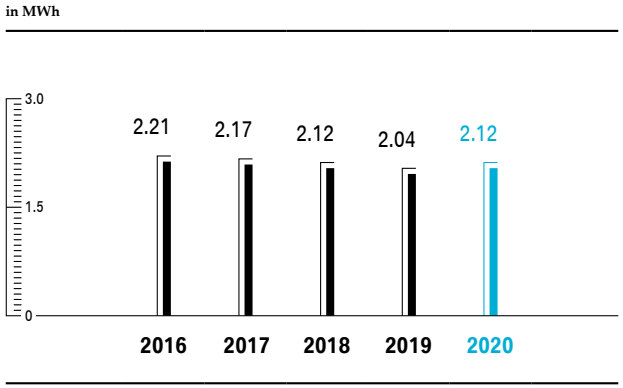
per vehicle produced	
Average of the values	**–56.7 %**
Energy consumption	–38.0 %
CO_2 emissions	–78.1 %
Water consumption	–31.0 %
Process wastewater	–42.7 %
Waste for disposal	–82.4 %
Solvent emissions	–67.7 %

GRI 302-3, 305-4

The pandemic-related interruption of production at most BMW Group plants had a significant impact on energy consumption per vehicle. When the production facilities were restarted, the same base load[3] and simultaneously lower production volumes resulted in an overall increase in energy consumption per unit. Although the BMW Group's energy consumption fell to 5,714,610 MWh (2019: 5,974,625 MWh) in absolute terms during the pandemic **Energy Consumption in Detail**, energy efficiency was negatively impacted by lower unit volumes and not least also by hygiene measures such as the requirement to increase the frequency of ventilation. The BMW Group's specific energy consumption for vehicle production in 2020 therefore rose by 3.9 % to 2.12 MWh per vehicle produced compared to 2019. **GRI 302-1, 302-3, 302-4**

[1] The detailed version of the BMW Group carbon footprint can be found in the section on BMW Group CO_2 Footprint.
[2] The emissions listed account for approximately 90 % of the BMW Group's total Scope 1 to Scope 3 emissions. Scope 1 and Scope 2 emissions exclude climate-impacting gases other than carbon dioxide.
[3] The base load is the amount of power permanently required (e.g. standby consumption), regardless of how many vehicles are produced. The base load includes energy required for emergency and basic lighting, minimum ventilation or heating and air conditioning in standby mode.

ENERGY CONSUMPTION PER VEHICLE PRODUCED[1,2]



GRI 302-3, 302-4

At 2.25 m³ per vehicle produced, specific water consumption dropped by 3 % compared to the previous year. **Water Consumption per Vehicle Produced**

The BMW Group continuously tries to further reduce energy and water consumption. It sees opportunities to save energy in particular by improving base load management, for example by reducing standby consumption during shift breaks. In order to reduce water consumption, the BMW Group's plants are further improving their circulation systems by means of wastewater treatment. Optimisation measures are, however, offset by the higher consumption required to cool the newly installed combined heat and power plants. The BMW Group has investigated the use of water sources other than drinking water in a number of its plants in future. It focused on locations in dry climatic regions, such as the plant in San Luis Potosí (Mexico).

During the year under report, the volume of waste for disposal per vehicle produced decreased by 18.6 % to 3.33 kg compared to 2019. The main reason for differences in the volume of waste for disposal is changes in the structure of the existing waste disposal companies at the BMW Group's various locations. For example, in 2020 the Shenyang plant in China began using household-type commercial waste to generate energy, a strategy also introduced at the Rosslyn plant in South Africa. **Waste for Disposal per Vehicle Produced**

The BMW Group reduced its emissions of volatile organic compounds (VOC[3]) per vehicle produced by 4.7 % to 0.81 kg in the 2020 reporting period. This year-on-year improvement is attributable to process optimisations such as restricting the quantity of material used for cleaning work, the use of solvent-free cleaning agents, and the equipping of several new paint shops with extended thermal oxidisation facilities for base and clear coats, such as at the Munich, Dingolfing and Shenyang plants. **Solvent Emissions per Vehicle Produced** **GRI 305-7**

MONITORING RESOURCE CONSUMPTION

The monitoring of resource consumption is an integral part of the Group's environmental management strategy in the global production network and is managed by the Steering Committee of the BMW Group's international environmental protection network. Each facility, building and space at each location is allocated to an internal operator. Within this area, the operator is not only responsible for the facilities and technical systems as well as the smooth running of processes and procedures, but also for their environmental impact.[4]

An environmental management system in accordance with ISO 14001 has been implemented at all 31 BMW Group production plants. With the exception of the Manaus plant in Brazil (planned for 2021), all Group sites are certified according to this standard. The five competence centres – emissions, water, waste, qualification and environmental management system – coordinate the BMW Group's environmental protection measures worldwide. Accordingly, any ecological improvements that have proven to be effective at one location are implemented at other locations to the extent possible. Ongoing further training and the exchange of information between employees are aimed at ensuring the transfer of knowledge.

– 38 %

Energy consumption per vehicle produced since 2006

[1] Efficiency indicator calculated from electricity, heat, natural gas and heating oil consumption from vehicle production (without motorcycles) minus CHP losses, divided by the total number of vehicles produced, excluding vehicles from the Magna Steyr and Nedcar contract production plants, plus energy consumption of the engine plants and electric engines as well as battery production, divided by engine production in Hams Hall, Steyr, Munich and BMW Brilliance Automotive Ltd. in Shenyang.
[2] The figures for 2016 to 2018 were examined by the external auditor on the basis of a limited assurance engagement.
[3] VOC emissions (volatile organic compounds) are generated in particular during the painting process and can be reduced by deploying innovative painting technologies.
[4] Each operator is required to describe the environmental impacts in the aspect register in accordance with the environmental management system and identify measures for improvement (e.g. long-term targets).

CIRCULAR ECONOMY MAXIMISES RESOURCE EFFICIENCY AND CONTRIBUTES TO CLIMATE PROTECTION

The responsible use of resources plays a key role in the BMW Group's business model. For example, if electric mobility is not only to be produced using primary materials in the long term, the underlying flows of resources need to undergo a sustainable transformation. The BMW Group intends to create high-quality secondary raw materials by promoting a greater degree of transparency in the recycling chain and tracking the actual further use of raw materials within the cycle. The Group wants to provide effective impetus for a circular economy that is viable in the long term by emphasising the importance of recycling valuable resources. At the same time, this strategy can significantly contribute to cutting carbon emissions (Scope 3 upstream), as the use of secondary raw materials can significantly reduce the size of the Group's carbon footprint in its procurement and production processes – even down to as little as one-sixth, depending on the material. For this reason, the BMW Group has defined the circular economy as a strategic focus for the coming years. This includes its own internal initiatives as well as increasing its external commitment in dialogue with major stakeholders.

The economical use of resources is already a key requirement in the design process and at the product development stage and guarantees that BMW Group products are designed to ensure that as much raw material as possible remains within the circular economy. In 2020, a total of 99.1 % of the waste generated in production processes was either recycled or recovered. To the extent viable, i.e. depending on the waste disposal market and distances to the supplier, the cycles of materials are physically closed so that the resulting recyclates can be reused. End-of-life vehicles are therefore not considered as waste to be disposed of, but as a source of secondary raw materials. For this reason, the BMW Group promotes the return of end-of-life vehicles, components and materials to the raw materials cycle. Together with its sales organisations in each country, the Group has already organised the taking back of end-of-life vehicles in 30 countries and offers environmentally friendly recycling services at more than 2,800 take-back centres. All vehicles brought onto the market since 2008 comply with global requirements for the recycling of end-of-life vehicles, components and materials. Already today, vehicles are required to be 95 % recyclable. **GRI 301-3**

By 2030, the BMW Group intends to further increase the percentage of recycled secondary raw materials in its vehicles while systematically developing the recycling process at the same time. During the year under report, around 25 % of the steel and up to 20 % of the thermoplastics the Group used for vehicle manufacturing were derived from secondary sources. Up to 50 % of the aluminium the BMW Group uses to make its aluminium castings comes from secondary sources. **Average Distribution of Materials in BMW Group Vehicles** **GRI 301-2**

In its efforts to minimise waste, the BMW Group has developed recycling and reprocessing concepts that are adapted to the waste flows in its various plants, to regional legal requirements and to existing local waste disposal structures. Moreover, the Group intends to increase its level of expertise in the development and production of battery cells **Electric Mobility** and create greater transparency regarding the whereabouts and recycling of end-of-life vehicles and their resources. **Input/Output Assessment**

Through its own venture capital fund BMW i Ventures, the BMW Group has invested in key technologies that can make a decisive contribution towards achieving its long-term vision of carbon neutrality. In 2020, for example, BMW i Ventures invested in PureCycle, the first company in the world that can recycle polypropylene (an essential vehicle component) into a colourless and odourless native state. The BMW Group also invested in Prometheus Fuels, which has developed a technology that enables carbon-neutral synthetic fuels to be produced using green energy.

Logistics: freight carriers and carbon emissions

In close cooperation with freight carriers, infrastructure operators and commercial vehicle manufacturers, the BMW Group is developing ecologically sustainable logistics concepts. The Green Logistics strategy pursues the logistical aim of achieving climate-neutral transportation, thereby contributing to the Group's target of reducing carbon emissions in the supply chain by 20 % per vehicle by 2030 (base year 2019).

The carbon footprint and the use of carbon-efficient energy and modes of transport is a decisive criterion for the BMW Group when selecting freight carriers. Currently, more than half of the vehicles the Group produces are transported from manufacturing plants by rail. When supplying vehicles to the Chinese market, the BMW Group is further reducing its carbon footprint by using the railway lines along the Silk Road more intensively. In order to reduce carbon emissions, some of the spare parts sent to China by airfreight are being increasingly dispatched by rail. For other overseas markets, the option to switch to intermodal air-sea transport has been tested.

The BMW Group is increasingly working on the further development and piloting as well as the use of innovative technologies and already deploys battery- and gas-driven trucks to supply production facilities. In 2020, the BMW Group used the sea route from Belgium to Spain for vehicle production purposes. The use of biofuel from waste cooking oil led to a reduction in carbon emissions of 1,100 t.

RENEWABLE ENERGY

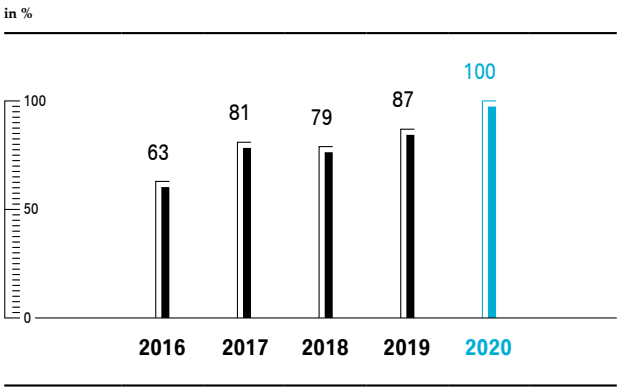
All BMW Group locations worldwide as well as the BMW Brilliance Automotive (BBA) joint venture purchase 100 % green electricity, i.e. energy generated from renewable sources[1]. With the aim of cutting the carbon emissions it generates in production processes by an additional 80 % per vehicle by 2030 (base year 2019) in a further step, the BMW Group systematically continues to invest in optimising the energy efficiency of its global production network. The strategy includes the use of process heat in paint shops and data analysis to reduce the power consumption of its machinery to a minimum. Moreover, the BMW Group is further expanding its own renewable power generation capacities at its various locations and increasing its energy storage capability. Leveraging these and other measures, the Group is making steady progress towards its long-term goal of becoming a leader in the use of renewable energy in production and value creation.

RENEWABLE ENERGY GENERATED IN-HOUSE

The BMW Group is reducing the size of its carbon footprint by generating its own electricity from renewable sources. It is utilising suitable technologies and developing solutions, depending on the location and the on-site conditions. The various options range from solar energy, for example in Mexico, to biogas in South Africa and wind power in Leipzig. As the BMW Group's in-house production cannot fully cover its energy requirements, it buys in electricity from renewable sources – preferably locally. At the same time, in future the BMW Group intends to cover an increasing percentage of its electricity requirements through so-called power purchase agreements (PPAs), i.e. direct purchases from defined renewable energy generation facilities.

The Group is also working on solutions for storing renewable energy. For example, the storage farm at the BMW Group plant in Leipzig is equipped with high-voltage batteries from the BMW i3[2]. The storage farm is integrated in the public power grid and provides control energy, which means the BMW Group is additionally helping to keep the public electricity grids stable.

SHARE OF GREEN ELECTRICITY PURCHASED FROM THIRD PARTIES[3,4]



CLEAR PROCESSES, ROLES AND RESPONSIBILITIES

Independent processes have been established throughout the company for planning and implementing energy-related measures, which assign clear roles and responsibilities to the central strategy departments, the regional controlling offices and the plants at local level. The BMW Group also maintains a close dialogue with its energy suppliers in local markets, monitors regulatory developments and calls in external support as needed in order to respond to any changes in the percentage of renewable electricity supplied and the size of its carbon footprint.

100 %

Green electricity from renewable sources

[1] Electricity from in-house renewable generation plants, direct supply contracts for green electricity and certified proofs of origin.
[2] See Fuel Consumption and CO_2 Emissions Information.
[3] Calculated based on volumes of green electricity purchased (including via certificates of origin). Relates to all BMW Group production locations including the BMW Brilliance Automotive Ltd., Shenyang, joint venture as well as motorcycle production and non-production areas.
[4] The figures for 2016 to 2018 were examined by the external auditor on the basis of a limited assurance engagement.

PURCHASING AND SUPPLIER NETWORK

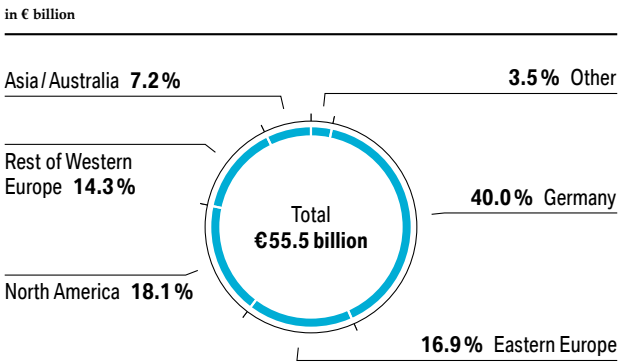
The BMW Group has laid the foundations for a stable and sustainable supply chain by organising its purchasing processes, managing international supply relationships with its partners and producing its own components.

The Purchasing and Supplier Network therefore makes a significant contribution to the Group's focus on the strategic markets of tomorrow, such as e-mobility and connectivity, and takes steps to ensure corresponding production volumes in the supply chain. With the growing demand for electrified vehicles, the need for the respective components and parts in production is also increasing. For battery cells in particular, the BMW Group is taking a variety of measures to accommodate this growth. For example, it will purchase the battery cells for its entire fifth generation from four different suppliers, thus making itself less dependent on individual manufacturers. Flexibility in terms of volume is both a premise and a decisive criterion for selecting battery cell suppliers.

The Purchasing and Supplier Network has been operating on a global basis for many years and adheres to the principle of procuring parts and components locally. The BMW Group has efficient teams on the ground in all of its key purchasing markets. Direct contact with these local markets has proved particularly effective during the coronavirus pandemic. Despite the high level of pressure on the supply chain, the BMW Group again managed to ensure a seamless supply of parts to its globally located production plants throughout the 2020 reporting year. The supply chain has thus demonstrated its stability and flexibility, despite the exceptional conditions witnessed in the 2020 pandemic year. Its many years of sustainable activity in the purchasing and supplier network have also helped to build this resilience.

Overall, the Purchasing and Supplier Network is responsible for the global procurement and quality assurance of production materials, raw materials, capital goods and services as well as the in-house manufacturing of vehicle components. External suppliers are rigorously selected on the basis of competitiveness in terms of operational excellence, quality, innovation, flexibility, cost and sustainability.

REGIONAL DISTRIBUTION OF BMW GROUP PURCHASE VOLUMES*



* Direct and indirect purchasing; excluding Joint Venture BMW Brilliance Automotive Ltd., Shenyang.

GRI 102-9

60 %

of value added attributable to suppliers

SUSTAINABILITY INTEGRAL TO PURCHASING AND SUPPLIER NETWORK

The BMW Group places great emphasis on corporate due diligence. The Group already addressed this issue in 2008, defining and setting out comprehensive environmental and social standards for the awarding of contracts for the BMW i3. Since 2010, the BMW Group has required its partners and suppliers for BMW i models to comply with human rights and extended environmental and social standards, including environmental protection management systems. Since 2014, these specifications have been mandatory for suppliers of all vehicle models. In 2019, this requirement was supplemented to include occupational health and safety management systems wherever necessary.

For many raw materials, the requirement to ensure that environmental standards and human rights have not been violated poses a particular challenge, for instance in the case of lithium and cobalt, both of which are key raw materials for manufacturing battery cells.

The BMW Group is continuously expanding its sustainability activities across the supplier network. The focus is essentially on three key issues: 1. Decarbonisation, 2. Compliance with environmental and social standards, particularly human rights, and 3. The protection of natural resources.

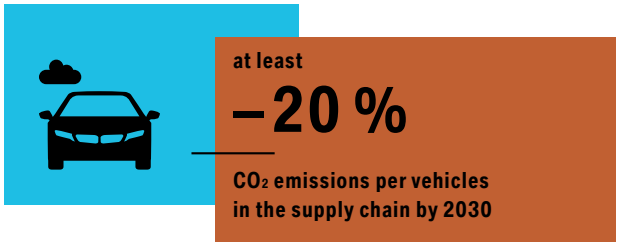
NEW TARGETS FOR DECARBONISATION IN THE SUPPLIER NETWORK

By the year 2030, the BMW Group intends to have over seven million electrified vehicles on the road. This means that the average carbon emissions generated by the BMW Group's supplier network (scope 3 upstream according to SBTI) will increase by more than one-third per vehicle by 2030 if no countermeasures are taken. Apart from the growing percentage of electrified models in the BMW Group's product range, the reasons are, for example, the energy-intensive production of battery cells, the greater use of aluminium and increased localisation in China, where the proportion of green electricity in the energy mix is still relatively low. Nevertheless, the BMW Group has set itself the goal of not only halting this trend, but even reversing it and reducing carbon emissions per vehicle in the supply chain[1] by at least 20 %[2] (base year 2019) by 2030. With this aim in mind, among other measures, since 2020 it has established the carbon footprint as a criterion for awarding contracts within the supply chain.

One of the biggest levers for promoting decarbonisation in the supply chain is the use of green electricity. For this reason, the BMW Group has agreed with the suppliers of the current fifth generation of battery cells to use only green electricity from renewable sources for production purposes.

MOTIVATING PARTNERS TO OPERATE SUSTAINABLY

Just as the BMW Group continuously implements optimisation and efficiency measures in its own production environment, it is also actively committed to promoting decarbonisation measures within its supplier network. By participating in the CDP supply chain programme, the Group motivates its suppliers to operate sustainably and, for example, utilise renewable energy in their production activities. The core of the programme consists of annual reporting that takes a multitude of climate-related aspects into account, including specific measures to reduce carbon emissions or increase the percentage of renewable energy deployed. The BMW Group strongly encourages its suppliers to set targets in line with the Paris Climate Agreement and thereby contribute to limiting global warming. The Group's success is reflected in the steadily growing number of suppliers participating: 63 suppliers (2019: 40) reported at least one 2-degree-compliant target system, and 59 (2019: 54) plan to publish one within the next two years.



[1] Including transport logistics.
[2] Value rounded for simplification purposes. The target percentage validated in conjunction with SBTI is 22 %.

In 2020, a total of 218 suppliers to the BMW Group (2019: 199) reported via the CDP Supply Chain programme, accounting for approximately 79 % of the BMW Group's production-related purchasing volume (2019: 78 %). The participating suppliers reported carbon reduction totalling some 22 million tonnes of emissions (2019: 32 million tonnes), which are proportionately attributable to the materials and goods supplied to the BMW Group. Due to the coronavirus pandemic and the resulting decrease in production volumes, carbon emissions were generally lower in 2020. Accordingly, the reduction in reported carbon emissions was also lower. **GRI 308-1, 308-2, 414-1, 414-2**

The BMW Group has integrated the assessments of the CDP Supply Chain Programme in its key purchasing processes. The results are used in discussions with suppliers, in strategic management meetings and in overall supplier strategies to point out potential for improvement. On average, suppliers that have been reporting within the CDP Supply Chain Programme for at least three years have improved. The BMW Group sees this fact as proof that the programme has become well established at the companies participating for longer periods and that it yields the intended results. In 2020, the Group also asked more than 1,000 additional suppliers who, as small and medium-sized companies, did not meet the criteria to be invited to the CDP Supply Chain Programme to complete a carbon-related questionnaire. The activity further covered approximately another 11 % (and therefore a total of 90 %) of the Group's production-related purchasing volume. The results of the survey provided the BMW Group with additional insights that enabled it to further establish the carbon footprint assessment in the supply chain as an award criterion in decision-making processes. This was already the case in 18 out of 31 tenders with the largest carbon footprint. **GRI 308-1, 308-2, 414-1, 414-2**

RESPECT FOR ENVIRONMENTAL AND SOCIAL STANDARDS AND HUMAN RIGHTS

It is a major challenge to ensure compliance with human rights as well as environmental, health and safety standards in the extraction of raw materials. For this reason, BMW Group Purchasing goes beyond the mere contractual agreement of sustainability standards to a deeper point in the supply chain in order to conclude respective direct agreements at particularly critical points in the supplier network and ensures compliance with them by conducting audits.

The BMW Group is also involved in various initiatives to standardise management approaches towards implementing human rights due diligence and applying them throughout the entire supplier network. In Germany, for example, these include the industry dialogue on respect for human rights along the global supply and value chains of the German automotive industry, in which the BMW Group is actively involved. It is also active internationally and involved in initiatives to standardise the mining of raw materials. By certifying mines in accordance with the standards of the **Initiative for Responsible Mining Assurance (IRMA)** or the **Aluminium Stewardship Initiative (ASI)**, the BMW Group is promoting compliance with environmental and social standards right from the raw material extraction stage with the aim of making a significant contribution to improving compliance with human rights throughout international supply chains.

KEY ELEMENTS FOR SUSTAINABLE MATERIALS PURCHASING

During the year under report, the BMW Group included key sustainability issues such as biodiversity, deforestation and animal welfare in its **Supplier Sustainability Policy**, which forms the basis for the Group's terms and conditions of purchase. Accordingly, BMW Group suppliers and all purchases are subject to the Group's comprehensive sustainability requirements.

In 2012, in its materials strategy the BMW Group identified particularly critical raw materials and other materials from a sustainability perspective and initiated the cross-industry study **Material Change Report** (2018) on this basis. The Group continuously analyses the raw materials prioritised in the report as well as other materials essential for production with regard to their impact on the environment and society along the entire supply chain. By sourcing raw materials such as cobalt and lithium directly, the BMW Group can establish traceability and transparency with regard to environmental and social standards, which is critical for conducting due diligence in raw materials supply chains.

RESPONSIBLE USE OF NATURAL RESOURCES

In addition to compliance with environmental and social standards and respect for human rights, the responsible use of nature's finite resources also plays a major role.

With the aim of protecting stocks of critical raw materials, by 2030 the BMW Group plans to significantly increase the percentage of recycled raw materials, i.e. secondary raw materials, that it uses and to reuse these materials in line with circular economy principles. The growth of e-mobility is causing the topic of circular economy to become increasingly important, as a variety of critical raw materials are required to produce battery cells. The use of secondary raw materials significantly reduces the carbon footprint compared to primary materials: by a factor of 4 to 6 for aluminium and by a factor of 2 to 5 for steel and thermoplastics.

At its own plants, the BMW Group is gradually establishing closed recycling loops between the plants and the raw materials manufacturers, such as at the Landshut components plant. In late 2019, the **foundry in Landshut** was certified by the Aluminium Stewardship Initiative (ASI) for its sustainable use of aluminium. Around half of the aluminium used at the BMW Group's Landshut plant comes from a closed recycling loop. The Group is consciously reducing the use of carbon-intensive primary aluminium via this method.

COMPREHENSIVE MEASURES AND COOPERATION IN A SPIRIT OF PARTNERSHIP ENSURE COMPLIANCE WITH SUSTAINABILITY STANDARDS.

We can only succeed in achieving our sustainability goals by interacting with suppliers on the basis of mutual cooperation. Ultimately, climate protection and compliance with environmental and social standards are a challenge for the whole of society. As with quality, sustainability is all about accomplishing ambitious goals in close collaboration with the supplier network.

With the aim of stepping up its efforts to ensure due diligence in the field of sustainability, since 2018 the BMW Group has been involved in developing the Automotive Sustainability Assessment (ASA) in the German Association of the Automotive Industry (VDA). Based on these guidelines, the performance of essential due diligence procedures can now be audited in a standardised manner, even at the premises of medium-sized suppliers to the automotive industry. The BMW Group already applies the Responsible Business Alliance (RBA) audit programme for major suppliers from the electronics industry. It also carries out qualification, standardisation and empowerment measures and holds informational events, particularly in the case of supply chains exposed to a higher degree of risk. The aim is to further develop and actively bring about transformation at suppliers with regard to sustainability issues. In its efforts to achieve this aim, the BMW Group leverages both individual and standardised elements of the Drive Sustainability Initiative and the Responsible Business Alliance to integrate sustainability in business processes such as procurement.

Electric mobility can only be sustainable if the raw materials it requires are also obtained as sustainably as possible. Take lithium for example:

The BMW Group currently sources lithium for its fifth generation of high-voltage batteries exclusively from Australia, where the material is extracted by means of a so-called hard rock mining process.

Furthermore, the Group has commissioned a study on sustainable lithium mining under the auspices of two renowned American universities in order to scientifically investigate water consumption in the extraction of lithium. The purpose of the study, which will be jointly conducted by the University of Alaska-Anchorage and the University of Massachusetts-Amherst, is to investigate the impact of lithium mining on local water supplies in Latin America.

Lithium is the lightest metal on earth and is mainly used to produce batteries, ceramics, glass and aluminium. It is therefore also an essential material for producing lithium-ion batteries and plays a key role in vehicle electrification.

Two-thirds of the world's lithium reserves are located in Latin America. To date, however, the impact of lithium mining in the region has not been sufficiently scientifically studied. The gap will now be closed by the study commissioned by the BMW Group. BASF SE is also partially financing the study.

Via the due diligence process, the BMW Group checks whether and how sustainability standards are being implemented by its suppliers. Suppliers contractually undertake to comply with a range of requirements in line with their environmental (ISO 14001, EMAS) and occupational health and safety management systems (OHSAS 18001, ISO 45001) and to demand and maintain compliance with these agreements from their subcontractors.

In 2020, the sustainability questionnaire for suppliers, which was initiated by the BMW Group in 2012 and jointly compiled by the automotive manufacturers, was comprehensively revised. The BMW Group's Supply Chain Response Team processes any information regarding potential breaches of its sustainability standards in the supplier network. Furthermore, the BMW Group's Human Rights Contact Supply Chain serves as the central point of contact and can be reached anonymously by telephone or email to report any potential violations of social or environmental standards by suppliers.

The BMW Group has agreed corrective measures with 64 % (2019: 62 %) of the suppliers at which sustainability shortfalls were identified in the course of the reporting year. The suppliers are required to remedy these deficits prior to the start of production. The main areas to be acted upon in particular were hazardous materials management, waste management, working conditions and occupational health and safety. **GRI 308-1, 308-2, 414-1, 414-2**

In 2020, responsibility for sustainability in the supply chain and also energy was combined in a separate department within Purchasing. It comprehensively manages the integration of sustainability factors in the BMW Group's procurement activities. At the same time, it works together closely with the Strategy department and continually adapts operational purchasing requirements.

A detailed presentation of sustainability-related activities undertaken in the supplier network and a description of the OECD Due Diligence Guidance is available on the **BMW Group** website.

The BMW Group follows the principle of empowerment before disengagement.

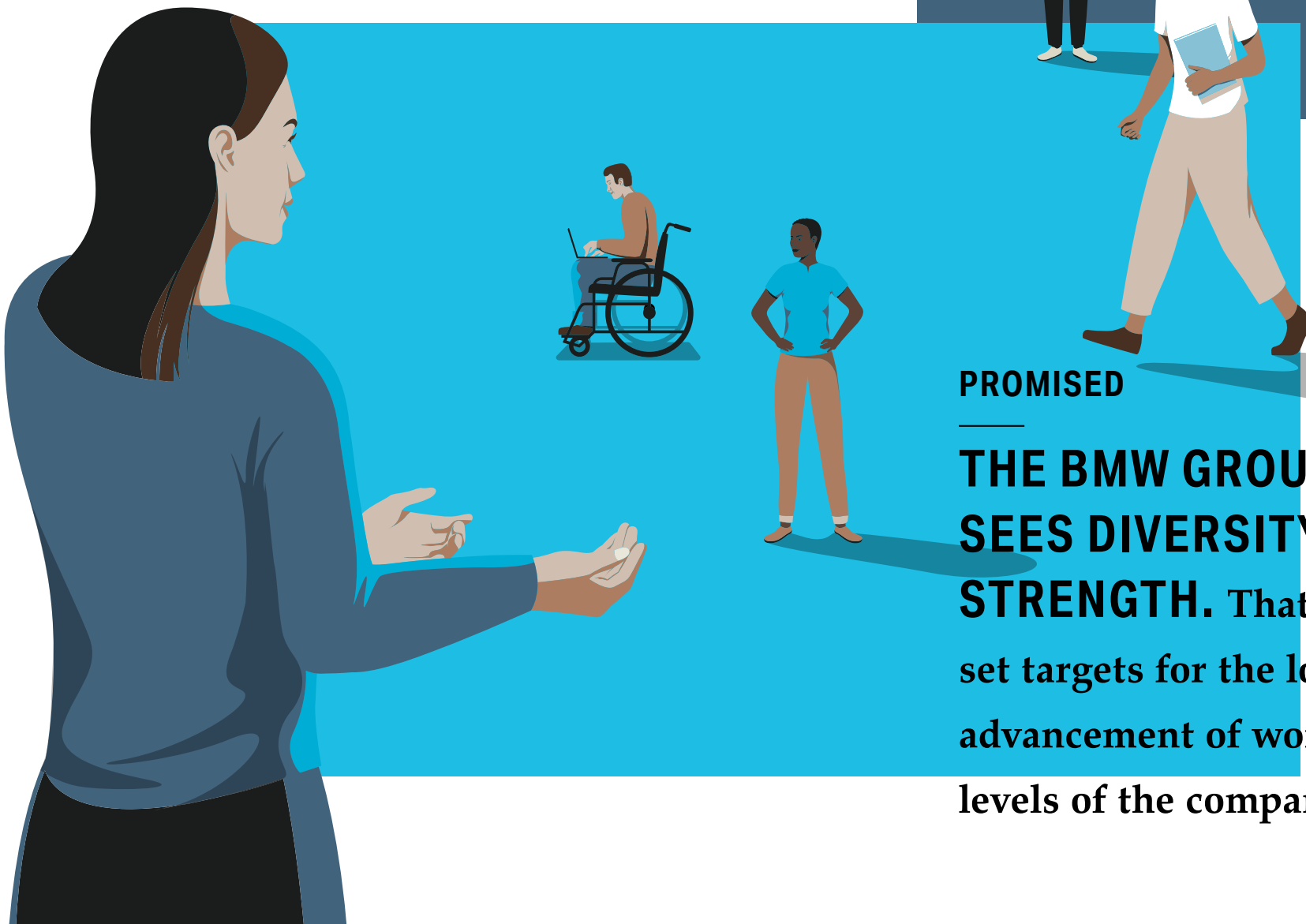
The mining of cobalt entails risks, particularly when it comes to upholding human rights. The BMW Group is committed to ensuring that the mining and processing of cobalt are carried out in accordance with sustainability standards and internationally applicable labour laws. For this reason, the Group purchases the cobalt needed to produce its fifth generation of battery cells directly from the mines themselves and makes it available to the battery cell suppliers. Around one-fifth of the BMW Group's cobalt requirement is purchased from mines in Morocco and the remaining four-fifths in Australia.

At the same time, the Group is engaged in a pilot project in the Democratic Republic of Congo in keeping with the principle of "empowerment before disengagement". In 2018, the BMW Group joined forces with other partners to initiate the cross-sector initiative "Cobalt for Development" with the aim of improving the working and living conditions of workers engaged in small-scale cobalt mining operations in the Congo. As part of the project, around 40 members of 12 mining cooperatives were trained as trainers on occupational and environmental risks who pass on the content to more than 1,500 miners in the form of training courses. These programmes are underpinned by activities in local communities by which the residents benefit from improved access to education and alternative income opportunities. The project is being implemented by the Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH.

The aim of the project is to further develop and professionalise artisanal mining in the Congo to meet the BMW Group's strict sustainability requirements and could be an option for sourcing cobalt in the long term.

More information on this project is available **here.**

EMPLOYEES AND SOCIETY

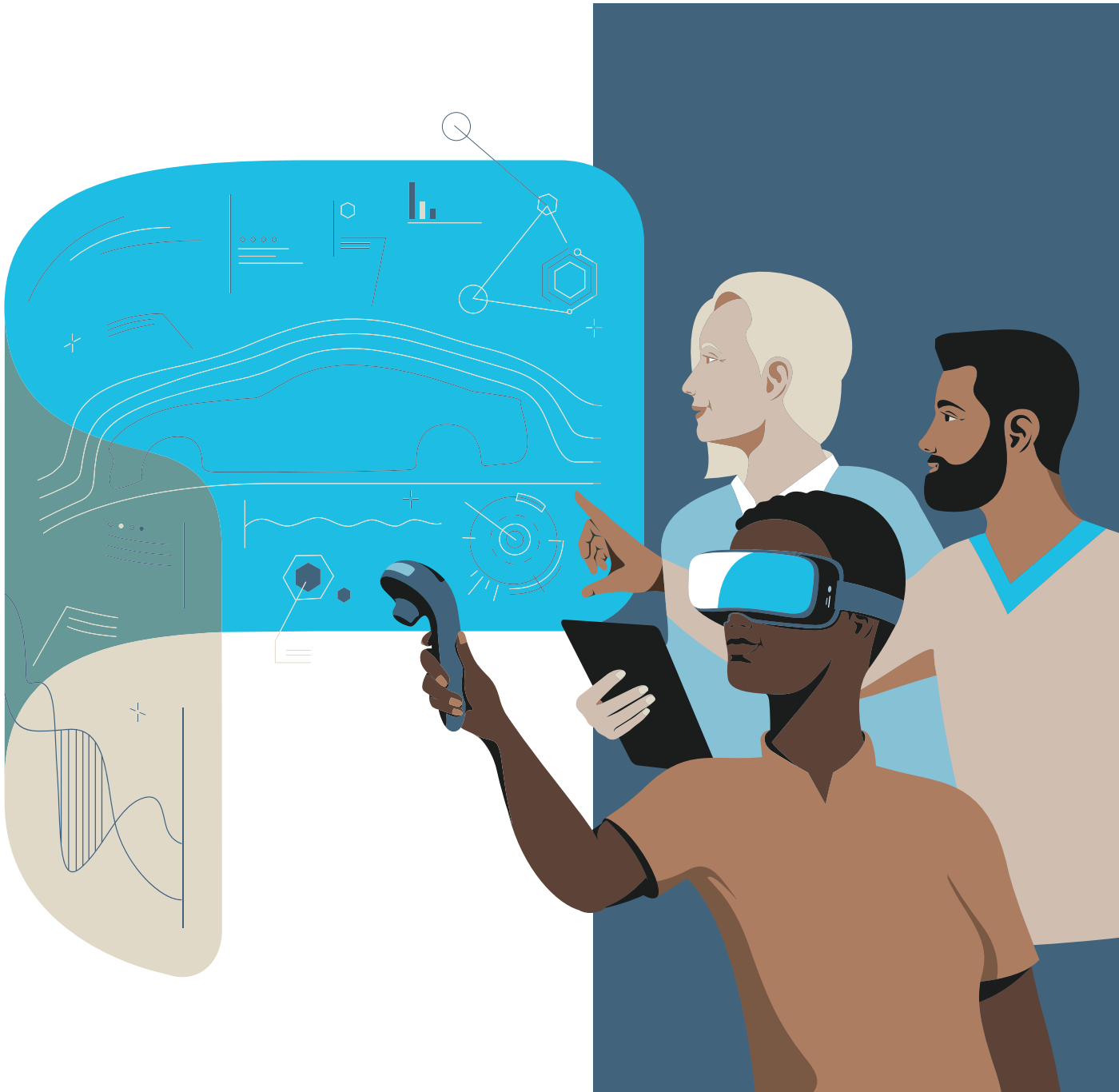


PROMISED

THE BMW GROUP SEES DIVERSITY as a **STRENGTH.** That is why it has set targets for the long-term advancement of women at all levels of the company.

DELIVERED

The number of female managers at BMW AG has more than DOUBLED since 2011.



Ilka Horstmeier
Member of the Board
of Management of BMW AG,
Human Resources,
Labour Relations Director

"Commitment to a sustainable future is no longer just an option. It is an obligation. This is valid for the BMW Group and every other company. BMW has been a leader in sustainability for years – and we are now setting ourselves even more ambitious goals for the coming decade. We are putting sustainability at the very centre of the company, measuring our success and making this even more transparent through the BMW Group Report."

Dr. Nicolas Peter
Member of the Board of Management
of BMW AG, Finance

"Working at the BMW Group means taking responsibility far beyond our own premises – for our society, the environment and all our stakeholders. It is our associates who are creating more sustainable, connected and safer mobility. This is our contribution to a better future. This is what drives us forward every day."

Sabine Distler and Gabriele von Stetten are jointly responsible for diversity strategy at the BMW Group.

We need DIVERSITY: It makes us MORE INNOVATIVE and MORE COMPETITIVE.

WHAT DOES DIVERSITY MEAN TO THE BMW GROUP?

The BMW Group firmly believes that diversity enhances our performance capabilities. Diverse teams are more innovative – because everyone brings a different perspective. Our customers are diverse, too. If we want to understand them, win them over and engage them, we also need this kind of diversity among our employees.

THE BMW GROUP ALSO SETS ITSELF TARGETS – FOR EXAMPLE, FOR THE PERCENTAGE OF WOMEN IN MANAGEMENT. HOW CAN THESE GOALS BE ACHIEVED?

We identify female talents at the company and develop them selectively. At the same time, we continue to bring qualified women into the company. We already make sure we have a high percentage of women in our talent development programmes.

WHAT ABOUT OTHER DIVERSITY FACTORS?

We have expanded our diversity strategy to include physical and mental ability, sexual orientation and identity, in addition to the previous dimensions of gender, cultural background, age and experience. For certain factors, quantitative targets make sense; for others, we need qualitative goals. It's about creating the best-possible working environment in an open and respectful corporate culture.

Further information is available at:
report.bmwgroup.com

LONG-TERM EMPLOYEE DEVELOPMENT AND EMPLOYER ATTRACTIVENESS

The success of the BMW Group is based on the personal commitment and technical expertise of its employees. As an attractive employer offering highly interesting future-oriented jobs, the BMW Group is looking to recruit new employees, deploy them in the best way possible and specifically promote their potential with the aim of ensuring their long-term employability. The success of this approach is reflected not only in the results of employee satisfaction surveys, but also in the awards the BMW Group has received as an attractive employer.

EMPLOYEE DEVELOPMENT AND EMPLOYER ATTRACTIVENESS – KEY ASPECTS OF SUSTAINABILITY

Promoting and developing the potential of its workforce and being an attractive employer are important aspects of sustainability for the BMW Group. And, as one of the most important stakeholder groups, it is logical to consistently involve employees in the dialogue when changing the Group's strategic course. In a series of international stakeholder dialogues with employees from various regions in 2020, the BMW Group discussed its perception as a sustainable company as well as the main focus of its strategy. **Dialogue with Stakeholders**

QUALIFICATION, DEVELOPING AND RESTRUCTURING COMPETENCIES

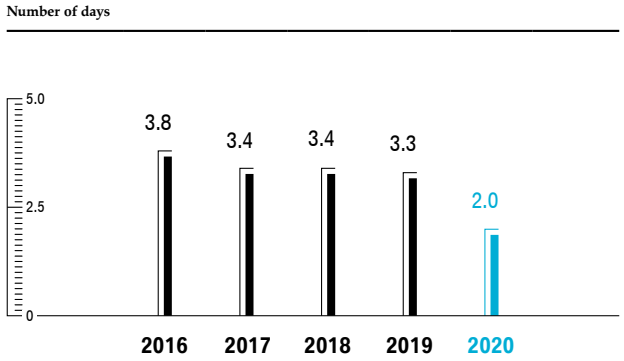
Social, economic and technological developments require companies to continually adapt to new situations and qualify their employees to meet the challenges of the future. The BMW Group therefore invests continuously in measures aimed at establishing, broadening or adapting the necessary competencies, and offers its workforce numerous options for training and further education.

BROAD RANGE OF TRAINING AND FURTHER EDUCATION OPPORTUNITIES

Lifelong learning is an integral part of everyday working life at the BMW Group. It aims to ensure the efficiency and employability of its workforce and thus its own long-term competitiveness by offering a needs-oriented and innovative range of training courses, particularly in forward-looking fields of expertise such as digitalisation and electrification. **GRI 404-2**

In 2020, BMW Group employees spent an average of 2.0 days on further training (2019: 3.3).

AVERAGE DAYS OF FURTHER TRAINING*

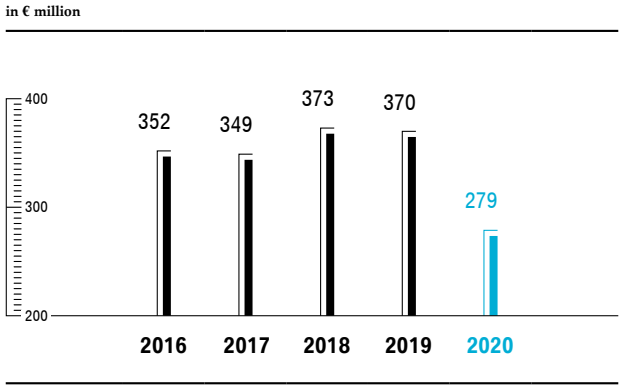


* Further training of employees and temp workers of the BMW Group in the consolidated companies worldwide. Data retrieved by direct representation of the number of participants as well as a small share by qualified extrapolation. The data also include e-learning courses.

GRI 404-1

Due to the coronavirus pandemic, face-to-face training was only conducted to a limited extent during the period under report. However, the increased use of e-learning formats ensured that qualification courses were held, for the most part, despite the situation. **GRI 404-1**

INVESTMENT IN TRAINING AND FURTHER EDUCATION[1]



Expenditure on training and further education totalled €279 million (2019: €370 million). The year-on-year decrease was due to the coronavirus pandemic, whereby much of the training initially planned as face-to-face events had to be transferred to virtual formats, the cost of which was significantly lower.

Strategic human resources planning helps manage the need for systematically developing and/or restructuring competences, ensuring that vacancies are filled and employees are qualified in good time.

[1] Training and further education encompasses BMW Group vocational training in 11 countries and further education for employees and temp workers of the BMW Group in the consolidated companies worldwide.
[2] Unlike the conventional management career with its focus on disciplinary leadership, the Expert Career programme focuses on technical-, project- or company-related topics that do not entail line responsibility for others. This Expert Career option enables the BMW Group to offer employees an additional career path.

€279 million

Spending on employee training and development

INVESTMENT AND TRAINING BOLSTER JOB SECURITY

As one of the pioneers in this field, the BMW Group is also shaping the transformation to electric mobility and digitalisation. For example, it already commissioned its Autonomous Driving Campus in Unterschleißheim near Munich back in 2018 and its Battery Cell Competence Centre in Munich in 2019. By 2026, the Group intends to invest some €400 million in a new vehicle assembly line on the site of the current internal combustion engine production facility at its main plant in Munich. The transformation of production sites and long-term job security thus go hand in hand. Employees are trained and qualified in order to take on new responsibilities in other areas. For example, the BMW Group is further expanding its e-drivetrain production competence centre in Dingolfing. It has also established production facilities for battery modules and high-voltage batteries at its Leipzig and Regensburg plants, which are scheduled to begin production in 2021. Since 2009, the BMW Group has provided more than 52,000 people, not only its own employees, but also those of suppliers, with further training in the field of electric mobility. GRI 404-2

DEVELOPMENT AND FURTHER TRAINING FOR MANAGERS

Excellent leadership is a vital prerequisite for delivering outstanding performance in a competitive environment. The BMW Group's managers play a key role in implementing its new corporate strategy. In order to develop this expertise, the BMW Group promotes personalities who have the right attitude and individual, context-related behaviour, joint team leadership skills and a high degree of connectedness within the company. Apart from careers in management, the BMW Group also offers the Expert Career[2]. It empowers its managers to develop excellent leadership qualities based on a uniform understanding of leadership. GRI 404-2

Future orientation and innovative capability with FIZ Future

The technological heart of the BMW Group beats in its Research and Innovation Centre (FIZ). With the FIZ Future programme, the BMW Group is combining its knowledge, expertise and creativity at its location in Munich (Germany) in order to research and develop the individual mobility of the future, characterised by electrification, digitalisation and connectivity.

The opening of the FIZ Nord project building was a major milestone in the year under report. At the new FIZ Nord, the BMW Group is pooling the innovative strength and key competences it will need to take on the challenges of the future. For the first time, all its vehicle drivetrain developers are working under one roof – on both state-of-the-art, highly efficient petrol engines and the latest generation of electric drivetrains. The key aim here is to promote intensive collaboration and thus also the transfer of knowledge between the various technologies. With this strategy, the BMW Group has taken an important step towards developing the competences and networking of the people who work there as well as bolstering its innovative strength.

PROMOTING YOUNG TALENT

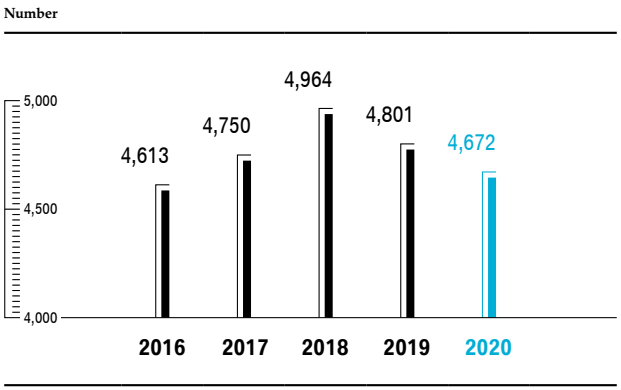
Vocational training at the BMW Group makes an important contribution to meeting the constant demand for young talent within the company, thus underlining the attractiveness of the Group as an employer. At the same time, the Group has the ambition to develop personalities through vocational training and enable young people to participate in society. With this point in mind, the BMW Group invests in vocational training and thus in the skilled workers of tomorrow. Despite the challenges posed by the pandemic, the BMW Group again recruited 1,200 trainees in Germany alone during the year under report. This social responsibility still includes the promise that BMW AG will offer its trainees permanent positions after completing their vocational training at its various plants and at the company headquarters.

For several years now, the BMW Group has been additionally investing in digitalised training, which has been even more widely used since the outbreak of the coronavirus pandemic. Innovative learning platforms and formats as well as digitalised learning content ensured that numerous training locations were able to continue offering training with virtually no gaps, even when the vocational schools were closed.

Trainees are preparing for their future occupations in 30 skilled trades and 17 dual courses of study at 19 training locations around the world. The training opportunities on offer are geared towards the Group's future fields of activity. Graduate trainees thus play a key role in developing expertise within the BMW Group. ↗ GRI 404-2

The BMW Group attracts further young talents by offering academic programmes for junior staff and supports them in their professional and personal development through mentoring, networking and a wide range of qualification opportunities in practical and international assignments. Despite the coronavirus pandemic, the BMW Group managed to implement all of its programmes. Face-to-face events were partially replaced by digital formats and the international assignments that form part of the Global Leader Development Programme[1] were largely conducted at BMW AG level, despite the unfavourable conditions. The total number of apprentices and trainees participating in development programmes for junior staff within the BMW Group remained at the high level of 4,672 in the year under report (2019: 4,801; –2.7 %).

APPRENTICES AND PARTICIPANTS IN YOUNG TALENT PROGRAMMES[2]



[1] International trainee programme for university graduates and young professionals across all disciplines.
[2] Includes SpeedUp (an undergraduate programme) and Fastlane (a master's programme).

THE BMW GOUP REMAINS AN ATTRACTIVE EMPLOYER

Highly regarded industry ratings once again ranked the BMW Group as one of the world's most attractive employers in 2020. The BMW Group is therefore the world's top-ranked automotive manufacturer in the current ranking of the World's Most Attractive Employers 2020 as rated by the well-known study provider Universum. In the study – which counts as one of the leading studies in the field of employer attractiveness worldwide – the BMW Group ranked fourth among engineering and IT students worldwide, after Google, Microsoft and Apple. When conducting the study, Universum surveyed 235,000 students from the 12 economically largest nations worldwide. This recognition is a major success for the BMW Group. In the Trendence Young Professionals Barometer for Germany, the BMW Group again achieved top spot in 2020.

As an attractive employer, the BMW Group offers future-oriented jobs and the right conditions for employees to grow personally and contribute towards shaping the future. Outstanding performance is a daily motivation to develop individual potential and make the company successful together.

Universum study

Top-ranked automotive manufacturer – World's Most Attractive Employers 2020

In our efforts to ensure that the BMW Group remains an attractive employer, we also offer above-average salaries for the respective labour markets. To verify this fact, we conduct remuneration studies each year on a worldwide basis. The total salary package consists of monthly remuneration and a variable component. We also offer a wide range of additional benefits, such as a company pension. GRI 401-2

Depending on their stage of life or living circumstances, employees have different needs when it comes to organising their work and their working hours. For this reason and to help employees find a good work-life balance, the BMW Group offers a great deal of individual personal scope in the form of working time arrangements such as flexible working hours, remote working, additional holidays in return for a corresponding reduction in salary, sabbaticals or temporary and permanent part-time solutions. These factors form the basis for individually adjusting contractually agreed working hours. The BMW Group is also investing in so-called new working environments with the aim of offering employees contemporary and attractive spaces in which to collaborate.

Every two years, the BMW Group conducts a company-wide employee survey. The survey conducted in autumn 2019 again showed a slight improvement in the High Performance Index (HPO-I) compared to 2017. The HPO-I is integrated as a parameter in the BMW Group's management system and measures the performance of the organisation as a whole. The results of the 2019 employee survey were evaluated, analysed and internal measures derived accordingly. Among other aspects, attractiveness as an employer and overall satisfaction were rated with 85 % and 82 % approval respectively. Despite overall positive approval ratings with regard to employer attractiveness, a declining trend is discernible, which shows that topics such as climate change, sustainability and electric mobility are becoming increasingly important for the workforce and thus also for the survey results. The BMW Group is responding to this development with its new strategy, focusing on sustainability and numerous internal initiatives, including stakeholder dialogues with employees on the topic of sustainability. The Group is also implementing the new strategic guidelines in its various corporate divisions. Its assessment regarding processes has also developed highly positively, albeit still at a low level. In order to encourage this positive trend, activities aimed at improving interdisciplinary cooperation have been stepped up. The results of the follow-up process were reported to the Board of Management in July 2020. The next employee survey is currently being prepared and will be conducted in autumn 2021.

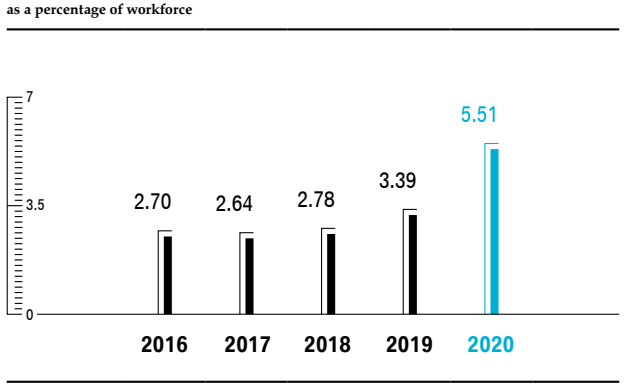
MANAGING EMPLOYMENT AND WORKFORCE PLANNING

As of 31 December 2020, the BMW Group employed a total of 120,726 people worldwide. From the 2020 reporting period onwards, the figure denoting the size of the workforce only includes core and temporary employees. The number of employees is slightly below that of the previous year (2019: number of employees based on new definition: 126,016; – 4.2 %). GRI 102-7, 102-8

The widespread restrictions on public life and the economy caused by the coronavirus pandemic also had a negative impact on the automotive industry in 2020. The BMW Group responded by taking a number of personnel measures. Initially, it made use of flexible arrangements such as reducing excess hours on time and holiday accounts, followed by the introduction of short-time working hours. In dialogue with the Works Council, the Group also agreed on a balanced package of personnel measures that reconciled the future viability of the organisation with the interests of the workforce. Firstly, the number of employees was reduced through natural fluctuation, and secondly by reaching voluntary agreements such as early retirement part-time working arrangements or direct early retirement.

Appropriate provisions were recognised and the expected cost included in personnel expenses. For details see note 15 to the Group Financial Statements.

EMPLOYEE ATTRITION RATE*



* BMW AG; number of employees on unlimited employment contracts leaving the Company.

Strategic personnel planning serves as a tool for identifying the need to readjust personnel and competence structures at an early stage. The BMW Group uses this information as the basis for making targeted improvements in the areas of training and further education, personnel development, marketing, recruiting and young talent programmes.

HEALTH AND PERFORMANCE

The BMW Group places great emphasis on maintaining and promoting the health and the performance of its employees. It therefore encourages personal responsibility and designs its work environments with the idea of maintaining the health of its people in the long term. In line with this strategy, employees at all BMW Group locations have a comprehensive health management system available to them. The Group's very high standards of occupational safety also serve as a preventive measure.

HEALTH MANAGEMENT WITH A HOLISTIC APPROACH

Since 2011, the BMW Group has combined a set of coordinated measures to promote the health and performance of its workforce within its health initiative programme. A range of campaigns inform the workforce on subjects such as addiction prevention or ways of maintaining good mental health. Regular campaign days, dialogue events and training courses address current health topics such as nutrition, exercise and fitness, cancer prevention or mental resilience and raise awareness of these issues accordingly. Due to the unprecedented circumstances caused by the pandemic, many of these events took place virtually. **GRI 403-6**

The BMW Group greatly emphasises the importance of all of its employees having access to the company's in-house health services. In Germany, the focus is mainly on providing acute treatment for employees and temporary workers during working hours. In certain countries, however, the Group's health service also takes on primary care tasks, such as in Thailand, India or Mexico. The BMW Group's company doctors also advise employees on individual preventive measures if requested to do so and help them adapt their work environment to ensure that their health and performance are maintained in the long term. **GRI 403-2, 403-3**

Measures to address the coronavirus pandemic

In terms of health protection for the BMW Group's workforce, the exceptional challenges posed by the coronavirus pandemic had to be addressed during the year under report. The primary aim was to ensure the Group's ability to perform while at the same time protecting the health of its staff. For these reasons, the BMW Group set up a crisis management team without delay to draw up and implement effective protection and hygiene concepts. Staff and managers were promptly provided with information and recommendations for action, not only to protect themselves, but others too. The crisis management team kept a watchful eye on international developments, as the infection spread extremely quickly during the year under report. The BMW Group responded effectively in a challenging situation that had to be reassessed on a daily basis at times.

Specially trained teams were sent out to the Group's various locations and plants, advising managers and employees on how best to implement the protection and hygiene measures. The experts from the hygiene teams were also available to answer questions at any time. Moreover, a Group-wide information campaign helped inform employees on how best to contribute to curbing the rate of infection. Regular safety and hygiene inspections ensure that the measures are being implemented effectively and on a sustained basis during the pandemic.

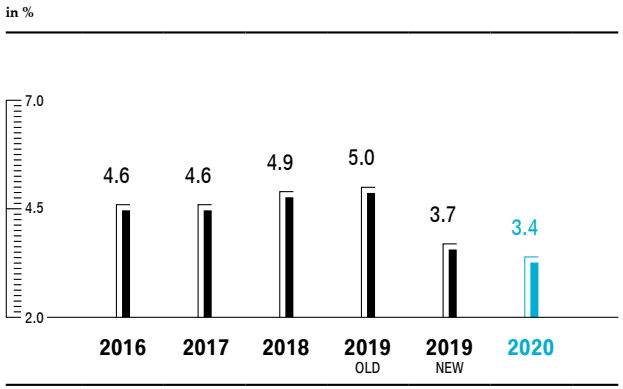
The BMW Group ensured the health and safety of its entire workforce at its various locations throughout the year under report, despite the exceptional challenge posed by the coronavirus pandemic. The new SARS-CoV-2 occupational health and safety regulations were implemented at BMW AG and a works agreement was concluded to that effect. A comprehensive manual based on this agreement is ensuring the implementation of infection control measures worldwide.

In line with the general demographic change, the increasingly high average age of the workforce presents further challenges in terms of healthcare. The BMW Group's Health Initiative also closely addresses the concerns of employees looking to remain as healthy and productive as possible at an advanced age. GRI 403-3, 403-6

One of the parameters the BMW Group uses to quantify the success of its health management measures is the sickness rate. At 3.4 %, the sickness rate at BMW AG was lower than in the previous year (2019: 5.0 % or 3.7 % according to the new definition). GRI 403-10

The Group continuously strives to improve this figure by means of its health management measures.

SICKNESS RATE[1]



GRI 403-10

OCCUPATIONAL SAFETY AT ALL GROUP LOCATIONS

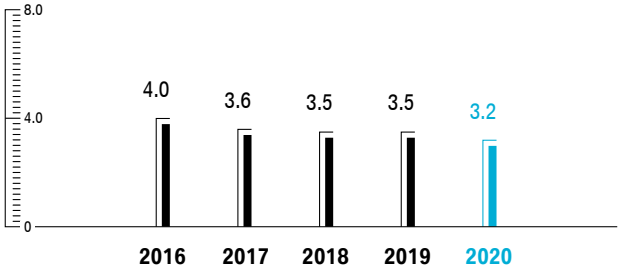
Occupational safety is one of the BMW Group's foremost preventive measures for protecting and maintaining the health of its workforce. The strategy is based on a comprehensive management system that not only meets legal requirements applicable at the Group's various locations, but frequently goes beyond them. Accordingly, the BMW Group is committed to ensuring and certifying the highest level of occupational safety at all its locations. The right to occupational health and safety is also a key feature enshrined in the BMW Group's Code on Human Rights and Working Conditions. In the Code, the company undertakes to consistently comply with currently applicable occupational health and safety legislation worldwide and also to set its own additional standards for improving occupational safety. GRI 403-1

Fortunately, in 2020 the accident frequency rate across the workforce as a whole dropped further to 3.2 accidents per 1 million hours worked (2019: 3.5). However, one fatal accident occurred at the Group's Dingolfing plant during the year under report. By 2015, the BMW Group had already achieved the target it set itself in 2011 of halving the accident frequency rate to 4.5 accidents per 1 million hours worked by 2020. Since then, the BMW Group has endeavoured to continue reducing this rate. GRI 403-9

3.2

Accidents per one million hours worked

ACCIDENT FREQUENCY RATE[2]



GRI 403-9

69,092 or 99.7 % of people employed at BMW Group plants work at a location certified in accordance with an international occupational health and safety management system[3]. GRI 403-1, 403-8

[1] BMW AG; Number of hours of absence due to paid sick leave divided by the contractually agreed target number of working hours; up to 2019, absence due to unpaid sick leave was also taken into account. Figures up to 2018 are not comparable.
[2] Number of occupational accidents with at least one day of absence from work per one million hours worked.
[3] OHSAS 18001/ISO 45001 (Occupational Health and Safety Assessment Series) or OHRIS (Occupational Health and Risk Management System).

External companies and their employees also need to be able to work safely at BMW Group locations. For this reason, cooperation with contractual partners is regulated in a separate contractor declaration, enabling potential hazards to be identified and appropriate protective measures taken on this basis. On large construction sites, all employees of external companies are given safety briefings by BMW Group experts. On smaller construction sites, however, this duty is performed by the contractors themselves. The company department responsible for placing the order monitors compliance with the occupational health and safety regulations, supported by the relevant occupational health and safety unit as required.

In order to improve occupational safety at the upstream stages of the value chain, too, the BMW Group requires its suppliers to comply with internationally recognised occupational health and safety requirements[1] via its **Purchasing Conditions**. **GRI 403-7**

MANAGEMENT, TRAINING AND QUALITY ASSURANCE

All topics relating to health and occupational safety within the BMW Group are combined in the Work Environment, Health, Group Safety and Group Data Protection unit and allocated to the Board of Management's Human Resources area of responsibility. Moreover, the managers in the various specialist departments are responsible for all related in-house processes. Health management and occupational safety, i.e. occupational health professionals, occupational medical staff, safety specialists and safety officers support and advise the respective internal departments. **GRI 403-1**

The BMW Group continually assesses and improves occupational health and safety at all its locations based on recognised management systems such as ISO 45001, OHSAS 18001 or OHRIS[2], via occupational health and safety committees and by way of in-house risk assessments. Health and safety committees that include both employer and employee representatives work actively at nearly all BMW Group locations, making continuous improvements to occupational health and safety standards. **GRI 403-4**

In order to identify work-related risks in both production facilities and offices, the BMW Group conducts wide-ranging risk and stress analyses. For example, during the year under report, the internal analysis of an industrial accident uncovered a risk in the production of high-voltage batteries. A technical solution was then found to automate this stage of production. The employees concerned were then trained and instructed and their protective equipment was adapted accordingly. A specific risk assessment was also carried out pertaining to the coronavirus pandemic. Employees are encouraged to contact their managers at any time if hazards or risks are identified. Employees can also approach their designated work representative at any time, or report risks and hazards anonymously via the Compliance hotline. **GRI 403-2**

On the basis of management systems, the BMW Group regularly evaluates all the methods and instruments used within the company. The results are then used to improve internal standards. As part of its co-determination process, the BMW Group involves the Works Council as well as representatives of the severely disabled and personnel management as required.

The Group ensures the quality of its processes by conducting internal audits on an annual basis. Tests at the BMW Group's various locations are performed by external certification organisations and the specialists responsible for implementation are given regular training. Due to the challenges posed by the coronavirus pandemic, in order to comply with safety and hygiene regulations, audits were conducted partly on-site and partly virtually in the year under report. **GRI 403-2, 403-4, 403-9, 403-10**

To ensure occupational health and safety standards at all its locations, the BMW Group provides its staff with regular training. The BMW Group Academy is solely responsible for all training measures relating to environmental protection and occupational health and safety. It prepares its various seminars in cooperation with the relevant departments for occupational safety, ergonomics, environmental protection and health management. However, the occupational safety, ergonomics and environmental protection departments or the health services can also develop and offer their own measures if required to do so at short notice. The BMW Group is also adapting these programmes in line with the current pandemic situation and increasingly switching to virtual solutions. **GRI 403-5**

[1] In accordance with OHSAS 18001/ISO 45001 and management systems derived from ILO (International Labour Organization) or UNGC (United Nations Global Compact).
[2] OHSAS 18001/ISO 45001 (Occupational Health and Safety Assessment Series) or OHRIS (Occupational Health and Risk Management System).

EMPLOYEE DIVERSITY

The BMW Group sees diversity as a strength and this factor in its workforce is one of the keys to its corporate success. The BMW Group believes that diversity fosters innovation and therefore also boosts competitiveness. A deeper understanding of the needs of customers around the world is just one example. In recent years, the BMW Group's diversity concept has continued to broaden the eclectic nature of its workforce in terms of gender, cultural background, age and experience. For this reason, the Board of Management not only approved the Group's existing diversity concept, but broadened it during the year under report.

PROMOTING DIVERSITY AT ALL LEVELS

The BMW Group places great emphasis on an unprejudiced, appreciative and inclusive working environment for all its employees. To underline its conviction, in 2020 the BMW Group continued expanding the diversity concept with the existing dimensions of gender, cultural background, age and experience to include sexual orientation and identity as well as disability.

The BMW Group promotes a culture that sees strength in diversity and difference as a valued asset. It seeks to raise awareness of diversity issues among its employees and managers by means of training, presentations and dialogue formats and also promotes diversity and equal opportunity via its recruiting and personnel development measures. During the year under report, the BMW Group again organised an international Diversity Week with the aim of raising awareness of every dimension of diversity within the company and exerting a positive influence on its corporate culture. However, the programme was conducted exclusively online due to the coronavirus pandemic. The Diversity Week and the simultaneously run global diversity awareness campaign were transmitted in a variety of digital formats and reached an approximate total of 92,000 BMW Group employees online.

The equal treatment of all employees is a fundamental principle firmly enshrined in Group policy. The BMW Group Code of Conduct and the BMW Group Code of Human Rights and Working Conditions rigorously address discrimination of all kinds. Employees are asked to contact their managers, the relevant specialised units, the personnel department or the Works Council if they have any pertinent concerns. The BMW Group SpeakUP Line is a telephone service available in over 30 languages that gives employees worldwide the opportunity to report possible violations both anonymously and confidentially.

Diversity-promoting concepts have also been developed for selecting the future composition of the Board of Management and the Supervisory Board. The BMW Group provides information on the respective diversity criteria and how to implement them in its **Corporate Governance Statement.**

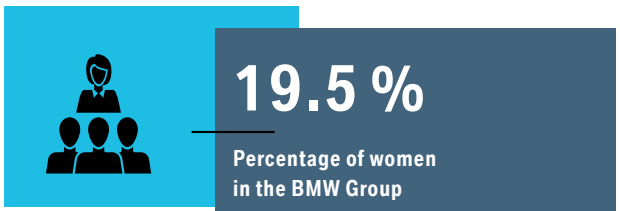
PERCENTAGE OF FEMALE EMPLOYEES

The BMW Group is committed to the sustained advancement of women and has therefore set targets for the percentage of women employed at all levels of the company. This target framework was valid up to and including 2020.

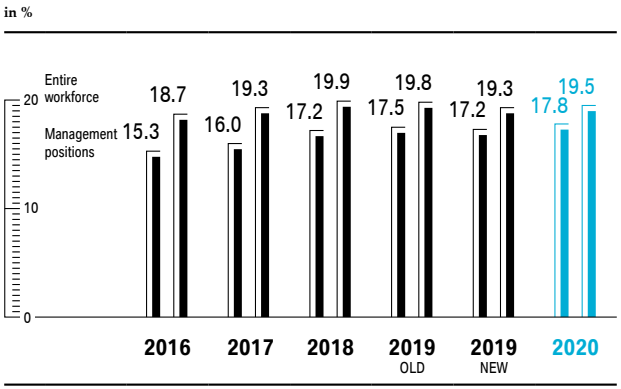
The percentage of women in management positions[1] within the BMW Group has been rising steadily for many years. Globally, the proportion of female managers in the BMW Group stood at 17.8 % at the end of 2020 (2019: new definition; 17.2 %). At BMW AG, the number of women in management positions has more than doubled between 2011 and the present day. Expressed as a percentage, the proportion of female managers at BMW AG was 16.2 % (2019: new definition; 15.5 %) at the end of 2020.

The percentage of women employed in the BMW Group's total workforce reached 19.5 % during the period under report (2019: new definition; 19.3 %), exceeding the internally agreed target range of 15 % to 17 %. At 15.9 %, the proportion of women working for BMW AG was within the target range of 15 % to 17 % (2019: new definition; 15.7 %).

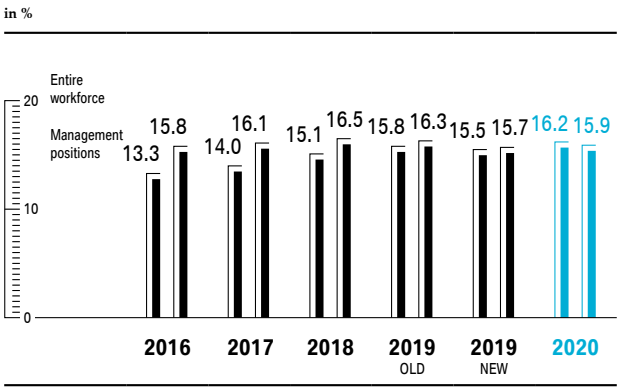
The proportion of women in young talent training programmes such as the Global Leader Development Programme increased to around 42 % (2019: 39 %) during the period under report. In the student promotion programmes such as Fastlane and SpeedUp, the figure was around 33 % (2019: 28 %). GRI 405-1



PERCENTAGE OF WOMEN IN MANAGEMENT POSITIONS AND IN THE TOTAL WORKFORCE OF THE BMW GROUP[2]



PERCENTAGE OF WOMEN IN MANAGEMENT POSITIONS AT BMW AG[2]



By 2025, the BMW Group aims to increase the proportion of women in the workforce in general as well as in management positions to between 20 % and 22 %. BMW AG is aiming for a proportion of 17 % to 19 % of women in the total workforce and 19 % to 21 % in management positions. To achieve this target, BMW AG carefully analysed the effectiveness of its existing measures and programmes during the year under report, focused on specifically optimising them to suit requirements and derived new measures. These include, for example, new formats for the targeted promotion of young female managers and the option of filling management positions with two people at the same time in a form of joint leadership. In addition, the BMW Group ensures a high proportion of women in its young talent promotion programmes and is committed to a seamless return to working life after parental leave.

In order to ensure gender pay parity, BMW AG has established a process that compares the monthly pay of men and women based on the categories of full-time, part-time and pay grade. In 2020, there were no significant differences in the total remuneration packages offered to women and men at BMW AG. GRI 405-2

[1] The proportion of women in management functions includes management levels I to IV. Management levels are defined in terms of their functional level and follow a comprehensive job evaluation system based on Mercer.
[2] The new definition of the term "employee" is provided in the Glossary. The difference between old and new definitions in previous years is similar to the difference between 2019 new and old.

DIVERSITY IN ALL DIMENSIONS

Cultural background

Employees from over 110 countries work together at the BMW Group. The ability to work together in international teams in a spirit of trust and respect is key to the Group's success. A broad range of opportunities for personnel development, qualification and further training promotes intercultural understanding. For example, the Global Leader Development Programme for newly recruited employees is deliberately geared towards international participants. In 2020, new employees from eight countries took part in the programme (2019: 11 countries). With its "Courage to be more open" campaign, the BMW Group is also actively fighting against racism, for an unprejudiced working environment and mutual respect.

Age and experience

The BMW Group sees demographic change as both a challenge and an opportunity, as it offers people the chance to combine (life) experience and fresh ideas in a productive way. Since 2019, as part of the Senior Expert Programme, retired employees have been passing on their knowledge and experience to their younger colleagues. Within the Reverse Mentoring Programme organised by the BMW Group, older employees benefit from the new knowledge of the younger generation. Managers are qualified to recognise and leverage the opportunities and challenges that mixed-age teams offer. GRI 404-2

BMW AG EMPLOYEES BY AGE GROUP, DIVIDED INTO FUNCTIONS AND GENDER[1]

in %	< 30 years old	30–50 years old	> 50 years old
2018 total	11.7	59.2	29.1
2019 total	11.1	59.1	29.8
2019 total new[1]	11.6	59.2	29.2
2020 total	10.4	59.9	29.7
direct[2]	14.1	53.3	32.6
indirect[3]	8.3	63.8	27.9
male	9.4	59.3	31.3
female	16.1	63.0	20.9

[1] Up to 2019: number of employees on unlimited employment contracts. From 2020, reporting based on new employee definition Glossary.
[2] Clock-controlled and production employees.
[3] All employees without clock control.

GRI 405-1

Sexual orientation and identity

Diversity also means living a corporate culture in which employees of all sexual orientations and identities are treated with equal appreciation and respect. With this point in mind, the BMW Group is committed, for example, to raising awareness among employees and managers for the concerns of lesbians, gays, bisexuals and transgender people, as well as to various campaigns as part of the LGBT+ movement's PRIDE Month. It is supported in this respect by its internal network BMW Group PRIDE. Confirmation of this commitment can be seen, among other things, in the Group's top 5 ranking in the DAX 30 LGBT+ Diversity Index 2020.

Disability

Employees with disabilities need to be offered an inclusive and accessible working environment that enables them to fully develop their performance. That is the BMW Group's mission. It begins with providing training opportunities for severely disabled young people and continues by designing workplaces that meet their needs. As part of an internal communication campaign, during the year under report the BMW Group encouraged greater openness and assuredness in interaction with disabled employees.

In the coming years, the BMW Group intends to analyse its activities in all five dimensions of the extended diversity concept and add new measures and programmes as the need arises. The Human Resources Policy and Strategy department and the operational Human Resources department, together with the disciplinary managers, are responsible for all the measures provided for in this concept.

CORPORATE CITIZENSHIP

Corporate citizenship is an integral part of the BMW Group's corporate identity. The company's commitment to corporate citizenship focuses in particular on long-term and international projects in which it can provide targeted support with its own core competences. At all the Group's international locations, this commitment aims at attaining better living conditions, intercultural understanding and good education.

Support provided during the coronavirus pandemic

The coronavirus pandemic posed major challenges for society and companies worldwide in the year under report. In order to help handle this exceptional situation, the BMW Group has oriented its measures internationally and focused on its areas of core competence. For example, the BMW Group made vehicles available to social and healthcare facilities. It also donated protective equipment to health authorities and medical facilities.

BUILDING BRIDGES BETWEEN CULTURES

The BMW Group aims to play a leading role in intercultural understanding. As a corporation with a multinational workforce and locations on five continents, the BMW Group has a keen interest in encouraging tolerance and understanding between various nations, cultures and religions. Together with the United Nations Alliance of Civilisations (UNAOC), since 2011 the Group has regularly presented the **Intercultural Innovation Award**. The Award is designed to promote innovative projects that seek solutions to intercultural tensions and conflicts.

Originally, the BMW Group had set itself the goal of reaching around one million people with the award-winning projects by 2020, but it surpassed that figure at an early stage. Since 2017, the Group has therefore been pursuing the new aim of supporting six million people with the award winners' projects by 2025. By the end of 2020, the award-winning projects had already helped some five million people.* The BMW Group therefore believes it is well on the way to exceeding the target it has set itself.

* The number of people supported is provided by the award winners at the end of each year. It is calculated based on combined data from media and sources. The figure reported relates only to the people who benefit directly from the projects concerned.

VOLUNTARY COMMITMENT OF EMPLOYEES

The BMW Group is increasingly involving its employees in its social commitment efforts. Since 2011, the company has presented the BMW Group Awards for Social Commitment to its employees. The award goes to staff members who have made a special contribution through their voluntary work. In 2020, five employees were honoured for their charitable social commitment, two of them even received special awards from the Doppelfeld Foundation. The BMW Group Awards for Social Commitment are each endowed with € 5,000, which go directly to the respective aid projects. This year's award winners come from India (Ooruni Foundation), Germany (Gesellschaft für Kinderkrebsforschung e.V. and Hilfe für Kinder in Kenya) and South Africa (Gauteng Community Organization and Golden Youth Club). In addition to the award winners, each of the other five finalists received prize money of € 2,500.

The organisation Waves For Water is another project with employee involvement that the BMW Group has been successfully working together with for five years. As part of this initiative, employees near the Group's locations in Mexico, India, Thailand and Indonesia help provide families with water filters to facilitate their access to clean drinking water. In the year under report, the project was unfortunately interrupted by the coronavirus pandemic, but will be continued as soon as circumstances permit.

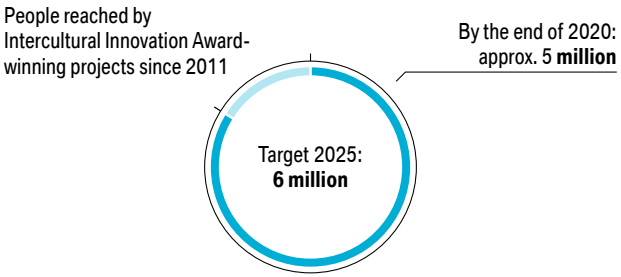
EDUCATION CREATES BETTER PROSPECTS FOR LIFE

At its various locations, the BMW Group develops educational projects that facilitate young people's first steps into the labour market and offer them better prospects for life. With its programmes from primary school level through to higher education, the BMW Group is making a lasting contribution towards more equal opportunity. The BMW Group bases its funding approach on the specific needs and requirements at its various locations. During the year under report, the BMW Group again supported a range of educational projects in the USA, Thailand, India, Brazil, Mexico, China, Korea, South Africa and Germany. However, due to the coronavirus pandemic, it was unable to offer its support to the same extent as before.[1] The workshops were therefore conducted with a smaller number of participants and online whenever possible. The BMW Group used any funds that could not be deployed for educational measures due to the coronavirus restrictions to mitigate the immediate consequences of the pandemic. **Support provided during the coronavirus pandemic**

For further information and additional projects, see the website **BMW Group's Corporate Citizenship**.

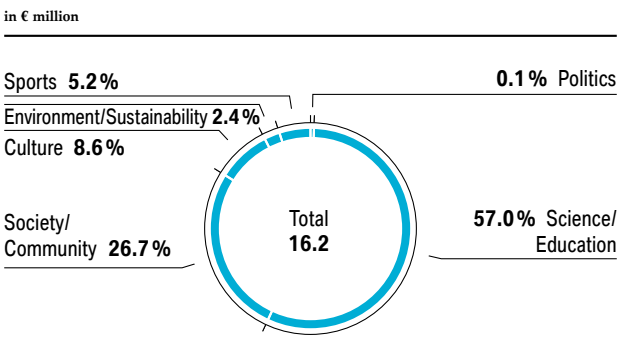
The BMW Group's investment in corporate citizenship totalled €33.6 million in 2020 (2019: €33.2 million).

PEOPLE REACHED BY THE BMW GROUP'S CORPORATE CITIZENSHIP ACTIVITIES[1]



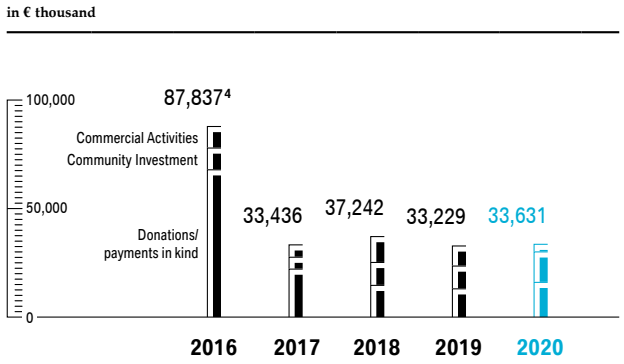
[1] Due to the coronavirus pandemic, the number of people who took part in educational projects was not recorded in 2020.

DONATIONS WORLDWIDE[2]



[2] In the form of donations and payments in kind.

TOTAL EXPENDITURE ON CORPORATE CITIZENSHIP BY TYPE OF ACTIVITY[3]



[3] The activities of the BMW Group in the area of corporate citizenship are divided into three main areas: monetary donations and payments in kind; community investment, which refers to investment in project initiatives and partnerships conceived in-house as well as corporate volunteering by BMW Group employees; and our commercial activities, which encompass sponsorship and so-called cause-related marketing.

[4] The relatively high amount in 2016 is due to a one-off donation to increase the capital of the BMW Foundation in the BMW centenary year 2016 from €50 million to €100 million.

€33.6 m

Expenditure on Corporate Citizenship

MANAGING CORPORATE CITIZENSHIP IN A TARGETED AND EFFECTIVE MANNER

To ensure transparency regarding all the measures taken in this area, the Group-wide guidelines on sponsoring, donations and memberships have been binding since 2011. Apart from transparency, it is also essential to carefully document all the measures in order to ensure that legal requirements are complied with.

The BMW Group will continue to be socially active on a global basis and focus its commitment on the UN Sustainable Development Goals going forward. The joint initiatives of the BMW Group and its partners, particularly the BMW Foundation Herbert Quandt, therefore focus on the topics in which they can have the greatest impact and benefit society to the greatest extent.

Inspiring, connecting, investing – the BMW Foundation Herbert Quandt

The BMW Foundation Herbert Quandt* is an independent corporate foundation whose activities contribute towards the BMW Group's corporate citizenship and mission. The Foundation's mission is to inspire executives worldwide to take social responsibility and work as responsible leaders for a peaceful, just and sustainable future. Moreover, the Foundation invests in initiatives and organisations that develop solutions to social, environmental and political crises.

Through its Responsible Leadership programmes, the global Responsible Leaders Network and its impact-oriented investments (the Eberhard von Kuenheim Fund), the BMW Foundation Herbert Quandt has promoted the UN Sustainable Development Goals since their adoption in 2015.

The digital transformation expedited by the coronavirus pandemic also impacted the Foundation's programmes in 2020. For example, the Responsible Leaders Table format events on the topic of Europe featuring selected leaders from the worlds of politics, business and civil society were held virtually. The Foundation also conducted the Responsible Leaders forums that had already been planned for Turkey and India online. The RISE-City programme was carried out in Amsterdam, Madrid, Athens and Singapore – either physically or on a hybrid basis – depending on the local situation. The Responsible Leaders Network, which currently has 1,854 members in 109 countries, also maintained its collaboration via online meetings.

In order to actively support the ongoing transformation to a sustainable society and a sustainable economic system, the Foundation launched the RESPOND Accelerator programme in 2020. For the first group, ten start-ups were selected that aim to successfully develop their sustainable business models. RESPOND aims to demonstrate that social responsibility and successful entrepreneurship are not contradictory concepts. As part of the five-month programme, which got off to a successful start despite the adverse conditions caused by the pandemic, the start-ups received support from mentors and investors from the Foundation's network.

In response to the challenges posed by the coronavirus pandemic, the BMW Foundation Herbert Quandt supported the German government's #WirvsVirus hackathon both financially and via its RESPOND network during the year under report. This world's largest hackathon aims to develop creative solutions to combat the impact of the pandemic.

Further information about the BMW Foundation Herbert Quandt is available here: **www.bmw-foundation.org/en/**

* The BMW Foundation Herbert Quandt is a corporate foundation of BMW AG. The Foundation implements its programme with the income earned on endowment assets or received in the form of regular financial contributions from the benefactor. In accordance with the Articles of Incorporation, the independent Foundation is advised by the Board of Trustees (Kuratorium), on which the Chairman of the Supervisory Board and one member of the Board of Management of BMW AG are represented.

REPORT ON ECONOMIC POSITION

GENERAL AND SECTOR-SPECIFIC ENVIRONMENT

In 2020, the coronavirus crisis caused the global economy to slump on a scale not seen since the Great Depression of the 1930s. The International Monetary Fund (IMF) estimates the contraction in global gross domestic product (GDP) at 3.5 %. All G7 countries saw a significant drop in economic output. The BRIC countries also suffered sharp declines – with the notable exception of China.

Europe's economy was hit harder than any other major region. In the eurozone, the economy contracted sharply by 7.6 % year-on-year. Significant losses were recorded in Germany (– 5.0 %), France (– 8.3 %), Italy (– 9.0 %) and Spain (–11.0 %), the eurozone's largest economies. With many areas of the economy completely paralysed at times due to lockdowns lasting several weeks, both production and consumption slumped dramatically. Unemployment rates rose in all countries, despite the increases being at least partially held down by short-time work programmes. Governments across the region implemented extensive economic stimulus packages to support their countries' economies. The assistance programmes caused government spending to rise sharply in 2020, resulting in higher debt ratios in the respective countries.

GDP in the United Kingdom (UK) slumped by 10.7 % in 2020. The performance was influenced not only by the consequences of the coronavirus pandemic, but also by the ongoing uncertainty surrounding the terms of the Brexit trade deal, which would ultimately govern the UK's future relations with the European Union (EU).

In the USA, GDP fell by 3.5 % during the year under report. Due to the lockdowns and in the absence of short-time work programmes, the unemployment rate rose significantly. Consumer sentiment and exports both slumped during various parts of the year. Both corporate investment and industrial production suffered a significant decline. In light of the ensuing economic situation, the US Federal Reserve (FED) further lowered its benchmark interest rates in 2020.

Although China was the only economy to expand in 2020, its growth rate of 2.3 % was significantly down on the previous year. Consumer demand collapsed almost completely during the spring lockdown. However, strong pent-up demand set in from early summer and lasted through to the end of the year, thereby helping the economy to recover.

Export-reliant Japan also suffered a considerable decline in economic output (– 5.3 %) due to the coronavirus pandemic during the period under report. The main factors here were lower private consumption, particularly in the spring, and the drop in exports.

CURRENCY MARKETS

The US dollar/euro exchange rate became far more volatile in 2020 due to the coronavirus crisis. It fluctuated between 1.07 and 1.22 to the euro, and resulted in an average rate for the year of 1.14 US dollars to the euro.

The value of the British pound was affected by both the coronavirus pandemic and the uncertainties surrounding a free trade agreement with the EU. For a while, the British currency fell to 0.93 pounds to the euro before finishing the year at 0.83 pounds to the euro. The average exchange rate of 0.89 pounds to the euro for the year was slightly lower than one year earlier.

The same applies to the Chinese renminbi, which averaged 7.87 renminbi to the euro over the year as a whole.

The Japanese yen fluctuated between 114 and 127 yen to the euro, resulting in an average exchange rate for the year of 122 yen to the euro.

The currencies of major emerging markets also lost in value in 2020 as a consequence of the coronavirus crisis. The Indian rupee and the Russian rouble fell by around 5 % and 14 % respectively against the euro on average, while the Brazilian real depreciated by as much as 33 % against the euro.

EXCHANGE RATES COMPARED TO THE EURO

Index: December 2015 = 100

Source: Reuters.

ENERGY AND RAW MATERIALS PRICES

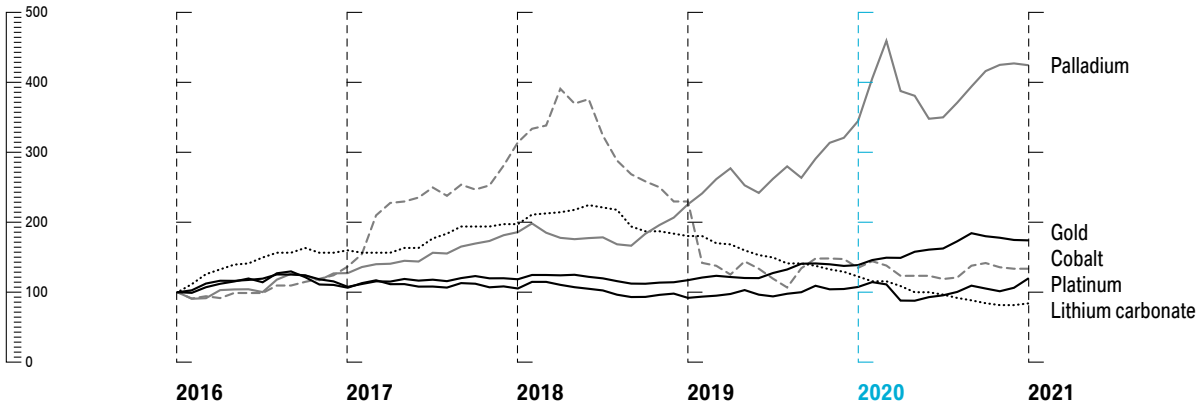
The impact of the coronavirus pandemic was also felt on practically all commodities markets in 2020. After falling noticeably in mid-year, steel and aluminium prices rose again sharply towards the end of the year.

Prices for precious and non-ferrous metals also followed a similar trend. One exception, however, was rhodium, which is mainly used in catalytic converters. In this case, prices continued to rise significantly throughout the 12-month period. By the end of the year the price of this precious metal had almost tripled compared to one year earlier.

Looking at raw materials for batteries, the price of cobalt remained largely stable compared to the previous year. By contrast, the price of lithium fell slightly, reflecting lower demand due to the coronavirus pandemic on the one hand and oversupply on the other.

DEVELOPMENT OF METALS PRICES

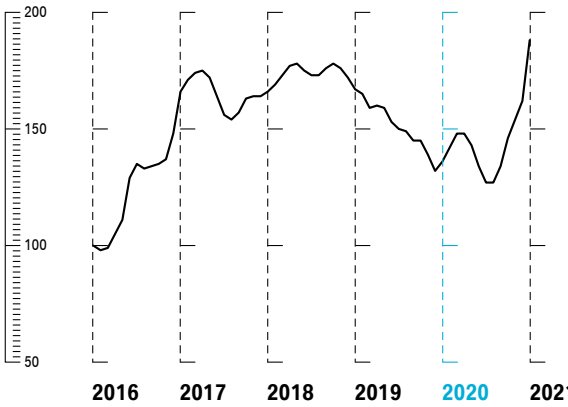
Index: December 2015 = 100



Source: Reuters.

STEEL PRICE TREND

Index: January 2016 = 100

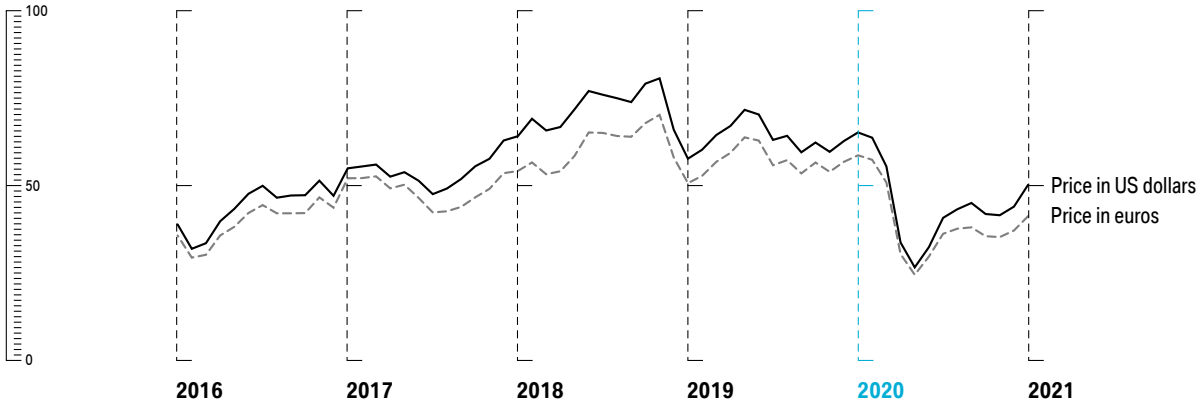


Source: Working Group for the Iron and Metal Processing Industry.

Oil prices reacted sharply to the coronavirus pandemic and the related collapse in demand. The market price of WTI crude even turned negative for a short time. Although the price recovered somewhat by the end of 2020, it remains slightly lower than one year earlier. The price of Brent crude sank to a low of 19 US dollars before recovering to stand at 51 US dollars by the end of the year. For a short time in April, WTI crude was quoted at a negative market price of 37 US dollars, ultimately finishing the year at a positive market price of 48 US dollars.

OIL PRICE TREND

Price per barrel of Brent Crude



Source: Reuters.

AUTOMOBILE MARKETS

Automobile markets slumped worldwide in 2020 due to the impact of the coronavirus pandemic. In total, registration figures for passenger cars and light commercial vehicles fell sharply by 13.3 % to a total of 72.4 million units during the year under report.

INTERNATIONAL AUTOMOBILE MARKETS

	Change in %
Europe	–24.3
thereof Germany	–19.1
thereof France	–25.5
thereof Italy	–27.7
thereof Spain	–32.3
thereof United Kingdom (UK)	–29.4
USA	–14.5
China	–5.0
Japan	–11.4
Total	**–13.3**

INTERNATIONAL MOTORCYCLE MARKETS

International motorcycle markets in the 250 cc plus class were down slightly overall (– 0.9 %) in 2020 due to the pandemic. Markets in Europe were also negatively impacted by the developments and contracted by 1.1 %. In Spain, the decline was significantly higher at 13.7 %. Registration figures were also down in Italy (– 9.1 %) and France (– 4.6 %). By contrast, Germany saw a significant increase, with new registrations up by 15.0 %. The US market was at a similar level to the previous year (+ 0.1 %). Brazil, on the other hand, recorded a significant drop (– 17.7 %).

INTERNATIONAL MOTORCYCLE MARKETS

	Change in %
Europe	– 1.1
thereof Germany	15.0
thereof France	– 4.6
thereof Italy	– 9.1
thereof Spain	– 13.7
America	– 3.5
thereof USA	0.1
thereof Brazil	– 17.7
Total	**– 0.9**

INTERNATIONAL INTEREST RATE ENVIRONMENT IN 2020

The coronavirus pandemic and its severe impact on the economy in 2020 also prompted central banks around the world to adopt drastic countermeasures. The aim of their monetary policies was to mitigate the effects of the downturn, for example by making it easier for smaller companies to access cheap credit.

In the first half of the year, the European Central Bank (ECB) decided to increase the existing bond purchase programme to €120 billion per month and launch an additional emergency bond purchase programme (Pandemic Emergency Purchase Programme – PEPP) with a total volume of €1,850 trillion.

As a direct response to the economic impact of the coronavirus pandemic, the Bank of England (BoE) cut its benchmark interest rate in two steps from 0.75 % to 0.1 % during the first quarter and increased its bond-buying programme to a total volume of 895 billion British pounds.

In the USA, in two emergency meetings held during the first quarter, the Fed lowered its target range for the benchmark interest rate from between 1.50 and 1.75 % to between 0.00 and 0.25 %. It also announced further measures, including a commitment to make unlimited bond purchases.

After suffering an economic slump at the beginning of the year, but then avoiding a second wave of infections, China recovered earlier and faster than other major economies. Instead of introducing massive stimulus programmes, China increasingly relied on other instruments, such as lowering the reserve requirement ratio to 12.5 % and the loan prime rate to 3.85 %.

OVERALL ASSESSMENT BY MANAGEMENT OF THE FINANCIAL YEAR

The BMW Group coped well with the major challenges that arose during the pandemic year 2020 and, in view of the pronounced level of volatility on international markets, can look back on a business performance over the last 12 months that can be regarded as satisfactory overall.

Despite declining key performance indicators in 2020, the BMW Group's results of operations, financial position and net assets are indicative of its solid financial condition. Overall, business developed in line with management's revised expectations. This assessment also takes into account events after the end of the reporting period. The outlook for 2021 factors in the expected impact of the coronavirus pandemic.

COMPARISON OF FORECASTS WITH ACTUAL OUTCOMES

The following table shows the development of key performance indicators for the BMW Group as a whole as well as for the Automotive, Motorcycles and Financial Services segments in the financial year 2020 compared to the forecasts made in the Annual Report 2019. In light of the rapid escalation of the coronavirus crisis during the first quarter 2020, the BMW Group partially revised its outlook for the year. The changes are shown below.

Detailed information on the Group's key performance indicators is provided in conjunction with the analysis of the Group's results of operations, financial position and net assets below. Changes in key performance indicators for the Automotive, Motorcycles and Financial Services segments are explained in the separate sections for each segment.

BMW GROUP COMPARISON OF 2020 FORECASTS WITH ACTUAL OUTCOMES 2020

	Forecast for 2020 in 2019 Annual Report	Forecast revision during the year		Actual outcome in 2020
GROUP				
Profit before tax	significant decrease		€ million	5,222 (– 26.6 %) significant decrease
Workforce at year-end	in line with last year's level	Q1: slight decrease		120,726 (– 4.2 %) slight decrease
AUTOMOTIVE SEGMENT				
Deliveries to customers[1]	significant decrease		units	2,325,179 (– 8.4 %) moderate decrease
Emissions new vehicle fleet[2]	significant decrease		g CO_2 / km	99 (– 22.0 %) significant decrease
EBIT margin	between 2 and 4	Q1: between 0 and 3	%	2.7 (– 2.2 %-pts.)
Return on capital employed	significant decrease		%	12.7 (– 16.3 %-pts.) significant decrease
MOTORCYCLES SEGMENT				
Deliveries to customers	slight decrease	Q1: significant decrease Q3: moderate decrease	units	169,272 (– 3.4 %) slight decrease
EBIT margin	between 6 and 8	Q1: between 3 and 5	%	4.5 (– 3.7 %-pts.)
Return on capital employed	slight decrease	Q1: significant decrease	%	15.0 (– 14.4 %-pts.) significant decrease
FINANCIAL SERVICES SEGMENT				
Return on equity	slight decrease	Q1: moderate decrease	%	11.2 (– 3.8 %-pts.) slight decrease

[1] Including the joint venture BMW Brilliance Automotive Ltd., Shenyang (2020: 602,247 units).
[2] EU including Norway and Iceland.

RETAIL VEHICLE DELIVERY DATA *

In December 2019, BMW Group was informed by the SEC that the SEC had commenced an inquiry into BMW Group's vehicle sales and sales reporting practices. On January 22, 2020, the SEC formally opened an investigation into potential violations of U.S. securities laws by BMW Group relating to disclosures regarding BMW Group's unit sales of new vehicles. On September 24, 2020, BMW AG and two of its U.S. subsidiaries settled the matter with the SEC and, without admitting or denying the allegations, consented to the entry of an order (the "SEC Order") finding violations of Sections 17(a)(2) and 17(a)(3) of the U.S. Securities Act and agreed to pay a penalty of U.S.$18 million. The SEC Order alleged, among other things, that the disclosures that BMW Group had provided to investors in its U.S. bond offerings conducted under Rule 144A in the period from 2016 to 2019 had contained material misstatements and omissions regarding BMW Group's U.S. retail vehicle deliveries.

In connection with the above, BMW Group reviewed prior period retail vehicle delivery data for automobiles and determined that certain vehicle deliveries of automobiles were not reported in the correct periods. BMW Group has corrected its reported delivery data, as further described below, to report deliveries in the period in which they occurred and has made, and will continue to make in the future, certain adjustments to its policies and procedures (together, the "Revised Reporting Process") in order to further improve the reliability and validity of its retail vehicle delivery data, in particular with respect to the timing of the recognition of retail vehicle deliveries.

BMW Group has applied the Revised Reporting Process to all markets with effect from the year 2020. While BMW Group revised retail vehicle delivery data for certain of its most significant markets for the years 2016 through 2019 presented in this report, such data were not revised for BMW Group's other markets. As a result, retail vehicle delivery data presented in this report for the years 2016 through 2019 is not directly comparable to such data presented for the year 2020. Specifically, the retail vehicle delivery data for automobiles presented in this report have been revised as follows:

When presenting total retail vehicle delivery data for automobiles other than model-by-model data, data relating to the years 2016 through 2019 for BMW Group's 16 most significant markets were adjusted to reflect the Revised Reporting Process. In the years 2016 through 2019, these 16 markets represented on average approximately 87 % of BMW Group's total retail deliveries of automobiles. For each of the years 2016 through 2019, these revisions amounted to less than 1 % of BMW Group's total retail deliveries of automobiles.

The retail vehicle delivery data for automobiles for BMW Group's other markets have not been adjusted for any period prior to 2020, nor have any retail vehicle delivery data for motorcycles been adjusted for any period prior to 2020. BMW Group believes the impact on BMW Group's retail vehicle delivery data presented in this report of such data not having been adjusted to reflect the Revised Reporting Process to be immaterial.

* See Glossary for the definition of deliveries.

The preparation of BMW Group's retail vehicle delivery data involves a variety of estimates and judgments, some of which are complex and all of which are inherently subjective, and is subject to other uncertainties, including:

— The vast majority of deliveries of vehicles are carried out by independent dealerships or other third parties, and BMW Group is reliant on such third parties to correctly report relevant data to BMW Group.

— The definition of deliveries includes vehicles delivered in the United States and Canada if the relevant dealers designate such vehicles as service loaner vehicles or demonstrator vehicles.

— Retail vehicle delivery data for periods prior to 2020 include an immaterial number of pre-series vehicles that were never intended to be sold to end users (such as vehicles for use by government agencies in connection with safety evaluations (e.g., crash tests) or for other tests).

BMW Group believes the retail vehicle delivery data presented in this report are materially correct in accordance with BMW Group's current definition and related policies and procedures of retail vehicle deliveries.

Retail vehicle deliveries during a given reporting period do not correlate directly to the revenue that BMW Group recognizes in respect of such reporting period.

RESULTS OF OPERATIONS OF THE BMW GROUP

BMW GROUP CONDENSED INCOME STATEMENT

in € million	2020	2019	Change in %
Revenues	98,990	104,210	–5.0
Cost of sales	–85,408	–86,147	0.9
Gross profit	**13,582**	**18,063**	**–24.8**
Selling and administrative expenses	–8,795	–9,367	6.1
Other operating income and expenses	43	–1,285	–
Profit before financial result	**4,830**	**7,411**	**–34.8**
Financial result	392	–293	–
Profit/loss before tax	**5,222**	**7,118**	**–26.6**
Income taxes	–1,365	–2,140	36.2
Profit from continuing operations	**3,857**	**4,978**	**–22.5**
Profit / loss from discontinued operations	–	44	–
Net profit	**3,857**	**5,022**	**–23.2**
Earnings per share of common stock in €	5.73	7.47	–23.3
Earnings per share of preferred stock in €	5.75	7.49	–23.2

in %	2020	2019	Change in %-pts.
Pre-tax return on sales[1]	5.3	6.8	–1.5
Post-tax return on sales[2]	3.9	4.8	–0.9
Gross profit margin[3]	13.7	17.3	–3.6
Effective tax rate[4]	26.1	30.1	–4.0

[1] Group profit before tax as a percentage of Group revenues.
[2] Group net profit as a percentage of Group revenues.
[3] Gross profit as a percentage of Group revenues.
[4] Income tax expense as a percentage of Group profit before tax.

Group revenues by region were as follows:

BMW GROUP REVENUES BY REGION

in %	2020	2019
Europe	44.3	44.4
Asia	32.1	30.6
Americas	21.4	22.7
Other regions	2.2	2.3
Group	**100.0**	**100.0**

BMW GROUP COST OF SALES

in € million	2020	2019	Change in %
Manufacturing costs	46,878	48,776	–3.9
Cost of sales relating to financial services business	27,114	25,828	5.0
thereof interest expense relating to financial services business	1,960	2,288	–14.3
Research and development expenses	5,689	5,952	–4.4
thereof amortisation of capitalised development costs	1,710	1,667	2.6
Service contracts, telematics and roadside assistance	1,411	1,641	–14.0
Warranty expenses	2,971	2,566	15.8
Other cost of sales	1,345	1,384	–2.8
Cost of sales	**85,408**	**86,147**	**–0.9**

Due to coronavirus-related dealership closures, Group revenues for the financial year under report were moderately down on the previous year (2020: €98,990 million; 2019: €104,210 million; –5.0%). Negative currency effects caused by the unfavourable development of the US dollar, the Russian rouble and the Chinese renminbi also had a downward impact on revenues.

Factors working in the opposite direction included product mix effects due to the less pronounced drop in the sale of high-revenue models, higher selling prices on the back of a rejuvenated product range, and a portfolio-related upturn in leasing revenues. Positive developments on pre-owned vehicle markets were reflected in higher revenues generated from the sale of returned lease vehicles, particularly in the third and fourth quarters. Due to the drop in new leasing business in the first half of the year as well as the expected decline in new leasing business in light of lower inventory levels at dealerships, the amount of revenues eliminated on consolidation decreased year-on-year.*

Group cost of sales amounted to €85,408 million, similar to the previous year's level (2019: €86,147 million; –0.9%). Higher risk-provisioning expenses, mainly arising in connection with the measurement of credit and residual value risks, were partially offset by reduced manufacturing costs due to lower production volumes.

* Further information is provided in ↗ note 5 to the Group Financial Statements.

In addition, warranty expenses were negatively impacted in 2020 by the recognition of provisions in connection with the exhaust gas recirculation cooler and vehicle recalls (such as for contaminated battery cells in plug-in hybrid vehicles).

Cost of sales relating to Financial Services business went up as a result of the costs associated with the sale of returned lease vehicles, mirroring the impact on revenues.

Furthermore, the eliminations described above had an equal and opposite impact on revenues, resulting in a year-on-year decrease in the amount of cost of sales eliminated on consolidation.

Research and development expenses were slightly lower than in the previous year. Higher expenses were incurred in 2019 including those relating to the BMW iX[1] for instance. By contrast, the amount capitalised for future vehicle model start-ups increased in the financial year under report. The higher level of capitalised development costs mainly related to new models, the electrification of the vehicle fleet and automated driving.

Depreciation and amortisation on property, plant and equipment and intangible assets recorded in cost of sales and in selling and administrative expenses totalled €6,143 million (2019: €6,017 million).

Selling and administrative expenses decreased year-on-year, influenced in particular by lower personnel expenses (due to a year-on-year decline in the number of employees) and a decrease in expenses for marketing and communication (including the impact of new model launch events transmitted via digital formats). Stringent fixed cost management also contributed to the reduction in selling and administrative expenses.

BMW GROUP RESEARCH AND DEVELOPMENT EXPENDITURE

in € million	2020	2019
Research and development expenses	5,689	5,952
Amortisation	–1,710	–1,667
New expenditure for capitalised development costs	2,300	2,134
Total research and development expenditure	**6,279**	**6,419**

BMW GROUP PERFORMANCE INDICATORS RELATING TO RESEARCH AND DEVELOPMENT EXPENSES

in %	2020	2019	Change in %-pts.
Research and development expenditure ratio[2]	6.3	6.2	0.1
Capitalisation rate[3]	36.6	33.2	3.4

The net amount of other operating income and expenses improved significantly, whereby the year-on-year change was attributable to the expense recognised in the first half of the previous financial year for the provision relating to ongoing antitrust proceedings.[4]

Profit before financial result dropped sharply to €4,830 million (2019: €7,411 million), reflecting the various negative impacts on gross profit described above.

The financial result improved significantly year-on-year. The figure reported for 2020 benefited in particular from an increase to €1,212 million (2019: €918 million) of at-equity earnings generated by the Chinese joint venture BMW Brilliance Automotive Ltd., Shenyang, as well as from the gain of €105 million recorded by THERE Holding B.V. on the sale of shares in the card service provider HERE International B.V. to Mitsubishi Corporation (MC) and Nippon Telegraph and Telephone Corporation (NTT)[5] during the first half of 2020. In the previous year, the financial result also included higher impairment losses recognised in connection with the strategic realignment of the YOUR NOW Group.

[1] See Fuel Consumption and CO_2 Emissions Information.
[2] Research and development expenditure as a percentage of Group revenues.
[3] Capitalised development costs as a percentage of research and development expenditure.
[4] Further information is provided in note 10 to the Group Financial Statements.
[5] Further information is provided in note 24 to the Group Financial Statements.

As forecast most recently in the quarterly statement to 30 September 2020, Group profit before tax of €5,222 million was significantly lower than one year earlier (2019: €7,118 million) and therefore in line with the revised outlook.

Income tax expense for the year decreased to €1,365 million (2019: €2,140 million), mainly due to the pandemic-related drop in earnings. The effective tax rate fell to 26.1 % (2019: 30.1 %). In the previous financial year, the effective tax rate was raised due to the non-deductibility of items for tax purposes, namely the recognition of the provision relating to the EU Commission's antitrust proceedings and impairment losses relating to the YOUR NOW Group, the latter of which was reported within other financial result.

The size of the workforce decreased slightly to 120,726 employees year-on-year and was therefore in line with expectations (2019: 126,016*; – 4.2 % employees).

FINANCIAL POSITION OF THE BMW GROUP

The consolidated cash flow statements for the Group and the Automotive and Financial Services segments show the sources and applications of cash flows for the financial years 2020 and 2019, classified according to operating, investing and financing activities. Cash and cash equivalents in the cash flow statements correspond to the amounts disclosed in the balance sheet.

Cash flows from operating activities are determined indirectly, starting with Group/segment profit before tax. By contrast, cash flows from investing and financing activities are based on actual payments and receipts.

BMW GROUP CASH FLOWS

in € million	2020	2019	Change
Cash inflow (+) / outflow (–) from operating activities	13,251	3,662	9,589
Cash inflow (+) / outflow (–) from investing activities	–3,636	–7,284	3,648
Cash inflow (+) / outflow (–) from financing activities	–8,254	4,790	–13,044
Effects of exchange rate and changes in composition of Group	140	–111	251
Change in cash and cash equivalents	**1,501**	**1,057**	**444**

* Since the reporting year 2020, a new definition for workforce size has been applied (see Glossary). To enable better comparability, the value for 2019 was adjusted accordingly (2019 before adjustment: 133,778 employees).

Despite lower earnings, the increase in net cash inflows from operating activities can be explained primarily by the pandemic-related drop in new business recorded by the Financial Services segment. The swift measures taken at production level to adjust to the coronavirus situation also resulted in lower levels of inventories at dealerships and simultaneously to a reduction in receivables from sales financing, primarily in the form of lower credit financing for dealerships. Advance tax payments also dropped year-on-year due to the lower earnings. The reduction in inventories had a positive impact on the change in working capital, whereas the decrease in trade payables, caused mainly by earlier plant closures and stringent cost management, had an offsetting effect.

The year-on-year change in cash flows from investing activities was positively influenced by the level of net outflows disbursed in 2019 for investment assets, primarily for the acquisition of the YOUR NOW companies. In addition, the higher level of investments in property, plant and equipment and intangible assets in 2019 – particularly for the market launch of new vehicle models such as the BMW 1 Series, the BMW 3 Series and the X5 – resulted in a year-on-year decrease in cash outflows. Proceeds from the sale of marketable securities also had a positive impact on the net cash outflow from investing activities.

The net cash outflow from financing activities was mainly attributable to lower financing requirements in the Financial Services segment and the related reduction in bond issues, the reduced volume of asset-backed financing and the repayment of liabilities to banks.

REFINANCING

A broad range of instruments on international money and capital markets is used to refinance worldwide operations. The funds raised are used almost exclusively to refinance the BMW Group's Financial Services business. The overall objective of Group financing is to ensure the solvency of the BMW Group at all times, focusing on three areas:

1. The ability to act through permanent access to strategically important capital markets
2. Autonomy through the diversification of refinancing instruments and investors
3. Focus on value through the optimisation of financing costs

Financing measures undertaken at corporate level ensure access to liquidity for the Group's operating subsidiaries at standard market conditions and consistent credit terms. Funds are acquired in line with a target liability structure, comprising a balanced mix of financing instruments. The use of longer-term instruments to refinance the Group's Financial Services business and the maintenance of a sufficiently high liquidity reserve serves to rule out any imminent liquidity risk for the portfolio. This conservative financial approach also has a favourable effect on the Group's rating. Further information is provided in the section "Liquidity risks" within the "Report on Outlook, Risks and Opportunities".

Focused capital market management, good ratings and the high level of acceptance enjoyed by the BMW Group on those markets enabled it to refinance itself on the world's debt capital markets at favourable conditions during the period under report, despite the temporary impact of the coronavirus pandemic on those markets. In addition to bonds, loan notes and private placements, the Group also issued commercial paper. As in previous years, the issues were all in high demand, not only from institutional investors, but also from private investors for selected transactions. In addition, retail customer and dealership financing receivables as well as rights and obligations from leasing contracts are securitised in the form of asset-backed securities (ABS) financing arrangements. Specific banking instruments, such as the customer deposits used by the Group's own banks in Germany and the USA, are also deployed for financing purposes. In addition, loans are also taken from international banks.

In 2020, the BMW Group issued one euro benchmark bond on the European capital market with a total issue volume of €2.3 billion as well as one bond on the US capital market with a total issue volume of 4.0 billion US dollars. In addition, one bond was issued for a total amount of 0.4 billion British pounds. Private placements totalling €3.6 billion were also issued, including so-called "Panda Bonds" for an amount of 6.0 billion Chinese renminbi. A total of nine public ABS transactions were executed in 2020, including three transactions in China, two in Germany and one each in Japan, the USA, Canada and the UK, with a total financing volume equivalent of €5.8 billion. In addition, further financing equivalent to €10.7 billion was realised or secured in the UK, Germany, the USA, Switzerland and Australia via new and prolonged ABS conduit transactions. Other transactions remain in place in Germany, China, the UK, the USA, Canada, Japan and South Africa, amongst others.

The following table provides an overview of amounts utilised at 31 December 2020 in connection with the BMW Group's money and capital market programmes:

Programme	Programme framework	Amount utilised*
in € billion		
Euro Medium Term Notes	50.0	35.3
Australian Medium Term Notes	1.6	–
Commercial Paper	13.0	0.6

* Measured at exchange rates at the relevant transaction dates.

Liquidity-related measures were put in place during the first half of the year to enable the Group to respond flexibly to ongoing uncertainties caused by the coronavirus pandemic and to manage operations at short notice in the event of possible renewed containment measures. Reflecting the improved situation on capital markets in the second half of the year, the BMW Group was able to reduce the amount of liquidity on hand to €17.8 billion at 31 December 2020, similar to the previous year's level.

The BMW Group also has access to a syndicated credit line, which was renegotiated in July 2017. The syndicated credit line of €8 billion has a term ending in July 2024 and is being made available by a consortium of 44 international banks.

The credit line was not being utilised at 31 December 2020. Further information with respect to financial liabilities is provided in **notes 31, 35** and **39** to the Group Financial Statements.

NET ASSETS OF THE BMW GROUP

Adjusted for currency effects, the BMW Group's balance sheet total was slightly lower than at 31 December 2019. Including currency effects from the US dollar and pound sterling, amongst others, the balance sheet total decreased moderately.[1]

Property, plant and equipment (adjusted for currency effects) were slightly down on the previous year, mainly due to the lower amount of capital expenditure in 2020. In the previous year, investments at the BMW plants in Spartanburg, USA and San Luis Potosí, Mexico had the effect of increasing property, plant and equipment.

[1] Further information is provided in note 5 to the Group Financial Statements.
[2] The adjustment for exchange rate factors is calculated by applying the relevant current exchange rates to the prior year figures.

BMW GROUP CONDENSED BALANCE SHEET AT 31 DECEMBER

	Group				
in € million	2020	2019	Change in %	Currency-adjusted change[2] in %	Proportion of balance sheet total in % 2020
ASSETS					
Intangible assets	12,342	11,729	5.2	5.6	5.7
Property, plant and equipment	21,850	23,245	–6.0	–3.5	10.1
Leased products	41,995	42,609	–1.4	2.6	19.4
Investments accounted for using the equity method	3,585	3,199	12.1	12.0	1.7
Other investments	735	703	4.6	11.8	0.3
Receivables from sales financing	84,277	92,437	–8.8	–4.7	38.9
Financial assets	7,752	7,325	5.8	7.2	3.6
Deferred and current tax	3,065	3,403	–9.9	–7.1	1.4
Other assets	10,326	12,939	–20.2	–17.9	4.8
Inventories	14,896	15,891	–6.3	–3.1	6.9
Trade receivables	2,298	2,518	–8.7	–6.7	1.1
Cash and cash equivalents	13,537	12,036	12.5	14.9	6.2
Total assets	**216,658**	**228,034**	**–5.0**	**–1.6**	**100.0**
EQUITY AND LIABILITIES					
Equity	61,520	59,907	2.7	7.1	28.4
Pension provisions	3,693	3,335	10.7	11.7	1.7
Other provisions	13,982	13,209	5.9	8.9	6.5
Deferred and current tax	1,256	1,595	–21.3	–18.9	0.6
Financial liabilities	106,376	116,740	–8.9	–5.9	49.1
Trade payables	8,644	10,182	–15.1	–13.3	4.0
Other liabilities	21,187	23,066	–8.1	–4.2	9.8
Total equity and liabilities	**216,658**	**228,034**	**–5.0**	**–1.6**	**100.0**

Leased products (adjusted for currency effects) were slightly up on the previous year due to portfolio growth, mainly in Germany, Italy and Switzerland.

Receivables from sales financing (adjusted for currency effects) went down slightly compared to 31 December 2019, primarily due to the decrease in dealership financing, mainly in the USA, Germany, the UK and France. A total of 1,238,286 new credit financing contracts were concluded with retail customers during the financial year 2020. The number of contracts in place with dealerships and retail customers decreased by 0.6 % to 4,040,231 contracts.

Group equity rose slightly by €1,613 million to €61,520 million, driven primarily by the profit of €3,775 million attributable to shareholders of BMW AG. The dividend payment for the financial year 2019 amounted to €1,646 million, reducing equity accordingly.

Other provisions increased year-on-year due to additions to risk provisions in connection with the exhaust gas recirculation cooler and various recalls, such as for contaminated battery cells in plug-in hybrids.

Financial liabilities decreased moderately over the twelve-month period, with repayments of maturing bonds exceeding new issues.

Despite the volatility caused by the outbreak of the coronavirus pandemic, the results of operations, financial position and net assets of the BMW Group remained stable throughout the financial year, thanks to a raft of measures that were immediately implemented, including focused working capital management, strict investment and fixed cost management and targeted liquidity management.

BMW GROUP EQUITY RATIO*

in %	31.12.2020	31.12.2019	Change in %-pts.
Group	28.4	26.3	2.1
Automotive segment	37.0	35.5	1.5
Financial Services segment	10.5	9.9	0.6

* Equity capital as a percentage of the balance sheet total, respectively.

VALUE ADDED STATEMENT

The value added statement shows the value of work performed by the BMW Group during the financial year, less the value of work bought in. Depreciation and amortisation, cost of materials, and other expenses are treated as bought-in costs in the value added calculation. The allocation statement applies value added to each of the participants involved in the value added process. The bulk of the net value added benefits the employees. The remaining proportion in the Group is retained to finance future operations. The gross value added amount treats depreciation and amortisation as a component of value added which, in the allocation statement, would be treated as internal financing.

Net valued added by the BMW Group remained at a high level in the financial year 2020.

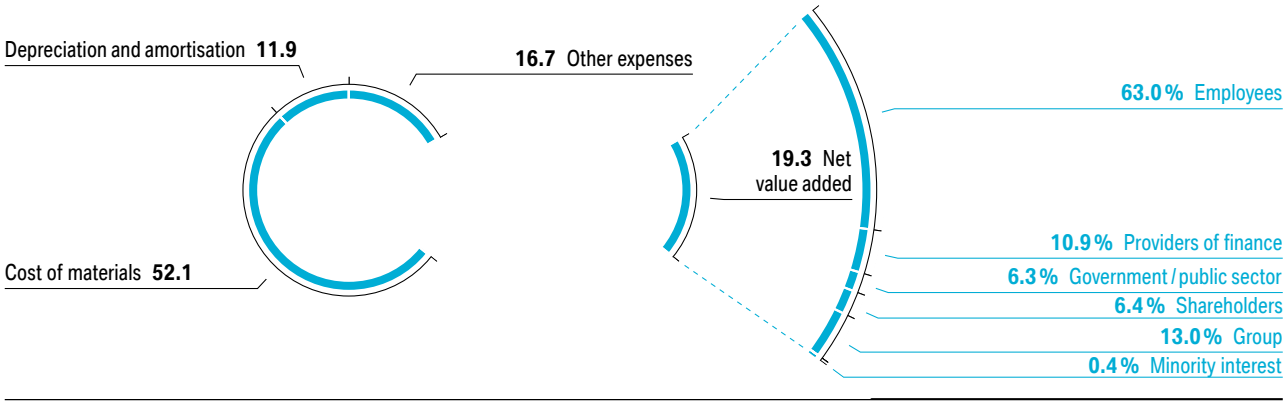
BMW GROUP VALUE ADDED STATEMENT

	2020 in € million	2020 in %	2019 in € million	2019 in %	Change in %
WORK PERFORMED					
Revenues	98,990	98.4	104,210	99.0	–5.0
Financial income	650	0.6	–22	–	–
Other income	916	0.9	1,031	1.0	–11.2
Total output	**100,556**	**100.0**	**105,219**	**100.0**	**–4.4**
Cost of materials*	52,355	52.1	57,358	54.5	–8.7
Other expenses	16,766	16.7	14,923	14.2	12.4
Bought-in costs	**69,121**	**68.8**	**72,281**	**68.7**	**–4.4**
Gross value added	**31,435**	**31.3**	**32,938**	**31.3**	**–4.6**
Depreciation and amortisation of total tangible, intangible and investment assets	11,976	11.9	10,749	10.2	11.4
Net value added	**19,459**	**19.3**	**22,189**	**21.1**	**–12.3**
ALLOCATION					
Employees	12,244	63.0	12,451	56.1	–1.7
Providers of finance	2,129	10.9	2,466	11.1	–13.7
Government / public sector	1,229	6.3	2,250	10.1	–45.4
Shareholders	1,253	6.4	1,646	7.4	–23.9
Group	2,522	13.0	3,269	14.7	–22.9
Minority interest	82	0.4	107	0.5	–23.4
Net value added	**19,459**	**100.0**	**22,189**	**100.0**	**–12.3**

* Cost of materials comprises all primary material costs incurred for vehicle production plus ancillary material costs (such as customs duties, insurance premiums and freight).

BMW GROUP VALUE ADDED 2020

in %



RESULTS OF OPERATIONS BY SEGMENT

BMW GROUP REVENUES BY SEGMENT

in € million	2020	2019	Change in %	Currency adjusted change* in %
Automotive	80,853	91,682	–11.8	–10.5 %
Motorcycles	2,284	2,368	–3.5	–1.1 %
Financial Services	30,044	29,598	1.5	2.9 %
Other Entities	3	5	–40.0	0.0 %
Eliminations	–14,194	–19,443	27.0	–26.5 %
Group	**98,990**	**104,210**	**–5.0**	**–3.5 %**

* The adjustment for exchange rate factors is calculated by applying the relevant current exchange rates to the prior year figures.

BMW GROUP PROFIT / LOSS BEFORE TAX BY SEGMENT

in € million	2020	2019	Change in %
Automotive	2,722	4,467	–39.1
Motorcycles	100	187	–46.5
Financial Services	1,725	2,272	–24.1
Other Entities	–235	–96	–
Eliminations	910	288	–
Group	**5,222**	**7,118**	**–26.6**

BMW GROUP MARGINS BY SEGMENT

in %	2020	2019	Change in %-pts.
Automotive			
Gross profit margin[1]	11.6	14.9	–3.3
EBIT margin[2]	2.7	4.9	–2.2
Motorcycles			
Gross profit margin[1]	15.0	19.3	–4.3
EBIT margin[2]	4.5	8.2	–3.7

[1] Gross profit as a percentage of segment revenues.
[2] Profit/loss before financial result as a percentage of segment revenues.

REVIEW OF OPERATIONS

AUTOMOTIVE SEGMENT

BMW GROUP ASSERTS ITS POSITION AS LEADING PREMIUM MANUFACTURER

The worldwide restrictions placed on public and private life due to the coronavirus pandemic also affected the BMW Group and its dealership organisation. Against this backdrop, deliveries[1] were extremely volatile in 2020. After a promising start to the year, sales figures slumped in the spring, before recovering from the third quarter onwards. During the final months of the year, the BMW Group returned to its successful course.

In 2020, the BMW Group delivered a total of 2,325,179[2] BMW, MINI and Rolls-Royce brand automobiles to customers (2019: 2,537,504[2,3] units; –8.4 %), once again leading the premium segment worldwide.

Due to the impact of the coronavirus crisis in the first half of 2020, deliveries were originally expected to drop significantly over the year as a whole. In the end, however, the decrease was relatively moderate at 8.4 %, largely on the back of a distinct recovery, particularly in the final quarter.

A strong second six-month period also contributed significantly to the brands making up for a major part of the coronavirus-related decline in the first half of the year. Over the full year, the BMW brand delivered 2,028,841[2] units to customers worldwide, 7.1 % below the record figure set one year earlier (2019: 2,184,939[2,3] units). MINI was also down year-on-year at 292,582 units (2019: 347,465[3] units; –15.8 %). Following the previous year's record high, Rolls-Royce Motor Cars delivered a total of 3,756 of its ultra-luxury brand vehicles to customers in 2020 (2019: 5,100[3] units; – 26.4 %).

PROPORTION OF ELECTRIFIED VEHICLES UP SIGNIFICANTLY

The growing number of electrified models offered by BMW and MINI brands was again reflected in the sharply rising delivery figures recorded in 2020. Over the twelve-month period, the BMW Group sold a total of 192,662 electrified BMWs and MINIs worldwide, around one-third (31.8 %) up on the previous year (2019: 146,158[3] units). Accordingly, electric mobility has become a significant growth driver for business. In the meantime, the BMW Group has expanded its portfolio of electrified vehicles to 14 models, which are available in a total of 95 countries worldwide. Based on its existing plans, the BMW Group will have 25 electrified models on the road by 2023.

The launch of the fully electric MINI[4] and the presentation of the BMW iX3[4] during 2020 will be followed in 2021 by the first deliveries of the two fully electric models, the BMW iX[4] and the BMW i4.

DELIVERIES OF ELECTRIFIED MODELS[3]

in units	2020	2019	Change in %
BMW Group PHEV	148,121	106,639	38.9
BMW Group BEV	44,541	39,519	12.7
Total	**192,662**	**146,158**	**31.8**

[1] See Glossary for the definition of deliveries.
[2] Including the joint venture BMW Brilliance Automotive Ltd., Shenyang (2020: 602,247 units, 2019: 538,612 units).
[3] Retail vehicle delivery data presented for 2020 is not directly comparable to such data presented for previous years. For further information on retail vehicle delivery data, please see Comparison of Forecast with Actual Outcomes.
[4] See Fuel Consumption and CO_2 Emissions Information.

FLEET CO_2 TARGETS MORE THAN ACHIEVED[1] – EMISSIONS WITHIN THE LEGAL LIMIT

Measures taken by the BMW Group to reduce fleet-wide carbon emissions are having a marked effect. The increased share of electrified vehicles delivered and the rigorous use of Efficient Dynamics technologies have enabled the BMW Group to achieve the stipulated fleet CO_2 limit for 2020, based on regulatory requirements. Fleet carbon emissions of vehicles delivered in Europe at the end of the reporting period were 99 g CO_2/km (2019: 127 g CO_2/km; –22.0 %).

DELIVERIES UP IN ASIA AND DOWN IN EUROPE AND AMERICA

BMW Group sales in Asia grew solidly in 2020, with deliveries to customers rising by 6.0 % to a total of 986,464[2] BMW, MINI and Rolls-Royce brand vehicles (2019: 930,767[2,3] units). In China in particular, the BMW Group surpassed the previous year's figure by 7.4 %, with 778,412[2] units delivered to customers (2019: 724,711[2,3] units).

By contrast, sales performance in Europe was affected more severely by the coronavirus crisis. In an unprecedented year marked by restrictions strongly affecting retail business, the BMW Group delivered a total of 913,642 units across the region (2019: 1,081,649[3]; –15.5 %). The number of vehicles delivered in Germany fell by 13.8 % to 285,019 units (2019: 330,507[3] units).

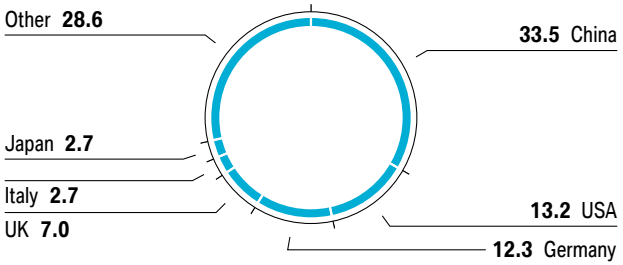
Figures for the UK deteriorated significantly, with deliveries falling to 163,174 units (2019: 233,771[3] units; –30.2 %), not least due to uncertainty over reaching a trade deal with the EU and the course of the pandemic.

Sales of the BMW Group's three brands on the American continent totalled 379,714 units (2019: 472,879[3] units; –19.7 %).

A total of 307,876 units were delivered to customers in the USA (2019: 375,726[3] units; –18.1 %). Despite a challenging environment due to the coronavirus pandemic, the final quarter here finished strongly on the back of rising demand.

BMW GROUP – KEY AUTOMOBILE MARKETS 2020

as a percentage of sales volume



BMW GROUP DELIVERIES OF VEHICLES BY REGION AND MARKET[3]

in 1,000 units	2020	2019	2018	2017	2016
Europe	913.6	1,081.6	1,097.4	1,101.9	1,089.8
thereof Germany	285.0	330.5	310.6	296.5	298.5
thereof UK	163.2	233.8	236.8	242.4	252.4
Americas	379.7	472.9	457.1	456.1	453.7
thereof USA	307.9	375.7	355.4	358.8	359.5
Asia[2]	986.5	930.8	871.8	847.7	738.2
thereof China[2]	778.4	724.7	635.8	595.0	508.8
Other markets	45.4	52.2	59.9	59.3	68.3
Total[2]	**2,325.2**	**2,537.5**	**2,486.1**	**2,465.0**	**2,350.0**

[1] EU including Norway and Iceland.
[2] Including the joint venture BMW Brilliance Automotive Ltd., Shenyang (2020: 602,247 units, 2019: 538,612 units, 2018: 455,581 units, 2017: 385,705 units, 2016: 311,473 units).
[3] Retail vehicle delivery data presented for 2020 is not directly comparable to such data presented for previous years. For further information on retail vehicle delivery data, please see ↗ Comparison of Forecast with Actual Outcomes.

BMW BRAND[1,2] BENEFITS FROM STRONG LUXURY SEGMENT

The BMW brand finished the year with a total of 2,028,841 units delivered to customers worldwide (2019: 2,184,939[2,3] units; –7.1 %), whereby the BMW 8 Series and the BMW X7 contributed in particular to the improved model mix. In addition, the 8 Series, the X6 and the X7 proved highly popular, each posting double-digit percentage increases. The highly successful BMW 3 Series model also recorded solid growth during the twelve-month period. Deliveries of the BMW 4 Series declined due to model life cycle factors.

NEW BMW BRAND PRODUCTS[1]

The BMW brand introduced a variety of innovative new products over the course of 2020, starting with the BMW X3 plug-in hybrid variant in January, followed by the BMW X1 plug-in hybrid and the BMW 2 Series Gran Coupé in March. The second half of the year saw the launch of model revisions of the BMW 5 Series and the BMW 6 Series Gran Turismo as well as the plug-in hybrid variants of the BMW 3 Series Touring and the BMW X2. The new BMW 4 Series Coupé was launched in October. The fully electric BMW iX3 celebrated its market début in China in November, with other markets to follow in early 2021. Additional hybrid variants of the BMW 5 Series were also added to the product range.

[1] See Fuel Consumption and CO_2 Emissions Information.
[2] Including the joint venture BMW Brilliance Automotive Ltd., Shenyang (2020: 602,247 units, 2019: 538,612 units).
[3] Retail vehicle delivery data presented for 2020 is not directly comparable to such data presented for previous years. For further information on retail vehicle delivery data, please see Comparison of Forecast with Actual Outcomes.

MOST SUCCESSFUL YEAR TO DATE FOR BMW M[1]

BMW M GmbH finished the most successful year in its history with a 5.9 % rise in deliveries to 144,231 units (2019: 136,165[3] units; +5.9 %), boosted by good contributions from the new high-performance BMW X5 M and X6 M models. In addition to these two models, BMW M also presented the new BMW M8 Gran Coupé and the M2 CS during the year under report. The new BMW M3 and the BMW M4 Coupé, which both celebrated their world premières in 2020, will be launched as further important models in 2021.

DELIVERIES OF BMW VEHICLES BY MODEL VARIANT[1,2,3]

in units	2020	2019	Change in %	Proportion of BMW sales volume 2020 in %
BMW 1 Series	164,056	173,870	–5.6	8.1
BMW 2 Series	104,859	115,095	–8.9	5.2
BMW 3 Series	381,416	358,643	6.3	18.8
BMW 4 Series	38,879	74,236	–47.6	1.9
BMW 5 Series	302,564	353,249	–14.3	14.9
BMW 6 Series	19,893	25,170	–21.0	1.0
BMW 7 Series	46,025	50,552	–9.0	2.3
BMW 8 Series	20,703	12,219	69.4	1.0
BMW Z4	14,982	15,819	–5.3	0.7
BMW X1	230,041	266,124	–13.6	11.3
BMW X2	74,229	91,765	–19.1	3.7
BMW X3	292,328	316,883	–7.7	14.4
BMW X4	55,237	61,569	–10.3	2.7
BMW X5	168,674	165,498	1.9	8.3
BMW X6	38,100	22,116	72.3	1.9
BMW X7	48,693	39,882	22.1	2.4
BMW i (i3 and i8)	28,162	42,249	–33.3	1.4
BMW total	**2,028,841**	**2,184,939**	**–7.1**	**100**

MINI FIGURES DOWN ON PREVIOUS YEAR[1]

In a highly challenging environment, MINI deliveries worldwide fell to 292,582 units (2019: 347,465[2] units), a drop of 15.8 %.

At the same time, the importance of electric mobility for the MINI brand is steadily growing. In addition to the MINI Countryman plug-in hybrid variant, the fully electric MINI Cooper SE has been available since March 2020. The latter generated a great deal of market interest, with 17,580 units delivered to customers by the end of the reporting year. The revised model of the MINI Countryman became available in September. Deliveries of John Cooper Works high-performance models went up by 21.2 % to 20,628 units (2019: 17,025 units[2]). The MINI John Cooper Works GP made its market début in March.

ROLLS-ROYCE: FIGURES DOWN IN CHALLENGING ENVIRONMENT AFTER PREVIOUS YEAR'S RECORD PERFORMANCE[1]

Due to the global impact of the coronavirus pandemic, Rolls-Royce deliveries fell to 3,756 units (2019: 5,100[2] units; – 26.4 %). Nevertheless, the leading marque in the ultra-luxury segment continued to expand its model range, including the launch of the new Rolls-Royce Ghost in September 2020.

Rolls-Royce Motor Cars' Bespoke programme allows customers to select their own personalised configurations with maximum flexibility. The marque also offers the Dawn, Ghost, Wraith and Cullinan models in Black Badge variants. Black Badge vehicles can be customised to include special features as well as higher engine performance.

DELIVERIES OF MINI VEHICLES BY MODEL VARIANT[2]

in units	2020	2019	Change in %	Proportion of MINI sales volume 2020 in %
MINI Hatch (3- and 5-door)	157,040	177,553	–11.6	53.7
MINI Convertible	24,875	30,383	–18.1	8.5
MINI Clubman	32,958	40,683	–19.0	11.3
MINI Countryman	77,709	98,846	–21.4	26.5
MINI total	**292,582**	**347,465**	**–15.8**	**100.0**

DELIVERIES OF ROLLS-ROYCE VEHICLES BY MODEL VARIANT[1,2]

in units	2020	2019	Change in %
Phantom	360	604	– 40.4
Ghost	324	662	– 51.1
Wraith / Dawn	873	1,326	– 34.2
Cullinan	2,199	2,508	– 12.3
Rolls-Royce total	**3,756**	**5,100**	**– 26.4**

[1] See Fuel Consumption and CO_2 Emissions Information.
[2] Retail vehicle delivery data presented for 2020 is not directly comparable to such data presented for previous years. For further information on retail vehicle delivery data, please see Comparison of Forecast with Actual Outcomes.

AUTOMOTIVE SEGMENT PERFORMANCE

Automotive segment revenues amounted to €80,853 million (2019: €91,682 million; –11.8 %, currency-adjusted: –10.5 %) and were therefore significantly lower than one year earlier. Lower sales volumes due to the coronavirus pandemic and negative currency effects were partially offset by overall favourable product mix effects brought about by the less pronounced drop in the sale of high-revenue models. Improved selling prices also helped to cushion the impact of the drop in revenues.

Segment cost of sales decreased moderately to €71,456 million compared to the previous year (2019: €78,062 million; – 8.5 %). The volume-related decline in cost of sales was offset by expenses for various provisions, including those recognised in connection with the exhaust gas recirculation cooler and recalls (such as contaminated battery cells in plug-in hybrid vehicles).

In addition, lower capitalised overhead costs due to the reduction of inventories accounted for at Group level as well as higher expenses for depreciation and amortisation had the effect of increasing segment cost of sales year-on-year.

Expenses recognised for workforce measures were largely offset by lower expenses for performance-related remuneration components.

The net amount of other operating income and expenses improved by €1,361 million, largely due to the provision recognised in relation with the EU Commission's ongoing antitrust proceedings in the previous financial year.*

The segment EBIT margin (profit before financial result as a percentage of revenues) came in at 2.7 % (2019: 4.9 %; – 2.2 percentage points). As forecast in the quarterly statement to 30 September 2020, the EBIT margin was within the target range of between 0 and 3 % and therefore in line with the revised outlook. In the 2019 Annual Report, a segment EBIT margin within a target range of between 2 and 4 % was forecast.

At €560 million, the Automotive segment's financial result was significantly up on the previous year (2019: negative €32 million), mainly reflecting the improved result from at-equity accounted investments described in the section on Group earnings above.

Profit before tax for the year amounted to €2,722 million and was therefore significantly lower than one year earlier (2019: €4,467 million; – 39.1 %).

The Automotive segment's RoCE for 2020 was significantly lower at 12.7 % (2019: 29.0 %; –16.3 percentage points). The decline was mainly attributable to the lower EBIT. The higher volume of capital expenditure in previous years – including amounts invested to expand the product portfolio – also contributed to this development.

As forecast for the financial year 2020, RoCE declined significantly and was well below the long-term strategic target valid through 2020 of at least 26 % for the automotive segment.

* Further information is provided in ↗ note 10 to the Group Financial Statements.

Free cash flow for the Automotive segment was as follows:

FREE CASH FLOW AUTOMOTIVE SEGMENT

in € million	2020	2019	Change
Cash inflow (+) / outflow (–) from operating activities	8,178	9,690	–1,512
Cash inflow (+) / outflow (–) from investing activities	–3,933	–7,165	3,232
Adjustment for net investment in marketable securities and investment funds	–850	42	–892
Free cash flow Automotive segment	**3,395**	**2,567**	**828**

In the Automotive segment, net financial assets comprised the following:

NET FINANCIAL ASSETS AUTOMOTIVE SEGMENT

in € million	31.12.2020	31.12.2019	Change
Cash and cash equivalents	9,522	9,077	445
Marketable securities and investment funds	3,759	4,470	–711
Intragroup net financing	7,996	7,784	212
Financial assets	**21,277**	**21,331**	**–54**
Less: external financial liabilities*	–2,815	–3,754	939
Net financial assets Automotive segment	**18,462**	**17,577**	**885**

* Excluding derivative financial instruments.

The main factor influencing the decrease in the net cash inflow from operating activities was the pandemic-related year-on-year deterioration in operational pre-tax earnings. The change in working capital was positively impacted by the reduction in inventories, while the lower level of trade payables – mainly due to an earlier closure of plants – had an offsetting effect compared to the prior year. The decrease in the net cash outflow from investing activities was mainly attributable to the changes described in the Group Cash Flow Statement.

MOTORCYCLES SEGMENT

MOTORCYCLE DELIVERIES DOWN DURING PANDEMIC YEAR

Motorcycles segment deliveries dropped slightly to 169,272 units (2019: 175,162 units; –3.4 %) due to the global pandemic. Favourable market developments in the fourth quarter, however, caused the total number of motorcycles delivered over the twelve-month period to exceed the revised outlook announced in the quarterly statement to 30 September 2020.

DELIVERIES BY MARKET

The spread of the coronavirus caused international motorcycle markets to develop unevenly in 2020. Overall, however, the number of motorcycles delivered by BMW Motorrad worldwide fell only slightly by 2.8 % to 102,026 units (2019: 104,994 units). Germany, however, managed to buck the general trend with deliveries up by 4.7 % to 27,516 units (2019: 26,292 units). Motorcycle deliveries in France also edged up, rising by 1.4 % to 17,539 units (2019: 17,300 units). By contrast, figures for Italy (13,918 units; 2019: 15,580 units; –10.7 %) and Spain (11,030 units; 2019: 12,607 units; –12.5 %) – both of which were particularly hard hit by the pandemic – dropped sharply year-on-year.

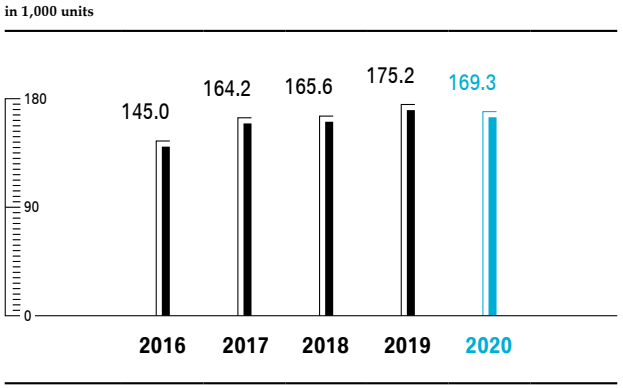
Sales in China grew strongly, with motorcycle deliveries climbing by 33.7 % to 11,788 units (2019: 8,818 units). Brazil saw a solid increase of 6.4 % to 10,707 units (2019: 10,064 units), also bucking the market trend. By contrast, deliveries in the USA fell moderately to 12,135 units (2019: 13,379 units; –9.3 %).

MARKET LAUNCHES IN 2020: MODEL RANGE REJUVENATED

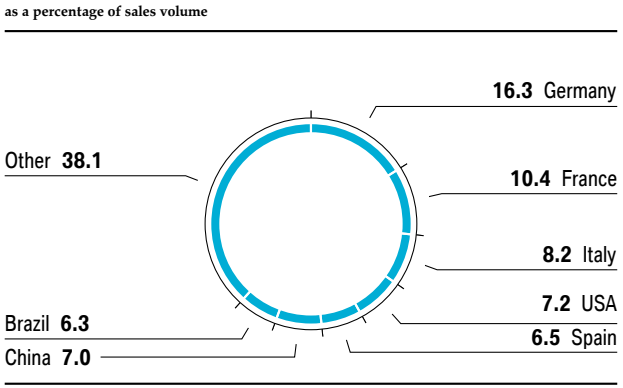
Four new models and several model revisions were launched in 2020.

In February, BMW Motorrad completed its mid-range offering with the market launches of the F 900 R (Roadster segment) and the F 900 XR (Adventure segment). The Adventure Sport model S 1000 XR followed in March. In the Heritage segment, the R18 – a cruiser with the largest boxer engine ever built by BMW Motorrad – has been available since September. The model revisions of the highly successful Enduro models R 1250 GS and R1250 GSA as well as that of the R nine T family followed in October. In addition, various special editions were introduced to mark the 40th anniversary of the GS series.

BMW GROUP DELIVERIES OF MOTORCYCLES



BMW GROUP – KEY MOTORCYCLE MARKETS 2020



BMW MOTORRAD OFFERS A GLIMPSE INTO THE FUTURE

In light of the pandemic-related restrictions, BMW Motorrad increasingly turned to virtual formats to showcase its new models over the course of 2020.

In November 2020, products such as the Definition CE04 – an electrically powered scooter featuring innovative connectivity solutions for urban mobility – were presented online using a virtual format on the BMW Group's innovation platform #NEXTGen.

Numerous series models scheduled for launch in 2021 were also presented online, including the M 1000 RR – BMW Motorrad's first-ever M model – in September. This was followed in October by the launch of the R18 Classic and in November by the launch of the S 1000 R. With the R18 Classic, BMW Motorrad is expanding its product range in the cruiser segment with the addition of a model that is also ideally suited for touring.

Revised models of the G 310 GS, the G 310 R and the R 1250 RT were also presented in October and November.

MOTORCYCLES SEGMENT PERFORMANCE

Motorcycles segment revenues were slightly down year-on-year. The main reasons for this development were the pandemic-related drop in sales and unfavourable currency effects, which were partially offset by positive product mix effects.

The segment EBIT margin (profit before financial result as a percentage of revenues) came in at 4.5 % (2019: 8.2 %; –3.7 percentage points) and thus within the most recently forecast target range of between 3 and 5 %.

Profit before tax for the year was significantly lower than one year earlier.

The RoCE for the Motorcycles segment in 2020 was 15.0 %, significantly down on the previous year's level (2019: 29.4 %; –14.4 percentage points), mainly due to the lower level of EBIT.

The performance was in line with the outlook communicated in the quarterly statement to 30 September 2020, but well short of the Motorcycles segment's RoCE target valid through 2020 of 26 %.

FINANCIAL SERVICES SEGMENT

FINANCIAL SERVICES BUSINESS HELD DOWN BY CORONAVIRUS PANDEMIC

In a difficult environment dominated by the global impact of the coronavirus pandemic, business developed significantly less favourably for the Financial Services segment in 2020 compared to one year earlier, a fact reflected in a 24.1 % drop in profit before tax to €1,725 million (2019: €2,272 million). As reported in previous quarters, this development was primarily due to the recognition of risk provisioning expenses for credit and residual value risks, thereby reducing reported earnings over the course of the twelve-month period. Due to the impact of the coronavirus pandemic, the segment's total business volume in balance sheet terms decreased moderately by 6.8 % to €133,093 million (2019: €142,834 million). The contract portfolio under management at 31 December 2020 comprised 5,981,928 contracts and was therefore at a similar level to one year earlier (2019: 5,973,682 contracts; + 0.1 %).

NEW BUSINESS WITH RETAIL CUSTOMERS MODERATELY DOWN ON PREVIOUS YEAR

A total of 1,845,271 new credit financing and leasing contracts was signed with retail customers during 2020, a moderate decrease of 7.9 % on the previous year (2019: 2,003,782 contracts).

New credit financing contracts also dropped moderately by 6.2 %, while new leasing contracts saw a more pronounced decrease of 11.1 %. Overall, leasing accounted for 32.9 % and credit financing for 67.1 % of new business.

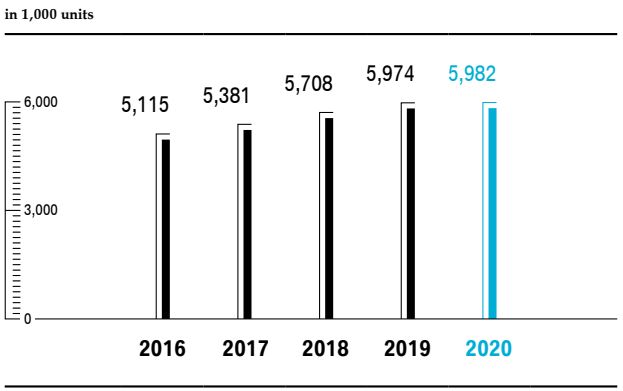
By contrast, customer demand for pre-owned vehicles picked up in a number of key sales markets including the USA. Overall, a total of 405,713 credit financing and leasing contracts relating to pre-owned BMW and MINI brand vehicles were signed in 2020, a year-on-year improvement of 1.9 % (2019: 398,144 contracts).

The total volume of new credit financing and leasing contracts concluded with retail customers during the twelve-month period amounted to €57,200 million, moderately lower than one year earlier (2019: €61,353 million; – 6.8 %).

The share of new BMW Group vehicles leased or financed by the Financial Services segment stood at 49.8 %[1] in 2020, 2.4 percentage points down on the previous year (2019: 52.2 %), mainly attributable to increased competition in China.

The total portfolio of credit financing and leasing contracts in place with retail customers edged up year-on-year, rising by 1.9 % to stand at 5,591,799 contracts at the end of the reporting period (2019: 5,486,319 contracts). China remained the region with the highest growth rate, this time coming in with a moderate year-on-year rise of 8.7 %. Figures for the Europe/Middle East/Africa region (+ 2.6 %) and the EU Bank[2] region (+ 2.2 %) were also up on the previous year. By contrast, the contract portfolios in the Americas and Asia/Pacific regions fell slightly by 1.1 % and 1.9 % respectively.

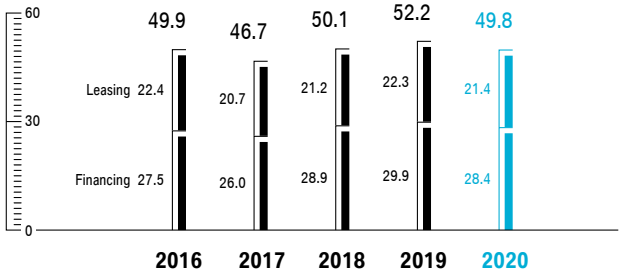
CONTRACT PORTFOLIO OF FINANCIAL SERVICES SEGMENT



[1] The calculation only includes automobile markets in which the Financial Services segment is represented by a consolidated entity.
[2] EU Bank comprises BMW Bank GmbH with its branches in Italy, Spain and Portugal.

BMW GROUP NEW VEHICLES FINANCED OR LEASED BY FINANCIAL SERVICES SEGMENT[1]

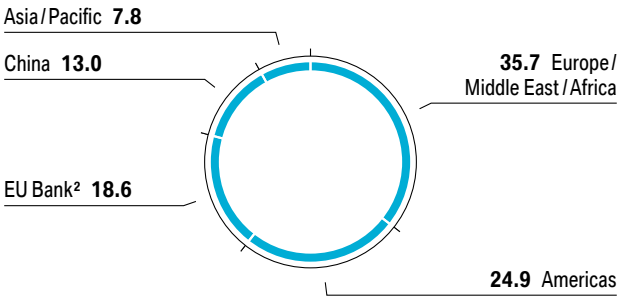
in %



[1] Values adjusted retrospectively due to the restatement of delivery figures. See Glossary for the definition of deliveries.

CONTRACT PORTFOLIO RETAIL CUSTOMER FINANCING OF FINANCIAL SERVICES SEGMENT 2020

in % per region



[2] With effect from the beginning of the fourth quarter of 2019, the EU Bank comprises BMW Bank GmbH and its branches in Italy, Spain and Portugal. The former subsidiary in France was transferred for organisational purposes to the Europe/Middle East/Africa region in conjunction with strategic realignments.

FLEET BUSINESS DOWN SLIGHTLY ON PREVIOUS YEAR

Under the brand name Alphabet, the Financial Services segment's fleet management business offers leasing and financing arrangements as well as specific services to commercial customers.

At 31 December 2020, the segment was managing a portfolio of 704,977 fleet contracts (2019: 717,353 contracts), down slightly by 1.7 % over the twelve-month period.

DEALERSHIP FINANCING SIGNIFICANTLY LOWER

The total volume of dealership financing was significantly lower compared to one year earlier, falling by 23.5 % to €16,241 million at the end of the reporting period (2019: €21,227 million).

FINANCIAL SERVICES SEGMENT PERFORMANCE

Revenues generated by the Financial Services segment rose slightly to €30,044 million (2019: €29,598 million; 1.5 %; currency-adjusted: + 2.9 %) due to portfolio growth mainly in Germany, Italy and Switzerland as well as due to higher revenues from the sale of returned lease vehicles.

Cost of sales relating to Financial Services business went up by €1,020 million (2019: €25,938 million; +3.9 %). Apart from depreciation on leased vehicles and costs associated with the sale of returned lease vehicles, the increase was driven primarily by additional risk provisions related to expected residual value and credit losses.

Segment profit before tax amounted to €1,725 million (2019: €2,272 million; – 24.1 %), significantly down on the previous year.

Return on equity (RoE) finished at 11.2 %, slightly below the level achieved one year earlier (2019: 15.0 %; – 3.8 percentage points). The decline was primarily attributable to the pandemic-related increase in risk provisions for residual value risks and, to an even greater extent, for credit risks, in both cases causing earnings to deteriorate.

The improved risk profile in the fourth quarter, mainly due to better remarketing outcomes and lower risk provisions for credit losses, contributed greatly to the RoE for the full year 2020 being above the forecast value ("moderate decline") communicated in the quarterly statement to 30 September 2020.

Net cash inflows and outflows for the Financial Services segment were as follows:

As described above, the net cash inflow from operating activities recorded by the Financial Services segment for the financial year 2020 resulted primarily from the fact that lower vehicle inventories at dealerships had the effect of reducing receivables from sales financing, mainly in the area of dealership financing. The net cash outflow from financing activities mainly reflected the repayment of loans and the decrease in asset-backed securities financing.

NET CASH FLOWS FOR THE FINANCIAL SERVICES SEGMENT

in € million	2020	2019	Change
Cash inflow (+) / outflow (–) from operating activities	2,762	– 5,345	8,107
Cash inflow (+) / outflow (–) from investing activities	424	129	295
Cash inflow (+) / outflow (–) from financing activities	– 2,508	5,300	– 7,808
Net	**678**	**84**	**594**

CHANGE IN RISK PROFILE

In 2020, the risk profile across the Financial Services segment's total portfolio was shaped primarily by the volatility arising due to the coronavirus pandemic and the resulting additional risk provisioning measures recognised in connection with expected credit and residual value risks, mainly provisions and allowances to cover future credit and/or residual value losses.

The initial and continuous testing of customer creditworthiness is an important aspect of the BMW Group's credit risk management. As explained in previous quarters, for accounting purposes the Financial Services segment has raised credit loss allowances over the course of 2020 in order to reflect the potential longer-term economic impact of the coronavirus pandemic on retail and dealership business. The amounts recognised were based on reasonable and appropriate market-specific information and estimates available at the end of the reporting period.

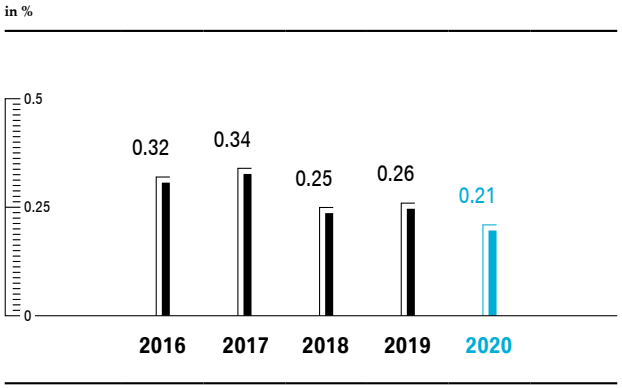
The credit loss ratio on the total credit portfolio amounted to 0.21 % at 31 December 2020, and was therefore slightly lower than one year earlier (2019: 0.26 %). More specifically, the loss ratio stood at 0.16 % (2019: 0.15 %) for leasing business and 0.31 % (2019: 0.41 %) for credit financing business with retail customers. The overall improvement in the loss ratio was also attributable to government measures (such as payment moratoriums or restrictions in the receivables management process) implemented in many countries around the world.

In the premium segment for pre-owned vehicles, remarketing selling prices for vehicles coming out of leases developed positively overall in 2020. Whereas restrictions on sales and the lower supply of new vehicles had a negative impact on demand for new and pre-owned vehicles during the first lockdown, the market saw an upward trend during the second half of the year. Despite this moderate recovery, economic development remains exposed to an increased level of uncertainty due to the pandemic. This point is particularly relevant for the development of prices for pre-owned premium segment vehicles in the short and medium term. Under the prevailing circumstances, the BMW Group sees prices as likely to fluctuate significantly in subsequent quarters, as in 2020, due to a number of factors, including possible changes in demand patterns or the renewal of temporary restrictions that could have an impact on the remarketing process. Accordingly, in 2020 market-specific risk provisioning expenses were recognised relating to the vehicle portfolio subject to residual value risks.

In line with customary business practice, the Financial Services segment makes provision to take account of significant business risks on an ongoing and comprehensive basis. Based on current assessments, however, the segment has recognised appropriate levels of provisions/allowances to cover residual value and credit risks.

Further information on the segment's risk profile is provided in the section on risks and opportunities and in ↗ note 38 to the Group Financial Statements.

DEVELOPMENT OF CREDIT LOSS RATIO



OTHER ENTITIES SEGMENT/ELIMINATIONS

The combined profit before tax in the Other Entities segment and eliminations saw a significant improvement of €483 million. This was attributable to reversal effects from the leased products portfolios, lower eliminations due to the decline in new leasing business and the lower expected new leasing business resulting from the reduced levels of inventories at dealerships.

COMMENTS ON FINANCIAL STATEMENTS OF BMW AG

Bayerische Motoren Werke Aktiengesellschaft (BMW AG), based in Munich, Germany, is the parent company of the BMW Group. The comments on the BMW Group and Automotive segment provided in earlier sections apply to BMW AG, unless presented differently in the following section. The Financial Statements of BMW AG are drawn up in accordance with the provisions of the German Commercial Code (HGB) and the relevant supplementary provisions contained in the German Stock Corporation Act (AktG).

The key financial performance indicator for BMW AG is the dividend payout ratio (unappropriated profit of BMW AG in accordance with HGB in relation to net profit for the year of the BMW Group in accordance with IFRS). The key non-financial performance indicators are essentially identical and concurrent with those of the BMW Group. These are described in detail in the Report on Economic Position section of the Combined Management Report.

Differences in accounting treatments based on HGB (used for the Company Financial Statements) and IFRS (used for the Group Financial Statements) are mainly to be found in connection with the capitalisation of intangible assets, the creation of valuation units, the recognition and measurement of financial instruments and provisions as well as the recognition of deferred tax assets. Differences also arise in the presentation of assets and liabilities and of items in the income statement.

BUSINESS ENVIRONMENT AND REVIEW OF OPERATIONS

The general and sector-specific environment of BMW AG is essentially the same as that of the BMW Group and is described in the Report on Economic Position section of the Combined Management Report.

BMW AG develops, manufactures and sells automobiles and motorcycles as well as spare parts and accessories manufactured in-house, by foreign subsidiaries and by external suppliers, and performs services related to these products. Sales activities are carried out primarily through branches, subsidiaries, independent dealerships and importers. Mainly due to the impact of the coronavirus pandemic, automobile deliveries fell by 305,852 units to 2,249,943 units in the financial year 2020. This figure includes 598,853 units relating to series sets supplied to the joint venture BMW Brilliance Automotive Ltd., Shenyang, an increase of 64,215 units over the previous year.

At 31 December 2020, BMW AG employed a workforce of 84,668 people (31 December 2019: 86,700 people, adjusted). With effect from the financial year 2020, the key performance indicator for the size of the workforce comprises only core and temporary employees. The change in presentation is in line with the change in the internal management system, which now focuses on these employee groups.

RESULTS OF OPERATIONS

BMW AG INCOME STATEMENT

in € million	2020	2019
Revenues	75,040	84,691
Cost of sales	–63,726	–70,178
Gross profit	**11,314**	**14,513**
Selling expenses	–4,030	–3,979
Administrative expenses	–2,747	–2,776
Research and development expenses	–5,394	–5,528
Other operating income	1,237	1,295
Other operating expenses	–1,250	–2,526
Result on investments	3,084	1,858
Financial result	–280	39
Income taxes	–214	–767
Profit after income tax	**1,720**	**2,129**
Other taxes	–18	–22
Net profit	**1,702**	**2,107**
Transfer to revenue reserves	–449	–461
Unappropriated profit available for distribution	**1,253**	**1,646**

Revenues fell by €9,651 million year-on-year, primarily reflecting the lower volume of deliveries to customers caused by the coronavirus pandemic. In geographical terms, the scale of decline was most pronounced in the Rest of Europe and USA regions. Revenues totalled €75,040 million (2019: €84,691 million), of which Group internal revenues accounted for €49,348 million (2019: €57,412 million) or 65.8 % (2019: 67.8 %).

Cost of sales went down by 9.2 % to €63,726 million, mostly due to the lower number of deliveries. Expenses incurred in connection with the exhaust gas recirculation cooler, however, along with a number of other items, had a negative impact in the financial year under report. Gross profit fell by €3,199 million to €11,314 million.

Overall, selling and general administrative expenses were at a similar level to the previous year.

Research and development expenses related mainly to new vehicle models (including the iX3* as well as the new 4 Series Coupé and Convertible), expenses for the development of reference architectures, drivetrain systems, digital products and automated driving as well as increased expenses in connection with electrification. R&D expenses decreased by 2.4 % year-on-year, in line with activities relating to new model start-ups.

* See ↗ Fuel Consumption and CO_2 Emissions Information.

Other operating income decreased to €1,237 million (2019: €1,295 million), whereby the main reasons for the change were lower income from the reversal of other provisions, offset by higher gains on financial transactions.

Other operating expenses decreased to €1,250 million (2019: €2,526 million), mainly due to the prior-year recognition of a provision relating to EU Commission antitrust proceedings.

Income from profit transfer agreements with Group companies, reported in the line item Result on investments, increased year-on-year. By contrast, financial result deteriorated by €319 million, mainly due to lower income from designated plan assets offset against pension obligations.

The expense for income taxes related primarily to withholding taxes incurred during the financial year 2020.

After deducting the expense for taxes, the Company reports a net profit of €1,702 million, compared to €2,107 million in the previous year.

Subject to the shareholders' approval of the appropriation of results at the Annual General Meeting, the unappropriated profit available for distribution amounts to €1,253 million (2019: €1,646 million). As a percentage of Group net profit, the dividend corresponds to a payout ratio of 32.5 % (2019: 32.8 %).

FINANCIAL AND NET ASSETS POSITION

BMW AG BALANCE SHEET AT 31 DECEMBER

in € million	2020	2019
ASSETS		
Intangible assets	488	405
Property, plant and equipment	12,520	12,473
Investments	3,826	3,762
Tangible, intangible and investment assets	**16,834**	**16,640**
Inventories	5,748	5,994
Trade receivables	778	964
Receivables from subsidiaries	18,939	16,698
Other receivables and other assets	3,849	3,513
Marketable securities	3,336	4,109
Cash and cash equivalents	6,822	6,757
Current assets	**39,472**	**38,035**
Prepaid expenses	**73**	**58**
Surplus of pension and similar plan assets over liabilities	**1,261**	**1,086**
Total assets	**57,640**	**55,819**

in € million	2020	2019
EQUITY AND LIABILITIES		
Subscribed capital	660	659
Capital reserves	2,239	2,210
Revenue reserves	11,013	10,564
Unappropriated profit available for distribution	1,253	1,646
Equity	**15,165**	**15,079**
Registered profit-sharing certificates	**27**	**28**
Pension provisions	229	205
Other provisions	10,093	8,784
Provisions	**10,322**	**8,989**
Liabilities to banks	101	511
Trade payables	4,785	5,751
Liabilities to subsidiaries	23,404	21,777
Other liabilities	221	187
Liabilities	**28,511**	**28,226**
Deferred income	**3,615**	**3,497**
Total equity and liabilities	**57,640**	**55,819**

Capital expenditure on intangible assets and property, plant and equipment in the year under report totalled €2,790 million (2019: €3,233 million), down by 13.7% compared to the previous year. Depreciation and amortisation amounted to €2,646 million (2019: €2,573 million).

Investments increased to €3,826 million (2019: €3,762 million) mainly due to a contribution of €88 million made to the capital reserves of BMW Bank GmbH, Munich.

Inventories decreased to €5,748 million (2019: €5,994 million), mainly due to the lower level of finished goods held.

Receivables from subsidiaries rose to €18,939 million (2019: €16,698 million), mainly reflecting the higher level of intragroup trade receivables.

The increase in other receivables and other assets to €3,849 million (2019: €3,513 million) was mainly attributable to higher receivables from companies with which an investment relationship exists. The decrease in tax receivables had an offsetting effect.

Equity rose by €86 million to €15,165 million due to the transfer to other revenue reserves and the issue of shares of preferred stock in conjunction with the BMW AG's Employee Share Programme. These increases were offset by the lower balance of unappropriated profit available for distribution compared to the paid-out dividend for the previous financial year. The equity ratio changed from 27.0% to 26.3%.

In order to secure pension obligations, cash funds totalling €531 million were transferred to BMW Trust e.V., Munich, in conjunction with a Contractual Trust Arrangement (CTA), to be invested in plan assets. Plan assets are offset against the related guaranteed obligations. The resulting surplus of assets over liabilities is reported in the BMW AG balance sheet on the line item Surplus of pension and similar plan assets over liabilities.

Provisions for pensions increased from €205 million to €229 million, after offsetting of pension plan assets against pension obligations.

Other provisions increased year-on-year, mainly due to additions to provisions for statutory and non-statutory warranty and product guarantees obligations in connection with the exhaust gas recirculation cooler on the one hand and for selling activities on the other.

Liabilities to banks decreased by €410 million as a result of the repayment of project-related loans.

Liabilities to subsidiaries increased to €23,404 million (2019: €21,777 million), mainly in connection with intragroup refinancing.

Deferred income increased by €118 million to €3,615 million and included mainly amounts for services still to be performed relating to service and maintenance contracts.

Liquidity within the BMW Group is ensured by means of a liquidity concept applied uniformly across the Group. This involves concentrating a significant part of the Group's liquidity at the level of BMW AG. An important instrument in this context is the cash pool based at BMW AG. The liquidity position reported by BMW AG therefore reflects the global activities of BMW AG and other Group companies.

Cash and cash equivalents increased by €65 million to €6,822 million, mainly due to surpluses from operating activities and cash inflows from marketable securities held as current assets. Cash outflows from financing activities and investments in long-lived assets particularly had an offsetting effect.

RISKS AND OPPORTUNITIES

BMW AG's performance is essentially dependent on the same set of risks and opportunities that affect the BMW Group and which are described in detail in the Report on Outlook, Risks and Opportunities section of the Combined Management Report. As a general rule, BMW AG participates in the risks entered into by Group companies in proportion to the respective shareholding percentage. At the same time, the result on investments has a significant impact on the earnings of BMW AG.

BMW AG is integrated in the Group-wide risk management system and internal control system of the BMW Group. Further information is provided in the section Internal Control System Relevant for Accounting and Financial Reporting Processes within the Combined Management Report.

OUTLOOK

For the financial year 2021, BMW AG expects a dividend payout ratio (unappropriated profit of BMW AG in accordance with HGB in relation to net profit for the year of the BMW Group in accordance with IFRS) within a range of between 30 % and 40 % (2020: 32.5 %).

Due to its significance in the Group and its close ties with Group companies, expectations for BMW AG with respect to its non-financial performance indicators correspond largely to the BMW Group's outlook. This is described in detail in the Report on Outlook, Risks and Opportunities section of the Combined Management Report. The outlook for 2021 takes account of the expected impact of the coronavirus pandemic.

PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, Munich branch, has issued an unqualified audit opinion on the financial statements of BMW AG, of which the balance sheet and the income statement are presented here. The BMW AG financial statements for the financial year 2020 will be submitted to the operator of the electronic version of the German Federal Gazette and can be obtained via the Company Register website. These financial statements are available on the BMW Group's website at ↗ **www.bmwgroup.com/ir**.

REPORT ON OUTLOOK, RISKS AND OPPORTUNITIES

OUTLOOK

The BMW Group's report on outlook, risks and opportunities presents the expected development in 2021, including the main risks and opportunities from the perspective of the Group's management. In line with the Group's internal management system, the outlook covers a period of one year. Risks and opportunities are managed on the basis of a two-year assessment. The **Report on Risks and Opportunities** therefore addresses a period of two years.

The continuous forecasting process within the BMW Group ensures that it is always ready to take advantage of opportunities as they arise, but also to react appropriately to unexpected risks. The principal risks and opportunities are described in detail in the Report on Risks and Opportunities. The matters discussed therein are relevant for all of the BMW Group's key performance indicators and could result in variances between the outlook and actual outcomes.

From the 2020 reporting year onwards, the outlook report will include the following key performance indicators in addition to existing ones: the proportion of women in management positions in the BMW Group, the proportion of electrified vehicles to total deliveries and carbon emissions per vehicle produced. **Strategy, Goals and Management System.** This is in line with the integrated approach used by BMW Group to manage its business systematically on the basis of financial and sustainability targets.

ECONOMIC OUTLOOK

According to the latest assessment of the International Monetary Fund (IMF), the global economy is projected to grow by 5.5 % in 2021. Many countries are expected to continue implementing a comprehensive range of monetary and fiscal policy measures in 2021, in a bid to boost economies battered by the coronavirus pandemic. Moreover, post-lockdown catch-up effects could generate additional momentum. Ultimately, however, the actual growth rate will depend heavily on the success of the vaccination campaigns now underway. Potential new waves of the virus and its mutations pose an additional risk. Further information on political and global economic risks is also provided in the **Report on Risks and Opportunities**.

The eurozone economy is projected to grow by around 4.3 % in 2021. The rate for Germany, however, is likely to be somewhat lower (+ 3.6 %). The economic outlook for the other eurozone member states is very positive in some cases, with countries such as France (+ 5.6 %), Italy (+ 4.6 %) and Spain (+ 5.7 %) expected to post strong GDP growth over the forecast period.

The performance of the UK economy in 2021 will not only depend on the impact of the coronavirus pandemic, but also on that of the Trade and Cooperation Agreement reached with the EU. The latest projection for the UK economy is a growth rate of 4.6 %.

The US economy is also projected to grow considerably by 4.8 % in 2021. The US Federal Reserve is likely to continue pursuing its low-interest-rate policies. At the same time, the stimulus packages announced by US President Biden are expected to provide a boost to the economy.

The Japanese economy, which has also been severely affected by the pandemic, is projected to grow by 2.8 % in 2021.

China was the only economy to expand slightly in 2020. With a projected rate of 8.4 %, the Chinese economy is set to continue its growth course in 2021.

CURRENCY MARKETS

Currencies of particular importance for the international operations of the BMW Group are the US dollar, the British pound, the Chinese renminbi and the Japanese yen. All of these major currencies are expected to be subject to a high degree of fluctuation in 2021.

It seems reasonable to assume that the US Federal Reserve will continue its expansionary monetary policies in 2021. The USA's central bank may also be willing to allow inflation to run at a rate higher than 2 % in future, even over an extended period of time, thereby possibly leading to further depreciation of the US dollar against the euro.

Looking at the Chinese renminbi, the close economic ties between the USA and China suggest that the currencies of these two countries will develop more or less synchronously. The renminbi is expected to depreciate slightly against the euro in 2021.

In 2021, the value of the British pound will be largely determined by the consequences of the agreement reached between the UK government and the EU. In view of the prevailing uncertainties, the exchange rate of the relatively weak pound is expected to move sideways over the course of 2021.

The central bank in Japan is unlikely to change its highly expansionary monetary policy in 2021. For this reason, the euro/yen exchange rate is also expected to remain more or less stable.

The currencies of numerous emerging markets could come under pressure against the US dollar and the euro due to the ongoing coronavirus pandemic. This applies in particular to countries such as Russia, Brazil and India.

INTERNATIONAL AUTOMOBILE MARKETS

The pandemic will continue to have a perceptible impact on international automobile markets in 2021. Although new registrations are expected to rise to around 78 million units (+7.7 %), overall sales are likely to remain significantly lower than before the coronavirus crisis.

Europe's automobile markets are forecast to see significant growth (12.4 million units; + 4.2 %), albeit still below pre-crisis levels. The latest forecast for Germany indicates that new registrations may even decline slightly (2.9 million units; – 0.6 %). By contrast, considerable growth is predicted for France (1.8 million units; +9.1 %), Italy (1.5 million units; +9.0 %) and Spain (approximately 0.9 million units; +4.3 %). Likewise, new registrations in the UK are forecast to rise in 2021 (1.7 million units; +3.2 %).

The negative trend in the USA is also expected to come to an end, at least for the time being. Based on current forecasts, the US market is set to grow in 2021 and reach a total of 16.0 million units (+ 9.8 %).

According to current estimates, passenger car registrations in China are likely to rise sharply year-on-year (22.0 million units; + 7.6 %).

The Japanese market is also expected to show a significant upward trend in 2021 (around 4.7 million units; +6.0 %).

INTERNATIONAL AUTOMOBILE MARKETS

	Change in registrations %
Europe	+4.2
thereof Germany	–0.6
thereof France	+9.1
thereof Italy	+9.0
thereof Spain	+4.3
thereof UK	+3.2
USA	+9.8
China	+7.6
Japan	+6.0
Total	**+7.7**

INTERNATIONAL MOTORCYCLE MARKETS

The BMW Group expects worldwide motorcycle markets in the 250 cc plus class to grow slightly overall in 2021. After contracting in 2020, demand in Spain is likely to see a solid recovery. Market volumes are expected to be slightly higher in Italy and slightly lower in Germany and France. A slight contraction is also forecast for the US market. Brazil is expected to bounce back with a solid recovery. The market in China is set to grow sharply again in 2021. As in the past year, motorcycle market demand will continue to be influenced by the course of the pandemic and its impact on the global economy in 2021.

INTERNATIONAL INTEREST RATE ENVIRONMENT

Trade relations between the USA and China should improve under the new US administration, whilst still remaining strained. Low inflation rates give central banks sufficient headroom to continue their expansionary monetary policies. However, the rise in inflation rates since the beginning of the year, especially in the eurozone, indicates that consumer prices are also likely to increase again in the course of 2021.

Within the eurozone, the course of the pandemic and delays in the vaccine rollout suggest that the pathway back to normality could take some time yet. Any further lockdowns during the first half of the year could dampen economic growth and hold down inflation figures, potentially leaving the ECB with little flexibility to raise interest rates in 2021.

The UK's economy is not expected to improve significantly during the first quarter. Following the initial success of the vaccination programme, the UK government is now looking to ease the lockdown on a cautious step-by-step basis. It remains to be seen, however, to what extent the virus mutation circulating there could cause the situation to deteriorate again. In light of the fiscal and monetary policy measures taken by the government and the Bank of England, the economy is not expected to see an upturn before the summer. It is therefore safe to assume that the Bank of England will keep interest rates stable for the time being.

In the USA, the House of Representatives has approved President Biden's 1.9 trillion dollar stimulus package aimed at countering the impact of the pandemic on the economy. Despite inflation being expected to rise in 2021, the Federal Reserve seems determined to continue its current programme of quantitative easing and leave the benchmark interest rate unchanged.

The Chinese central bank is expected to maintain an unchanged course. Despite strained trade relations with the USA, economic growth in China is likely to gather additional pace in 2021.

CONSEQUENCES FOR THE BMW GROUP

Future developments on international automobile markets also have a direct impact on the BMW Group. Challenges in the competitive environment as well as the course of the coronavirus pandemic are likely to have a significant impact on sales volumes. Due to its global business model, the BMW Group is well placed to capitalise on opportunities that present themselves, even at short notice. Coordination between the Group's sales and production networks also enables it to even out the impact of unforeseeable developments in various regions. Moreover, investments in key future-oriented markets form a sound basis for further growth, while simultaneously strengthening the global presence of the BMW Group.

An unpredictable political environment may cause actual economic growth in some regions to deviate from expected trends and developments. Areas affected in this context include trade and customs policies, security and potential additional international trade conflicts.

Furthermore, risks continue to exist for upstream processes, including possible bottlenecks due to supply shortages arising in regions that could become the focus of a pandemic. Due to the high demand on international semiconductor markets, there is currently an additional risk of bottlenecks in the supply of electronic components to production. **Risks and opportunities relating to purchasing**

The BMW Group continues to observe these developments and is ready to implement all necessary measures quickly and effectively.

ASSUMPTIONS USED IN THE OUTLOOK

The report on outlook, risks and opportunities contains forward-looking statements. These are based on the BMW Group's expectations and assessments and may be influenced by unforeseeable events. As a result, actual outcomes can deviate either positively or negatively from the expectations described below, among other things due to changes in the political and economic environment as well as the further course of the coronavirus pandemic. **Report on Risks and Opportunities.**

The following outlook relates to a forecast period of one year and is based on the composition of the BMW Group during that time. The outlook takes account of all information available at the time of reporting and which could have an effect on the overall performance of the Group. The expectations contained in the outlook are based on the BMW Group's forecast for 2021 and reflect its most recent status. The basis for the preparation of and the principal assumptions used in the forecasts – which consider the consensual opinions of leading organisations, such as economic research institutes and banks – are set out below. The BMW Group's outlook takes account of these assumptions.

The coronavirus pandemic will continue to have an impact on business performance in 2021 and hence on the results of operations, financial position and net assets of BMW AG and the BMW Group. Due to the continuing uncertainty surrounding the course and potential consequences of the pandemic going forward, it is difficult to make an accurate forecast of the BMW Group's business performance in 2021. For the forecast year 2021, the BMW Group is working on the basis that the original widespread prevalence of the infection that was the dominant feature of 2020 will be replaced by recurrent, regional hotspots. The outlook has been therefore been drawn up on the assumption that, outside of hot spots, the overall incidence of infection can be controlled worldwide. The successive launch of vaccination campaigns and improved vaccine supply should also have an increasingly positive effect in 2021.

Uncertainties remain, however, as mutated strains of the virus emerge and spread, raising questions about the efficacy of currently available vaccines in combatting mutations. It is not possible to assess the extent to which such risks could impact the global economy, the financial markets and therefore the BMW Group and, for this reason, they have not been taken into account in the outlook.

With demand on international semiconductor markets currently at a high level, the supply situation for electronic chips has become increasingly tense, which could result in supply bottlenecks affecting the availability of semiconductor components required for production. The BMW Group is monitoring the situation closely. Should the situation deteriorate further and significant supply bottlenecks occur, it cannot be ruled out that this will have an adverse impact on the outlook.

The BMW Group expects that the tensions between the USA and China will persist after the change in the US administration and remain a source of uncertainty. However, based on up-to-date assessments, customs tariffs are not expected to rise.

Current estimates and assumptions for the financial year 2021, to the extent already known to the BMW Group, have been taken into account and described in the outlook report. Beyond these assessments, no further significant opportunities and risks are known or can be estimated at the present time. However, it cannot be ruled out that the assumptions underlying estimates may need to be changed over the course of the year.

OUTLOOK FOR THE BMW GROUP
OVERALL ASSESSMENT BY GROUP MANAGEMENT

Despite the volatile situation brought about by the global spread of coronavirus, the BMW Group expects business to develop positively and the risk situation to remain stable in the financial year 2021. New automobile and motorcycle models as well as individual mobility-related services are expected to generate momentum. Group profit before tax is therefore expected to rise significantly during the outlook period.

The Automotive segment is expected to record a solid year-on-year increase in the number of BMW, MINI and Rolls-Royce brand vehicles delivered to customers. At the same time, the BMW Group is targeting a further significant reduction in carbon emissions in the new vehicle fleet[1], calculated using the revised base[2]. In addition to improvements achieved through developments in highly efficient combustion engines, the expected reduction also reflects the significant increase in the forecast proportion of electrified vehicles sold. According to the planning, carbon emissions per vehicle produced are likely to fall moderately. The Automotive segment's EBIT margin is set to recover in 2021, most likely finishing within a range of 6 to 8 % and thus causing the segment RoCE to improve significantly.

[1] EU including Norway and Iceland; since 2018 figure based on WLTP (Worldwide Harmonised Light Vehicles Test Procedure) and converted back to the New European Driving Cycle (NEDC).
[2] Efficiency indicator calculated on the basis of Scope 1 and Scope 2 emissions (i.e. a market-based method according to GHG protocol Scope 2 guidance that excludes climate-changing gases other than carbon dioxide) of vehicle production excluding motorcycles, adjusted for CHP losses and divided by the total number of vehicles produced, including the joint venture BMW Brilliance Automotive Ltd., Shenyang, but excluding vehicles produced by the contract manufacturers Magna Steyr and Nedcar.

The RoE in the Financial Services segment is expected to finish within a range of 12 to 15 %. The switch to a forecast corridor for RoE allows for a narrower and therefore more precise outlook.

The Motorcycles segment is expected to record a solid increase in deliveries to customers. The EBIT margin is predicted to lie within the target range of 8 to 10 %, enabling the segment to record a significantly higher level of RoCE than one year earlier.

The proportion of women in management positions in the BMW Group is expected to increase slightly.

The targets described above are to be met with a slightly lower number of employees.

Ongoing uncertainty, particularly regarding the further course of the coronavirus pandemic, macroeconomic and political developments as well as international trade and customs policies, could cause economic conditions in many regions to differ quite considerably from expected trends and developments. All these factors could have significant effects on the overall business performance of the BMW Group. Furthermore, the Group's actual business performance may also differ from current expectations as a result of the risks and opportunities discussed below in the Report on Risks and Opportunities.

BMW GROUP KEY PERFORMANCE INDICATORS

		2020 reported	2020 adjusted	2021 Outlook[1]
GROUP				
Profit before tax	€ million	5,222	–	Significant increase
Workforce at year-end		120,726	–	Slight decrease
Share of women in management positions in the BMW Group	%	17.8	–	Slight increase
AUTOMOTIVE SEGMENT				
Deliveries to customers[2]	units	2,324,809	–	Solid increase
Share of electrified vehicles in deliveries	%	8.3	–	Significant increase
CO_2-Emissions EU New Vehicle Fleet[3]	g/km	99[6]	135[7]	Significant decrease
CO_2 emissions per vehicle produced[4]	tons	0.23	0.31[8]	Moderate decrease
EBIT margin	%	2.7	–	between 6 and 8
Return on capital employed[5]	%	12.7	–	Significant increase
MOTORCYCLES SEGMENT				
Deliveries to customers	units	169,272	–	Solid increase
EBIT margin	%	4.5	–	between 8 and 10
Return on capital employed[5]	%	15.0	–	Significant increase
FINANCIAL SERVICES SEGMENT				
Return on equity	%	11.2	–	between 12 and 15

[1] Based on adjusted outlook; see Glossary for the definition of terminology/ranges used in forecasting.
[2] Including the joint venture BMW Brilliance Automotive Ltd., Shenyang (2020: 602,247 units).
[3] EU including Norway and Iceland; since 2018 value converted WLTP (Worldwide Harmonised Light Vehicles Test Procedure) basis.
[4] Efficiency indicator calculated from Scope 1 and Scope 2 CO_2 emissions (market-based method according to GHG Protocol Scope 2 Guidance. Other climate-impacting gases than CO_2 not included) from vehicle production, without motorcycles, minus CHP losses divided by the total number of vehicles produced, incl. BMW Brilliance Automotive Ltd. joint venture, Shenyang, not including the vehicles from the Magna Steyr and Nedcar contract production plants.
[5] Unlike the other key performance indicators, the RoCE forecast for the Automotive and Motorcycles segments is based on the change in percentage points.
[6] Value (internal calculation) takes account of flexibilities as defined in regulatory requirements: phase-in with 5 g/km, supercredits BEV/PHEV with 7.5 g/km and eco-innovations with 2.4 g/km.
[7] The CO_2 fleet emissions figure of 99 g/km for the year 2020, as measured internally, is based on NEDC and takes due account of permitted offsetting factors (phase-in, super-credits and eco-innovations). The CO_2 fleet emissions forecast for 2021 is based on WLTP in accordance with legal requirements and includes fewer offsetting factors due to the fact that phase-in is no longer permitted for 2021 and the BMW Group fully utilised the maximum amount of super-credits in 2020. For better comparability of the CO_2 fleet emissions forecast for 2021 and the fleet value for 2020, the 2020 figure has been converted internally from an NEDC basis (including offsetting factors) to a WLTP basis (excluding offsetting factors). The figure derived for 2020 serves only to enable reconciliation with the 2021 figure: it is not official and does not correspond to legislation that was in place in 2020.
[8] From 2021, CO_2 emissions according to Scope 1 and 2 include not only production emissions but also emissions at locations not allocated to production, e.g. research centres, distribution centres, office buildings.

RISKS AND OPPORTUNITIES

As a globally leading provider of premium automobiles, motorcycles, mobility services and financial services, the BMW Group is exposed to an array of uncertainties and changes. To ensure growth, profitability, efficiency and continued sustainability going forward, the BMW Group needs to take well calculated risks and make full use of any opportunities that present themselves.

The management of opportunities and risks is essential in order to respond in an appropriate manner to any changes that occur in political, economic, technical or legal conditions. The BMW Group has put a comprehensive risk management system in place to effectively with risks as they arise. The aim of the risk management system is to identify, assess and actively manage any risks that could threaten the attainment of the Group's corporate targets. As part of that process, individual and cumulative risks capable of posing a threat to the profitability of the business are monitored and managed.

All opportunities and risks expected to materialise have already been addressed in the Outlook Report. The following sections focus on potential future developments or events that could result in a positive (opportunity) or a negative deviation (risk) from the outlook for the BMW Group.

OVERALL ASSESSMENT OF THE RISK AND OPPORTUNITIES SITUATION

The assessment of the overall risk situation is based on a consolidated view of all significant individual risks. The overall risk situation for the BMW Group has worsened moderately compared to one year earlier, reflecting – in the worst-case scenario – a significant deterioration in the global economic situation due to the coronavirus pandemic. The BMW Group has already adjusted its sales and production planning to take account of expected macroeconomic developments and incorporated their impact in the outlook. Should the effect of the pandemic prove less severe in 2021 and if the economy recovers more quickly than expected, opportunities for both revenues and earnings could arise.

Management does not see any threat to the BMW Group's status as a going concern. Similar to one year earlier, the current set of risks to the BMW Group are considered manageable. If these risks – or opportunities – were to materialise, they could have an impact on underlying key performance indicators, thus causing deviations from the outlook. The BMW Group's financial resources are stable, with liquidity requirements currently covered by existing liquidity and available financing instruments.

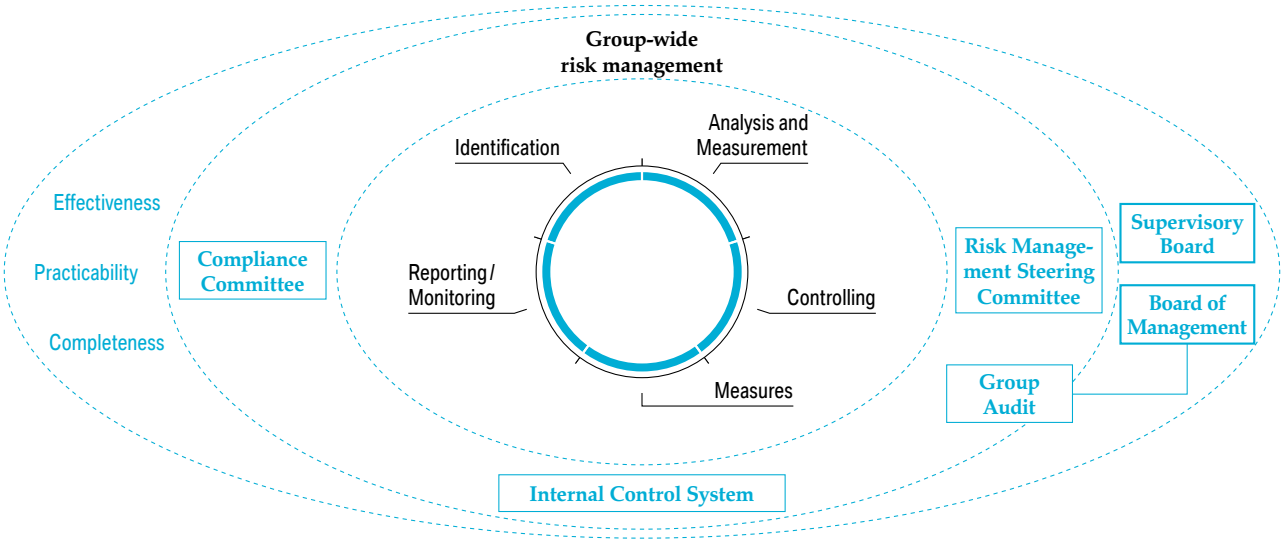
In addition to the risks described below, unforeseen events could have a negative impact on business operations and hence on the BMW Group's results of operations, financial position and net assets as well as on its reputation.

ORGANISATION OF RISK MANAGEMENT

Risk management is organised as a decentralised, Group-wide network and steered by a centralised risk management function. Every BMW Group division is represented by Network Representatives. This formal structure reinforces the network's visibility and underlines the importance of risk management within the BMW Group. The responsibilities and duties of the centralised risk management function and the Network Representatives are clearly documented and understood. Significant risks reported from within the network are firstly presented for review to the Risk Management Steering Committee, which is chaired by Group Controlling. After review, any significant risks identified are reported to both the Board of Management and the Supervisory Board's Audit Committee.

Other functions such as **Compliance and Human Rights** and the **Internal Control System** serve as key interfaces to the risk management system. In its capacity as an independent control body, Corporate Audit reviews the risk management system established by the Board of Management on an annual basis.

RISK MANAGEMENT IN THE BMW GROUP



According to Group-wide guidelines, every employee and manager has a duty to report risks via the relevant reporting channels. The key elements of an effective risk culture are embedded in the BMW Group's core values, in its risk management guidelines and in the risk strategy. New information and new requirements are continuously fed into the BMW Group's risk management system, thereby ensuring its ongoing development. Training programmes and informational events are regularly conducted across the BMW Group, particularly within the risk management network. These measures are essential ways of preparing those involved in the process to comply with any new or additional requirements.

The risk management process applies across the entire Group and comprises the early identification, analysis and assessment of risks, the coordinated use of appropriate management tools and the monitoring and evaluation of the measures taken.

RISK MEASUREMENT

The BMW Group utilises standardised methods to assess risks. All significant risks are measured using value-at-risk models and assessed on the basis of uniform loss distribution metrics, thereby enabling better comparability of risks for both internal and external reporting purposes. The overall effect of risks on the results of operations, financial and net assets position is referred to in the following sections uniformly as "earnings impact".

Risks are classified both according to their potential impact on earnings (worst-case scenario) and according to the risk amount (average earnings impact, taking into account the probability of occurrence). The impact of risks is measured and reported net of any mitigation measures that are already taking effect (net basis). Risks are measured over a two-year assessment period.

The potential earnings impact in the worst-case scenario is classified as follows:

Class	Potential earnings impact in a worst-case scenario
Low	> €0 – 500 million
Medium	> €500 – 2,000 million
High	> €2,000 million

The following criteria apply for the purpose of classifying the risk amount:

Class	Risk amount
Low	> €0 – 50 million
Medium	> €50 – 400 million
High	> €400 million

The earnings impact of risks and opportunities is presented separately without offsetting. If no specific reference is made, opportunities and risks relate to the Automotive segment. The scope of entities covered in the report on risks and opportunities corresponds to the scope of consolidated entities included in the BMW Group Financial Statements.

MONITORING RISK-BEARING CAPACITY

Group-wide effects and trends can be identified by aggregating all significant risks at Group level using value-at-risk models. For this purpose, the potential earnings impact of the risks (confidence level: 99 %) is aggregated, taking correlation effects into account. In order to assess the risk-bearing capacity of the BMW Group, the aggregated amount of risks is compared with the risk cover amount (equity recognised for accounting purposes). A limit system for various risks helps monitor the risk-bearing capacity.

MANAGING NON-FINANCIAL RISKS AS REPORTED IN THE NFS

Alongside comprehensive risk management, sustainability constitutes a core strategic principle of the BMW Group. Risks resulting from sustainability issues are generally identified via the Group-wide risk management network.

When analysing sustainability-related opportunities and risks, the physical risks associated with climate change (e.g. disruption of supply chains due to natural hazards) and transition risks (such as meeting emissions requirements) are also assessed.

In accordance with § 289 c of the German Commercial Code (HGB) risks that could have an impact on the non-financial aspects referred to in the Act are reviewed as part of the reporting process. Significant risks in this context are defined as those stemming from business activities, business relationships and products and/or services provided by the BMW Group that are highly likely to have a seriously adverse impact. No significant non-financial risks were identified during the year under report.

OPPORTUNITIES MANAGEMENT

A dynamic market environment also gives rise to opportunities. Identifying these opportunities is an integral part of the BMW Group's strategic planning process. The Group's range of products and services is continually reviewed on the basis of these analyses, resulting, for example, in new product projects being presented to the Board of Management for consideration. In order to compete successfully in the long term and at the same time effectively help play an active role in achieving the goal of climate neutrality – as called for by politicians and desired by society in general – the Group's vehicle platforms are designed to operate flexibly with various types of drivetrain, enabling it to respond more swiftly to changing customer needs.

The continuous monitoring of key business processes and strict cost controls are also essential for ensuring high levels of profitability and return on capital employed.

Once identified, opportunities are acted upon in the relevant operational areas on a decentralised basis. The importance of opportunities for the BMW Group is classified on a qualitative basis in the categories "significant" and "insignificant". Probable measures aimed at increasing profitability are already incorporated in the outlook.

RISKS AND OPPORTUNITIES

The following table provides an overview of significant risks and opportunities and indicates their level of importance for the BMW Group. Overall, no risks capable of threatening the continued existence of the BMW Group were identified either at the balance sheet date or at the date on which the Group Financial Statements were drawn up. Due to the particular features of the business model applied for the Financial Services segment, risks and opportunities relating to it are presented separately on **Risk Management System in the Financial Services Segment**

	Risks		Opportunities	
	Classification of risk amount	Change compared to prior year	Classification	Change compared to prior year
RISKS AND OPPORTUNITIES				
Macroeconomic risks and opportunities	High	Stable	Significant	Increased
Strategic and sector risks and opportunities				
Changes in legislation and regulatory requirements	High	Stable	Insignificant	Stable
Market developments	High	Stable	Insignificant	Stable
Risks and opportunities relating to operations				
Production and technology	High	Stable	Insignificant	Stable
Purchasing	High	Increased	Insignificant	Stable
Sales network	Low	Stable	Insignificant	Stable
Information, data protection and IT	High	Stable	Insignificant	Stable
Financial risks and opportunities				
Foreign currencies	High	Increased	Significant	Stable
Raw materials	Medium	Stable	Significant	Stable
Liquidity	Medium	Increased	–	–
Other financial risks	Medium	–	Significant	–
Pension obligations	High	Stable	Significant	Stable
Legal risks	Medium	Stable	–	–

MACROECONOMIC RISKS AND OPPORTUNITIES

Economic conditions have an impact on business performance and hence the level of earnings generated by the BMW Group. Unforeseen disruptions in global economic relations can have highly unpredictable effects. Macroeconomic risks due to sales volume fluctuations could have a high earnings impact over the two-year assessment period. The risk amounts attached to macroeconomic risks are classified as high.

Currently, the greatest risk for the global economy is the further spread and the consequences of the coronavirus pandemic. Considerable uncertainty remains regarding the dynamics of the coronavirus pandemic going forward, despite the current decline in infection figures. The situation is highly dependent on the progress and success of the vaccination campaigns currently underway. It is not currently possible to predict with any degree of certainty the point in time from which a high vaccination rate could significantly mitigate the course of the pandemic. As a result, restrictions to public life and regional lockdowns are likely to be a continued source of uncertainty for consumers and weigh heavily on the sales situation across all markets. The BMW Group is monitoring the situation on a continuous basis and taking appropriate measures as required.

However, risks that existed prior to the outbreak of the pandemic still remain, despite being partially displaced in the public perception. The trade conflict between the USA and China is likely to be an enduring topic, despite the inauguration of the new US president. However, the focus could well shift from pure tariff increases to import and export restrictions on certain technologies. The potential introduction of further trade restrictions on both sides could have a significantly adverse impact on the BMW Group's business operations due to less favourable conditions for importing vehicles.

In the wake of ongoing climate change, natural disasters could occur more frequently and impact the BMW Group in a variety of ways. For instance, economic activity in the affected regions could be negatively influenced. For consumers, this would mean a loss of income and the threat of unemployment and have a negative effect on sales. In the context of its "Adaptation to Climate Change" project, the BMW Group is preparing for numerous possible scenarios and has taken the step of systematically integrating the reporting of opportunities and risks associated with climate change within this report.

Other risks to the economy include political instability in Belarus, the conflict between Armenia and Azerbaijan, political unrest in the USA, the impact of the change in Hong Kong's status, and uncertainty regarding the sustainability of debt levels in some European countries.

If the coronavirus is overcome with the help of effective vaccines over the course of 2021, opportunities could arise for the BMW Group in terms of revenues and earnings. Significantly higher GDP growth in our strongest sales regions, positive signals in Europe and the USA on the back of new economic stimulus packages, and a de-escalation of the trade conflict between the USA and its economic partners could result in significantly stronger sales volume growth, reduced competitive pressures and improved pricing. Against this backdrop, macroeconomic opportunities capable of generating a sustainably positive impact on earnings are currently classified by the BMW Group as significant.

STRATEGIC AND SECTOR-SPECIFIC RISKS AND OPPORTUNITIES; CHANGES IN LEGISLATION AND REGULATORY REQUIREMENTS

The short-term introduction of more stringent legislation and regulations, particularly with regard to emissions, safety and consumer protection as well as regional, vehicle-related purchase and usage taxes, represents a significant risk for the automobile industry. Country- and sector-specific trade barriers can also be subject to change at short notice. Any sudden tightening of regulations in these areas could necessitate significantly higher investments and ongoing expenses or exert influence on customer behaviour. If the risk of market disruption due to unforeseeable short-term changes in legislation and regulations were to materialise, this could have a highly negative earnings impact over the two-year assessment period and beyond. The resulting risk amounts are therefore classified as high.

At present, the BMW Group sees a continuous trend towards increasingly stringent vehicle emissions regulations, particularly for conventional drivetrain systems. The BMW Group is addressing this risk primarily by systematically electrifying its entire portfolio of brands and models: based on its existing plans, the BMW Group will already have 25 electrified models on the road by 2023. At the same time, the Group is pressing ahead with the continued development of highly efficient combustion engines in order to further reduce fuel consumption and emissions.

Additional risks could result from the tightening of existing import and export regulations, which could, in turn, lead primarily to additional expenses, but also complicate the import and export of vehicles and parts.

Changes in trade policies could also have a positive impact on the BMW Group's earnings in the short to medium term. Any reduction in tariff barriers, import restrictions or direct excise duties could result in lower manufacturing costs or enable products and services to be offered to customers at more attractive prices. Further opportunities to improve the BMW Group's earnings performance due to changes in legislation and regulatory requirements compared to the outlook are classified as insignificant.

Market developments

Apart from economic factors and sector-specific political conditions, increasingly fierce competition among established manufacturers and the emergence of new market competitors could also have effects that are difficult to predict. Unforeseen consumer preferences and changes in brand perceptions can also give rise to both opportunities and risks. If market risks were to materialise, they could have a high earnings impact over the two-year assessment period. The risk amount is classified as high.

A potential further intensification in terms of competition could put pressure on sales volumes, selling prices and margins. For instance, the BMW Group could be confronted with supply and demand distortions in the transition from conventionally powered vehicles to alternative drivetrain concepts, despite complying with legal requirements. Customer behaviour can also alter due to changes in attitudes, values, environmental factors and fuel or energy prices. The flexibility of the BMW Group's sales and production processes makes it possible to mitigate risks and take any opportunities arising in corresponding market and product segments.

Local product usage restrictions in specific sectors could have a limiting impact on the BMW Group's sales in individual markets. In some urban areas, for instance, local measures have been, or are being, introduced, including entry restrictions, congestion charges or, in some situations, highly restrictive registration rules. These could influence local demand for the BMW Group vehicles affected and hence have a negative impact on sales, margins and, possibly, the residual values of these vehicles. Among other measures, the BMW Group is addressing this risk by broadening its range of electrified vehicles and mobility services.

Moreover, the BMW Group continuously monitors its sales markets with the aim of increasing added value for customers and making the most of opportunities in terms of sales volume growth and pricing. The further development of the product and mobility portfolio as well as expansion in growth regions offer the greatest medium- to long-term growth opportunities for the BMW Group. This depends above all on the Group's ability to develop innovative products and services and bring them to market. If the negative impact of the current competitive situation is reduced more quickly than expected, additional opportunities are likely to arise for the BMW Group. Compared to the assumptions made in the outlook, the BMW Group does not expect these opportunities to have a significant earnings impact over the two-year assessment period.

RISKS AND OPPORTUNITIES RELATING TO OPERATIONS

Risks and opportunities relating to production and technologies

Risks relating to production processes and fields of technology can lead to unplanned production interruptions or additional costs due to vehicle recalls. If any such risks were to materialise, they could have a high earnings impact over the two-year assessment period. The corresponding risk amounts are classified as high.

Potential causes of production downtimes include fires, infrastructural damage, machine and tooling breakdowns, IT malfunctions, temporary disruptions in utility supply or transportation and logistical disruptions, or the outbreak of a pandemic. All production units have a variety of measures in place to deal with potential production interruptions and downtimes, some of which are already integrated in the planning process and can be implemented operationally with a high degree of flexibility. These measures have an effect on both the amount of damage and the probability of the risks occurring.

Technical fire protection, rapid response by on-site fire brigades and appropriate employee training are the key strategies for preventing and reducing any potential damage from fires. Furthermore, policies are in place with insurance companies of high credit standing to cover the risk of fire-related events that lead to significant production interruptions at the Group's or at suppliers' premises.

The BMW Group's successful business continuity management concept helps minimise downtimes in the event of a production stoppage and make up for lost production volumes as quickly as possible.

Flexible working time models and working time accounts designed to manage employee deployment, coupled with the ability to build individual vehicle models or engine types with a high degree of flexibility at other BMW Group plants as required, make a significant contribution to ensuring that fluctuations in demand can be met.

Detect-analyse-respond measures have been rolled out to counter the threat of targeted cyberattacks, reflecting the fact that such attacks could cause damage to production facilities, resulting in long downtimes and substantial losses.

Vehicles may be damaged or destroyed by natural hazards or other risks during transport from production plants to the sales regions. Due to the growing number of major claims, deductible amounts included in transport insurance policies have risen significantly. In fact, as more and more insurance companies withdraw from this market segment, there is a risk that it could become economically unviable to take out insurance, as a result of which the BMW Group would be required to bear the losses itself.

The BMW Group recognises appropriate provisions for statutory and non-statutory warranty obligations. It cannot be ruled out, however, that additional costs arise in conjunction with vehicle recalls that are either not covered or not fully covered by provisions. Despite thorough quality assurance processes, such risks can always arise if the materials and/or processing procedures used prove insufficient, in some cases years after a product is launched. Further information on risks in conjunction with provisions for statutory and non-statutory warranty obligations is provided in note 33 to the Group Financial Statements.

The BMW Group sees opportunities relating to production processes and fields of technology primarily in the competitive edge gained by mastering new and complex technologies. Innovations in the technologies deployed and in IT in general are driving the pace of digitalisation in production processes. Given the long lead times involved in developing new products and processes, additional opportunities are not expected to have a significant earnings impact for the BMW Group during the outlook period.

Risks and opportunities relating to purchasing

Purchasing risks relate primarily to supply risks caused by the failure of a supplier to deliver as well as to threats to BMW Group-relevant know-how within the supplier network. Production problems at supplier level could lead to consequences caused by increased expenditure for the BMW Group due to production interruptions and a corresponding reduction in vehicle sales. The BMW Group deploys an extensive set of checks and proactive management measures to tackle the challenges currently facing the automotive supply industry. If purchasing risks were to materialise, they could have a high earnings impact over the two-year assessment period. The risk amount attached to purchasing risks is classified as high.

Close cooperation between carmakers and suppliers in the development and production of vehicles and the provision of services generates economic benefits, but also raises levels of dependency. Potential reasons for the failure of individual suppliers to deliver include, in particular, IT-related risks, non-compliance with sustainability or quality standards and the occurrence of natural hazards and fires. Insufficient financial capacity on the part of individual suppliers could also jeopardise supplies to production plants. In this context, additional countermeasures have been put in place in the wake of the coronavirus pandemic.

Moreover, any major deterioration of a particular country's national security situation is incorporated in the risk measurement process as a potential reason for the failure of a value and/or supply chain. Any risks potentially arising for individual suppliers and/or entire supply chains in conjunction with the need to adapt to the consequences of climate change are continually assessed on the basis of in-house expert knowledge, taking scientific findings into due account.

The growing complexity of the supplier network, particularly in the case of sub-suppliers whose operations can only be indirectly monitored by the BMW Group, is a further potential cause of downtimes at supplier locations. For instance, there is a risk that strong demand on international semiconductor markets gives rise to bottlenecks in the supply of electronic components for production. The increased threat of cyberattacks along the entire value chain also affects supply security as well as the ability to protect know-how relevant to the BMW Group. To ensure a uniform level of IT security for all those involved along the value and supply chain, the BMW Group impresses on suppliers the importance of obtaining appropriate IT security certification.

By monitoring and developing global supplier markets, the BMW Group continuously strives to become more competitive by working together with the world's best product and service providers. As part of its supplier preselection process, the BMW Group checks for compliance with the sustainability standards established for its supplier network. This includes due consideration of and compliance with internationally recognised human rights and applicable labour and social standards.

The level of carbon emissions generated by prospective suppliers is taken into account as an independent criterion when processing tenders and awarding new contracts. This approach ensures that first-tier suppliers regard the issue of carbon emissions – alongside other factors – as relevant for their business and, in turn, set targets for other supply chain levels in which they are involved. The aim is to reduce carbon emissions across all relevant supply chains on the basis of constructive cooperation with suppliers. It is important to point out, however, that the BMW Group depends on receiving accurate information from suppliers in this regard.

Furthermore, fire risks at series suppliers are evaluated by means of questionnaires and selective on-site inspections. Suppliers are required to implement the necessary measures on a continuous basis. Following evaluation, the results are fed back into the process for awarding contracts for new projects.

The risks associated with the supply of raw materials are mitigated either by reducing the use of raw materials or substituting them with alternative products.

Within the Purchasing and Supplier Network, opportunities arise above all in the area of global sourcing and the associated efficiency improvements. Making optimal use of any innovations developed by suppliers is a key prerequisite for developing future-oriented mobility products and services. Similarly, favourable location-related cost factors, in particular those arising due to the close proximity of supplier structures to new and existing BMW Group production plants as well as the introduction of innovative production technologies, could lead to lower cost of materials for the BMW Group.

One of the BMW Group's aims is to have battery cells manufactured in Europe. Key prerequisites for achieving this aim, however, are primarily further advances in the development of battery cell technology and the mastery of cell production processes. Contracts have been concluded with various suppliers as part of the Group's electrification strategy. A further source of opportunities is seen in the possible integration of previously unidentified supplier-driven innovations in the Group's product range. The BMW Group offers innovative suppliers numerous options for creating specific contractual arrangements that promote companies developing innovative solutions. Compared to the assumptions made in the outlook, the BMW Group does not expect such additional opportunities to have a significant earnings impact over the two-year assessment period.

Risks and opportunities relating to the sales network

In order to sell its products and services, the BMW Group operates a global sales network mainly comprising independent dealerships, branches, subsidiaries and importers. In addition, a pilot project to promote direct sales was launched in South Africa in 2020. Any threat to the continued activities of parts of the sales network, for example due to the impending insolvency of a dealership, would entail risks for the BMW Group. The occurrence of sales and marketing risks would have only a low earnings impact over the two-year assessment period. The risk amount is classified as low.

New developments in the field of digital communication and connectivity provide new opportunities for the BMW Group's brands to take advantage of additional sales channels in their efforts to bring new products to market. Based on vehicle-driven telematics data, customers can elect to use a specific service and actively consent to the relevant data being transferred. The service providers contracted to perform the work receive the necessary data via the BMW Group's secure back end system. The information forms the basis for customised, data-driven, innovative service options. Additional opportunities could arise if new sales channels contribute to greater brand reach to customer groups than currently envisaged in the outlook. Compared to the assumptions made in the outlook, the BMW Group does not expect these opportunities to have a significant earnings impact over the two-year assessment period.

Information security, data protection and IT

The advance of digitalisation throughout all areas of the business world places considerable demands on the confidentiality, integrity and availability of electronically processed data and the associated use of information technology (IT). Alongside higher threat levels in this area, regulatory requirements worldwide relating to the use of personal data are becoming increasingly stringent, for example due to the California Consumer Privacy Act. If risks relating to information security, data protection and IT were to materialise, they could have a high earnings impact over the two-year assessment period. Despite extensive security measures and constant efforts to ensure compliance with applicable data protection legislation, the risk amount in this area is classified as high.

In addition to cyberattacks and direct physical intervention, there is a risk that either a lack of knowledge or misconduct on the part of employees could also pose a danger to the confidentiality, integrity and availability of information, data and systems. The main direct consequences could range from negative effects on revenues due to the misuse of information through to disruption in the production of components or vehicles. A further indirect consequence could be reputational damage.

The BMW Group places great emphasis on protecting the confidentiality, integrity and availability of information from unauthorised access or misuse, whether relating to business, employees or customers. Data security is an integral part of all Group business processes and practised in accordance with the ISO/IEC 27001 international standard. In conjunction with risk management requirements, risks relating to information security, data protection and IT are systematically documented, allocated appropriate measures by the departments concerned and continuously monitored with regard to threat level and risk mitigation. Regular analyses and controls as well as rigorous security management policies ensure an appropriate level of security.

However, despite continuous testing and preventive security measures, it is impossible to eliminate risks completely in this area. All Group employees are required to treat information such as confidential business, customer and employee data with care, use information systems securely and handle risks in a transparent manner. Group-wide requirements are documented in a comprehensive set of principles, guidelines and instructions, such as, for example, the Privacy Corporate Rules for handling personal data. Regular communication, awareness-raising and training measures form the basis for a high level of security and risk awareness. With regard to cooperations and business partnerships, the BMW Group protects its intellectual property as well as its customer and employee data by issuing clearly defined instructions on information security, data protection and the use of information technology. Trade secrets and sensitive personal data are subject to particularly stringent security measures. Technical data protection incorporates industry-wide standards and good practices. Responsibility for information security and data protection for each Group entity lies with either the Board of Management or the relevant management team.

With the advance of digitalisation, the BMW Group is continually improving the customer experience in its existing lines of business. At the same time, new business segments are emerging, which have only become feasible due to innovation in the field of information technology. The development and provision of digital services for customers, increased vehicle connectivity and automated driving solutions are opening up new opportunities. Via BMW ConnectedDrive and BMW CarData, the range of services and apps on offer to customers is constantly being expanded and updated. Compared to the assumptions made in the outlook, the BMW Group does not expect these opportunities to have a significant earnings impact over the two-year assessment period.

FINANCIAL RISKS AND RISKS RELATING TO THE USE OF FINANCIAL INSTRUMENTS

Currency risks and opportunities

As an internationally operating enterprise, the BMW Group conducts business in a variety of currencies, thus giving rise to currency risks and opportunities. A substantial portion of Group revenues, purchasing and funding occur outside the eurozone, particularly in China and the USA. Regularly updated cash-flow-at-risk models and scenario analyses are used to measure currency risks and opportunities. If currency risks were to materialise, they could be associated with a high earnings impact over the two-year assessment period. The risk amount relating to currency risks is classified as high. The risk assessment is therefore slightly less favourable than one year earlier, due to the increased volatility of individual currencies in the wake of the coronavirus pandemic. Significant opportunities can arise if currency developments are favourable for the BMW Group.

Operational currency management is based on the results of currency risk analyses. The BMW Group manages currency risks at both strategic (medium to longterm) and operational level (short to mediumterm). Medium- to long-term measures include increasing production and purchase volumes in foreign currency regions, i.e. natural hedging. Currency risks are managed in the short to medium term and for operational purposes by means of hedging on financial markets. The principal objective is to increase planning reliability for the BMW Group. Hedging transactions are entered into only with financial partners of good credit standing. Opportunities are also secured through the use of options during specific market phases.

Risks and opportunities relating to raw materials prices

As a large-scale manufacturing company, the BMW Group is exposed to purchase price risks, particularly in relation to the raw materials used in vehicle production. The analysis of raw materials price risks is based on planned purchases of raw materials and components containing those products. Cash-flow-at-risk models and scenario analyses are used to measure risks and opportunities relating to raw materials prices.

If such risks were to materialise, they could have a medium earnings impact over the two-year assessment period. The risk amount is classified as medium. Significant opportunities could arise if raw materials prices develop favourably for the BMW Group.

Changes in prices are monitored via a well-defined management process, the primary objective of which is to increase planning reliability for the BMW Group. Price fluctuations for precious metals (platinum, palladium, rhodium), nonferrous metals (aluminium, copper), raw materials for batteries (lead, nickel, cobalt) and, to some extent, for steel and its basic ingredients (iron ore, coking coal) as well as energy (gas, electricity) are hedged using financial derivatives and supply contracts with fixed pricing arrangements.

Liquidity risks

The major part of the Financial Services segment's credit financing and leasing business is refinanced on capital markets. Liquidity risks can arise in the form of rising refinancing costs or from restricted access to funds as a consequence of the general market situation. If liquidity risks were to materialise, they would be likely to have a medium earnings impact over the two-year assessment period. The risk amount associated with liquidity risks, including the risk of the BMW Group's rating being downgraded, is classified as medium. The year-on-year change in the assessment of the risk amount reflects the sharp short-term rise in refinancing costs on capital markets at the beginning of the coronavirus pandemic.

Based on the experience gained during the global financial crisis, a liquidity concept has been drawn up, which is rigorously adhered to and continuously developed. The concept has been recently updated to take account of the implications of the coronavirus pandemic. The use of the "matched funding principle" to finance the Financial Services segment's operations ensures that liquidity risks are generally avoided. Furthermore, scenarios have been calculated to present and analyse the potential impact of the coronavirus pandemic on the matched funding principle.

Solvency is assured at all times throughout the BMW Group by adhering to liquidity ratios and using a broadly diversified range of refinancing sources. Regular measurement and monitoring ensure that cash inflows and outflows for the various maturities and currencies offset one another. This approach is an integral part of the BMW Group's liquidity concept.

The liquidity position is monitored continuously and managed through the Group-wide planning of financial requirements and funding. The diversified refinancing strategy employed reduces dependency on financial instruments and markets. Moreover, the BMW Group's solid financial and earnings position results in high credit ratings from internationally recognised rating agencies. At present, opportunities relating to liquidity are not expected to have any significant earnings impact.

Further information on risks in conjunction with financial instruments is provided in note 39 to the Group Financial Statements.

Other financial risks

Other financial risks worth mentioning include counterparty risks as well as those arising in connection with investments in other entities.

The BMW Group works together with banks to ensure that the available liquidity is optimally invested and to hedge against financial market risks (particularly currency, commodity and interest rate risks) using derivative financial instruments. Counterparty risk describes the risk that the BMW Group will not receive the payments due to it in connection with the investment and hedging transactions referred to above. An enhanced value-at-risk model is employed to measure counterparty risk, taking into account the creditworthiness (rating) of the banks and the business volumes involved. Risk is managed using a limit system, which includes daily monitoring of the extent to which limits are being utilised.

The BMW Group holds equity investments of varying amounts in numerous entities, which could result in risk from depreciation and amortisation.

If other financial risks were to materialise, they could have a medium earnings impact over the two-year assessment period. The risk amount associated with other financial risks is classified as medium. Revaluations of investments could give rise to opportunities with a significant earnings impact.

Risks and opportunities relating to pension obligations

Future pension obligations are financed largely via external pension funds or trust constructs that are legally separate from BMW. Externally managed funds are invested on capital markets in a broadly diversified portfolio with a view to enabling future pension payments to be disbursed out of pension assets. These arrangements greatly reduce the need to fund pension payments out of ongoing operations.

Risks arise from fluctuations in pension obligations on the one hand and the related pension assets on the other. Opportunities arise if the value of pension assets on capital markets develops favourably or if pension obligations decrease at a more pronounced rate than the related assets.

Pension obligations are primarily measured using a discount rate based on market yields from high-quality corporate bonds. These yields are subject to market fluctuations and therefore influence the level of pension obligations. Changes in other parameters, such as rising inflation rates and longer life expectancy, also impact the amount as well as the duration of future pension payments. Regulatory requirements or changes may also affect the amount of pension obligations.

The fluctuation of pension assets reflects the volatility of individual asset classes on capital markets. The broadly diversified portfolio comprises investments in interest-bearing securities, equities, real estate and other asset classes.

Despite the high level of external funding, risks relating to pension obligations could have a high earnings impact over the two-year assessment period. The risk amounts attached to pension obligations are classified as high. The strategic portfolio allocation of pension assets therefore comprises two key components. One part is allocated with a view to hedging against value fluctuations, applying the "liability-driven investment approach", whereby capital market instruments are employed on a targeted basis to hedge against financial risks arising from the measurement of pension obligations. A second part is allocated with a view to generating income. Within a favourable capital market environment, this part of the pension assets offers the opportunity to further reduce pension plan deficits by generating positive returns and thereby impact the BMW Group's financial position to a significant degree. The risks and opportunities described above are continuously monitored and managed.

Remeasurements on the liability and asset sides are recognised net of deferred taxes through other comprehensive income and hence directly in equity (within revenue reserves).

Further information on risks in conjunction with pension provisions is provided in ↗ **note 32** to the Group Financial Statements.

LEGAL RISKS

The BMW Group is exposed to various legal risks, not least due to the global nature of its operations. Legal risks may result from non-compliance with laws or other legal requirements or from legal disputes with business partners or other market participants. If legal risks were to materialise, they could have a high earnings impact over the two-year assessment period. The risk amounts attached to significant identified legal risks are classified as medium. However, it cannot be ruled out that new legal risks, as yet unforeseen, materialise that could have a high earnings impact for the BMW Group.

The growing globalisation of the BMW Group's operations as well as of business interdependencies in general, combined with the variety and complexity of legal provisions – increasingly including import and export regulations – give rise to a greater risk of non-compliance with applicable law. A Compliance Management System is in place across the BMW Group to ensure that its representative bodies, executives and staff members worldwide consistently act in a lawful manner. In 2020, the system was further developed, primarily by establishing additional compliance functions in various centralised departments within BMW AG, stepping up face-to-face training on antitrust compliance and via a Group-wide "Tone from the Top" communication initiative that reflects the compliance management culture within the BMW Group. ↗ **Corporate Governance**

Like all entities with international operations, the BMW Group is confronted with legal disputes, alleged claims (particularly relating to warranties and product liability or intellectual property rights infringements) and proceedings initiated by government agencies. Any of these could, amongst other consequences, have an adverse impact on the Group's reputation. Such proceedings are typical for the sector, may result as a consequence of realigning product or purchasing strategies to changed market conditions or are antitrust-related. Particularly in the US market, class action lawsuits and product liability risks can have substantial financial consequences and cause damage to the Group's reputation. More rigorous application or interpretation of existing regulations or the introduction of new regulations could result in a greater number of recalls.

In an antitrust investigation, the EU Commission alleges that five German car manufacturers colluded with the aim of restricting competition for innovation with regard to certain exhaust treatment systems for diesel- and petrol-driven passenger vehicles. The current investigation is solely concerned with possible infringements of competition law. The EU Commission is not alleging that the BMW Group conducted a deliberate and unlawful manipulation of the emissions control system. The Statement of Objections leads the BMW Group to believe that it is probable ("more likely than not") that the Commission will issue a significant fine. A provision of approximately €1.4 billion was recognised in 2019 in accordance with International Financial Reporting Standards for negative financial impacts that cannot yet be definitively assessed. In December 2019 the BMW Group submitted a detailed reply to the Statement of Objections. The EU Commission is currently examining the reply and, on that basis, will determine the next procedural steps. Therefore, the financial impact cannot yet be definitively assessed.

For several years, lawsuits have been filed against BMW Bank GmbH (BMW Bank) in which consumers claim the withdrawal of their loan and leasing contracts on the basis of allegedly incorrect and insufficient pre-contractual information. The focus is on loan contracts. Since 2017, BMW Bank has won the vast majority of these lawsuits. In November 2019, the Federal Court of Justice (BGH) adopted a decision of principle in favour of BMW Bank, confirming the accuracy of consumer-relevant information in loan contracts. In addition, in October 2020 the BGH decided in a case in which BMW Bank was not involved that consumers are generally obliged to pay a compensation after a successful withdrawal. Since the beginning of 2020, several references for a preliminary ruling on the scope of information obligations have been filed with the European Court of Justice (ECJ). On the basis of these requests, there is a risk that BMW Bank's prospects of success in the withdrawal lawsuits could deteriorate in the event of negative future ECJ case law. The possible financial impact cannot be definitively assessed at this stage.

The BMW Group recognises appropriate levels of provision for lawsuits. In addition, a part of these risks is insured to an economically reasonable extent. Further risks from legal proceedings are reported as other contingent liabilities. It cannot be ruled out, however, that damages arise that are either not covered or not fully covered by insurance policies or provisions or reported as contingent liabilities. In accordance with IAS 37 (Provisions, Contingent Liabilities and Contingent Assets), the required information is not provided if the BMW Group concludes that its disclosure could seriously prejudice the outcome of the relevant legal proceedings. Further information on contingent liabilities is provided in note 38 to the Group Financial Statements.

RISK MANAGEMENT SYSTEM IN THE FINANCIAL SERVICES SEGMENT

In the Financial Services segment, the risk management process also takes financial regulatory requirements such as Basel III into account. Internal methods for identifying, measuring, managing and monitoring risks within the Financial Services segment comply with national and international standards. Risk management within the Financial Services business is built on the prevailing risk culture, the defined risk strategy, the internal capital adequacy assessment process framework and a set of rules comprising principles and guidelines. In organisational terms, the risk management process is ensured by means of a clear division between front- and back-office activities and a comprehensive internal control system. The main tool used to manage risk within the Financial Services segment is to ensure the segment's risk-bearing capacity.

All risks – in the sense of unexpected losses – must be covered at all times. Based on the entity's risk appetite, this is achieved by ensuring specified levels of risk-covering assets (asset cushions) in the form of equity capital. Unexpected losses are measured using various value-at-risk models, which are validated at regular intervals. Risks are also aggregated after taking account of correlation effects. In addition to assessing the Group's ability to bear risk, stress scenarios are also examined. The segment's risk-bearing capacity is also regularly monitored by means of an integrated limit system for the various risk categories.

Sustainability has developed into a megatrend of our time and is increasingly becoming the focus of political and social debate. Both the effects of climate change and the changes brought about by the fight against climate change are also likely to be reflected across the world's financial system. Due to the potential macroeconomic consequences, the related sustainability risks are seen as a threat to the stability of financial markets. In the context of bank supervision at national and international level, it is therefore essential that the banks concerned take sustainability risks adequately into account.

The Financial Services segment not only helps its customers to satisfy their mobility needs by offering credit financing and leasing products, it also promotes the BMW Group's industrial business from a sales point of view. The far-reaching consequences of the debate on sustainability and sustainability risks affect both the non-financial economy (and therefore the BMW Group) and the financial economy (and therefore the Financial Services segment). Due to the close interrelationships within the Group, developments that affect the BMW Group's industrial business in the first step (e.g. diesel driving bans, adjustments to carbon emissions targets, the growing proportion of e-vehicles, etc.) are also relevant for the Financial Services segment in the second step. This environment has always been part of the underlying framework of the Financial Services segment's business model.

The growing challenges posed by climate change and the resulting impact on the financial system are taken into account in the Financial Services segment by adequately addressing sustainability risks. As an integral part of the BMW Group's value chain, the Financial Services segment is highly aware of the importance of managing sustainability risks and is therefore fully integrated in the BMW Group's comprehensive sustainable corporate strategy.

The following overview provides a general summary of the main risks and opportunities in the Financial Services segment:

	Risks		Opportunities	
	Classification of risk amount	Change compared to prior year	Classification	Change compared to prior year
RISKS AND OPPORTUNITIES				
Risks and opportunities relating to the provision of financial services				
Credit risk	Medium	Stable	Insignificant	Stable
Residual value	High	Stable	Significant	Stable
Interest rate changes	Medium	Stable	Significant	Stable
Operational risks	Medium	Stable	–	–

Risks and opportunities relating to the Financial Services segment

The main categories of risk relevant for the Financial Services segment are credit and counterparty risk, residual value risk, interest rate risk, operational risk and liquidity risk. The evaluation of liquidity risk for the Financial Services segment is included in the liquidity risk category for the Group as a whole.

During the financial year 2020, the aggregate risk cushion for risks in the Financial Services segment was sufficient at all times, thereby ensuring the segment's risk-bearing capacity.

Credit and counterparty risks and opportunities relating to the Financial Services segment

Credit and counterparty default risk arises within the Financial Services segment if a contractual partner (e.g. a customer or dealership) becomes either unable or only partially able to fulfil its contractual obligations, so that lower income is generated or losses are incurred. If unexpected credit and counterparty default risks were to materialise, they could have a medium earnings impact over the two-year assessment period. The risk amount is classified as medium. The BMW Group classifies potential opportunities in this area as insignificant.

In light of the uncertainties surrounding the future course of the coronavirus pandemic, additional credit loss provisions were recognised during the financial year 2020 for expected credit losses, in order to reflect the possible negative impact of the coronavirus pandemic on retail customer and dealership business for accounting purposes.

Initial and continuous creditworthiness testing is an important aspect of the BMW Group's credit risk management system. For this reason, every borrower's creditworthiness is tested for all credit financing and leasing contracts entered into by the BMW Group. Opportunities may arise if the managed portfolio performs better over time than estimated when the credits were granted. The intensive management of purchasing processes and collateral assessment as well as favourable macroeconomic developments could accentuate these opportunities. In the case of retail customer financing, creditworthiness is assessed using validated scoring systems integrated in the purchasing process. In the area of dealership financing, creditworthiness is assessed by means of ongoing credit monitoring and an internal rating system that takes account not only of the material credit standing of the borrower, but also of qualitative factors such as past reliability in business relationships. Changes in the creditworthiness of customers arising during the credit term are covered by risk provisioning procedures. The credit risk of individual customers is quantified on a monthly basis and, depending on the outcome, taken into account within the risk provisioning system. Macroeconomic developments are currently subject to a higher degree of volatility. If developments are more favourable than assumed in the outlook, credit losses may be reduced, leading to a positive earnings impact.

Due to the coronavirus pandemic, moratoria were granted to customers and dealers, particularly during the first six months of the year, taking into account the prevailing legal requirements. The simultaneous improvement in the economic situation in most markets in the second half of the year meant that the low percentage of actual loan defaults was kept stable.

Residual value risks and opportunities relating to the Financial Services segment

Risks and opportunities arise in conjunction with leasing contracts if the market value of a leased vehicle at the end of the contractual term of a lease differs from the residual value estimated at the commencement date of the lease. A residual value risk exists if the expected market value of the vehicle at the end of the contractual term is lower than its estimated residual value at the date the contract is entered into. If unexpected residual value risks were to materialise, they could have a high earnings impact from the Group's perspective over the two-year assessment period. A high earnings impact would then arise for the affected Financial Services and Automotive segments. The risk amount is classified as high for the Group as a whole. Opportunities can arise out of a positive deviation between the actual market value and the original residual value forecast. The BMW Group classifies potential residual value opportunities as significant.

Each vehicle's estimated residual value is calculated on the basis of historical external and internal data. This estimation provides the expected market value of the vehicle at the end of the contractual period. Developments on pre-owned car markets are an important factor for the BMW Group. In 2020, the number of electrified vehicles also continued to increase. Changes in the value of these vehicles are largely determined by a set of known influencing factors. Prices on pre-owned car markets in the premium segment fluctuated within the usual range and were even favourably influenced in some cases by coronavirus-related catch-up effects. As part of the management of residual value risks, the net present value of risk costs is also calculated at the contract commencement date. Market developments are monitored throughout the contractual period and the risk assessment updated accordingly. Residual value risk management essentially follows the same established process, regardless of the drivetrain variant.

Based on current expectations of a rising level of residual value losses in subsequent years, the level of risk provisioning has been raised in the form of additional provisions and in line with applicable financial reporting standards. Accordingly, risk costs for residual value risks in the Financial Services segment are significantly higher than one year earlier.

Interest rate risks and opportunities relating to the Financial Services segment

Interest rate risks in the Financial Services segment relate to potential losses caused by changes in market interest rates. These can arise when fixed interest rate periods do not match for assets and liabilities recognised in the balance sheet. If interest rate risks were to materialise, they could have a medium earnings impact over the two-year assessment period. The risk amount is classified as medium. Favourable interest rate developments compared to the outlook represent opportunities that the BMW Group classifies as significant. Interest rate risks in the Financial Services business are managed by ensuring that fixed interest rate periods match to a large extent and through the use of interest-rate derivatives. If the relevant recognition criteria are fulfilled, derivatives used by the BMW Group are accounted for as hedging relationships. Further information on risks in conjunction with financial instruments is provided in note 39 to the Group Financial Statements.

Operational risks relating to the Financial Services segment

In the Financial Services segment, operational risks are defined as the risk of losses arising as a consequence of the unsuitability or failure of internal procedures (process risks), people (personnel-related risks), systems (infrastructure- and IT-related risks) and external events (external risks). The recording and measurement of risk scenarios, loss events and countermeasures in the operational risk management system provide the basis for the systematic analysis and management of potential or materialised operational risks. Annual self-assessments are also carried out. This risk category also includes sustainability risks that correspond to the definition of operational risks, such as external events or natural and man-made disasters.

If operational risks were to materialise, they would be likely to have a low earnings impact over the two-year assessment period. The risk amount is classified as medium. At present, no significant opportunities for the earnings situation are seen with regard to operational risks.

INTERNAL CONTROL SYSTEM* RELEVANT FOR ACCOUNTING AND FINANCIAL REPORTING PROCESSES

The internal control system relevant for accounting and financial reporting processes has the task of ensuring that accounting and financial reporting of the BMW Group is both accurate and reliable. Within the framework of the "Three Lines of Defence" model used to manage risk across the Group, the internal control system represents a key component of the second line of defence, serving as a link between the operating units, the corporate audit function and the external auditors.

Internationally recognised standards for internal control systems were taken into account when designing the various components of the BMW Group's internal control system. The system comprises:

— Group-wide mandatory accounting guidelines

— Controls integrated in processes and IT systems

— Organisational measures incorporating the principles of the risk-oriented segregation of duties

— Process-independent monitoring measures

The system and the methodologies applied are subject to continuous improvement, with system effectiveness assessed regularly on the basis of centralised and decentralised process analyses, analyses of data within the various financial systems and audit procedures. The principal features of the internal control system, as far as they relate to individual entity and Group accounting and financial reporting processes, are described below.

Guidelines for recognising, measuring and allocating items to accounts are available to all Group employees via the intranet. New accounting standards are assessed for their impact on the BMW Group's accounting and financial reporting. Accounting guidelines and processes are reviewed continuously and revised at least once a year, or more frequently if required.

Preventive and detective controls are integrated in Group accounting and financial reporting processes. Preventive controls serve to prevent errors and omissions, whereas detective controls serve to detect and correct errors. To the extent possible, they are designed to comply with the principle of the segregation of duties. Key IT systems that are relevant for accounting and financial reporting incorporate controls designed, among other things, to prevent business transactions from being recorded incorrectly as well as to ensure the timely recognition and measurement of all business transactions in accordance with applicable requirements. Controls are also in place to test the appropriateness of consolidation procedures.

In conjunction with the ongoing development of IT systems relevant for accounting and financial reporting processes at both individual entity and Group level, controls are adapted to take account of new requirements and opportunities arising as a result of advances in information technology. Moreover, the BMW Group uses data analysis tools to identify and subsequently eliminate any weaknesses in the control system.

Responsibilities for ensuring the effectiveness of the internal control system in Group accounting and financial reporting processes are clearly defined and allocated to the relevant line and process managers. These managers report annually on their assessment of the effectiveness of the internal control system for accounting and financial reporting purposes. The assessment also includes the results of internal and external audits as well as of data analysis that is conducted on a continual basis. In this context, the Group's various units confirm the effectiveness of the internal control system for accounting and financial reporting. The results of the assessment are gathered and documented with the aid of appropriate tools. Any weaknesses in the control system are eliminated, taking into account their potential impact on accounting and financial reporting processes. The Board of Management and the Audit Committee are briefed annually on the effectiveness of the internal control system for accounting and financial reporting. The Board of Management and, where appropriate, the Supervisory Board, are informed without delay if there are any significant changes in the effectiveness of the internal control system.

* Disclosures pursuant to sections 289 and 315 HGB.

DISCLOSURES RELEVANT FOR TAKEOVERS* AND EXPLANATORY COMMENTS

COMPOSITION OF SUBSCRIBED CAPITAL

The subscribed capital (share capital) of BMW AG amounted to €659,684,500 at 31 December 2020 (2019: €658,862,500) and, in accordance with Article 4 no. 1 of the Articles of Incorporation is sub-divided into 601,995,196 shares of common stock (91.26 %) (2019: 601,995,196; 91.37 %) and 57,689,304 shares of non-voting preferred stock (8.74 %) (2019: 56,867,304; 8.63 %), each with a par value of €1. The Company's shares are issued to bearer.

The rights and obligations of shareholders derive from the German Stock Corporation Act (AktG) in conjunction with the Company's Articles of Incorporation, the full text of which is available at ↗ **www.bmwgroup.com**. The right of shareholders to have their shares evidenced is excluded in accordance with the Articles of Incorporation.

The voting power attached to each share corresponds to its par value. Each €1 of par value of share capital represented in a vote entitles the holder to one vote (Article 18 no. 1 of the Articles of Incorporation).

The Company's shares of preferred stock are shares as defined in § 139 ff. AktG, which carry a cumulative preferential right in terms of the allocation of profit and for which voting rights are excluded. These shares confer voting rights only in exceptional cases stipulated by law, in particular when the preference amount has either not been paid or has not been fully paid within one year and the arrears are not paid in the subsequent year alongside the full preference amount due for that year. With the exception of voting rights, holders of shares of preferred stock are entitled to the same rights as holders of shares of common stock. Article 24 of the Articles of Incorporation confers preferential treatment to the non-voting shares of preferred stock with regard to the appropriation of the Company's unappropriated profit. Accordingly, the unappropriated profit is required to be appropriated in the following order:

a Subsequent payment of any arrears on dividends on non-voting shares of preferred stock in the order of accruement

b Payment of an additional dividend of €0.02 per €1 par value on non-voting preferred shares

c Uniform payment of any other dividends on shares of common and preferred stock, provided the shareholders do not resolve otherwise at the Annual General Meeting

RESTRICTIONS AFFECTING VOTING RIGHTS OR THE TRANSFER OF SHARES

In addition to shares of common stock, the Company has also issued non-voting shares of preferred stock. Further information is provided in the section "Composition of subscribed capital".

When the Company issues non-voting shares of preferred stock to employees in conjunction with its Employee Share Programme, these shares are generally subject to a Company-imposed blocking period of four years, calculated from the beginning of the calendar year in which the shares were issued.

Contractual holding period arrangements also apply to shares of common stock acquired by Board of Management members and certain senior department heads in conjunction with the share-based remuneration programmes (Remuneration Report of the Corporate Governance section; ↗ **note 41** to the Group Financial Statements).

* Disclosures pursuant to § 289a and § 315a HGB.

DIRECT OR INDIRECT INVESTMENTS IN CAPITAL EXCEEDING 10% OF VOTING RIGHTS

Based on information available to the Company, the following direct or indirect holdings exceeding 10 % of the voting rights at the end of the reporting period were held at the stated reporting date:[1]

in %	Direct share of voting rights	Indirect share of voting rights
Stefan Quandt, Germany	0.2	25.6[2]
AQTON SE, Bad Homburg v. d. Höhe, Germany	9.0	16.6[3]
AQTON Verwaltung GmbH, Bad Homburg v. d. Höhe, Germany		16.6[4]
AQTON GmbH & Co. KG für Automobilwerte, Bad Homburg v. d. Höhe, Germany	16.6	
Susanne Klatten, Germany	0.2	20.7[5]
Susanne Klatten Beteiligungs GmbH, Bad Homburg v. d. Höhe, Germany	20.7	

The voting percentages disclosed above may have changed subsequent to the stated date if these changes were not required to be reported to the Company. As the Company's shares are issued to bearer, the Company is generally aware of changes in shareholdings only if such changes are subject to mandatory notification rules.

SHARES WITH SPECIAL RIGHTS THAT CONFER CONTROL RIGHTS

There are no shares with special rights that confer control rights.

CONTROL OF VOTING RIGHTS WHEN EMPLOYEES PARTICIPATE IN CAPITAL AND DO NOT DIRECTLY EXERCISE THEIR CONTROL RIGHTS

Like all other shareholders, employees exercise their control rights pertaining to shares they have acquired in conjunction with the Employee Share Programme and/or the share-based remuneration programme directly on the basis of relevant legal provisions and the Company's Articles of Incorporation.

STATUTORY REGULATIONS AND PROVISIONS CONTAINED IN THE ARTICLES OF INCORPORATION GOVERNING THE APPOINTMENT AND REMOVAL OF MEMBERS OF THE BOARD OF MANAGEMENT AND CHANGES TO THE ARTICLES OF INCORPORATION

The appointment or removal of members of the Board of Management is based on the rules contained in § 84 f. AktG in conjunction with § 31 of the German Co-Determination Act (MitbestG).

Amendments to the Articles of Incorporation must comply with § 179 ff. AktG. Amendments must be decided upon by the shareholders at the Annual General Meeting (§ 119 (1) no. 6, § 179 (1) AktG). The Supervisory Board is authorised to approve amendments to the Articles of Incorporation that only affect its wording (Article 14 no. 3 of the Articles of Incorporation). Resolutions are passed at the Annual General Meeting by a simple majority of shares cast unless otherwise explicitly required by binding provisions of law or, if a majority of share capital is required, by a simple majority of shares represented in the vote (Article 20 no. 1 of the Articles of Incorporation).

[1] Based on voluntary notifications provided by the listed shareholders as at 31 December 2020.
[2] Controlled entities, of which 3 % or more are attributed: AQTON SE, AQTON Verwaltung GmbH, AQTON GmbH & Co. KG für Automobilwerte.
[3] Controlled entities, of which 3 % or more are attributed: AQTON Verwaltung GmbH, AQTON GmbH & Co. KG für Automobilwerte.
[4] Controlled entities, of which 3 % or more are attributed: AQTON GmbH & Co. KG für Automobilwerte.
[5] Controlled entities, of which 3 % or more are attributed: Susanne Klatten Beteiligungs GmbH.

AUTHORISATIONS OF THE BOARD OF MANAGEMENT, IN PARTICULAR WITH RESPECT TO THE ISSUING OR BUYING BACK OF SHARES

The Board of Management is authorised to buy back shares and sell repurchased shares in situations specified in § 71 AktG, for example to avert serious and imminent damage to the Company and/or to offer shares to persons employed or previously employed by BMW AG or one of its affiliated companies.

In accordance with Article 4 no. 5 of the Articles of Incorporation, the Board of Management is authorised, with the approval of the Supervisory Board, to increase by means of cash contributions BMW AG's share capital during the period up to and including 15 May 2024 by up to €3,437,600 for the purposes of an Employee Share Programme by issuing new non-voting shares of preferred stock, which carry the same rights as existing non-voting preferred stock (Authorised Capital 2019). The subscription rights of existing shareholders are excluded. No conditional capital was in place at the reporting date.

SIGNIFICANT AGREEMENTS OF THE COMPANY TAKING EFFECT IN THE EVENT OF A CHANGE IN CONTROL FOLLOWING A TAKEOVER BID

BMW AG is party to the following major agreements, which contain provisions that would apply in the event of a change in control or the acquisition of control as a result of a takeover bid:

— An agreement concluded with an international consortium of banks relating to a syndicated credit line, which was not being utilised at the balance sheet date, entitles the lending banks to give extraordinary notice to terminate the credit line, such that all outstanding amounts, including interest, would fall due with immediate effect if one or more parties jointly acquire direct or indirect control of BMW AG. The term "control" is defined as the acquisition of more than 50 % of the share capital of BMW AG, the right to receive more than 50 % of the dividend or the right to direct the affairs of the Company or appoint the majority of members of the Supervisory Board.

— A cooperation agreement concluded with Peugeot SA relating to small (1- to 1.6-litre) petrol engines entitles each of the cooperation partners to give extraordinary notification of termination in the event of a competitor acquiring control over the other contractual party and if any concerns of the other contractual party regarding the impact of the change of control on the cooperation arrangements are not resolved during the subsequent discussion process.

— BMW AG acts as guarantor for all obligations arising from the joint venture agreement relating to BMW Brilliance Automotive Ltd. in China. This agreement grants an extraordinary right of termination to either joint venture partner in the event of a change in control at one of the parties or if more than 25 % of the shares of the other party are acquired by a third party – either directly or indirectly – or if the other party is merged with another legal entity. Termination of the joint venture agreement may lead to the dissolution of the joint venture with an optional purchase right for BMW (or for the partner) to acquire the shares of the other partner or to the liquidation of the joint venture company.

— Framework agreements are in place with financial institutions and banks (ISDA Master Agreements) with respect to trading activities with derivative financial instruments. These agreements include an extraordinary right of termination that triggers actions in the event that the creditworthiness of the party involved is materially weaker following a direct or indirect acquisition of beneficially owned equity capital which confers the power to elect a majority of the Supervisory Board of a contractual party or any other ownership interest that enables the acquirer to exercise control over a contractual party or which constitutes a merger or a transfer of net assets.

— Financing agreements in place with the European Investment Bank (EIB) entitle the EIB to demand early repayment of its loans in the event of an imminent or actual change in control of BMW AG, if the EIB has reason to assume – after the change in control has taken place or 30 days after it has made a request to discuss the situation – that the change in control could have a significantly adverse impact, or if the borrower refuses to hold any such discussions. A change in control of BMW AG arises if one or more individuals take over or lose control of BMW AG, with control being defined in the above-mentioned financing agreements as (i) holding or having control over more than 50 % of the voting rights, (ii) the right to appoint the majority of the members of the Board of Management or Supervisory Board, (iii) the right to receive more than 50 % of dividends payable or (iv) any other comparable controlling influence over BMW AG.

— BMW AG and Daimler AG have entered into a joint venture agreement relating to mobility services in the areas of car sharing, ride hailing, parking, charging and multimodality, which entitles both Daimler AG and BMW AG (hereafter referred to as "principals") to initiate a bidding procedure in the event that (i) the other principal receives notice in accordance with § 33 of the German Securities Trading Act (WpHG) that – including shares attributed pursuant to § 34 WpHG – a shareholding of more than 50 % has been attained or, in accordance with § 20 AktG of the German Stock Corporation Act (AktG) that a shareholding of more than 50 % has been attained or (ii) a shareholder or a third party – including shares attributed pursuant to § 30 WpHG – holds more than 50 % of the voting rights or shares in the other principal, or (iii) the other principal has concluded a control agreement as dependent company. The outcome of such a bidding procedure is that the joint venture will go to the principal making the highest bid.

— Several supply and development contracts between BMW AG and various industrial customers, all relating to the sale of components for drivetrain systems, grant an extraordinary right of termination to the relevant industrial customer in specified cases of a change in control at BMW AG (for example BMW AG merges with a third party or is taken over by a third party; an automobile manufacturer acquires more than 50 % of the voting rights or share capital of BMW AG).

— BMW AG is party to the shareholder agreement relating to There Holding B.V., which is the majority shareholder of the HERE Group. In accordance with the shareholder agreement, each contractual party is required to offer its directly or indirectly held shares in There Holding B.V. for sale to the other shareholders in the event of a change in control. A change in control of BMW AG arises if a person takes over or loses control of BMW AG, with control defined as (i) holding or having control over more than 50 % of the voting rights, (ii) the possibility to control more than 50 % of voting rights exercisable at Annual General Meetings on all or nearly all matters, or (iii) the right to determine the majority of members of the Board of Management or the Supervisory Board. Furthermore, a change in control occurs if competitors of the HERE Group or certain potential competitors of the HERE Group from the technology sector acquire at least 25 % of BMW AG. If none of the other shareholders acquire these shares, the other shareholders are entitled to resolve that There Holding B.V. be dissolved.

— The development collaboration agreement between BMW AG, Intel Corporation and Mobileye Vision Technologies Ltd., relating to the development of technologies used in automated vehicles, may be terminated by any of the contractual parties if a competitor of one of the parties acquires and subsequently holds at least 30 % of the voting shares of one of the contractual parties.

— The development collaboration agreement between BMW AG, FCA US LLC and FCA Italy S.p.A. relating to the development of technologies used in conjunction with automated vehicles may be terminated by any of the contractual parties if certain competitors in the technology sector acquire and subsequently hold at least 30 % of the voting shares of one of the other contractual parties.

— Until 19 June 2020, BMW AG was party to a collaboration agreement with Mercedes-Benz AG for the development of technologies for second-generation automated driving (from 2024), which could be terminated by either party in the event that a third party – either directly or indirectly – acquires at least 30 % of the voting rights in one of the contractual parties (§ 29 (2) and § 30 of the German Securities Acquisition and Takeover Act (WpÜG)). This collaboration was terminated with immediate effect in accordance with an agreement dated 18/19 June 2020.

— BMW AG has entered into an agreement with Great Wall Motor Company Limited to establish the joint venture Spotlight Automotive Ltd. in China. The agreement grants an extraordinary right of termination to either joint venture partner in the event that – either directly or indirectly – more than 25 % of the shares of the other party are acquired by a third party or if the other party is merged with another legal entity. The termination of the joint venture agreement may result in the sale of the shares to the other joint venture partner or in the liquidation of the joint venture entity.

COMPENSATION AGREEMENTS WITH MEMBERS OF THE BOARD OF MANAGEMENT OR WITH EMPLOYEES IN THE EVENT OF A TAKEOVER BID

The BMW Group has not concluded any compensation agreements with members of the Board of Management or with employees for situations involving a takeover offer.