SUSTAINABLE VALUE REPORT 2018

BMW GROUP

THE NEXT 100 YEARS

Rolls-Royce Motor Cars Limited

ABOUT THIS REPORT

The BMW Group Sustainable Value Report (SVR) has been published to provide stakeholders with comprehensive information about the company's sustainability strategy and the progress made in integrating sustainability into its corporate processes. The Sustainable Value Report is published at the same time as the Annual Report on the date of the Annual Accounts Press Conference.

The requirements of the German CSR Directive Implementation Act (CSR RUG) obligate Bayerische Motoren Werke Aktiengesellschaft (BMW AG) to publish a non-financial statement at company and Group level. This will be published jointly as an integrated, separate non-financial report (hereinafter referred to as "separate non-financial report") within this Sustainable Value Report for BMW AG and BMW Group.

In the SVR 2018 we focused, above all, on providing information that is required in order to comply with the German CSR Directive Implementation Act and the GRI Standards. We then added more detailed information on topics with strategic relevance for the BMW Group. Current examples on measures that support implementing our sustainability targets can be found on → **our website.**

Each chapter starts with a one-page overview of key performance indicators. The sub-sections of each chapter begin with an overview of the information required to comply with the relevant legislation. Further topics of strategic relevance to the BMW Group and information pertaining to the GRI Standards, beyond the legal reporting requirements, are outlined in more detail on the subsequent pages.

You can find the legally required information[1] on the following pages, which are highlighted in beige:

- Business model:
  Introduction, an overview of the BMW Group, page 6
  as well as Annual Report 2018
- Integration of top management:
  Chapter 1.1 Sustainability strategy, pages 10–12
  Chapter 1.2 Sustainability management, pages 17–19
- Environmental matters:
  Chapter 2 Products and services,
  pages 32–36 and pages 41–44
  Chapter 3 Production and value creation,
  pages 56–59 and pages 76–84
- Employee matters:
  Chapter 4 Employees and society, pages 89–90
  Chapter 4.1 Health and performance, pages 92–95
  Chapter 4.2 Long-term employee development,
  pages 100–104
  Chapter 4.3 Diversity, pages 110–112
- Social matters:
  Chapter 1.3 Stakeholder dialogue, page 20
  Chapter 1.5 Product safety, pages 29–30
  Chapter 4.4 Corporate citizenship, pages 116–119
- Respect for human rights:
  Chapter 1.4 Compliance and human rights,
  pages 25–27
  Chapter 3.3 Sustainable, resource-efficient supply
  chain, pages 80–84
- Combating corruption and bribery:
  Chapter 1.4 Compliance and human rights,
  pages 25–27 as well as Annual Report 2018

You can find further information on our reporting concept in the appendix. → **see Our reporting concept**

[1] Diversity Concept in Board of Management and Supervisory Board is contained in the Statement on Corporate Governance. → **see Annual Report 2018.**

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Preface

Harald Krüger
Chairman of the Board of Management of BMW AG

Dear readers,

Sustainable operations are becoming an increasingly decisive factor for the future of any business. Our claim: with our products and services we are a part of the solution. This means that we are shaping the future of mobility. In this way we create value for our company and society. This is true for Germany and all the countries we are active in.

Electrification and innovations

For us as carmakers, climate protection is particularly relevant. We have been continuously increasing the efficiency of our combustion engines for many years. Our goal is emission-free mobility. With its sustainable 360-degree approach, our BMW i3 was a pioneer in electric mobility.

Today, we are the European market leaders in electric vehicles. In 2018, we delivered more than 140,000 electric vehicles and plug-in hybrids worldwide. We are electrifying all brands and model series.

Our four strategic innovation fields are consistently geared towards the future of mobility: automated driving, connectivity, electrification and services. In this way we are not just reducing emissions and increasing sustainability in individual mobility–we are also extending our customers' digital world into their cars. All these are integral parts of our Strategy NUMBER ONE > NEXT.

Efficient supply chain

We also make sure that we keep our environmental footprint as small as possible in our manufacturing processes. In Europe, we are already using electricity generated exclusively from renewable sources. By 2020 we want all our plants worldwide to run on green electricity.

In addition, we are continuously optimising our value chain. By signing the BMW Group Code on Human Rights and Working Conditions, we have made a clear statement. It focuses on equality, diversity, safety in the workplace and the protection of personal data. We also have our suppliers and sales partners commit to this code.

Urban mobility

In 2018, we intensified our dialogue with stakeholders in the world's urban centres.

In Los Angeles, Melbourne, Shenzhen, Rotterdam and Berlin, we analysed the effects increasing traffic has on those cities and which solutions can be provided by the BMW Group.

In this way we are improving the quality of urban life. It is crucial that the worlds of politics, business and society develop solutions together.

Our contribution

We are already implementing this collaborative approach by entering into partnerships in many areas. These range from our membership in the UN Global Compact and partnerships along the supply chain to product development alliances with new tech players.

The 2018 Sustainable Value Report shows once again that we make an invaluable contribution to our customers' mobility and act for the common good and that we will continue to do so going forward. With innovations, courage and tenacity.

For me, our Sustainable Value Report is not just a look back on what we have achieved already. It also provides a vision for our future – with clear objectives and measures that we are setting for ourselves and implementing.

Because one of the guiding principles at the BMW Group is always:

We take on responsibility.

Harald Krüger

Chairman of the Board of Management of
Bayerische Motoren Werke Aktiengesellschaft

Combined separate non-financial report

AN OVERVIEW OF THE BMW GROUP

Profit before tax
in € million

9,815
2018

10,675[1] 2017
9,665 2016

[1] The figures for the previous financial year were adjusted in line with first-time application of IFRS 15, see [6] in the Group appendix.

Research and development expenditure in € million

6,890
2018

6,108 2017
5,164 2016

BMW Group employees at year-end 2018 in numbers

134,682
2018

129,932 2017
124,729 2016

→ GRI 102-2, 102-7

Our vision

"The BMW Group is the most successful and sustainable premium provider of individual mobility."

Our business model

Cars and motorcycles

Brands: BMW, MINI, Rolls-Royce; 31 production and assembly facilities in 15 countries; global sales network with dealerships in over 140 countries

↓ ↑

Mobility services

ChargeNow DriveNow ParkNow

↓ ↑

Financial services

→ See Annual Report 2018

Sales volume automobiles
in thousand units

2,490.7
2018

2,463.5 2017
2,367.6 2016

CO_2 emissions of BMW Group Automobiles (EU-28) in g/km

128
2018[2]

128 2017[2]
122 2017[3]
124 2016[3]

[2] adjusted value due to introduction of WLTP (Worldwide Harmonised Light Vehicles Test Procedure)
[3] using NEDC test procedure

Investment in further education and training in € million

373
2018

349 2017
352 2016

KEY SUSTAINABILITY INDICATORS

5-year overview

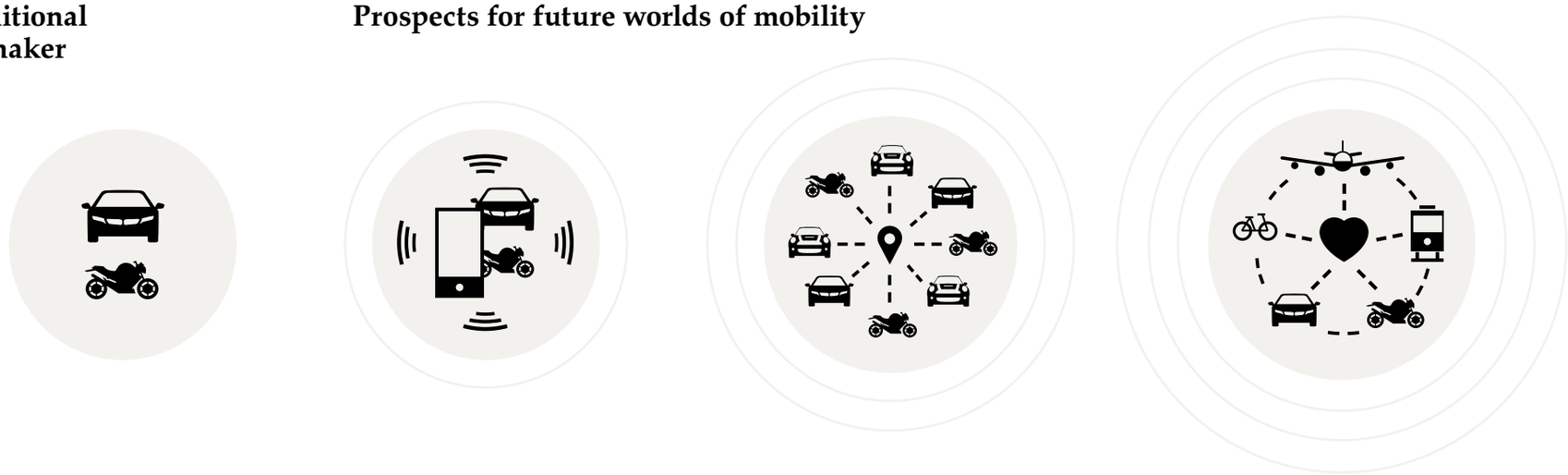
	2014	2015	2016	2017	2018	Change to previous year in %
BUSINESS ACTIVITIES						
Revenues (in € million)[1]	80,401	92,175	94,163	98,282	**97,480**	–0.8
Profit before tax (in € million)[1]	8,707	9,224	9,665	10,675	**9,815**	–8.1
Sales volume automobiles (in thousand units)	2,118.0	2,247.5	2,367.6	2,463.5	**2,490.7**	1.1
PRODUCTS AND SERVICES						
CO_2 emissions of BMW Group Automobiles[2] (EU-28) (in g/km)	130	127	124	128[3]	**128**	0.0
Sales of electric and electrified vehicles (number)	17,805	32,474	62,264	103,080	**142,617**	38.4
DriveNow and ReachNow users (number)[4]	395,000	579,000	853,000	1,108,000	**1,279,000**	15.3
PRODUCTION AND VALUE CREATION						
Energy consumption per vehicle produced (in MWh /vehicle)	2.25	2.19	2.21	2.17	**2.12**	–2.3
Water consumption per vehicle produced (in m³/vehicle)	2.18	2.24	2.25	2.22	**2.39**	7.7
Process waste water per vehicle produced (in m³/vehicle)	0.47	0.45	0.42	0.40	**0.45**	12.5
CO_2 emissions per vehicle produced (in t/vehicle)	0.66	0.57	0.54	0.41	**0.40**	–2.4
Waste for disposal per vehicle produced (in kg/vehicle)	4.93	4.00	3.51	3.86	**4.27**	10.6
Volatile organic compounds (VOC) per vehicle produced (in kg/vehicle))	1.29	1.22	1.14	1.03	**0.93**	–9.7
Share of renewable energy purchased from third parties (in %)[5]	51	58	63	81	**79**	–2.5
Share of production-relevant purchasing volume in the CDP Supply Chain Programme (in %)	45	53	69	77	**75**	–2.6
EMPLOYEES AND SOCIETY						
BMW Group employees at end of year (number)	116,324	122,244	124,729	129,932	**134,682**	3.7
Attrition rate at BMW AG (as a percentage of workforce)	1.41	2.08	2.70	2.64	**2.78**	5.3
Share of women in the entire workforce of the BMW Group (in %)	17.8	18.1	18.70	19.3	**19.9**	3.1
Share of women in management positions at BMW Group (in %)	14.2	14.5	15.30	16.0	**17.2**	7.5
Average days of further training per BMW Group employee (days per employee)	3.9	4.1	3.80	3.4	**3.4**	0.0
Accident frequency at BMW Group (per one million hours worked)	5.1	4.4	4.00	3.6	**3.5**	–2.8
Expenditure on corporate citizenship (in thousand €)	34,524	39,109	87,837[6]	33,436	**37,242**	11.4
Expenditure on donations by the BMW Group (in thousand €)	10,199	17,066	70,356[6]	16,205	**15,829**	–2.3

[1] The figures for the previous financial year were adjusted in line with first-time application of IFRS 15, see [6] in the Group appendix.
[2] Since 09/2018 all vehicles in the EU must be licensed according to the new WLTP test cycle. However, the calculation of CO_2 emissions from fleet vehicles will only be switched to WLTP in 2021 by the European Commission. Therefore, it is necessary to calculate WLTP fleet emissions back to NEDC values up to and including 2020 for reporting purposes. The changed WLTP test constraints lead to higher NEDC emissions (NEDC correlated) due to the reversed calculations. In order to ensure comparability, the CO_2 fleet emissions for 2017 (122 g/km NEDC) were converted to a correlated NEDC value of 128 g/km under WLTP test constraints and published originally with the 2/2018 quarterly report.
[3] Adjusted value in line with planned change to WLTP (World Light Vehicle Harmonized Test Procedure).
[4] Rounded up/down to the nearest thousand.
[5] Calculated based on volumes of green energy purchased as well as the conservative calculation of country-specific energy shares from renewables purchased from third parties.
[6] Significantly higher amount compared to other years due to a one-off donation to the BMW Foundation in the centenary year 2016.

TRANSFORMATION OF THE BMW GROUP

Traditional carmaker

Prospects for future worlds of mobility



Vehicle only

Service
Carmakers offer their customers vehicles to buy outright or via financing and leasing options.

Customer
The customer wants to own a car in order to be completely mobile in all situations (family, job).

Smart vehicle & digital services

Always connected

Service
The vehicle is becoming a smart device, with added value from software- and data-based functionality, real-time applications and services (connected, seamlessly integrated).

Customer
The customer expects smart functionality and services in and around the integration of the vehicle into his or her digital environment. The new personalised and automated experience also leads to new possible uses.

Vehicle as a service

Any vehicle, anytime, anywhere

Service
Fleet operators provide mobility solutions via car-/ride-sharing and carpooling services.

Customer
The customer can avail flexibly of a suitable vehicle or a "being-driven service"–without the need for long-term buying decisions, investments and operating costs.

Mobility as a service

Getting anywhere anytime

Service
Mobility service providers deliver comprehensive mobility solutions across different means of transport and tailored to individual needs. They bundle and act as agents for mobility solutions and services to provide a comprehensive range of products and services.

Customer
The customer is provided with mobility solutions for all situations under one roof, in order to reach the intended destination and does not need to arrange and organise these solutions him- or herself.

The BMW Group is currently undergoing a fundamental transformation process that presents both opportunities and risks for the business. While in the past they were purely hardware products, automobiles are now becoming part of an interconnected mobility world. This is not a linear process. The new worlds of mobility develop at different speeds, sometimes in parallel and sometimes they build on one another. We expect a significantly transformed and more complex future that will also make it possible to achieve the same degree of mobility with fewer cars and thus to increase the quality of life in our cities.

As part of the transformation process the BMW Group value chain will also undergo profound changes over the coming years. The driving concepts in this process are: "Automated", "Connected", "Electrified" and "Shared and services" (ACES). Building on our expertise as carmakers, the BMW Group is looking in particular at the opportunities arising in the areas of "Smart vehicle & digital services", "Vehicle as a service" and "Mobility as a service".

FUNDAMENTALS

1

1.1 SUSTAINABILITY STRATEGY

OUR MISSION

The BMW Group is the world's most successful and sustainable premium provider of individual mobility.

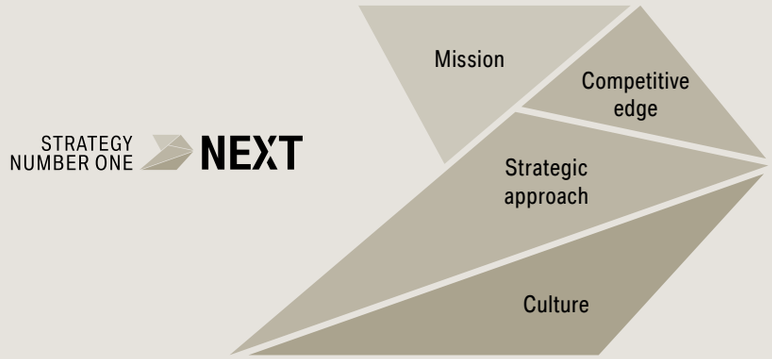
In order to maintain our position in future, we consistently integrate sustainability into our business model. We see global challenges like climate change or urbanisation as opportunities for the development of innovative products and services. Sustainability thus secures our economic success on a long-term basis. Our innovations are not only developed to enhance the benefits for our customers – we also want them to have a positive impact on society and the environment.

Taking social and environmental responsibility for all we do is an integral part of how we perceive ourselves as a company. We are convinced that the lasting economic success of any enterprise in today's world comes down to acting responsibly and ensuring social acceptance. We achieve a clear competitive advantage with efficient and resource-friendly production processes and state-of-the-art solutions for sustainable individual mobility for our customers. For this reason, sustainability is a key component of our corporate Strategy NUMBER ONE > NEXT.

→ see graphic 1.01

The targeted objective of our Strategy NUMBER ONE > NEXT is proactive participation in the digital transformation. NUMBER ONE > NEXT defines the framework of action for the long-term development of the BMW Group, sets out our goals and specifies our strategic directions through to 2025. With a focus on customer orientation, electric mobility, autonomous driving and digitalisation, our action plan takes individual mobility into a new dimension: electric, connected and autonomous. As innovation drivers, it is our mission to take the leading role in the automotive industry in these areas.

Strategy NUMBER ONE > NEXT
→ G1.01



To create added value for the company, the environment and society, the BMW Group integrates sustainability along the entire value chain and into all basic processes. This covers everything from sustainability requirements for the procurement process and the design of our products through to the development of new lines of business. → GRI 102-11

Pursuing long-term sustainability goals

To pursue our mission to be the most successful and most sustainable premium provider of individual mobility, the BMW Group set out ten strategic goals in 2012. We consistently follow these goals, which have been defined through to 2020. Our focus is on three key areas of action:

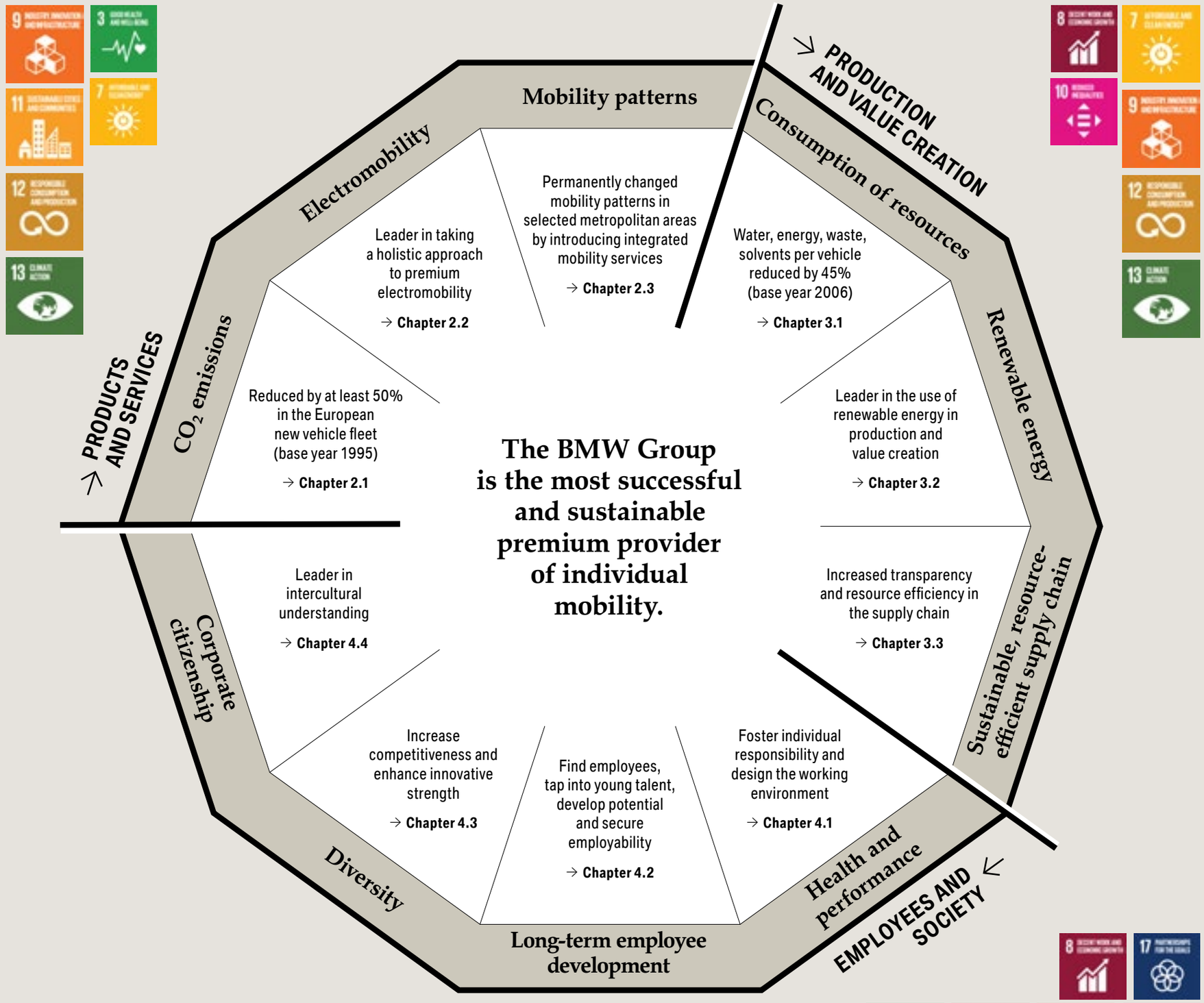
- Products and services
- Production and value creation
- Employees and society

→ see graphic 1.02

Graphic G1.02 illustrates the ten goals in these action areas:

The ten sustainability goals of the BMW Group and their potential influence on the SDGs*

→ G1.02



* In the context of our materiality analysis in 2018, we identified the areas that would have the most significant impact on the SDGs. Direct and/or indirect impact are represented by correspondingly large or small SDG icons in the graphic.

In addition to pursuing our ten long-term goals, we continuously address sustainability topics in the current public discourse and discuss our points of view on these issues with the stakeholders. These include, for example, the diesel debate, discussions on critical issues of the supply chain or the global regulation of CO_2 and contaminants, as well as the definition of favourable framework conditions for electromobility.

Our next steps:

In order to keep pursuing our existing activities with the same consistency while also allowing for external developments – in particular the increasing demands due to regulatory requirements, the capital market and civil society – we began reviewing our sustainability strategy in 2018. The full details of the updated strategy are to be revealed in 2019.

The updated sustainability strategy is based on the materiality analysis conducted in 2018. It consists of the following six key topics: mobility solutions, decarbonisation, environmental and social standards in the supplier network, circular economy, employees and culture as well as responsibility and partnerships. Once again, we have set ourselves strategic sustainability goals in these key areas, which will extend through to 2030.

Defining fundamental sustainability issues

In order to identify in good time which topics may bring opportunities and risks to our business, today or in the future, and to focus our activities accordingly, we observe external trends on an ongoing basis using an "environmental radar". This means keeping track of the public discourse and the political agenda, such as the World Climate Conference and the goals set out by the United Nations for sustainable development, the → **Sustainable Development Goals (SDGs).** Feedback from our stakeholders during BMW Group dialogue meetings also helps us to always stay informed about the most important trends and expectations with regard to sustainability.

We also carry out a materiality analysis at regular intervals in order to identify essential issues. This forms the basis for the definition of our priority areas and for the content of this report. → GRI 102-46

In the year under review, we undertook a fundamental revision of our 2015 materiality analysis. The first step was to hold stakeholder interviews, which are also a component of our strategy revision. Altogether, we interviewed 20 representatives of different interest groups about the key issues that were included in our materiality matrix in 2015. These stakeholders included scientists, capital market participants, affiliates in our supply chain, members of generation Y (15–25 year-olds), representatives of relevant NGOs and politicians as well as experts in sustainability from other companies. The BMW Group asked stakeholders for an assessment of the relevance of the selected issues as well as an overall evaluation of the materiality matrix from the year 2015.

The results were very informative. Although stakeholders viewed the majority of the issues as important on an individual basis, a common response among the general feedback was that BMW Group should concentrate more strongly on fewer, particularly relevant topics and that the significance of the key issues for the SDGs could still be spelled out more clearly. → GRI 102-43, 102-44, 102-46

For the second step, BMW Group conducted an internal workshop with experts on sustainability and strategy development in order to discuss the outcomes of the stakeholder dialogues. As a result, we updated the list of key issues from a corporate perspective. Inspired by the feedback from the stakeholders that we needed to narrow down our focus, we downgraded the importance of several issues in which the ecological, social and economic impact of the BMW Group is limited. → GRI 102-46

The outcome of this process was an updated list of 15 key issues for the BMW Group. These include issues that were classified as highly relevant both by stakeholders and by the company and which involve significant opportunities for the BMW Group to work towards sustainable development. For the purpose of concentrating our sustainability activities and communication with even more emphasis on relevant, overall areas of action, we defined six clusters in the workshop mentioned above, which channel the responsibilities of the BMW Group for environment and society. Our 15 high-materiality issues are included within these. → GRI 102-47

→ see graphic 1.03

Key sustainability issues for the BMW Group

→ G1.03

Cluster	Main topics
Mobility solutions	Vehicle pollutant emissions
	Alternative drivetrain technologies
	Product safety
	Connected and autonomous driving
	Mobility concepts and services
Decarbonisation	Fuel efficiency and vehicle CO_2 emissions
	Energy efficiency and CO_2 emissions in the value chain
	Alternative drivetrain technologies
	Environmental and social standards in the supply chain
	Mobility concepts and services
	Design for Recycling
Circular economy	Design for Recycling
	Environmental and social standards in the supply chain
Sustainable supply chain	Human rights
	Energy efficiency and CO_2 emissions in the value chain
	Occupational safety and health
	Environmental and social standards in the supply chain
	Combatting corruption and anti-competitive behaviour
Employees and culture	Occupational safety and health
	Attractive workplace, talent identification and retention
	Diversity and equal opportunity
	Employee development, training and education
Responsibility and partnerships	General issues

Contributing to the achievement of the Sustainable Development Goals

In autumn 2015, the General Assembly of the United Nations announced the → **Sustainable Development Goals (SDGs).** The SDGs are at the core of the 2030 Agenda, a global action plan with the aim of shaping economic progress in an environmentally compatible manner and in accordance with social equity.

We are convinced that companies, governments and other organisations can make a positive contribution towards the attainment of the SDGs. We also believe that it is our duty to uphold this social contract. We too are committed to supporting the goals formulated within it as part of our sustainability strategy and with a focus on our value chain. For us, this also means factoring in the 2 °C target set out in the Paris climate agreement.

Developing positive impacts on the economy and society

As a global company, the BMW Group acknowledges its responsibility to contribute to social prosperity wherever we are active. For this reason, our mission is not only to aspire to continuous improvement in our own value creation, but also to make specific contributions towards economic development and quality of life at our locations.

Lasting profitable growth of the BMW Group not only facilitates a reasonable return for investors, but also attractive salaries for employees, as well as our contribution to society through income tax payments. These are direct economic effects which are quantified by calculating the net value added.

The net value added of the BMW Group is at a consistently high level of €24,746 million (2017: €24,977 million[1]). The largest share of our net value added benefits our employees (2018: 50.4%, 2017: 48.2%[1]). The proportion applied to providers of finance declined to 9.2% compared to the previous year. For the government/public sector (including deferred tax expense), this amounted to 11.2%. The proportion of net value added applied to shareholders, at 9.3%, was lower than in the previous year.

→ see graphic 1.04

→ see graphic 1.02

[1] The figures for the previous financial year were adjusted in line with the first-time application of IFRS 15, see [6] in the Group appendix.

Calculation of BMW Group net value added

→ G1.04

	2018 in € million	2018 in%	2017[1] in € million	2017 in%	Change in%
ORIGIN OF VALUE ADDED					
Sales revenues	97,480	98.2	98,282	98.2	–0.8
Financial income	989	1.0	1,123	1.1	–11.9
Other income	774	0.8	720	0.7	7.5
Company performance	**99,243**	**100.0**	**100,125**	**100.0**	**–0.9**
Material expenses[2]	53,132	53.5	51,043	51.0	4.1
Other expenditures	12,924	13.1	15,630	15.6	–17.3
Payments in advance	**66,056**	**66.7**	**66,673**	**66.6**	**–0.9**
Gross value added	**33,187**	**33.4**	**33,452**	**33.4**	**–0.8**
Depreciation and amortisation of total fixed assets	8,441	8.5	8,455	8.4	–0.2
Net value added	**24,746**	**24.9**	**24,997**	**25.0**	**–1.0**
DISTRIBUTION OF NET VALUE ADDED					
Employees	12,479	50.4	12,052	48.2	3.5
Providers of finance	2,283	9.2	2,066	8.3	10.5
Government/public sector	2,777	11.2	2,204	8.9	26.0
Shareholders	2,303	9.3	2,630	10.5	–12.4
Group	4,814	19.5	5,959	23.8	–19.4
Other partners	90	0.4	86	0.3	4.7
Net value added	**24,746**	**100.0**	**24,997**	**100.0**	**–1.0**

[1] The figures for the previous financial year were adjusted in line with the first-time application of IFRS 15, see [6] in the Group appendix.
[2] Expenditure for material and supplies covers both the original material costs of the vehicle production as well as additional material costs (for example, tariffs, insurances and freight).

The BMW Group currently employs 134,682 people (2017: 129,932) and is training 4,964 young people at its locations worldwide (2017: 4,750). Our purchase of intermediate products also secures jobs worldwide in our supply chains. As we source the main components for vehicle production locally whenever possible, our business activities create jobs and increase prosperity at our locations.

By paying income taxes, and indirectly through the tax payments of our employees and suppliers, we boost the tax revenues of the regions where we and/or our suppliers operate. The BMW Group paid around 2,575 million in income taxes in 2018 (2017: €2,0000[1] million). In addition, we are helping to fund public budgets by paying tariffs and import duties.

[1] The figures for the previous financial year were adjusted in line with the first-time application of IFRS 15, see [6] in the Group appendix.

Case study: South Carolina/USA

An impact assessment study by the University of South Carolina in 2018 shows that the BMW Group made an appreciable economic impact on the prosperity of the US federal state of South Carolina.

The overall contribution to economic output was estimated at US$ 21 billion, achieved by the generation of jobs, contributions to local household incomes and the impact on the gross domestic product of the state. Thus, the BMW Group creates considerable economic multiplier effects in South Carolina. The study in San Luis Potosi/MX delivered equally positive results.

BMW Group's position on the recommendations of the Task Force on Climate-related Financial Disclosures

The Task Force on Climate-related Financial Disclosures (TCFD) was created by the → **Financial Stability Board** in order to define voluntary, standardised disclosures on climate-related financial risks. In summer 2017, the Task Force published recommendations for transparent business reporting on climate risks and opportunities in the context of business and financial reporting, which focus on four core areas: corporate management, strategy, risk management and key performance indicators and targets.

Climate change is one of the greatest social challenges of our time. With our range of efficient combustion engines, electric and hybrid drives as well as integrated mobility services, we are continuously reducing the CO_2 emissions and pollutant outputs of our vehicles. Likewise, we are lowering CO_2 emissions across the locations of the BMW Group by improving resource efficiency and expanding the use of renewable energy sources.

We share the opinion that the disclosure of relevant sustainability information by companies and financial establishments should be encouraged. For this reason, we already report in detail on corporate management, strategy and risk management with regard to climate change issues, as well as the relevant key performance indicators and targets, which are published in our business and sustainability report (Sustainable Value Report) as well as in the CDP ratings.

The TCFD recommendations were integrated into the reworked CDP questionnaire during the revision that was carried out in 2018. In accordance with the CDP evaluation scale, based on detailed and extensive answers to the questionnaire and compliance with the four core areas of the TCFD, the BMW Group received the appropriate score for inclusion in the A-list. On the basis of the reputation assessment, which represents a part of the CDP Ratings, the company was placed in the category Leadership with an overall assessment of A-.

1.2 SUSTAINABILITY MANAGEMENT

The BMW Group manages its business in accordance with responsible corporate governance principles geared to sustainable value creation in all areas of the company. To ensure compliance with these principles across all divisions of the company, we have defined clear guidelines and responsibilities. These are supported by control and incentive systems.

Involving the Board in sustainability management

The Board of Management governs the BMW Group under its own responsibility, acting in the interests of the company and with the aim of achieving sustainable growth in value. It determines the strategic orientation of the enterprise and ensures its implementation. The Board of Management is also responsible for ensuring compliance with all provisions of the law and internal regulations as well as for adequate risk management and controlling. The Supervisory Board advises and supervises the Board of Management in conducting its duties (dual management system). → GRI 102-18

Sustainability is a component of our corporate strategy. For this reason, our Sustainability and Environmental Protection department has been directly under the mandate of the Chairman of the Board of Management since 2007. This unit is responsible for sustainability strategy and sustainability management worldwide. Its tasks include the following:

- To identify challenges and opportunities for sustainable operations
- To develop and monitor sustainability goals
- To further develop, specify and integrate our sustainability initiatives into individual divisions, taking the entire value chain into account
- To ensure the cooperation of all departments in the company involved in sustainability
- To plan environmental protection activities (Group representative) and manage the environmental protection network
- To manage global centres of competence on a range of environmental issues

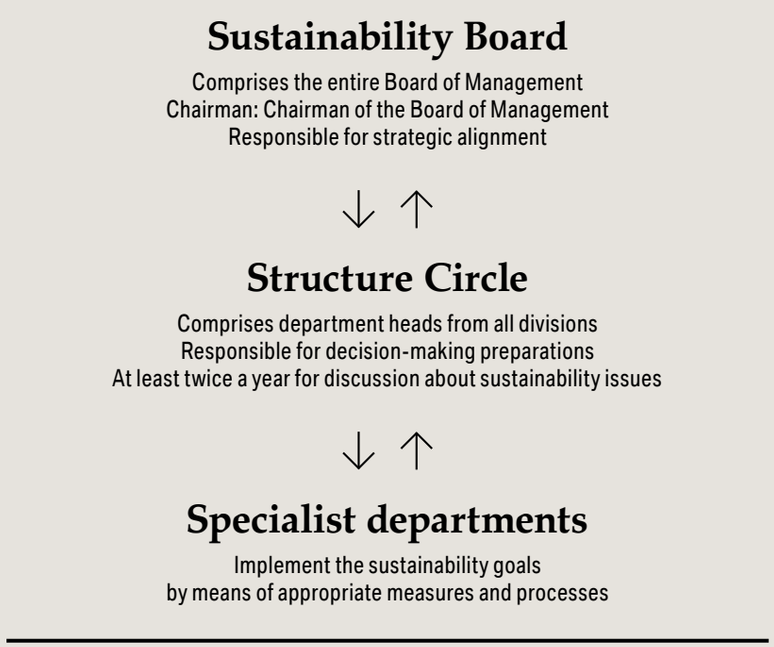
Managing sustainability on a long-term basis

→ **see graphic 1.05**

The Sustainability Board makes decisions on the long-term alignment of the sustainability-related areas of action included in Strategy NUMBER ONE > NEXT. The entire Board of Management is represented on the Sustainability Board, along with the heads of Sustainability and Environmental Protection and of Corporate Communications. The Sustainability Board convenes at least once a year to assess the company's progress on economic, environmental and social issues as well as the degree to which sustainability principles have been integrated into the various divisions. The decisions of the Sustainability Board are prepared in the so-called Structure Circle. It consists of departmental managers within the enterprise and convenes at least twice a year with the explicit purpose of discussing sustainability issues. To discuss these topics, the so-called Structure Circle brings together the head of Sustainability and Environmental Protection as well as the head of Governmental and External Affairs. The BMW Group management principles are also set down in the → **Corporate Governance Code.** → GRI 102-18, 102-19, 102-20, 102-26, 102-27, 102-30, 102-31

Organisation of sustainability in the BMW Group

→ G1.05



Sustainability established as corporate objective

Sustainability has been integrated "top-down" at all corporate levels of the BMW Group since 2009 as a strategic objective based on specific targets and key performance indicators. Sustainability is therefore an explicit component of the company's management system. On the one hand, this means that every major issue and project must be measurable in terms of sustainability as a corporate objective. This way, we ensure that, in addition to economic factors, environmental and social aspects are also accounted for in the decision-making process. It also means that sustainability as a corporate objective is broken down to the level of business areas and divisions. As a result, the personal targets set for managers include sustainability aspects and criteria which are also taken into account for their performance-based remuneration. → GRI 102-19, 102-28

Rewarding sustainable business success

The Supervisory Board decides on the level of compensation received by members of the Board of Management, orienting its decisions on the sustainable development of the BMW Group. Bonuses are also based in part on personal performance, evaluated primarily according to qualitative criteria. These criteria include environmental innovation (e.g. reduction of carbon emissions), leadership accomplishments and the ability to lead change processes. Additional criteria are: enhancing the company's attractiveness as an employer, progress in the implementation of the diversity concept, which is presented to the Supervisory Board in a report, as well as activities that advance corporate citizenship in the BMW Group → **Remuneration report in the Annual report 2018.** → GRI 102-27, 102-28, 102-35

Operating as a sustainable participant in the financial market

In March 2018 the European Union Commission presented its "Sustainable Finance" action plan for the financing of sustainable growth, which specified the contents of proposals for legally binding regulations in May 2018. With the proposed regulation for a European Union classification system ("taxonomy"), standardised criteria are to be established to determine whether the economic activity of an enterprise is (environmentally) sustainable, for the purpose of promoting the transition of the economy in the European Union to a more environmentally friendly and sustainable circular economy. From the BMW Group's perspective, these developments cannot be permitted to result in disproportionate disadvantages for European companies in the face of international competition.

A regular, in-depth dialogue with the capital market has always been regarded as a high priority for the BMW Group. Investors and analysts are giving increasing consideration to environmental, social and governance (ESG) aspects in their investment recommendations and decisions.

Through face-to-face meetings and telephone calls, as well as roadshows and conferences held at international financial centres, we inform members of the financial commu-

nity about the latest developments in the area of sustainability, as well as the key focus issues of our Strategy NUMBER ONE > NEXT.

Sustainability is a factor that the BMW Group also takes into consideration for investments. The company regularly examines compliance with sustainability standards during the process of allocation of asset management mandates. The BMW pension fund is already selectively invested in assets with a targeted ESG focus.

Capital market ratings for sustainability

The consistent integration of sustainability is evidenced by the fact that, among other things, the BMW Group is listed in numerous sustainability indices and ratings. → see graphic 1.06

The graphic below provides an overview of the positions of the BMW Group in 2018 in the capital market sustainability ratings that are most relevant to us:

Sustainability ratings

→ G1.06

RATINGS		
Dow Jones Sustainability Indexes	CDP DISCLOSURE INSIGHT ACTION	FTSE4Good
ASSESSMENT AND RESULT		
In 2018, the BMW Group was the only German automobile manufacturer to be listed once again in the → **Dow Jones Sustainability Indices (DJSI)** "World" and "Europe" and is therefore the only company in the automotive industry that has been continuously listed on the index since the very beginning.	For the → **CDP rating** (formerly: Carbon Disclosure Project), the company was ranked in the category of Leadership with a rating of A- in the year under review.	The BMW Group is listed once again in the year 2018. The → **FTSE4Good index** is part of the British index family on sustainability and corporate governance provided by FTSE in London.

1.3 STAKEHOLDER DIALOGUE

As a globally active enterprise, the BMW Group operates in a sensitive, highly connected environment. Our production and our products have an impact on the environment and affect the interests of our diverse stakeholders. At the same time, the viewpoints, decisions and actions of our stakeholders have a decisive impact on the success of our enterprise. The BMW Group therefore engages in ongoing dialogue regarding sustainability topics with its stakeholders in relevant markets and at all its locations.

In dialogue with our stakeholders, we want to build trust, understand positions, identify trends as well as build on and consolidate partnerships. In doing so, we also deliberately address critical issues and debates. This helps us to analyse more effectively what next steps are required or are expected of us in the individual areas of action in sustainability management. At the same time, by engaging in dialogue, we can show in a transparent manner what scope we see for action when confronted with current challenges and the prerequisites and framework conditions that are important to us. All of our stakeholder dialogue formats follow the same basic principle. The feedback from our stakeholders is integrated into the strategic deliberations of the company. → GRI 102-44

Our → **Stakeholder Engagement Policy** forms the basis for continuous dialogue. It defines the goals of the dialogue, determines the criteria for identifying and prioritising our stakeholders and provides a template for a range of suitable dialogue formats and communication channels.
→ GRI 102-42

Continuous and systematic identification and prioritisation of relevant stakeholders and their topics of interest is a cornerstone of stakeholder dialogue. To this end, we regularly carry out "stakeholder mapping" on strategically important topics at all relevant locations.

Our next steps:

The BMW Group plans to continue to engage in dialogue with our stakeholders next year, both regionally and globally. In addition to ongoing dialogue, we apply our established formats in order to meet the need of our stakeholders to discuss current topics.

→ see graphic 1.08

As in the previous years, we plan to hold stakeholder dialogues in 2019 in our most important core markets: Europe, Asia and North America. In accordance with our goal of effecting a sustainable change in mobility patterns in metropolitan regions, we will continue our dialogue on "digitalisation" and "urban mobility" in order to gain new perspectives in these areas.

Likewise, we also want to continue to engage in dialogue with our investors. Apart from our daily communication with investors and analysts, we plan to participate in Socially Responsible Investment (SRI) roadshows and conferences in the global financial centres in 2019 again.

Other strategically relevant topics

Transforming urban mobility

Traffic jams, high levels of air pollution and associated restrictions on quality of life present enormous challenges, particularly in regional conurbations. We discuss these problems and possible solutions at our dialogue meetings with our stakeholders around the world. Increasing numbers of participants have expressed their expectations that companies should take responsibility for the transformation of urban mobility. Through our Centre of Competence for Urban Mobility, we are also involved in ongoing in-depth communication with cities and municipalities.

→ see chapter 2.3

Particularly in our four BMW Group Technology Offices in Mountain View/US, Shanghai/CN, Tokyo/JP and Seoul/KR, we develop new approaches for sustainable mobility. Proximity to the technological hotspots of the world facilitates exchange with important stakeholders in order to develop innovations and technologies for urban transformation. The challenges and needs determined on this basis are then channelled into specific research projects.

Promoting ACES topics

Decarbonisation and digitalisation are currently in the spotlight of political and social debate. With our focus on the strategic innovation fields “Automated Driving”, “Connectivity”, “Electrification” and “Shared and Services” (ACES), we are paving the way for the development of lower-carbon, more efficient mobility. We also presented our solutions at our stakeholder dialogue meetings in 2018. The participants confirmed that innovations in automated driving and the provision of innovative mobility services should be prioritised in future development.

→ see chapter 2.2 and chapter 2.3

In addition to the creation of corresponding ACES products, supportive framework conditions are also crucial in the BMW Group’s point of view. When engaging in dialogue with political stakeholders in the main markets, the following topics are key for the BMW Group:

— Promotion of electric mobility and comprehensive expansion of the charging infrastructure

— Continued development of the regulatory framework for autonomous driving and digital networks

— Political control of emission limits without discriminating against individual vehicle categories

— Support for new efficiency technologies

— Realistic relationship between emission targets and emission measurement methods

— Consistency of supply-side and demand-side policy measures for decarbonisation

— Ensuring sufficient supply of critical raw materials.

Main feedback from our stakeholders in the 2018 dialogues on the topic “Cities in progress”

→ see graphic 1.07

In 2018, five BMW Group dialogue meetings were held once again to discuss the topic areas of “urban mobility” and “digitalisation”. During the meetings we talked with students, experts and other stakeholders about the challenges of sustainable urban development. In 2018, these events were held in Los Angeles/US, Melbourne/AU, Shenzhen/CN, Rotterdam/NL and Berlin/DE.

The most important stakeholder feedback on urban mobility (market survey* and dialogues 2018)

→ G1.07

Traffic jams, lack of space and air quality are most immediate challenges

Among the greatest challenges the municipalities face are high traffic volumes, poor air quality and the negative impacts of traffic planning on the cityscape, and thus on people's quality of life. The results of the market survey on the most immediate challenges for urban mobility confirm this (traffic jams 65%, lack of parking spaces 48% and air pollution 39%)[1]
→**Chapter 2**

Responsibility for solution lies primarily with municipalities

According to stakeholders, to address these urban mobility challenges, the municipalities themselves have a particularly large responsibility to contribute towards a solution. 40% of the participants in our online survey also shared this opinion.[2]

Expansion of range of electric vehicles

Combustion engines are expected to play a less important role in cities in the future. The BMW Group should offer primarily emission-free vehicles. This was also supported by 45% of the participants in the market survey.[3]
→**Chapter 2.2**

Expansion of range of mobility services

The expansion of mobility services offered by the BMW Group plays an ever more important role for urban mobility from the point of view of our stakeholders. 49% of the participants in the market survey confirm this.[4]
→**Chapter 2.3**

Establishment of multimodal solutions for urban mobility

The goal for urban transformation is to achieve a combination of individual and public transport use. Digitalisation can increasingly play a role here in optimising individual route planning using different means of transport. →**Chapter 2.3**

* The numbers shown refer to an online survey of 500 women and men in each city (Los Angeles/US, Berlin/DE, Melbourne/AU, Rotterdam/NL, Shenzhen/CN) from a variety of income brackets, age groups, occupations and educational backgrounds. Total number of survey participants: 2,500 people.
[1] Online survey 2018 (n = 2,500), Question 6: What in your opinion are the largest challenges for urban mobility in your city?
[2] Online survey 2018 (n = 2,500), Question 7: Who in your opinion is primarily responsible for addressing these challenges in your city?
[3] Online survey 2018 (n = 2,500), Question 11: What do you expect from the BMW Group in order to improve urban mobility?
[4] Online survey 2018 (n = 2,500), Question 10: What do you expect from the BMW Group in the future?

→ GRI 102-44

Enforcing human rights and environmental standards in the supply chain through collective action and transparency

The discourse around sustainable raw material procurement is of great importance for the BMW Group. Cobalt is a key component in the production of electrified vehicles and large amounts of it are contained in high-voltage batteries of electric vehicles and plug-in hybrids. As cobalt mining runs the risk of human rights violations, we are working on a number of levels to increasing transparency of the cobalt supply chain. In addition to internal measures to increase transparency in the supply chain, we are involved in projects such as the Responsible Cobalt Initiative (RCI).

In May 2018, experts at the BMW Group and stakeholders in Berlin/DE held joint discussions regarding critical raw material supply chains.

In the year under review, we received several inquiries about our supply chain. This shows the high expectations that our stakeholders have of us. We will therefore continue the discourse on sustainable raw material procurement with our partners and suppliers in order to work on common solutions for a more transparent, more social and more environmentally compatible supply chain.

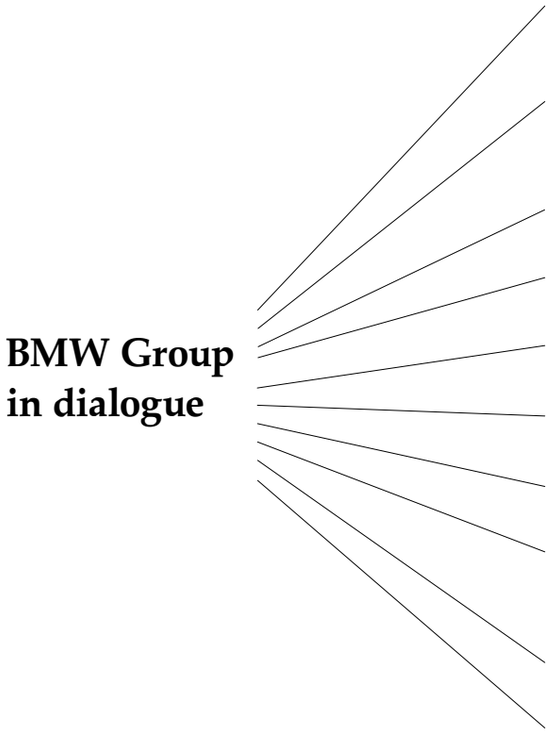
→ see chapter 3.3

Stakeholders expect systematic consideration of animal welfare

Numerous enquiries in the year under review have spelled out how important animal welfare is to our stakeholders. In response, we carried out a relevance analysis during the year, in which we evaluated both the aspects of “animal testing” and “animal products”. In order to secure the systematic consideration of animal welfare in the context of our own activities and with our suppliers, we made appropriate additions to the code of practice for employees. In addition, we have extended our sustainability standards for the supplier network, which stipulate that animal testing is to be avoided unless it is prescribed by law. Likewise, we have also supplemented our general contractual conditions for indirect purchasing. Additionally, we plan to supplement the international purchasing conditions for production material and motor vehicle components during the next revision, which is scheduled to take place in 2021, in order to stipulate requirements for the assurance of animal welfare.

Stakeholder groups and forms of dialogue

→ G1.08



Dialogue, conferences and technology workshops with investors and analysts	Capital market
Dialogue in the context of industry initiatives, joint events, training courses, presentations, supplier risk assessments, Learning from Suppliers forum	Suppliers
Participation of Board members, technical experts or subject specialists in a number of initiatives, forums and events, memberships of initiatives and associations	Networks and associations
Workshops on key topics, regular “Green Tables” with German parliamentarians, CSR Forum in Germany	Policymakers
Round tables, visits from universities, lectures, discussions, BMW Group Dialogue with students, SDG scientific platform	Research
Dialogue within the context of press trips, press releases, information events on new products, test drives, trade fairs	Mass media
Dialogue with sales organisations and the association of German BMW dealerships, business conferences, dialogue via the central coordinating units of importers	Business partners
One-on-one dialogue, plant visits, neighbourhood dialogue, press events	Local stakeholders
Face-to-face meetings/dialogue, responding to enquiries	Civil society and NGOs
Dialogue with employees and managers, employee survey, idea management, internal media	Employees
Surveys (including a Corporate Reputation Study), social media, trade fairs, mass media	Customers

→ GRI 102-40, 102-43

1.4 COMPLIANCE AND HUMAN RIGHTS

Sustainability goal:

The aim of our compliance management system is to ensure legal conformity of all BMW Group activities

Responsible and lawful conduct, with respect for human rights, is firmly established as part of the BMW Group's corporate culture. We also expect this from our business partners throughout the value chain. In our view, integrity and compliance with the law are basic requirements for long-term business relationships. Practising these values within the company builds trust among our customers, shareholders, business partners and the general public, thereby ensuring the long-term success of our company.

Key measures:

Establishing legal conformity and implementing labour standards worldwide

The BMW Group Legal Compliance Code forms the basis of our compliance management system. It spells out the Board of Management's commitment to compliance as a joint responsibility and underlines all employees' obligation to act responsibly and in compliance with applicable laws.

In 2018, the BMW Group published its → **BMW Group Code on Human Rights and Working Conditions**, which supplements the Joint Declaration on Human Rights and Working Conditions at the BMW Group of 2010. The Code is based on a due diligence process that allows us to identify relevant aspects and take appropriate action. It strengthens our commitment to human rights and outlines how the BMW Group promotes respect for human rights and implements the core labour standards of the ILO in its business activities worldwide.

Managing compliance

Our group-wide compliance management system is oriented towards the BMW Group's risk situation and also covers the Financial Services segment. With defined structures and processes, it creates the necessary regulatory framework, so that every employee is aware of their compliance responsibility and lawful conduct is systematically ensured. Key components of this system include internal compliance regulations, legal monitoring, complaint and case management, compliance controls and compliance reporting as well as employee training and communications activities.
→ **Annual Report 2018**

In 2018, we implemented a group-wide communications campaign aimed at boosting integrity and responsibility among all employees. The IT-based applications of the compliance management system have been further expanded and use of compliance IT systems rolled out at our locations worldwide.

The compliance management system is applied to all compliance topics: in particular, to prevent corruption and anti-competitive conduct and to ensure respect for human rights – especially the ILO core labour standards – at all our locations.

In our annual compliance reporting, we ask all organisational units of the BMW Group, amongst others, for a local risk assessment for human rights violations. Their responses form the basis for developing local measures to minimise risks. → GRI 412-1

Demanding respect for human rights

Specific human rights risks arise in the supply chain due to the international and collaborative nature of value creation processes in the automotive industry. For this reason, we have integrated human rights into the BMW Group sustainability standard for the supplier network → GRI 412-3 and established an appropriate risk management process.

→ see chapter 3.3

In addition to the company's international purchasing terms and conditions, BMW Group importer contracts also contain a clause on compliance and human rights, which will gradually be included in all dealer contracts worldwide by 2020. Human rights obligations are also taken into account in choosing sites and in investment decisions. → GRI 205-2, 412-3

Due diligence processes:

Systematically ensuring lawful conduct

To provide systematic protection against compliance-related and reputational risks, the Board of Management created a Compliance Committee in 2007 to control and monitor the necessary activities. The scope and intensity of our compliance activities are determined on the basis of a group-wide compliance risk assessment that is updated annually. Group-wide compliance management activities are implemented at operational level by the BMW Group Compliance Committee Office, supported by local compliance functions. These functions were expanded in the year under review.

Compliance with and implementation of the BMW Group Legal Compliance Code and internal compliance regulations are audited regularly by Corporate Audit. The BMW Group Compliance Committee Office also conducts spot checks in conjunction with a forensic service provider, focusing primarily on corruption prevention. In 2018, specific antitrust validations were introduced, in addition, to identity and audit possible antitrust risks at the company. The organisational units for audit are selected on the basis of a group-wide compliance risk assessment. → GRI 205-1

Employees can turn to their managers or the BMW Group Compliance Contact with questions relating to compliance. Non-employees may also use this method to report possible infringements. Within the company, possible violations of the law can be reported anonymously via the BMW Group SpeakUP Line. The BMW Group Compliance Committee Office investigates reports and initiates measures to address any issues.

Identifying and minimising risk in the financial services business

Due to the nature of its products and processes, the financial services business entails specific risks. The focus here is on anti-money laundering measures, data protection, fraud prevention, legislative and regulatory monitoring as well as consumer lending 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 the BMW Group's financial services companies worldwide is followed through on a quarterly basis. Compliance is incorporated into the target process for the Financial Services segment. Integration of specific targets into our balanced scorecard system underlines the importance of the topic and helps monitor implementation. We also use a management system to identify risks of non-compliance with internal and external regulations at an early stage.

Results and performance indicators:

Compliance and human rights training stepped up

Training plays an important role in reinforcing compliance in our corporate culture. In 2018, training management for the online courses “Compliance Essentials” and “Antitrust Compliance” was switched to a central training platform. These training modules must be repeated by the required target groups every two years.

Number of employees* with a valid “Compliance Essentials” certificate:

over 44,000

Number of employees* with a valid “Antitrust Compliance” certificate:

over 22,000

* No comparison with previous year possible for 2018 due to system changeover.

The “Compliance Essentials” training uses case studies to convey the content of the BMW Group Legal Compliance Code. The section on corruption prevention also covers the aspects of corporate hospitality and gifts. The training is mandatory for BMW Group managers and optional for all other employees. → GRI 205-1, 205-2, 412-2

We restructured the online training “Antitrust Compliance” in 2018. This training is mandatory for managers and staff whose functions or assignments expose them to antitrust risks. We also continued to offer classroom training on antitrust law.

We organise specific internal and external training on the subject of human rights. In 2018, human rights was a topic at our conference for Eastern European and African import companies and covered in the employee training at our leasing company in China, for example. These internal training courses are primarily geared towards managers and focus groups such as purchasing staff. → GRI 412-2

Our next steps:

In 2019, we will continue to focus on antitrust compliance, corruption prevention and anti-money laundering measures.

Next year, we intend to host a worldwide compliance day to anchor awareness for integrity and our compliance culture even more firmly throughout the company. We are also planning a communications campaign on the new → **BMW Group Code on Human Rights and Working Conditions.**

On the training side, we will continue to enhance our training management processes. A new training module on human rights is also planned for our Human Resources departments worldwide.

Other strategically relevant topics

BMW Group position on antitrust allegations

In July 2017, the media reported on suspected antitrust infringements by the German automotive industry. Following an inspection at the BMW Group in October 2017, the European Commission opened formal proceedings in connection with antitrust allegations against five German automobile manufacturers on 18 September 2018. This constitutes a formal step without prejudice to any possible antitrust infringement.

— The BMW Group has assisted the European Commission with its work from the beginning and will continue to do so.

— In this context, the BMW Group wishes to emphasise the clear distinction between potential violations of antitrust law, on the one hand, and illegal manipulation of exhaust gas treatment, on the other. The BMW Group has not been accused of the latter.

— The BMW Group is looking into the allegations of possible violations of antitrust law very closely. We are fully committed to the principles of the market economy and fair competition.

The BMW Group is unable to comment further on the proceedings while the investigation is still ongoing. → GRI 206-1

International conventions and principles

Our models for ensuring compliance with environmental and social standards throughout the value chain are based on various internationally recognised guidelines. This especially applies to the → **Guidelines for Multinational Enterprises** issued by the Organisation for Economic Cooperation and Development (OECD), the → **UN Guiding Principles on Business and Human Rights**, the contents of the → **ICC Business Charter for Sustainable Development** and the → **United Nations Environment Programme's (UNEP) International Declaration on Cleaner Production.**

By signing the → **United Nations Global Compact** by the BMW AG Board of Management in 2001 and issuing a → **Joint Declaration on Human Rights and Working Conditions in the BMW Group**, we committed to abide by internationally recognised human rights and the core labour standards of the → **International Labour Organization (ILO).** This commitment is also reflected in the → **BMW Group Code on Human Rights and Working Conditions**, which has been ratified by the Board of Management and employee representatives. Our due diligence process for human rights is geared towards the UN Guiding Principles on Business and Human Rights. → GRI 102-12, 102-16

1.5 PRODUCT SAFETY

Sustainability goal:

The BMW Group offers its customers and other road users the highest safety standards

The safety of our vehicles is the central component of our product responsibility. The BMW Group considers product safety to be a holistic challenge. By incorporating active and passive safety systems in our vehicles, excluding hazardous materials, offering safe driving courses and providing appropriate product information, we want to contribute towards safety in road traffic and meet the requirements of our customers.

Key measures:

Comprehensively addressing product responsibility

In order to minimise the risk of accident and injury for our customers and other road users, we equip our vehicles with active and passive safety systems that meet the latest technical standards. These safety measures include perfect chassis tuning, strengthened passenger compartments, effective brakes, airbags and driver assistance systems.

With the BMW and MINI Driving Experience, we also offer training courses in 30 countries for BMWs, MINIs and BMW motorcycles which help to ensure the safety of our customers and other road users. In the year under review, we expanded our range of training courses in response to customer needs and the increasing significance of electric mobility. In total, we trained over 124,000 participants at international training locations in 2018.

Starting at the design stage of our vehicles, we pay attention to the avoidance of potential hazardous materials and minimisation of emissions in the passenger compartment. In this way, we ensure that the legal requirements in terms of product safety, protection of human health and the environment are complied with worldwide for each phase of the vehicle life cycle (from development to utilisation, through to recycling and disposal). In addition, all vehicles that belong to the BMW, MINI and Rolls-Royce brands are equipped with passenger compartment air filters, which filter out pollutants and particles such as dust or pollen from the outside air.

We also provide our customers with comprehensive information on how to use our products and mobility services correctly. Information on the safety of our vehicles and on the protection of our customers' health is available in the in-vehicle operating manuals, in printed form or as an app for smartphones and on the Internet. This data is supplemented by information on the vehicle and additional background information on services, accessories and components.

As a basic principle, the BMW Group follows the fundamental premise of "safety first". This means that the safety requirements must be fulfilled before offering any solutions. Safety is an important prerequisite for customer confidence in connected and autonomous driving. The BMW Group has created appropriate structures for this purpose.

In view of the increasing impact of digitalisation, aspects such as data privacy, data security and cybersecurity are becoming ever more important. "Privacy by Design" means that the BMW Group ensure data privacy by providing customers with transparency, informational self-determination and data security. In order to maintain an appropriate level of protection, we apply our "Security by Design" approach. This involves examining products and services for safety aspects throughout the entire product life cycle.

We use a secure backend for encrypted data communication between the vehicle and the BMW Group. This serves to minimise the vulnerability of the vehicle fleet to unauthorised access by preventing a direct, often unprotected, data transfer from the vehicle to third parties. For continuous improvement in the level of protection, the BMW Group engages in an ongoing exchange of information with national and international security and cybersecurity authorities.

Due diligence processes:

Guaranteeing security through systematic management

BMW Group products are developed and manufactured in strict compliance with quality management systems. All models are subject to thorough audits with regard to vehicle safety.

Our quality management also covers the use of the vehicles. We also monitor our vehicles on the market and follow up on any reports relating to safety. If required, we immediately inform the responsible authorities and introduce all necessary measures to protect our customers. We carry out voluntary technical campaigns if there is an indication that a component may be faulty, but does not present an immediate danger. This involves an inspection of the vehicles and if necessary, the exchange of the faulty components. In the event of a safety risk, we conduct recall campaigns in cooperation with the responsible authorities. For this purpose, the BMW Group has established appropriate committees, processes and organisations, which are managed by the head department for Product Support, Technical Campaigns and Warranty Costs. → GRI 416-1

Results and performance indicators:

Continuous improvement of safety

With ongoing innovation and development in safety systems, we continue to enhance the safety of the people who use our vehicles. At the same time, our measures contribute towards increasing the safety of other road traffic participants.

Our next steps:

In the years to come, we will keep working to even further enhance the safety of our vehicles. Our particular focus will be on connected and autonomous driving.

PRODUCTS AND SERVICES

2

Global developments such as climate change and urbanisation constitute considerable challenges for the automotive industry. Added to this are sharply diverging market conditions. At the same, however, these offer great opportunities for companies that operate in a sustainable manner. The BMW Group is therefore pressing ahead with the transformation of its product portfolio. We are constantly working on making our vehicle platforms, vehicle designs and production processes more flexible. In future, this will allow us to offer our models equipped with fully electric drivetrains, as plug-in hybrid vehicles or with highly efficient combustion engines, depending on requirements. We continually enhance our mobility services with innovative solutions for urban mobility and are pressing ahead with digitalisation. In doing so, we intend to improve the quality of life in cities and also take advantage of market opportunities for sustainable premium products.

Focus on Sustainable Development Goals (SDGs):

PERFORMANCE INDICATORS

CO_2 emissions of BMW Group Automobiles (EU-28) in g/km

128

2018[1]

128 2017[1]
122 2017[2]
124 2016[2]

[1] Figure adjusted due to introduction of the WLTP test procedure
[2] According to NEDC test procedure

CO_2 emission reduction of BMW Group Automobiles (EU-28) compared to the base year 1995 in %

42

2018

42 2017
41 2016

Electric and electrified vehicles

Annual sales

142,617

2018

103,080 2017
62,264 2016

Electric and electrified vehicles

Cumulated number since 2013

358,551

2018

215,934 2017
112,854 2016

Public charging points accessible with ChargeNow in numbers

223,000

2018

137,000 2017
62,000 2016

DriveNow and ReachNow users

in numbers

1,279,000

2018

1,108,000 2017
853,000 2016

EMISSIONS OF CO_2 AND POLLUTANTS

By 2020, the BMW Group will have reduced CO_2 emissions in the European new vehicle fleet (EU-28) by at least 50% compared to the base year 1995.

Efficient and cost-effective: the BMW 320d* consumes between 4.6 and 4.4 l/100 km according to WLTP.

*Consumption and CO_2 data, p. 125.

2.1 EMISSIONS OF CO_2 AND POLLUTANTS

Sustainability goal:

By 2020, the BMW Group will have reduced CO_2 emissions in the European new vehicle fleet (EU-28) by at least 50% compared to the base year 1995

Climate change and the burdens placed on air quality, especially in cities, are among the key challenges we face. We therefore consistently strive to reduce emissions of CO_2 and pollutants in the development of our vehicle fleet. In reducing emissions of CO_2 and pollutants, we intend to continue to meet the statutory limit worldwide in future. Incentives for sustainable mobility also play an important role in the purchase decision of customers. Besides buyer's premiums and reduced taxes, examples of these include exceptions to potential traffic restrictions as well as preferential treatment in lane usage and concessions in parking policies for electrified vehicles. We respond to the growing environmental awareness of many customers by expanding our portfolio of low-emission, efficient vehicles.

With these measures, we intend to contribute in particular to the SDGs 3 (Good health and well-being for people), 9 (Industry, innovation and infrastructure), 12 (Responsible consumption and production) and 13 (Climate action).

Key measures:

Lowering emissions from vehicle use with efficiency technologies and solutions for pollutant reduction

In our conventional drive vehicles, we currently achieve the most effective impact on lowering CO_2 and pollutant emissions through our efficiency technologies and through specific solutions for pollutant reduction.

A reduction in local emissions of nitrogen oxide (NO_x) in particular is needed to improve urban air quality. All diesel models of the BMW Group have been fitted with a highly effective combination of a NO_x storage catalytic converter (NSC) and a SCR system (SCR, Selective Catalytic Reduction) with urea injection (AdBlue) since mid-2018 (except for MINI 3-door cars, 5-door cars and convertible models). The larger MINI diesel models also use these technologies.[1]

In terms of climate protection, reducing global CO_2 emissions is imperative. Since 2007, our Efficient Dynamics projects have helped us integrate efficiency technologies in our vehicles, in accordance with the specific requirements of individual models, engines and the respective markets.

Offering more low-emission electrified models

Models with electric drivetrains in our new vehicle fleet also do their part in lowering CO_2 and pollutant emissions. To familiarise customers as well as possible with electromobility, we launched the fully electric battery model (BEV) BMW i3* in 2013 and the plug-in hybrid model (PHEV) BMW i8* in 2014. In addition to the BMWi vehicles, we have six BMW PHEV models and a MINI plug-in hybrid that we offer our customers worldwide. By 2025, we plan to offer 25 electrified models, of which twelve will be purely electric.

[1] This applies to the diesel models available for order in Europe and to the regions that adhere to European exhaust emissions legislation on diesel engines, for example through the UN Economic Commission for Europe. Generally speaking, only diesel models of the BMW Group with the NSC and SCR combination system are offered in the USA (MINIs with diesel engines are not available).
* See consumption and CO_2 data, p. 125.

Supporting the development of harmonised regulations

The diversity and lack of harmonisation of different regulations at the national and supranational level present us with huge challenges and have a significant impact on customer demand. The BMW Group supports the development of nationally, and where possible internationally, harmonised guidelines, since they make an important contribution towards combatting climate change and improving air quality. In the EU, for example, we have the harmonised test procedure WLTP (Worldwide Harmonized Light Vehicles Test Procedure) through the VDA (German Association of the Automotive Industry) and ACEA (European Automobile Manufacturers' Association).
→ GRI 102-13

Due diligence processes:

Systematically taking account of emission reduction in product development

The above-mentioned aspects of product responsibility are an integral part of the target systems and organisational processes in our vehicle development units.

We consistently take our reduction targets and market-specific fleet requirements into account during product development. To do so, we define specific targets for emission reduction over the whole life cycle for new vehicle projects in each product line. This extends from the development of vehicles and services, via the supply chain and production, right up to utilisation, and finally vehicle recycling. Life Cycle Engineering helps us carry through our vision of achieving a substantial improvement from one vehicle generation to the next. We manage the implementation of targets and evaluation of progress in the development process by applying the Life Cycle Assessment in accordance with ISO standard 14040/44.

The BMW Group's Strategy unit is responsible for monitoring and refining our targets. In addition, the Complete Vehicle Architecture unit coordinates the development and implementation of fuel-saving technologies in individual vehicle projects, which are achieved for example through Efficient Dynamics measures.

Results and performance indicators:

Further reduction in emissions

The BMW Group reduced CO_2 emissions of its newly sold vehicles in Europe by around 42 % between 1995 and 2018 (2017: 42 %). In 2018, our European new vehicle fleet (EU-28) had an average fuel consumption of 4.9 l diesel/100 km[1] and 6 l petrol/100 km[1] and average CO_2 emissions of 128 g/km[1] (internal BMW calculation; 2017: 128 g/km[1]). → GRI 302-5, 305-5

Despite a further reduction in the share of diesel vehicles, fleet CO_2 emissions in 2018 were maintained at the same level as the previous year, which is in part due to the growth in sales of electrified models in Germany. With 142,617 units sold (2017: 103,080), the BMW Group exceeded the previously announced annual target of 140,000 electrified vehicles.

We intend to continue to meet the EU emissions targets in 2020 and 2021, and beyond.

In the USA, the average fuel consumption for the model year 2018 was 33.6[2] mpg (model year 2017: 33.5 mpg) and the average CO_2 emissions were 168 g CO_2/km[2] (model year 2017: 168 g CO_2/km, internal BMW calculation). In China, average petrol consumption was 6.2 l/100km[3] in 2018 (2017: 6.5 l/100 km), and the median CO_2 emissions were 147 g CO_2/km[3] (2017: 154 g CO_2/km). → GRI 302-5, 305-5

[1] Since September 2018, all vehicles in the EU must be approved in accordance with the new WLTP test cycle. However, the EU Commission will not start using WLTP to calculate fleet CO_2 emissions until 2021. For this reason, the WLTP fleet emissions will need to be retroactively calculated as NEDC values for the purposes of reporting up to and in 2020. The amended WLTP test constraints result in higher NEDC emissions (NEDC-correlated) in the retroactive calculation. To guarantee comparability, the fleet CO_2 emissions in 2017 (122 g/km NEDC) were converted into a correlated NEDC value of 128 g/km under WLTP test constraints and disclosed for the first time in the second quarterly report of 2018.
[2] Basis: USC (United States Combined).
[3] Basis: NEDC (New European Driving Cycle).

Taking due consideration of the above-mentioned cycle in the EU, 141g CO_2/km[1] was the average fleet CO_2 emissions of the BMW Group per kilometre in 2018 (calculation for the key markets of EU-28, USA, China, Japan and Korea), a reduction of 1.4% compared to the previous year (2017: 143g CO_2/km[1]). → GRI 305-3, 305-5

Since the beginning of the 90s, we have significantly reduced pollutant emissions by refining our technologies. In Europe, emissions of nitrogen (NO_x) and particulate matter (PM) in the new vehicle fleet were lowered by over 90% between 1992 and 2018, in accordance with the limit values of the Euro standards. → GRI 305-7

The introduction of new models with drive technologies that ensure lower emissions and pollutants continues to have a positive effect on our average fleet CO_2 emissions. We expanded our product range to eleven electrified models at the end of 2018. For example, the BMW 225xe* Active Tourer can save 50% more CO_2 emissions in WLTP compared to a similar model with a combustion engine, such as the BMW 220i*.

→ see chapter 2.2

In September 2018, the NEDC was replaced by the more realistic test procedure WLTP. The changeover of BMW models went according to plan and has been completed.

Falling fuel prices and the associated changes in customer demand make it harder for us to achieve the fleet targets set for 2020. In addition, there are regional variations in fleet use due to influencing factors such as the drivetrain and segment combination, the respective relevant rates and the individual purchase and road performance.

Our next steps:

The BMW Group sees itself as a driving force in the development of sustainable individual mobility. In this process, we focus on both increasingly efficient, clean combustion engines as well as electromobility.

Our Efficient Dynamics package of measures has played a role in significantly reducing fuel consumption, CO_2 emissions and our vehicle emissions since 2007. We want to continue on this successful path with innovative approaches in the areas of combustion engines, aerodynamics and lightweight design.

We see further potential for reducing fuel consumption and pollutant emissions in the electrification of the drivetrain and digitalisation. We are developing new models for 2019 (BEV: MINI, PHEV: X3) and 2020 (BEV: BMW iX3) and offering the PHEV models BMW 2-Series, 3-Series, 5-Series, 7-Series and X5 with improved electric range in 2019. In 2021, we will make a start on the above-mentioned radically new concepts BMW i4 Vision Dynamics and BMW iNext. Following initial success with navigation-data-supported transmission control and the driving assistant, we are also investing in further research and development in this area.

From the perspective of the BMW Group, modern diesel engines will continue to play an important role. We will therefore continue to work on highly effective air-purity technologies for our vehicle portfolio in 2019. And we will keep on optimising our combustion engines with 48-volt recuperation systems and maximum emission reduction. With more than 300 model versions available to order ex works, the product portfolio of the BMW Group will largely be switched over to the exhaust emission standard Euro 6d-TEMP by the end of the first quarter of 2019, which will apply to all new vehicles in Europe as of 1 September 2019. All of these models are standardly available to order. The delivery time is around three months on average, as is customary. The changeover of the remaining model versions to the exhaust emission standard Euro 6c is running according to plan.

In the coming year, we will continue to address any critical questions our customers and the public have about the future of diesel technology. We will rebuild trust in the automotive sector through transparency and open discussion.

[1] Correlated NEDC (EU), NEFZ (China, Korea), USC (USA); JC08 (Japan Cycle 08, Japan).
* See consumption and CO_2 data, p. 125.

Other strategically relevant topics

Emissions caused by diesel engines

More and more cities worldwide are taking action to improve air quality and reduce CO_2 emissions, particularly in highly congested city centres. Reducing vehicle emissions is an important starting point. Besides promoting alternative emission-free drivetrains and an improved range of mobility services, some cities are also introducing traffic restrictions for vehicles entering into or driving through the city.

Older petrol models (exhaust emission standards Euro 0 and 1) and diesel-engine cars (Euro 0 to 2) are permanently prohibited from entering the green zone in Paris/FR. Drivers of older vehicles (Euro 0 to 3) are required to pay an extra fee in the inner city of London/GB. In Germany, older vehicles (Euro 0 to 3, depending on the classification of the green zone) have been banned since 2007 from entering certain city regions through the introduction of environmental badges. A total of 58 such green zones, of which 57 carry the maximum restriction of at least Euro 4 or Euro 3 with particle filter, now exist in German cities. Despite these measures, the debate still centred around urban air quality, particularly in Germany, in the reporting period. In several German cities, much stricter traffic restrictions for older diesel models (Euro 4 and 5) have already been decided upon and, in some cases, introduced.

In this regard, the German government assists the federal states and affected cities in complying with the applicable air quality limits as quickly as possible and in exploiting the full potential of all measures seeking to reduce nitrogen without restricting mobility. These include modern air protection plans and municipal measures, such as creating intelligent infrastructure, converting diesel buses and taxis, digitalising traffic systems and expanding electromobility. The BMW Group welcomes this concept and, in addition to the national → **BMW UMWELTPRÄMIE** (environmental premium), has been offering the → **BMW UMWELTPRÄMIE+** (environmental premium plus) in selected cities since October 2018, which aims to speed up the rejuvenation of the car fleet and thus make a quick and effective contribution towards reducing nitrogen oxide emissions. → GRI 416-2

→ see chapter 1.3

In addition, the BMW Group engages in continuous dialogue with cities, inhabitants and authorities in order to develop joint solutions and prevent the restriction of mobility. We offer our customers electrified vehicles, access to mobility services and low-emission petrol and diesel engines. From the perspective of the BMW Group, the modern diesel engine can also continue to make an important contribution towards improving air quality and achieving national and international CO_2 reduction goals in the short and medium term. A diesel engine emits 15% less CO_2 than a petrol engine on average and there is still no adequate infrastructure for alternative drivetrain technologies. Political framework conditions in Europe can provide important incentives for speeding up the market penetration of low-emission diesel.

Retrofitting the hardware of cars, which is currently a topic of political discussion in Germany only, does not make sense in our opinion. The priority is to improve air quality as quickly as possible. Considering the high quality requirements and strong customer interest in this regard, we do not consider hardware-retrofitting to be a solution that would bring about the desired results in the short term. Furthermore, such action would have a negative impact on the quality, consumption and CO_2 emissions as well as on the performance of vehicles due to the necessary vehicle modification and higher weight.

CO_2 limits stepped up in the EU

In December, the EU decided to step up CO_2 limits by 2030. By then, CO_2 emissions of new vehicles are expected to be reduced by 37.5% compared to 2021. From the perspective of the BMW Group, this goal can only be achieved by significantly increasing the share of electrified vehicles. We already offer our customers a broad portfolio of models that we are continually expanding. However, the trends in our various markets show that this range is perceived in different ways. As one of the market leaders for electromobility in Europe, we find that

the political factors promoting electromobility have a considerable impact on our sales. In our view, the fact that EU requirements placed on vehicle manufacturers are not accompanied by an ambitious programme to increase the demand for electrified vehicles is risky. Instead, there are fragmented and largely ineffective national policies in a number of large markets.

→ see graphic 2.03

Further key indicators

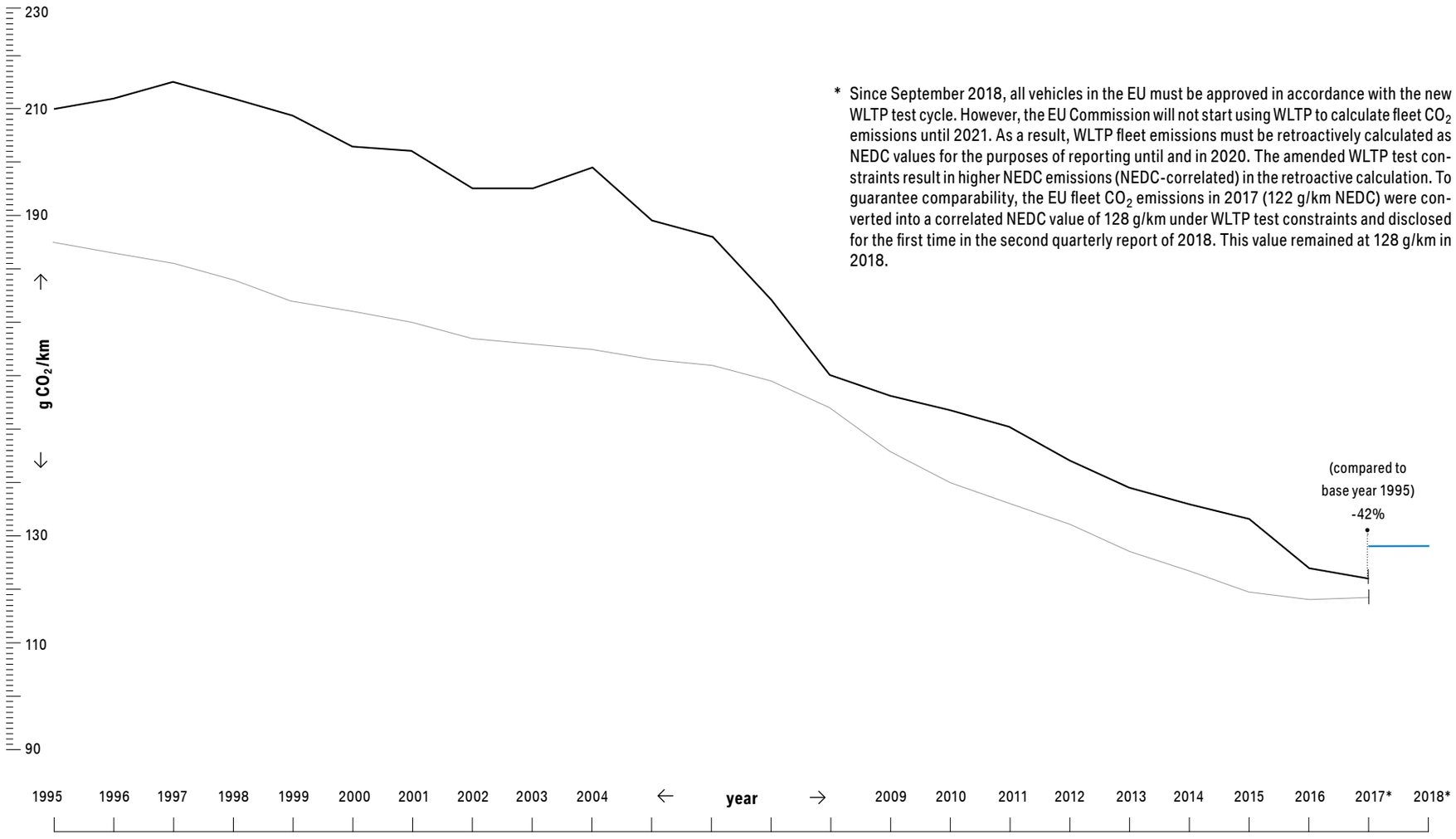
Development of CO_2 emissions of BMW Group new vehicle fleet in the European Union

→ see graphic 2.01

We have significantly reduced the CO_2 emissions of our new vehicle fleet since 1995 thanks to improvements in efficiency (for example through BMW Efficient Dynamics) and the electrification strategy. Since September 2018, all vehicles in the EU must be approved in accordance with the new WLTP test cycle. A comparison of the reduction in CO_2 in the BMW Group's new vehicle fleet and the average fleet value in the EU is therefore only useful for the period between 1995 and 2017, i.e. on the basis of the old NEDC test cycle. This reveals that the BMW Group continues to move closer to the average fleet emissions of all new vehicles in the EU and is almost on par in terms of CO_2 reduction, despite the fact that the majority of our vehicles are in the premium segment. → GRI 305-5

Development of CO_2 emissions of BMW Group new vehicle fleet in the European Union

→ G2.01



* Since September 2018, all vehicles in the EU must be approved in accordance with 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. The amended WLTP test constraints result in higher NEDC emissions (NEDC-correlated) in the retroactive calculation. To guarantee comparability, the EU fleet CO_2 emissions in 2017 (122 g/km NEDC) were converted into a correlated NEDC value of 128 g/km under WLTP test constraints and disclosed for the first time in the second quarterly report of 2018. This value remained at 128 g/km in 2018.

— 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 the entire new vehicle fleet in the EU (on the basis of the NEDC test cycle; provisional value for 2017). Source: the International Council on Clean Transportation (ICCT), 1995–2009; European Environment Agency (EEA), 2010–2017.

— Development of CO_2 emissions of the BMW Group new vehicle fleet in the EU from 2017 to 2018 (calculated on the basis of the new WLTP test cycle, retroactively calculated as a NEDC value for the purposes of comparability).

Sustainability goal
Products and services

→ ELECTROMOBILITY

The BMW Group is a leader in taking a holistic approach to premium electromobility.

Autonomous driving, connectivity, electrification and services: the BMW vision iNEXT combines all strategic areas of innovation of the BMW Group in a visionary vehicle.

2.2 ELECTROMOBILITY

Sustainability goal:

The BMW Group is a leader in taking a holistic approach to premium electromobility

Electromobility is one of the central topics of the future when it comes to making urban living and traffic sustainable. This is reflected again and again in our dialogue with stakeholders. Fully electric battery models (BEVs) have zero local emissions and can significantly reduce the emission of CO_2 and air pollutants over the whole product life cycle, while also markedly reducing traffic noise in cities. The BMW Group develops electrified vehicles[1] that combine the advantages of sustainable mobility with a new driving experience for customers. The enhanced efficiency of the electric engine, compared to the conventional drivetrain technology, the quicker acceleration and innovative, spacious vehicle interior concepts are the crucial selling points here.

We intend to set standards in electromobility. To underline our claim to leadership, we are aiming to sell 500,000 vehicles with electric and plug-in hybrid drivetrains by the end of 2019. In doing so, we want to contribute to SDGs 7 (Affordable and clean energy), 9 (Industry, innovation and infrastructure), 11 (Sustainable cities and communities), 12 (Responsible consumption and production) and 13 (Climate action).

[1] The term 'electrified vehicles' has varying definitions in the automotive industry. The BMW Group defines these as fully electric and plug-in hybrid vehicles that can be charged and driven purely electrically.

Key measures:

Improving life cycle, range and framework conditions

From the very beginning of the BMW i project, we have pursued the goal of reducing the emissions of CO_2 and other pollutants throughout the entire life cycle of our electrified vehicles. To this end, we rely on light construction, renewable resources and particularly resource-efficient and environmentally friendly production processes. The BMW value chain stands out for its use of renewable energy sources: from the manufacture of energy-intensive materials such as CFRP (carbon fibre reinforced polymer), to vehicle production and the BMW Green Energy package we offer our customers when they purchase their vehicle. Other approaches include the recycling and reuse of batteries, for example in stationary storage units for improved use of renewables.

→ see chapter 3.2

A key challenge for the success of electromobility is improving the range of our vehicles. We are working towards this goal with a number of measures. According to the NEDC cycle, the range of the BMW X5 PHEV* increased from 31 km in 2015, to 80 km[2], and the range of the BMW i3 BEV* from 300 km in 2016, to 359 km[3]). In collaboration with other carmakers, charging station operators, energy suppliers and grid operators, we are attempting to simplify access to charging stations and the charging procedure. We are working to achieve this by deploying both our specialist expertise and with financial support. With the joint venture IONITY, we plan to establish a high-performing rapid charging network with 400 rapid charging stations along major transport axes by 2020 at the European level. This will facilitate charging that is one to seven times faster than normal 50-kW stations. Charging times of ten to 15 minutes will thus be realistic for appropriately equipped vehicles.

* See consumption and CO_2 data, p. 125.

[2] Range already calculated on the basis of the new WLTP test cycle and retroactively calculated as a NEDC value for the purposes of comparability. Range dependent on various factors, particularly personal driving style, route characteristics, ambient temperature, heating/climate control and preheating/precooling. Provisional value.

[3] Range previously calculated on the basis of the new WLTP test cycle and retroactively calculated as a NEDC value for the purposes of comparability. Range dependent on various factors, particularly personal driving style, route characteristics, ambient temperature, heating/climate control and preheating/precooling.

We want to make electromobility even more convenient for private and fleet customers and continue to expand our BMW 360° ELECTRIC product and service portfolio for state-of-the-art charging solutions. To promote electromobility among our own employees, we are increasing the number of charging points in BMW Group locations. We are also continuing to refine the BMW Group ChargeNow service and merging charging stations of different providers within one expanding network. BMW subsidiary Digital Charging Solutions, founded in 2017, offers other OEMs (Original Equipment Manufacturers) access to the ChargeNow network as a product – the first customer was the PSA Group in France.

In many countries, there is still a need for governments to catch up in terms of political support for electromobility. The BMW Group seeks out dialogue with policy-makers regarding the consistency of policy measures on the supply and demand sides. We are involved, for example, in the "Nationale Plattform Elektromobilität" (National Platform for Electromobility – NPE) in Germany and the "Agora Verkehrswende" (Agora traffic transition). Internationally, the BMW Group is a member of the international advisory committee of China EV 100, as well as VELOZ, a non-profit organisation in the US state of California which promotes electromobility.

To ensure that we reach sales targets for our electric and hybrid vehicles, we are gradually expanding our product portfolio. We are therefore offering the BMW i3 as part of our DriveNow car-sharing programme. We are always expanding our network of dealerships and training specialised staff. This package of measures is rounded out with focused marketing campaigns and financing offers.

Due diligence processes:

Anchoring carbon footprints in product development

A holistic, life cycle-oriented regard for environmental impact is an integral part of the target systems and organisational processes in our vehicle development.

We manage the implementation of targets and evaluation of progress in the development process by applying the Life Cycle Assessment in accordance with ISO standard 14040/44. These carbon footprints allow us to determine at the development stage the environmental impact the vehicle will have during its life cycle. This also allows for comparison with predecessor models.

As an example, the → **BMW 530e iPerformance*** Environmental Report shows that, assuming standard consumption levels, the life cycle CO_2 footprint of a plug-in hybrid vehicle is around 15% lower than in a conventional reference vehicle, taking account of the EU-28 electricity mix. Furthermore, when charging electricity comes from renewable energy, the CO_2 footprint is reduced by around 47%. The greenhouse gas potential of the purely electric → **BMW i3*** can be reduced by more than 50%.

We consistently take our reduction targets and market-specific fleet requirements into account during product development. To do so, we define specific targets for optimisation over the whole life cycle for new vehicle projects in each product line. The BMW Group's Strategy unit is responsible for monitoring and refining our targets.

* See consumption and CO_2 data, p. 125

Results and performance indicators:

Electrified vehicles improved holistically and sales increased

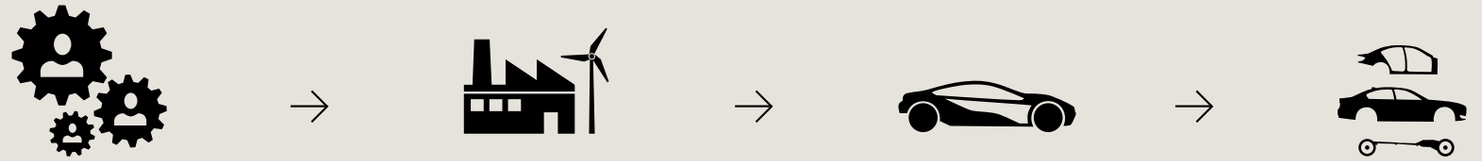
In total, we have already sold around 360,000 vehicles with electric and plug-in hybrid drivetrains. In 2018, the BMW Group delivered 142,617 electrified vehicles (2017: 103,080), thus confirming its leading role in electromobility. Since 2018, new and existing customers have been able to opt for a BMW i3* model and the third generation of high-voltage batteries with a capacity of 42 kilowatt hours.

→ see performance indicators

From 2015 to the end of 2018, the BMW Group was also active in over 50 projects for improving the charging infrastructure and initiated the installation of over 13,000 charging points. High-performing and increasingly widespread 50-kW direct current charging points enable a BMW i3* to be charged to 80% in around 45 minutes. A total of 45 of the 400 IONITY rapid charging stations planned by 2020 have already been installed. Our ChargeNow service currently provides access to around 223,000 public charging points from different providers worldwide. After integration of the charging stations of subsidiary DCS GmbH and over 100,000 additional charging points in countries like China and the USA via the "referrer model", a significantly larger number of charging stations have been available since 2018.

In the reporting period, we also pursued and expanded our approaches to the holistic environmental optimisation of BMW's electromobility. As part of BMW i 360° Electric services, we already offer our customers electricity from renewable sources in many markets. We also further improved our expertise in the recycling of batteries and worked on developing recycling methods that can be scaled at an industrial level.

Sustainability over the entire life cycle
→ G2.02



1. Development

Key measures

Alternative Drive Concepts
Efficient Dynamics
Design for Recycling
Life Cycle Engineering
Material Selection

2. Production including upstream chain and logistics

Key measures

Sustainability Standards for Suppliers
Clean Production
Green Logistics Concepts

3. Utilisation phase

Key measures

Green Electricity Supply
Concepts for Energy-Efficient Driving
Active and Passive Safety
Traffic Management Concepts
Mobility Services
Alternative Drivetrains

4. Recycling

Key measures

Vehicle Component Management
Take-back Systems Second Life Use
Recycling Concepts

* See consumption and CO_2 data, p. 125.

Our next steps:

We are continuing to invest in the planning and development of new vehicle models in order to expand our portfolio to 25 electrified models in all vehicle segments by 2025, twelve of which will be fully electric. We are intending to offer our high-volume models as pure battery vehicles as well. Depending on the segment, we want to extend the range of our fully electric vehicles to up to 700 km. The next steps are the launch of the BMW iX3 (2020) and a battery-driven electric model of the MINI brand (2019).

The BMW Group is deliberately focusing its efforts on building a broad drivetrain technology base so that in the coming years we can continue to offer innovative solutions for the mobility needs of our customers worldwide. With the BMW iNext in 2021, we will be introducing the fifth generation of our electric drivetrains. The vehicles in this range will be available as scalable modular assembly units. This uncouples the vehicle architecture from the drivetrain technology. This means that every model can be fitted with a conventional, electric or hybrid drivetrain as required. We are pressing ahead with the development of hydrogen fuel cell vehicles as a complementary electrification option, with a view to preserving flexibility in terms of alternative drivetrains. BMW also supports the development of hydrogen infrastructure as an associated partner of H2 Mobility Deutschland.

→ see chapter 2.3

In 2019, we will take further steps to optimise our electrified vehicles environmentally over their whole life cycle. We plan to further improve the recycling process for battery cells in order to increase the recycling rate to over 90% and avoid downcycling to low-value secondary materials. In the reporting period we established a technology consortium together with Northvolt and Umicore. The aim of the initiative is to make batteries more sustainable, from the development and production stages right through to recycling, by closing material cycles. We will inaugurate our new competence centre for battery cells in the summer of 2019. This will allow us to enhance our research capacities and we intend to expand our expertise, particularly in the area of battery design and cellular chemistry.

Other strategically relevant topics

Opening up business models for the energy transition

Back in 2015, we founded Digital Energy Solutions, a joint venture company in collaboration with the Viessmann Group. Digital Energy Solutions offers its customers intelligent solutions for optimal energy consumption in the areas of mobility, heat and electricity. In addition to the installation and networking of charging infrastructure for customers, the portfolio includes digital services, intelligent IT solutions as well as the development and digital networking of storage solutions.

This allows us to tap into new business areas that are emerging at the interface between mobility and energy in the course of the energy transition. Our common goal is, for example, to help fleet operators make the switch to electromobility and support small and medium-sized companies in reducing their energy requirements and optimising energy flows. An energy management system developed by BMW is applied in this process to minimise the energy consumption of customers. Stationary electricity storage facilities or an electric car fleet can easily be integrated to balance out peak loads. This is key to reducing operating expenses in industrial enterprises with energy-intensive production. Customers benefit from this service in three ways: their energy costs are optimised holistically, their carbon footprint is reduced sustainably and they can be sure of improved security of supply at their company locations.

Sustainable solutions for fleet customers are taking on increasing importance. This is the speciality of Alphabet Fuhrpark Management GmbH, through which we provide customers with targeted advice on the adoption of electromobility solutions.

Supporting positive framework conditions for electromobility

Expanding the charging infrastructure is a fundamental condition for the breakthrough of electromobility. Positive regulatory incentives, both financial and functional, are a catalyst for the rapid shift from the combustion engine to the electrified vehicle. Such incentives that are facilitated at the national level and put into practice by communal policy are now the main reason why our customers actively opt for an electric vehicle. Regarding the financial incentives, there is still the issue of the wide variation in the intensity and type of promotional measures from country to country, region to region and city to city. In addition, customers currently react very quickly when incentives are removed (e.g. tax incentives), which is reflected in a reduction in demand. This is apparent in the Netherlands. After removing tax benefits for plug-in hybrids in 2017, demand for these vehicles almost disappeared (–94% compared to the previous year).

With regard to functional incentives, for example the prioritisation of electrified vehicles over combustion engines in car parks, local authorities need to independently develop, communicate and implement an electrification strategy. This would encompass all planned measures, build trust in the new technology and thus create security of investment for private companies, particularly for the costly development of charging infrastructure. The BMW Group concluded a corresponding agreement with the city of Hamburg in 2017 with a view to solving the chicken-and-egg problem on a collaborative basis. It was agreed that the city, as described above, would further expand the public charging infrastructure and create privileged parking spaces for electrified vehicles. The BMW Group has heavily invested its own funds into gradually electrifying the carsharing fleet of DriveNow in Hamburg. In the view of the BMW Group, this cooperative approach is a suitable blueprint for other cities.

Overall, there are marked differences in conditions worldwide. We would like to see all markets take similarly effective measures to promote electromobility as those already in place in Norway, China and California. Particularly within the EU, harmonising the support measures and expanding the charging infrastructure more intensively would be welcome. This could also contribute towards achieving EU emission reduction targets.

Further key indicators

The market for electromobility in Europe

With its share of electrified vehicles, the BMW brand is currently the market leader in Europe* and a key driver of electromobility. Nevertheless, we have noticed that our range of electrified vehicles is received very differently by customers in the individual European countries. Despite offering the same range across countries, there are some clear differences in market penetration. In the view of the BMW Group, this fragmentation is directly related to the extremely heterogeneous national support and framework conditions and the required expansion of the charging infrastructure. This becomes clear when looking at the sales of the BMW Group in Europe.

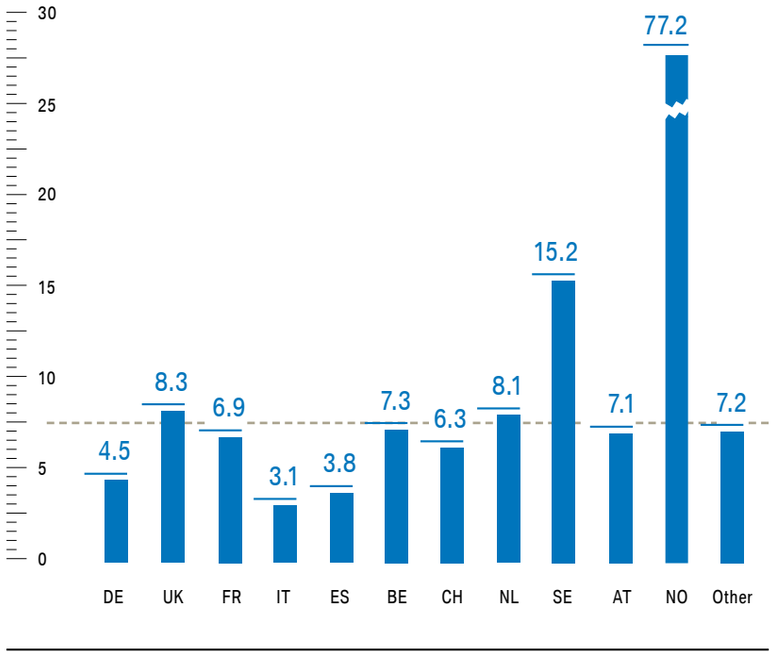
→ see graphic 2.03 and 2.04

→ see graphic 2.03

If you compare the number of electrified vehicles of the BMW Group in Europe, it is apparent that our share of electric vehicles is relatively low, particularly in the high volume markets. The general share of electrified vehicles, for example, in Germany (2018: 1.9%)* or United Kingdom and Ireland (2018: 2.3%) is still relatively low. To achieve the new EU 2030 CO_2 emissions targets, we believe that effective promotional measures, combined with the comprehensive expansion of the charging infrastructure, which will significantly increase the share of electrified vehicles, are required throughout Europe as well as in the volume markets.

* Source: IHS Markit New Registrations 2018. As at: 4 January 2019

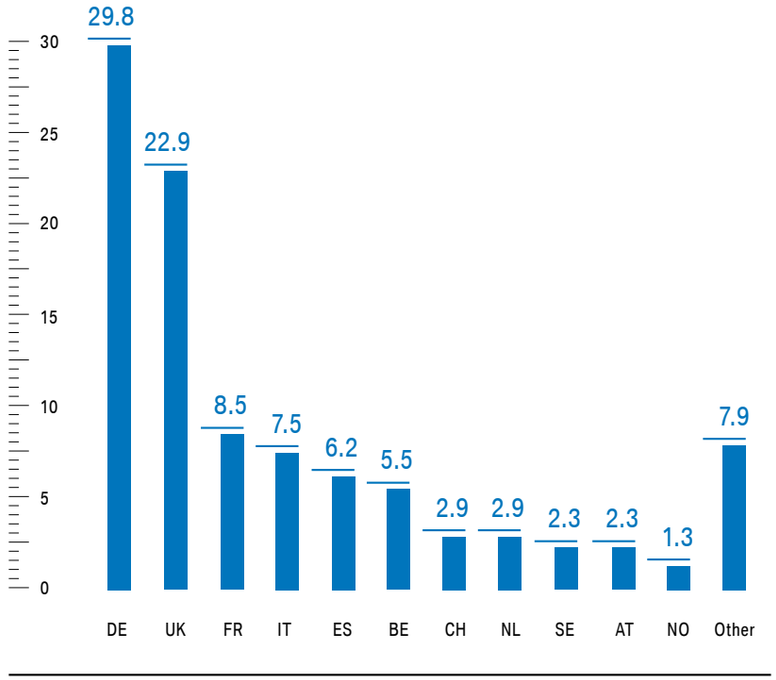
Share of electrified vehicles in BMW Group sales in Europe by country
→ G2.03



Share of electrified vehicles in BMW Group sales in Europe according to country as at December 2018 (BEV and PHEV)

BMW Group Ø Europe market share BEV and PHEV: 7.2%

BMW Group market share in total European sales by country
→ G2.04



BMW Group market share in total European sales by country as at December 2018 (BEV, PHEV and conventional drivetrains)

Sustainability goal
Products and services

MOBILITY PATTERNS

The BMW Group will have permanently changed mobility patterns in selected metropolitan areas by 2020 through the introduction of integrated mobility services.

BMW Group in dialogue: in 2018, the BMW Group discussed future solutions for sustainable mobility with stakeholders in five international metropolises.

2.3 MOBILITY PATTERNS

Sustainability goal:

The BMW Group will have permanently changed mobility patterns in selected metropolitan areas by 2020 through the introduction of integrated mobility services

The BMW Group offers its customers individual mobility at premium quality. The focus is always on our brand promise of driving enjoyment. This has become a challenge, especially in densely populated urban spaces, but also on the motorways around large cities. By 2030, a projected 60% of people worldwide will live in cities. The increasing volume of traffic in cities often goes hand in hand with a significant rise in noise and air pollution, consumption of space as well as increased risk of accidents. We are proactive in taking these challenges into account as we develop our networked vehicles and mobility services. Our measures are designed to contribute to SDGs 9 (Industry, innovation and infrastructure), 11 (Sustainable cities and communities) and 13 (Climate action).

Renewing our business model is also necessary due to profound changes in the mobility market. The integration of cars into an intermodal, increasingly digital transport system – especially in urban areas – is seen as a great entrepreneurial challenge. The technological shift towards electrification, digitalisation and new providers for mobility services is fundamentally changing the sector.

Key measures:

Improving urban quality of life with networked and automated driving

Automated and digitally networked vehicles have the potential to significantly reduce the frequency of traffic jams, lower the risk of accidents, reduce emissions and improve the quality of life in cities. This applies especially when using electrification. State-of-the-art driver assistance systems are already available in the 5-Series and 7-Series BMW models as well as in the BMW X3 and BMW X5. At present, the first highly automated research vehicles not only drive on motorways but are also being used for testing purposes in city traffic in Munich/DE as well as in selected cities in China and the USA. During these tests, drivers who can take over control in any situation are always in the vehicle.

We want to bring the first highly automated vehicle, the BMW iNEXT, onto the market in 2021. The driver can delegate driving to the car during longer periods on motorways and up to a speed of 130 km/h. In the same year, a test fleet of BMW iNEXT vehicles will put automated driving in the urban environment to the test in several cities on various continents. With regard to development, we are relying both on our own technological strength and collaboration with innovative partners. In this way, we also intend to establish an open industry standard for highly and fully automated driving (“non-exclusive industry platform”).

Facilitating sustainable mobility patterns with services

The BMW Group continually refines its mobility services in order to facilitate more efficient and less resource-intensive transportation. This allows us to provide more and more people with on-demand mobility services with DriveNow in Europe and ReachNow in the USA and China. ReachNow provides an ecosystem of mobility services in one app in Seattle’s innovation market. In addition to carsharing and ride hailing, subscription models and B2B offers are also being developed and piloted. ChargeNow is the world’s largest service for the public charging of vehicles. The

ChargeNow, → see chapter 2.2

BMW i3* integrates different modes of transport into personal route planning (intermodal routing). This is the BMW Group's contribution towards increasing intermodal mobility in cities. The innovative digital parking service ParkNow facilitates ticketless and cashless parking on the street and in the car park. It has been available in many cities in Germany, Austria, France and Switzerland as an app or as an integrated service through Connected Drive in the navigation system of BMW models since 2016. We are also conveying the benefits of our mobility services in pilot projects in selected cities.

Due diligence processes:

Taking changes and effects of urban mobility behaviour into account at an early stage

In order to understand changes, impacts and needs of urban mobility patterns worldwide in good time, the BMW Group takes part in projects focused on dialogue, initiators and research. These include the BMW Institute for Mobility Research (ifmo) and the BMW Group Dialogues with stakeholders. We systematically integrate the insights gained from these into the development processes for new vehicle models and services. The BMW Group Urban Mobility competence centre is also responsible for implementing scalable solutions in cooperation with cities by improving framework conditions. One example of this is our agreement with the city of Hamburg. We manage the development of our mobility services and fully automated driving centrally via the business divisions of the same name.

→ see chapter 2.2

* See consumption and CO_2 data, p. 125

Preventively protecting information and customer data

The protection of information and data is an integral part of business processes at the BMW Group. Data protection adheres to the relevant laws, in particular the EU General Data Protection Regulation. Our information protection complies with the international security standard ISO/IEC 27001. Personal data from customers is only collected, processed or used if this is legally permissible and the person in question has given consent. We address complaints in a timely way.

In order to protect our digital systems from manipulations, we systematically search out weak points and close any potential gaps in good time before releasing the respective component. We continuously convert new insights into mandatory standards. There are also clear guidelines for information and data protection for cooperation and partner relationships.

In 2017, we introduced BMW CarData in Europe. This is a service that gives customers the option of deciding about the utilisation and transmission of data from their vehicles to third parties in compliance with data protection legislation. We now want to establish this service in other core markets such as the USA.

Results and performance indicators:

Autonomous driving further advanced with BMW Vision iNext, and artificial intelligence and cooperation network expanded

The presentation of BMW Vision iNext in 2018 was another important milestone on the road to the autonomous vehicle. And we officially opened our Autonomous Driving Campus in Unterschleissheim, Germany, with capacity for around 1,800 employees.

Artificial intelligence has been used in the new BMW X5 since 2018 to anticipate typical hazardous situations, for example when vehicles merge in traffic and respond accordingly. The learning process always takes place on the central computer system of our development unit, so that all vehicles are fitted with identical and safeguarded

features. To ensure that the use of artificial intelligence is always hazard-free for humans, we have developed our own process to methodically safeguard this. We share our experiences in the German research project PEGASUS with the goal of establishing industry-wide standards in the area of testing through to the approval of highly automated driving functions by mid-2019. In 2018, we also signed a Memorandum of Understanding on accession to Apollo, the open platform for autonomous driving of the Chinese technology company Baidu.

We have further expanded our cooperation network to ensure that we reach our targets for automated and networked vehicles by 2021. Fiat Chrysler Automobiles is a new partner in the existing alliance with Intel and Mobileye.

Increase in number of customers of mobility services

By 31 December 2018, the DriveNow car-sharing service had 1,175,000 customers across Europe (2017: 1,026,000) and is now available in twelve European cities. The DriveNow fleet currently comprises around 6,500 vehicles, of which around 15% are purely electric BMW i3 vehicles. Over 420,000 customers have driven more than 29.6 million emission-free kilometres with the electric BMW i3 since 2013. DriveNow is one of the strongest drivers of electromobility in Germany.

Our ReachNow service in the USA counted more than 103,000 customers by the end of the year (2017: 82,000). More than 1,000 vehicles are available to members, of which around 8% are purely electric BMW i3 models.

The ParkNow Group served more than 29 million customers worldwide across all brands in 2018.

* See consumption and CO_2 data, p. 125.

Investment in new mobility concepts

In 2018, the BMW Group once again invested through iVentures in innovative mobility concepts in the → **Mapillary,** → **Vera** and → **Lime** start-ups, among others. Mapillary optimises maps by acquiring more precise data by means of computer vision from an extensive database of streetscapes. Vera develops data-centric safety and control solutions that facilitate the simple monitoring, control and management of data access and access rights. Lime provides on-demand micromobility services, often exclusively, in the USA and Europe. These include bicycles, e-bikes and electric scooters.

Our next steps:

We will continue to work on the intelligent interconnection of mobility services, vehicles and infrastructure in order to make urban mobility more flexible, convenient, sustainable and safe. We want to rapidly expand this business model in order to allow for a quick, global scaling of the offering. To do this, we are planning to merge our mobility services with those of Daimler AG in a joint venture. The relevant competition authorities approved the plan last year. The 50/50 joint venture will comprise the following activities and services: multimodal and on-demand mobility (moovel and ReachNow), carsharing (car2go and DriveNow), ride-hailing (mytaxi, Chauffeur Privé, Clever Taxi and Beat), parking (ParkNow and Parkmobile Group/Parkmobile LLC) and charging (ChargeNow and Digital Charging Solutions).

According to forecasts, by 2030 many vehicles in urban traffic will be automated, networked and electric. In dialogue with municipalities and in public partnerships, we will contribute more towards offering sustainable and tailored mobility offers like the DriveNow and ReachNow on-demand services to all residents. We will also markedly expand the availability of our intelligent parking and charging services ParkNow and ChargeNow. Besides individual comfort for our customers, our focus is on reducing traffic volumes and associated emissions as well as on recovering urban space for inhabitants.

To bring technologies into series production as quickly as possible and to further build on our autonomous driving expertise, we are setting up new development and testing grounds in the Czech Republic, which are expected to be completed in 2022. Particularly complex (everyday) autonomous driving conditions will then be tested there in a real-life but controlled environment.

At the start of 2019, we are planning to offer the new BMW 3 Series with the new artificial intelligence features in addition to the BMW X5.

Other strategically relevant topics

Promoting electromobility and on-demand mobility services in urban areas

The BMW Group believes that designing urban mobility with the goals of quality of life and economic growth necessitates a change in mindset. Accordingly, we focus on developing innovative technologies and concepts. How successful electromobility and on-demand mobility services are in becoming established also depends to a large degree on the prevailing framework conditions. A significant market penetration of electromobility requires more than the availability of charging infrastructure and further purchasing incentives. If the users of electric or car-sharing vehicles gain privileged access to public parking spaces, for example, then this means a significant advantage they can enjoy on a daily basis. Such support measures have the potential to influence purchasing and utilisation decisions in the desired direction.

The German electromobility and car-sharing laws allow the granting of privileges for the respective vehicles in public spaces. However, privileging certain vehicles can also cause conflict, especially because parking spaces in cities are so scarce and in high demand. To debate the existing opportunities with residents and local stakeholders, and develop and implement these, the BMW Group has initiated pilot projects in → **Hamburg/DE,** → **Berlin/DE** and → **Munich/DE.** The point is to start the ball rolling with residents and to communicate the results to other cities and communities. In our view, this contributes to a faster dissemination of sustainable mobility concepts.

Addressing framework conditions and challenges of automated driving

At the centre of our concepts and technical developments for automated driving are the safety of drivers, passengers, pedestrians and other road users. Therefore, clear legal framework conditions need to accompany the introduction and advancement of this technology. The data transfer that accompanies digitalisation and automation also intensifies the requirements placed on aspects of manipulation and data privacy. We are meeting these requirements appropriately.

With an increasing degree of automation, the challenges are not only legal in nature, but also societal and ethical. The legal framework is being adjusted worldwide. For example, up to 100,000 vehicles can be licensed with special permits in the USA. With regard to legislation about automated driving, Germany is currently playing a leading role. Also, a separate ethics commission on behalf of the federal government has developed 20 guidelines for programming automated drive systems. The BMW Group sees that there is still a way to go in terms of European approval of automated driving systems that are regulated in UN bodies. For this very reason, the EU commission is pushing ahead with a exemption regulation similar to that in the USA. A number of activities have been launched in China to create a regulatory framework for automated driving.

In the view of the BMW Group, additional regulations are also required in relation to the rolling out of fleets of automated vehicles for customer operations in cities in conjunction with mobility services such as ride-sharing or ride-pooling. For example passengers should be able to enter or exit the vehicle at locations they are already used to when taking conventional taxis, such as at entrances and in lay-bys. In conjunction with the above-mentioned mobility services, the Urban Mobility competence centre of the BMW Group cooperates with many cities through

the → **Urbane Mobilität** (urban mobility) platform of the German Association of the Automotive Industry (VDA), among others, in order to exploit the opportunities that new technologies offer for cities and their citizens.

PRODUCTION AND VALUE CREATION

3

Climate change, scarcity of resources and social inequality are some of the greatest challenges facing society today. In order to live up to our claim of being the most sustainable premium manufacturer, we are continuously reducing CO_2 emissions and resources used per vehicle produced and are setting a good example within our own production network. We are increasingly using renewable energies at our locations worldwide. At the same time, we foster the implementation of social and environmental standards as well as transparency and resource efficiency in our supply chain. We place particular emphasis on the support of initiatives to ensure that sustainability criteria are met in the mining and processing of critical raw materials. As electromobility spreads, these measures are becoming increasingly important. In this manner, we want to make a contribution towards solving the challenges faced by society, decrease risks and reduce production costs.

Focus on sustainable development goals (SDGs):

PERFORMANCE INDICATORS

Improvement in resource consumption and emissions per vehicle produced[1] since 2006

in %

52

2018

53
2017

50
2016

[1] Average value

Change in resource consumption and emissions per vehicle produced compared with the previous year in %

2.7

2018

–5.3
2017

–4.9
2016

Share of production-relevant purchasing volume in the CDP Supply Chain Programme in %

75

2018

77
2017

69
2016

Share of suppliers in the CDP Supply Chain Programme with at least a B rating in %[2]

30

2018

25
2017

[2] Indicator calculated for the first time in 2017

Share of renewable energy purchased from third parties in %

79

2018

81
2017

63
2016

Supplier locations evaluated using the sustainability questionnaire in numbers

4,168

2018

4,886
2017

4,112
2016

Sustainability goal
Production and value creation

→ CONSUMPTION OF RESOURCES

The BMW Group will reduce its resource consumption (energy, water, waste, solvents) per vehicle produced by 45% by 2020 (base year 2006).

Resource-friendly production processes throughout: by using the latest technologies in paint processes at the BMW Group Dingolfing/DE plant, the BMW Group significantly reduces electricity consumption, CO_2 emissions and solvent use.

3.1 CONSUMPTION OF RESOURCES

Sustainability goal:

The BMW Group will reduce its resource consumption (energy, water, waste, solvents) per vehicle produced by 45% by 2020 (base year 2006)

The effects of climate change, depletion of resources and the impact of a growing global population's increasing consumption on the environment present enormous challenges for our society. In order to fulfil our vision of being the most sustainable premium manufacturer, we are continuously improving our energy- and resource-efficiency and reducing CO_2 emissions in our production processes. With these measures we meet our stakeholders' expectations and also reduce production costs in the medium term while at the same time preparing for expected new legal requirements. In addition, we are striving to contribute to fulfilling SDGs 9 (Industry, innovation and infrastructure), 12 (Responsible consumption and production) and 13 (Climate action).

Key measures:

Conserving resources by means of optimising processes and new technologies

In order to reduce CO_2 emissions and energy consumption, we optimise processes and invest in more efficient technologies. By finalising the switch to LED lighting in the reporting year in our Munich/DE, Dingolfing/DE, Berlin/DE, Landshut/DE, Regensburg/DE, Wackersdorf/DE, Leipzig/DE and Eisenach/DE plants, we are able to achieve significant energy and cost reductions. In addition, we have introduced new painting technologies at our plants in Munich/DE and Oxford/UK, reducing VOC (volatile organic compounds) emissions, which occur in particular during the painting process.

We also rely on optimised processes and state-of-the-art technology to reduce our water consumption and waste water. In this context, key measures are introducing waterless processes in our foundries, repeatedly using treated process waste water as well as further optimising processes in our paint shops and waste water treatment plants.

In order to minimise waste, we develop recycling and re-usage concepts that are customised for waste streams in the different plants, varying legal requirements and existing disposal structures. In addition, starting in the product development phase, we make economical use of resources and design products with the aim of ensuring that as many material cycles as possible can be closed.

→ see further key indicators

Due diligence processes:

Controlling consumption of resources with environmental management

In 2001, the BMW Group signed the United Nations Environment Programme's "International Declaration on Cleaner Production" and expressly committed to keeping the environmental impact and resource consumption of our production activities as low as possible.

Management and control of resource consumption along with the identification of potential risks in order to achieve our goals form an integral part of environmental management at our plants. The steering committee of the BMW Group's international environmental network controls these measures. Each machine, building and space in each plant is allocated to an operator. This person is responsible for the processes and procedures, machines and technical systems as well as their environmental impacts in their allocated area.

We have established environmental management systems at all of our existing production plants and plan to roll them out at all future locations. With the exception of motorcycle production in Manaus/BR, where this step is planned in the near future, all of our production locations worldwide, all German locations including the Research and Innovation Centre in Munich/DE as well as six others in Europe (Vienna/AT, Zurich/CH, Rome/IT, Milan/IT, Madrid/ES and Barcelona/ES) are ISO 14001 certified. In accordance with ISO 50001, we incorporated the energy management system into our environmental management system.

The BMW Group has five environmental centres of competence in the areas of emissions, water, waste, training and environmental management system. They are staffed by environmental experts from the different plants and by specialists from Corporate Environmental Protection. All participating managers of the plants as well as the Corporate Energy Management department of the BMW Group work closely together in the area of energy efficiency. Both the competence centres and Energy Management discuss legal requirements and best practice solutions with technology experts from the production plants and develop reference systems on which to base future planning and process improvements. Environmental improvements that have been effective at one location are implemented at other locations wherever possible. Furthermore, we pass on our experiences to our suppliers in order to foster sustainability in our supply chain as well.

Results and performance indicators:

Resource efficiency slightly below previous year's level

Since 2006, the BMW Group has reduced its consumption of energy and water in vehicle production, waste and waste water volume as well as solvents and CO_2 emissions per vehicle produced by an average of 52.0%. In the same period, due to our efficient use of resources, we made cost savings totalling €167 million. Compared to the previous year, utilisation of resources and emissions per vehicle produced in 2018 increased by an average of 2.7%. This is due to the rise in water consumption as well as waste for disposal per vehicle produced.

→ see performance indicators

Improvement in resource consumption and emissions from vehicle production since 2006
→ G3.01

Energy consumption	–38.0%
CO_2 emissions	–61.9%
Waste for disposal	–77.5%
Water consumption	–26.7%
Process waste water	–45.1%
Solvent emissions	–62.9%

Our main focus is currently on energy and water consumption. In this area, we systematically follow our reduction plans in order to achieve our objectives. And we also continue to work on making further improvements in other areas where we have already achieved our internal targets.

Our next steps:

In the area of energy, we will focus on continuously utilising the potential of continuous process improvements in the coming years. In this way we will further reduce energy consumption and CO_2 emissions in our production processes. We will achieve this, for example, by reducing the baseload – the amount of energy that is consumed in the plant, even when production is at a standstill.

In addition, we want to significantly improve resource efficiency by modernising our technical equipment at our plants in Dingolfing/DE, Regensburg/DE, Leipzig/DE and Rosslyn/ZA by 2020. From its first full production year in 2020, our new plant in Mexico is to become the most resource-efficient plant of the BMW Group.

Other topics with strategic relevance

Circular economy

Using Design for Recycling

Life Cycle Engineering ensures the environmentally friendly use of raw materials as early as the vehicle development phase. The requirements for recycling-optimised development and production of our vehicles as well as selection and use of secondary materials are defined in a separate BMW Group standard. We design our supply chains and material flows accordingly. → see graphic 2.02

When using potentially supply-critical raw materials such as rare earths, we carefully consider weight, function and costs. Wherever it makes technical and environmental sense, we replace artificial materials with renewable materials.

In our BMW i3* in particular, we use a large proportion of recycled plastics and natural fabrics. We are currently researching how we can also use plastic that has been recovered from rivers or the sea.

The BMW Group is an active member of "Circular Economy Initiative Deutschland". The initiative was set up in 2018 by acatech, the German National Academy of Science and Engineering in collaboration with SYSTEMIQ. The initiative is aimed at driving the transformation towards a circular economy with the support of representatives from politics, science, industry and society.

End-of-life vehicle recovery and recycling

We do not consider end-of-life vehicles as waste to be disposed of, but rather as a secondary source of raw materials. Established recovery systems for end-of-life vehicles, components and materials ensure that they are reintegrated into the raw materials cycle. Together with its sales organisations in each country, the BMW Group has installed recovery systems for end-of-life vehicles in 30 nations and offers vehicle owners environmentally friendly vehicle recycling at more than 2,500 recovery centres. GRI 301-3 All BMW Group vehicles brought onto the market since 2008 meet the strictest global requirements set for the recycling of end-of-life vehicles, components and materials. This results in 95% total recycling, with 85% reuse and material recycling. → GRI 301-3

In order to increase our recycling rate even further, we continuously test recycling concepts for new vehicle components at our recycling and dismantling centre. Furthermore, we promote the implementation of new technologies, such as the recycling of batteries and carbon fibre components, through cooperation with research institutes and suppliers.

Reusing and recycling batteries

Batteries that are no longer suitable for vehicles may be given a new lease of life in stationary storage systems. In this way they contribute to integrating renewable energy into the power grid, increasing grid stability and reducing electricity costs for the consumer. We are also gradually installing battery storage systems at our own sites. → see chapter 3.2

For batteries that are no longer suitable for use even as a stationary storage unit, we aim to achieve the highest possible rate of recycling of the valuable resources they contain. In collaboration with a university partner, the BMW Group has developed a procedure by which we can achieve a recycling rate of more than 90% compared to conventional recycling methods, which achieve just above 50%. Here, we want to ensure that resources are not downcycled to low-value secondary materials and, if possible, generate

* See consumption and CO_2 figures, page 125.

recyclates of suitable quality for producing new lithium-ion batteries. Currently, for example, we are engaged in a battery technology development project in collaboration with Duesenfeld GmbH to investigate how we can recycle electrolytes and graphite into secondary material that is suitable to be used in batteries. Our aim is to be able to do this by 2020.

In the summer of 2019, we are officially opening our hi-tech competence centre for battery cells. This will expand our research capacities and we want to widen our expertise, in particular in the area of battery design and cellular chemistry. Furthermore, we have set up a technology consortium with Northvolt and Umicore. The initiative is aimed at making battery cells more sustainable, from production to recycling, by closing gaps in the material cycles.

Further key indicators

BMW Group CO_2 footprint

CO_2 emissions at the BMW Group locations are generated directly from burning fossil fuels (Scope 1 emissions) and indirectly through the company's electricity and heat consumption (Scope 2 emissions). We focus on reducing CO_2 emissions from our production facilities, which account for around 90% of these emissions. We are pursuing our vision of carbon-free energy supply at all locations.

Both upstream and downstream in the value chain, we continually reduce emissions caused by the use and disposal of our products, in our supply chain, in transport logistics and by employees commuting to and from work (Scope 3 emissions[1]). Almost 70% of these emissions are generated during utilisation of the vehicles sold. The emissions generated during fuel production are not counted here. With our Efficient Dynamics technologies and our electrification strategy we are continually reducing the average fleet emissions of CO_2 per kilometre.

→ see chapter 2.1 and chapter 2.2

Around a fifth of Scope 3 emissions are generated in the upstream supply chain. We constantly work with our suppliers to look for further possibilities to use resources more efficiently.

→ see chapter 3.3

Furthermore, around 2% of Scope 3 emissions are caused by the global transport volume required to supply our production plants with materials, to deliver our vehicles and to supply spare parts to the markets. In order to keep these CO_2 emissions to an absolute minimum, we work on the principle "production follows the market". We also continuously work on expanding utilisation of low-carbon energy and transport modes.

→ see graphic 3.07

The entire upstream railway system for supplying our international production plants, for example, has been switched to green electricity, from a separate branch line owned by BMW Group, to the export sea ports in Germany. More than half of all new vehicles (2018: 51.4%, 2017: 55.4%) leave our plants by rail. Furthermore, we are also using all-electric as well as gas-powered lorries in plant supply in cooperation with logistics service providers.

With the Design for Recycling principle, we want to ensure that as many of the components as possible flow back into the materials cycle once the vehicle has reached the end of its life cycle. This leads to lower CO_2 emissions in the value chain.

The company's total CO_2 emissions along the entire value chain have increased over the years. This is due to growing production and sales volumes. Although emissions per vehicle have gone down over time, we are aware that we also need to contribute to protecting the climate by lowering the Group's overall emissions. This is one of the key strategic challenges we are faced with.

[1] Differentiation of Scope 1, 2, 3 according to the Greenhouse Gas Protocol, a partnership of World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD).

BMW Group CO_2 footprint

→ G3.02

in t CO_2	2014	2015	2016	2017	2018
Total emissions[1]	66,913,264	68,991,955	70,818,970	72,850,724[2]	**74,213,402[3]**
SCOPE 1: DIRECT GREENHOUSE GAS EMISSIONS					
Total emissions	494,931	536,168	562,146	625,072	**581,703**
Emissions of BMW Group locations[4]	403,810	443,575	472,021	529,728	**487,249**
Emissions of company vehicles	85,695	87,358	85,008	88,782	**88,272**
Emissions of company-owned planes	5,426	5,235	5,117	6,562	**6,182**
SCOPE 2: INDIRECT GREENHOUSE GAS EMISSIONS					
Total emissions[5]	966,067	923,313	868,089	510,911	**538,622**
Electricity/heat purchased by BMW Group locations[6]	966,067	923,313	868,089	510,911	**538,622**
SCOPE 3: INDIRECT GREENHOUSE GAS EMISSIONS					
Total emissions	65,452,266	67,532,474	69,388,735	71,714,741[2]	**73,093,077[3]**
Emissions of logistics	1,518,304	1,402,082	1,427,399	1,497,075[2]	**1,563,919**
Emissions of business trips	137,601	138,522	142,250	169,233	**159,039**
Emissions of employees' commuter traffic	121,428	133,690	139,797	140,187	**136,608**
Emissions of upstream chain[6]	14,331,118	14,886,300	15,391,154	16,786,192	**17,221,109**
Emissions of utilisation phase[7]	48,239,470	49,582,958	51,079,073	51,887,708	**52,759,567[3]**
Emissions of disposal[6]	1,104,345	1,145,158	1,185,148	1,234,346	**1,252,835**

[1] Addition of emissions from employees' commuter traffic, from 2012 onwards emissions from supply chain, utilisation phase and disposal as well as from 2015 onwards BMW Group location emissions from BMW Motorrad Berlin/DE and corporate functions, development and administration in Munich/DE. The emissions listed account for around 90% Scope 1 to Scope 3 emissions of the BMW Group. Climate-relevant gases other than CO_2 are not included in Scope 1 and 2 emissions.
[2] Due to new input data from an external service provider, the figures for 2017 were adjusted.
[3] Figure not directly comparable to previous years' figures. Calculated using EU fleet emissions according to NEDC correlated. Using NEDC correlated values in 2017 would result in a value of 52,933,132 t of CO_2. This is equivalent to a reduction of absolute emissions by 0.3% in 2018.
[4] Figures from 2015 onwards not directly comparable to previous years' figures due to changes in system boundaries: emissions from company production locations, including BMW Motorrad Berlin/DE as well as administration, development and central distribution centres. Application of VDA emissions factors revised in 2017.
[5] Figure from 2015 onwards not directly comparable to previous year due to changes in system boundaries: emissions from company production locations, including BMW Motorrad Berlin/DE as well as administration, development and central distribution centres. Market-based emissions in accordance with GHG Protocol Scope 2 Guidance. Application of VDA emissions factors revised in 2017. Scope 2 emissions calculated using "location-based" method (overall third-party electricity and heat purchased calculated using VDA factors): 1,539,378 t CO_2.
[6] Thinkstep's LCA tool Gabi calculates emissions from supply chain and disposal processes based on the carbon footprints of representative vehicles from the product lines (including the climate-relevant gases CO_2, CH_4, N_2O, SF_6, NF_3, among others). Corresponding with the CO_2-e emissions, energy consumption (lower heating value) is calculated based on the environmental footprints: around 79,737,000 MWh in the supply chain as well as 512,000 MWh at the disposal companies.
[7] The fleet emissions are extrapolated from the average fleet emissions of the main sales markets of the BMW Group. The calculation was based on an average mileage of 150,000 km.

→ GRI 302-2, 305-1, 305-2, 305-3

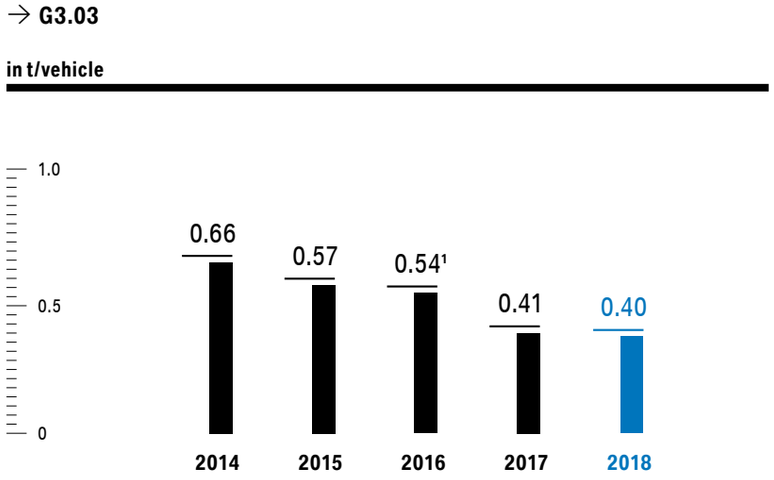
CO_2 emissions per vehicle produced

CO_2 emissions from vehicle production per vehicle produced decreased slightly to 0.40 t in the reporting period compared to the previous year, (2017: 0.41 t CO_2 per vehicle). We were also able to reduce absolute emissions in the production network slightly, with the production volume remaining almost unchanged (2018: 962,545 t CO_2; 2017: 989,111 t CO_2).

We see the consistent decrease in CO_2 emissions in recent years as confirmation that our measures are working.

CO_2 emissions per vehicle produced*

→ G3.03



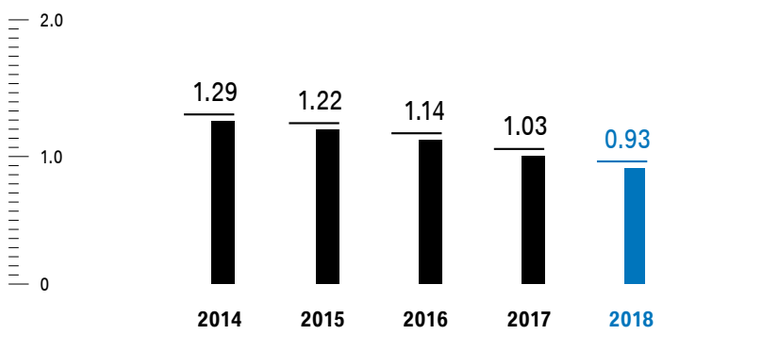
* Efficiency indicator = CO_2 emissions (from vehicle production, without motorcycles) from Scope 1 and Scope 2 minus CHP losses divided by the total number of vehicles produced, incl. BMW Brilliance Automotive Ltd. joint venture, Shenyang/CN, not including the vehicles from the Magna Steyr/AT and Nedcar contract production plants.
¹ Market-based emissions in accordance with GHG Protocol Scope 2 Guidance. Climate-affecting gases other than CO_2 not included.
→ GRI 305-4, 305-5

Solvent emissions per vehicle produced

VOC (volatile organic compounds) emissions, which occur in particular during the painting process, were reduced to 0.93 kg per vehicle in the reporting year (2017: 1.03 kg).

Solvent emissions per vehicle produced*

→ G3.04



* Efficiency indicator = VOC emissions from vehicle production 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/AT and Nedcar contract production plants.

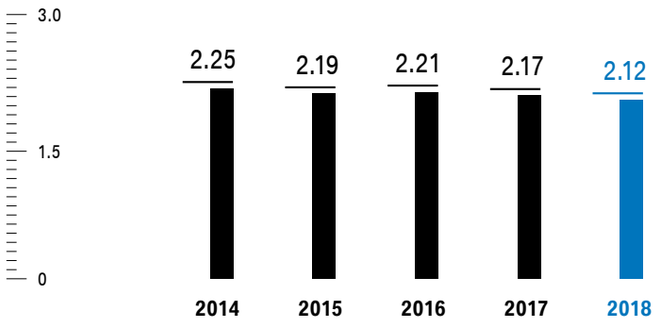
Energy consumption per vehicle produced

In 2018, we were also able to reduce energy consumption from our vehicle production by 2.3% compared to the previous year to 2.12 MWh per vehicle produced.

We regard the reduced energy consumption per vehicle produced as confirmation of the effectiveness of our measures for increasing energy efficiency in our production processes.

Energy consumption per vehicle produced*
→ G3.05

in MWh/vehicle



* Efficiency indicator = 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/AT 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/UK, Steyr/AT, Munich/DE and BMW Brilliance Automotive Ltd. in Shenyang/CN.
→ GRI 302-3, 302-4

Energy consumption in detail

Despite increased consumption due to the installation of new machinery, an increase in extreme weather situations and a slight decrease of production volume with the shift model remaining unchanged in some plants, we were able to keep our energy consumption in 2018 at the same level as in the previous year. We were able to compensate for the additional consumption in the reporting year with our measures for increasing energy efficiency and save a total of 143 GWh of energy. In this context, finalising the LED roll-out, optimising existing equipment, e.g. ventilation systems, as well as heat regeneration in production processes, were all important contributing factors. → GRI 302-1

Energy consumption in detail

→ G3.06

in MWh	2014	2015[1]	2016[1]	2017[1,2]	2018[1,2]
TOTAL ENERGY CONSUMPTION (UPPER HEATING VALUE IN CASE OF FOSSIL FUELS)					
Total energy consumption	4,867,094	5,479,002	5,783,841	5,852,666	**5,788,965**
of which vehicle production	4,867,094	5,054,722	5,328,856	5,362,618	**5,169,266**
of which motorcycle production	—	80,535	85,559	95,493	**89,300**
of which non-manufacturing areas	—	343,745	369,426	394,555	**530,399[3]**
TOTAL ENERGY CONSUMPTION IN DETAIL (UPPER HEATING VALUE IN CASE OF FOSSIL FUELS)					
Electricity (external source)	2,141,222	2,485,881	2,584,570	2,588,409	**2,513,308**
Community heating	281,216	366,593	381,340	408,735	**395,609**
Community cooling in MWh	—	1,002	1,084	1,095	**1,072**
FOSSIL FUELS					
Fuel oil	7,459	4,829	3,698	4,450	**2,888**
Natural gas	2,198,202	2,393,723	2,575,089	2,624,557	**2,669,457**
of which CHP losses	210,740	214,569	245,899	258,380	**294,724**
NON-FOSSIL FUELS					
Biogas (landfill gas)	238,654	226,146	237,446	224,819	**205,320**
of which CHP losses	73,638	98,670	108,536	84,166	**86,787**
Wood pellets	—	430	220	220	**220**
RENEWABLES					
Solar (photovoltaics)	341	397	394	381	**1,091**

[1] To further increase transparency, energy consumption from the corporate functions, development and administration in Munich/DE as well as the motorcycle plant in Berlin/DE were included in the report for the first time in 2015.
[2] Including motorcycle production in Manaus/BR and Rayong/TH as well as central areas in Tiexi/CN since 2017.
[3] Figures not directly comparable to previous years' figures, mainly due to a more refined distinction between production and non-manufacturing areas (e.g. administration, development, central distribution centres).
→ GRI 302-1

Logistics: carriers and CO_2 emissions

BMW Group prioritises low-carbon energy sources and modes of transport. For example, in October 2018, we established a ferry link between Turkey and Italy to supply our European production plants. Previously, the production parts manufactured in Turkey were transported by road. These are mostly supply-critical components such as engine parts and wheels, for which a reliable supply route is of particular relevance. In future, all transports from Turkey to Germany and the UK will travel on this ferry route. In early 2019, we are switching the route from the port of Trieste/IT to the freight company's hub from road to rail.

We will also continue to transport more than 50% of the finished vehicles by rail. In addition, we were able to reduce air miles by using the improved rail services to distribute parts from the regional warehouses in China.

Furthermore, during the reporting period we developed strategically relevant and environmentally sustainable logistics concepts in collaboration with freight forwarders, infrastructure operators and producers of commercial vehicles.

With regard to the requirements of the Paris Climate Agreement, we have developed our "Green Logistics Strategy 2050", which will guide our future activities. The focus here is on low-carbon solutions for road and sea transport.

The first "Green Logistics Strategy 2050" projects have already been implemented. A total of nine electric lorries are on the road for the plant logistics departments at the Munich/DE, Landshut/DE, Leipzig/DE and Regensburg/DE sites. In addition, five gas-powered lorries are already in use at the Leipzig/DE plant.

Despite our efforts, CO_2 emissions from transport in 2018 increased by 4.5% compared to the previous year. This is mainly due to the increased proportion of air-freight in the reporting year. This in turn is the result of the high number of starts and discontinuations of vehicle projects in the entire plant network as well as the preparations for commissioning the new plant in Mexico.

Logistics: carriers and CO_2 emissions*

→ G3.07

	2014		2015		2016		2017		2018	
INBOUND (MATERIAL PROVISION OF THE PLANTS AND SPARE PARTS DELIVERY)										
Transport volume in million tkm	12,682		13,822		15,202		14,545[1]		14,491	
CO_2 emissions in t	630,215		467,023		506,604		537,928[1]		589,730	
OUTBOUND (DISTRIBUTION OF VEHICLES AND SPARE PARTS)										
Transport volume in million tkm	24,537		25,584		25,006		25,881		25,777	
CO_2 emissions in t	888,089		935,059		920,795		959,147		974,189	
TOTAL (INBOUND AND OUTBOUND)										
Transport volume in million tkm	37,219		39,406		40,208		40,426[1]		40,268	
CO_2 emissions in t	1,518,304		1,402,082		1,427,399		1,497,075[1]		1,563,919	
PERCENTAGE SHARE OF CARRIERS IN TOTAL (INBOUND AND OUTBOUND) IN TERMS OF TRANSPORT VOLUME AND CO_2 EMISSIONS	**tkm**	**g CO_2**	**tkm**	**g CO_2**	**tkm**	**g CO_2**	**tkm**	**g CO_2**	**tkm**	**g CO_2**
Sea	77.8	50.1	78.9	57.0	77.7	55.0	75.8	52.9[1]	75.0	50.3
Road	13.5	24.3	13.5	27.8	14.9	30.8	17.2	31.7[1]	17.6	31.1
Rail	7.3	2.7	7.0	3.2	6.9	3.1	6.3[1]	2.5	6.5	2.3
Air	1.4	22.9	0.6	12.0	0.5	11.1	0.7[1]	12.9[1]	0.9	16.3

* Figures refer to BMW and MINI, excluding Rolls-Royce Automobiles. CO_2 emissions calculated in accordance with DIN EN 16258 and TREMOD 5.2 (airfreight only – belly/freighter). Scope: inbound volumes (material supplies to plants and spare parts delivery) for BMW and MINI vehicle plants worldwide as well as for delivery of spare parts to the parts supply centre. Outbound volumes (vehicle distribution and spare parts) as far as the distribution centres in the worldwide markets and in certain markets as far as the dealership.
[1] Due to new input data from an external service provider, the 2017 values were adjusted.
→ GRI 305-3

Average distribution of materials in BMW Group vehicles

Graphic 3.08 shows an overview of material composition of BMW Group vehicles, which the input/output assessment is based on.

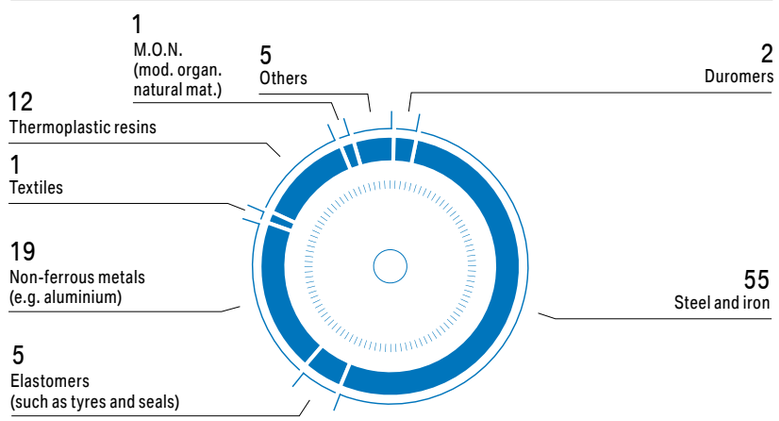
The calculation is based on data on representative vehicles from all product lines. The average is calculated using weighted numbers of units.

Compared to 2017 there is no significant change in average distribution.

Average distribution of materials in BMW Group vehicles*

→ G3.08

in %



* Calculation based on aggregated mean values of vehicles of the BMW 1, 2, 3, 4, 5, 6, 7, X1, X2, X3, X4, X5, and X6 series, MINI and MINI Countryman as well as the i3 and i8 BMW i models and the PHEV versions of BMW 3, 5, 7, X1 and X5 series and MINI Countryman.
→ GRI 301-1

BMW Group input/output assessment for 2018 vehicle production

The number of vehicles produced in the reporting period remained almost unchanged compared to the previous year, at 2.54 million vehicles (including BMW Brilliance) (2017: approximately 2.51 million). Based on an average weight of BMW Group vehicles of around 1,600 kg, the total weight of input materials is around 4 million t. To calculate the individual material flows, the total weight is multiplied by the average distribution of the materials in BMW Group vehicles. → GRI 301-1 We want to further increase the use of secondary raw materials in our vehicles. Therefore, we already use the Life Cycle Engineering approach in vehicle development for selected materials and components. Up to 20% of the thermoplastic materials in our vehicles is made from recyclates. These thermoplastic materials account for an average of 12% of vehicle weight. We use up to 50% secondary aluminium in high-strength cast aluminium parts. → GRI 301-2

→ see graphic 3.08

BMW Group input/output assessment for 2018 vehicle production
→ G3.09

INPUT	
Water[1]	5,425,073 m³
Energy[1]	5,169,266 MWh
OUTPUT	
Total waste[1]	789,817 t
of which recyclable	779,911 t
of which waste for disposal	9,906 t
Total waste water[1]	3,432,982 m³
CO_2 emissions[1,3]	962,545 t
Volatile org. compounds (VOC)[1,2]	2,083 t
NO_x[1,2]	722 t
CO[1,2]	562 t
SO_2[1,2]	11 t
Particulates, dust[1,2]	57 t

[1] Incl. BMW Brilliance Automotive Ltd., Shenyang/CN, not including contract production.
[2] BMW Group measurements/capture as well as calculations based on energy consumption (primarily heating oil and gas) with the aid of the VDA emission factors.
[3] Calculated using revised emissions factors.
→ GRI 301-1, 302-1, 305-1, 305-7

Water consumption

Total water consumption in 2018 rose compared to 2017. At 2.39 m³ (2017: 2.22 m³), water consumption per vehicle was also considerably higher than in the previous year. This is mainly due to exceptionally high temperatures at our locations, which have a direct impact on our water consumption rates.

In the reporting period, no sensitive water sources were impacted by water removal (water from nature conservation areas), nor are there any plans in this regard in the future.

Water consumption*

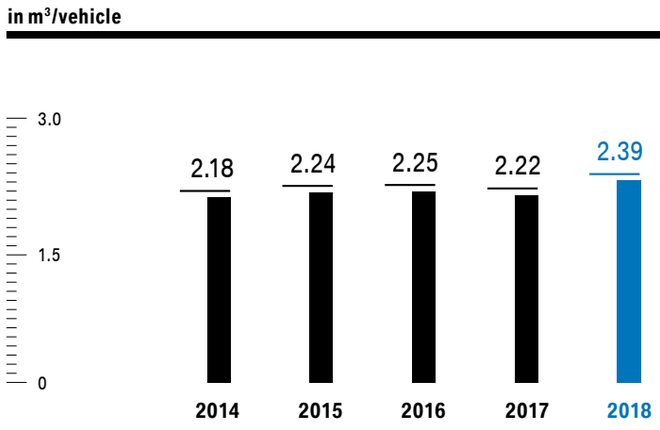
→ G3.10

	2014	2015	2016	2017	2018
Water consumption in m³	4,434,595	4,819,684	5,017,816	5,073,220	**5,425,073**
of which drinking water in %	87	86	87.1	88.0	**90.4**
of which groundwater in %	13	14	12.5	11.7	**9.6**
of which surface water in %	0	0	0.5	0.3	**0.0**
of which rainwater in %	0	0	0.0	0.0	**0.0**

* These figures refer to the production sites of the BMW Group incl. the BMW Brilliance Automotive Ltd. joint venture in Shenyang/CN.

Water consumption per vehicle produced*

→ G3.11



* Efficiency indicator = water consumption from vehicle production divided by the total number of vehicles produced, incl. BMW Brilliance Automotive Ltd. joint venture in Shenyang/CN, not including vehicles from the Magna Steyr/AT and Nedcar contract production plants.

Waste water

Materials input into waste water should be limited to volumes that will not overtax natural decomposition processes. At all of our plants, we have thus introduced our own BMW-specific waste water standards, some of which considerably exceed local regulations. By reducing waste water from sanitary facilities, we were able to slightly reduce the overall volume of waste water. However, process waste water volume slightly increased compared to the previous year. This is due to the start-up of new paint shops in Rosslyn/ZA and Dadong/CN, the first full year of operation of the new paint shop in Munich/DE as well as process changes in the Oxford/UK and Spartanburg/US paint shops.

Waste water*

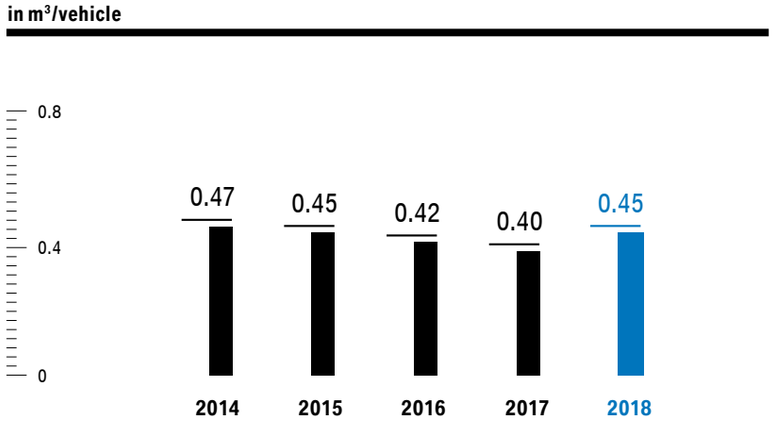
→ G3.12

	2014	2015	2016	2017	2018
Total waste water in m³	2,965,615	3,108,587	3,312,562	3,633,306	3,432,982
of which process waste water in m³	949,601	960,234	944,008	914,016	1,015,736
of which waste water from sanitary facilities in m³	2,016,015	2,148,353	2,368,554	2,719,290	2,417,246
Total heavy metals and heavy metal compounds in kg	492	502	742	406	461
COD[1] in kg	2,081,473	2,152,073	2,085,398	2,273,678	1,902,577
AOX[2] in kg	74	87	131	101	64

* The key performance indicator "Process waste water" is measured after waste water treatment in BMW Group plants (incl. the BMW Brilliance Automotive Ltd. joint venture in Shenyang/CN) has taken place. Together with the waste water from sanitary facilities at the plants, this is the figure for total waste water. Due to factors such as evaporation, water input does not correspond to total waste water.
[1] COD = chemical oxygen demand.
[2] AOX = absorbable organic halides in water.

Process waste water per vehicle produced*

→ G3.13



* Efficiency indicator = process waste water from vehicle production divided by the total number of vehicles produced, incl. BMW Brilliance Automotive Ltd. joint venture in Shenyang/CN, not including the vehicles from the Magna Steyr/AT and Nedcar contract production plants.

Waste

The figures for waste in the reporting year started to increase again compared to 2017, but on a low level. The increase in waste for disposal per vehicle produced was 10.6% (2018: 4.27 kg, 2017: 3.86 kg). The main reason for this was structural changes at the waste disposal companies at the Shenyang/CN site. This resulted in specific waste flows, e.g. sludge from the waste water treatment facility, not being able to be recycled in the reporting year. In addition, high moisture content in waste similar to household waste at the plant in Rosslyn/ZA prevented its recycling.

Waste*

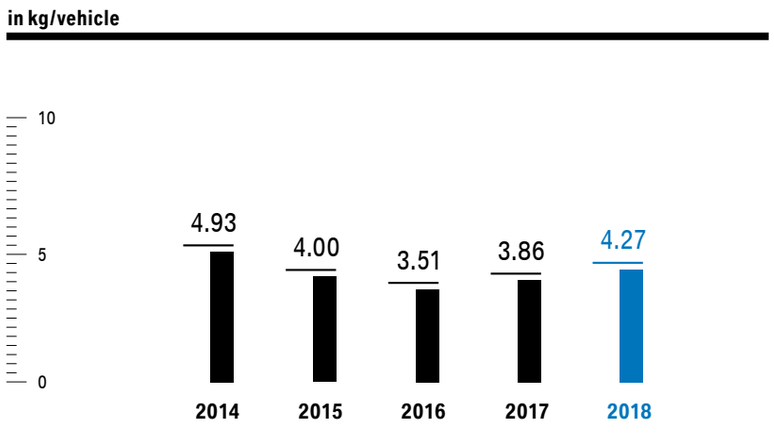
→ G3.14

in t	2014	2015	2016	2017	2018
Total waste	727,079	754,747	762,924	785,209	**789,817**
Hazardous waste for recovery	28,503	31,099	30,855	36,379	**37,259**
Hazardous waste for disposal	7,439	5,483	4,219	4,992	**4,717**
Non-hazardous waste for recovery	688,237	714,887	723,632	739,799	**742,652**
Non-hazardous waste for disposal	2,900	3,278	3,732	4,039	**5,189**
Materials for recycling	716,740	745,986	754,486	776,179	**779,911**
Material for recycling (scrap)	525,812	569,959	569,841	571,685	**560,164**
Waste for disposal	10,339	8,761	7,951	9,031	**9,906**

* These figures refer to the production sites of the BMW Group incl. the BMW Brilliance Automotive Ltd. joint venture in Shenyang/CN.

Waste for disposal per vehicle produced*

→ G3.15



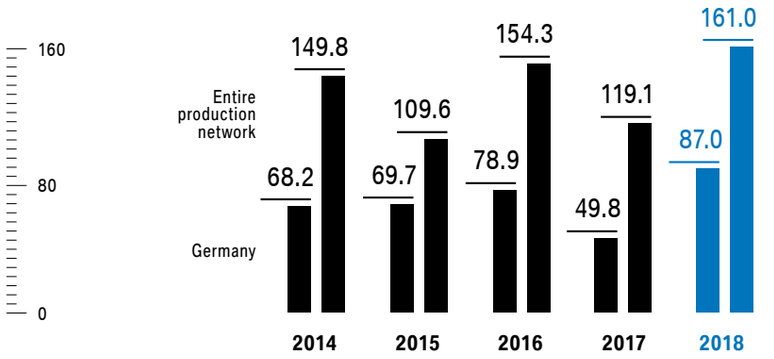
* Efficiency indicator = waste for disposal from vehicle production divided by the total number of vehicles produced, incl. BMW Brilliance Automotive Ltd. joint venture, Shenyang/CN, not including vehicles from the Magna Steyr/AT and Nedcar contract production plants.

Investment in environmental protection

Total investment by the BMW Group in environmental protection increased to €161 million in the reporting period (2017: €119 million). The increase is mainly due to investments in the paint shops, in particular in the Leipzig/DE and Araquari/BR plants. In addition, our implementation of environmental management measures meant that there were no significant environmental incidences in the entire production network in the reporting period. As in previous years, no penalties were imposed.

Investment in environmental protection*

→ G3.16



* Calculation of integrated environmental investments of the BMW Group production facilities according to VDA standard.

Certified environmental management systems in production facilities of the BMW Group

Environmental management systems are in place at all BMW Group production facilities worldwide as well as in the central planning departments. With the exception of the Manaus/BR plant, these systems are certified in accordance with ISO 14001:2015. External auditors confirmed that the German and Austrian sites additionally meet the EMAS European environmental management standard. The San Luis Potosí/MX plant is due to be certified in 2019.

Certified environmental management systems in production facilities of the BMW Group

→ G3.17

Site	Management system	Most recent year of certification
BMW GROUP PLANTS		
Araquari/BR plant	ISO 14001	January 2018
Berlin/DE plant	ISO 14001/ EMAS	January 2018
Chennai/IN plant	ISO 14001	January 2018
Dingolfing/DE plant	ISO 14001/ EMAS	January 2018
Eisenach/DE plant	ISO 14001/ EMAS	January 2018
Goodwood/UK plant	ISO 14001	January 2018
Hams Hall/UK plant	ISO 14001	January 2018
Landshut/DE plant	ISO 14001/ EMAS	January 2018
Leipzig/DE plant	ISO 14001/ EMAS	January 2018
Manaus/BR plant	National standard[1]	Implemented
Munich/DE plant	ISO 14001/ EMAS	January 2018
Oxford/UK plant	ISO 14001	January 2018
Rayong/TH plant	ISO 14001	January 2018
Regensburg/DE plant	ISO 14001/ EMAS	January 2018
Rosslyn/ZA plant	ISO 14001	January 2018
San Luis Potosí/MX[2] plant	National standard[1]	Implemented[3]
Spartanburg/US plant	ISO 14001	January 2018
Steyr/AT plant	ISO 14001/ EMAS	January 2018
Swindon/UK plant	ISO 14001	January 2018
Wackersdorf/DE plant	ISO 14001/ EMAS	January 2018
ASSEMBLY PLANTS		
Jakarta/ID assembly plant	ISO 14001	July 2018
Cairo/EG assembly plant	ISO 14001	November 2018
Kaliningrad/RU assembly plant	ISO 14001	August 2017
Kulim/MY assembly plant	ISO 14001	November 2016
BMW BRILLIANCE AUTOMOTIVE HOLDINGS LTD. JOINT VENTURE		
BMW Brilliance Automotive, Shenyang/CN (Joint Venture)[4]	ISO 14001	December 2018
CONTRACT PRODUCTION		
Chongqing/CN	ISO 14001	August 2018
Magna Steyr Fahrzeugtechnik Graz/AT	ISO 14001/ EMAS	July 2018
TVS Motor Company Hosur/IN	ISO 14001	January 2017
VDL Nedcar, Born/NL	ISO 14001	July 2018

[1] Fulfilment of legal requirements.
[2] Pre-production only in 2018, opening 2019.
[3] Certification planned for 2019.
[4] The joint venture comprises three locations.

→ RENEWABLE ENERGY

The BMW Group is the leader in the use of renewable energy in production and value creation.

Genuine green electricity: the Bio2Watt biogas system in South Africa, which supplies the Rosslyn/ZA plant, is a prime example of how renewable energy is used for production in the BMW Group.

3.2 RENEWABLE ENERGY

Sustainability goal:

The BMW Group is the leader in the use of renewable energy in production and value creation

The use of renewable energy in our production processes is essential in order to reduce CO_2 emissions and thus help prevent the effects of climate change. Therefore, the BMW Group has set itself the objective to supply all production plants worldwide exclusively with electricity from renewable sources by 2020. In addition, we are also expanding our own renewable generation capacities at our sites. In this way, we improve our environmental performance and match our stakeholders' expectation to keep emissions from vehicle production to a minimum and to use a holistic approach towards implementing sustainability in mobility. At the same time, we are striving to contribute to fulfilling SDGs 7 (Affordable and clean energy), 9 (Industry, innovation and infrastructure) and 13 (Climate action).

Key measures:

Using renewable energy at our plants

We use renewable energy mainly in our own plants. In order to decide which renewable energy sources are best suited to a particular location, we regularly carry out country-specific analyses to evaluate the technical, political and economic conditions. We use different technologies and solutions accordingly. We always make producing our own electricity a priority. If this is not entirely feasible due to prevailing technical and economic conditions, we purchase additional electricity from local renewable sources if possible. However, this is not always easy, in particular in energy markets that are strictly regulated by the state or closed, like in China, for example, since availability of electricity from renewable sources depends on political decisions.

Stabilising the grid by storing energy

In addition, we continuously work on innovative solutions for using and storing renewable energy. On our battery farm on the premises of our Leipzig/DE plant, we use high-voltage batteries from the BMW i3. The storage farm is connected to the public electricity grid and can take load off the grid in times of renewable energy peak generation. When supply is low, the storage system can feed the electricity back into the grid. In this way the BMW Group contributes to keeping the public electricity grids stable.

Promoting renewable energy in the supply chain

→ see graphic 3.02

More than a fifth of our total emissions (Scope 1, 2 and 3), and thus many times the CO_2 emissions at our own plant locations, is generated at our suppliers. That's why we support the use of renewable energy in our supply chain too. As part of the → **Supply Chain Programme of the Carbon Disclosure Project (CDP)** we ask our suppliers for details on their CO_2 emissions and the proportion of renewable energy in their overall energy consumption. In addition, we ask suppliers with a good CDP rating to set themselves emission targets. In this way they are making a measurable contribution towards achieving the international climate goal of keeping global warming below 2 °C.

→ see chapter 3.2

Due diligence processes:

Central management and local tracking of the use of renewable energies

The Real Estate, Facility Management and Corporate Security unit manages and controls the use of renewable energy in the BMW Group buildings. A steering group is responsible for coordinating current and future measures and for evaluating regularly whether the targets are being achieved. We have defined independent processes throughout the Group for the planning and implementation of measures, which assign clear roles and responsibilities to the central strategy departments, regional control stations as well as plants at the local level.

Furthermore, the BMW Group works in close cooperation with its energy suppliers in the local markets in order to be able to respond to any changes in the supplied electricity quality in terms of the green electricity share and CO_2 freight.

Changes in the relevant regulations often present us with great challenges, as they make long-term planning more difficult. The monitoring process, also with external support, helps the BMW Group to respond to corresponding developments at an early stage in order to find both technically and economically as well as politically viable solutions.

As part of the CDP Supply Chain Programme, we ask our suppliers to take measures to reduce their CO_2 emissions and track their overall progress using their CDP rating. The BMW Group has set specific targets for participating suppliers' resource efficiency.

Results and performance indicators:

Consistently high levels of renewable energy

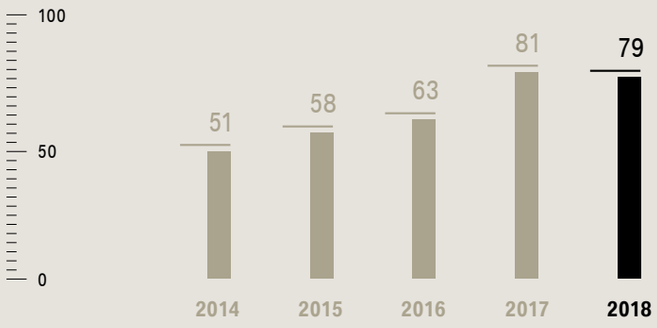
→ see performance indicators

In 2018 we covered 79% of our electricity supply with renewable energy (2017: 81%). Despite this decrease in the share of renewable energy, we were able to reduce the relative CO_2 emissions in production from 0.41 t (2017) to 0.40 t per vehicle (2018). The absolute CO_2 emissions in the production network were also reduced by 2.7% (2018: 962,545 t CO_2; 2017: 989,111 t CO_2). Our strategy to expand renewable energy has proven to be an effective foundation for the planning of concrete measures and can be applied in a wide variety of country contexts. In addition to our production locations in Europe that are already supplied exclusively with electricity from renewable sources, our plant in Brazil also covered 100% of its consumption with green electricity in 2018 (2017: 77%). We have also further expanded our use of renewable energy at our locations in Asia. In the reporting period we commissioned the photovoltaics system at our plant in China and expanded the system at our plant in India. We regard the continuous growth in the share of renewable energy in our production plants as confirmation that our measures are having the desired effect.

→ see chapter 3.1

Share of green electricity purchased from third parties*

→ G3.18



* Calculated based on volumes of green energy purchased (among other things via certificates of origin) as well as the conservative calculation of country-specific green energy shares for the rest of electricity purchased from third parties. Figures from 2015 onwards not directly comparable to figures for 2014. Figures from 2015 onwards include all BMW Group production locations, incl. BMW Brilliance Automotive Ltd. joint venture, Shenyang/CN, as well as corporate functions, development and administration in Munich/DE.

In our supply chain too, we were able to achieve a share of renewable energy in our suppliers' overall energy consumption of an average of 31% on the basis of CDP Supply Chain Programme agreements.

In addition, in 2018, a total of 31 (2017: 27) of the suppliers out of 190 (2017: 189) who participate in the CDP programme reported to have a target in place that is at least "2 °C-compliant". 55 further suppliers (2017: 44) are planning to define such a target within the next two years. Clear strategies for the use of renewable energy are required in order to reach the "2 °C target". For this reason, we consider the definition of a "2 °C target" to be an important indicator of a strategy change by the suppliers. By asking the suppliers to set such targets, we make our expectations clear and still give them sufficient time to make this strategy change.

Our next steps:

Next year we will continue our efforts towards supplying all our plants worldwide exclusively with electricity generated from renewable sources. We will focus mainly on our plants in Asia.

Expanding the use of renewable energy throughout the supply chain is becoming an integral part of our strategy. In this context, we also want to increase the use of renewable energy significantly and also encourage more suppliers to introduce a "2 °C compliant" set of objectives.

SUSTAINABLE, RESOURCE-EFFICIENT SUPPLY CHAIN

The BMW Group will significantly increase supply chain transparency and resource efficiency by 2020.

Transparent collaboration: together with the DRÄXLMAIER Group, the BMW Group is working on a pilot project to make the copper supply chain for the vehicles' electrical system more transparent.

3.3 SUSTAINABLE, RESOURCE-EFFICIENT SUPPLY CHAIN

Sustainability goal:

The BMW Group will significantly increase supply chain transparency and resource efficiency by 2020

Environmental and social standards being adhered to along the entire value chain is of the utmost importance for the BMW Group and its stakeholders. Since our network of approximately 12,000 suppliers accounts for around 80% of our value creation, it is vitally important that it uses resources efficiently and safeguards social standards. The increasing complexity of the supply chains presents us with great challenges. With electromobility consistently expanding, our demand for raw materials is changing. These specialised supply chains can carry particular environmental and social risks. Therefore, we work closely with our direct suppliers in order to make our supply chains more transparent. → GRI 102-9

In addition, the BMW Group increasingly supports initiatives for standardising sustainability requirements and introducing monitoring mechanisms, for example in mining and processing critical raw materials. We are convinced that only continuous and collaborative supplier development and consistent supplier management will increase resource efficiency and foster compliance with environmental and social standards. With our measures along the supply chain we want to contribute towards fulfilling SDGs 8 (Decent work and economic growth), 10 (Reduced inequalities) and 12 (Responsible consumption and production).

Key measures:

Integrating and advancing sustainability in the supply chains

The due diligence process is at the heart of how we implement our sustainability requirements in the supply chains. As a pioneer in the automotive sector, we have made sustainability an integral part of our procurement process since 2014. Our sustainability requirements apply to all suppliers of production materials as well as service providers.

We identified raw materials and other materials that are particularly critical in terms of sustainability as early as 2012. Since then, we have analysed the impact of these resources on the environment and society along the entire supply chain and we carry out pilot projects to increase sustainability performance. We use our experiences from these projects in the → **Drive Sustainability** and → **Responsible Minerals** initiatives as well as other programmes. The aim is to drive the standardisation of sustainability requirements as strongly as possible along the entire supply chain.

In 2017, an analysis of the most important raw materials was carried out at the European company network CSR Europe at the suggestion of the BMW Group and with the support of the other nine carmakers who form part of the Drive Sustainability initiative. The results were published in the 2018 → **Material Change Report** by the two standardisation initiatives mentioned above as well as → **The Dragonfly Initiative.** The report identified and evaluated opportunities and risks in terms of sustainability for 18 key raw materials used in vehicle production. It is intended as a basis to be used to discuss potential for improvement in order to support the development of joint solutions in the automotive and electronics sectors. In this context, in 2018 we have looked in particular at steel, aluminium, cobalt, copper and natural rubber and the specific supply chains of the conflict minerals tin, tungsten, tantalum and gold. We have already made significant progress in this area. → **Other topics with strategic relevance**

In 2018, the BMW Group was nominated as a member of the OECD stakeholder group. During the various talks and discussions, we brought our experiences with cobalt as a raw material to the table and contributed some valuable ideas for making sustainability criteria part of the procurement process. In addition, we joined the cross-sector initiative → **Responsible Business Alliance** (RBA). In our "supporter" role, we investigate how suppliers can be audited more efficiently and campaign for more efficiency in the supply chains. Furthermore, we were elected to the Board of the Responsible Minerals Initiative in 2018, a subsidiary organisation of RBA. This organisation, which had originally been concerned exclusively with conflict minerals, is now increasingly opening up to other critical materials and thus provides us with an opportunity to utilise proven tools and methods in our key supply chains.

In addition, we worked on the pilot for a joint auditing programme as part of a specific working group of the German Association of the Automotive Industry (VDA), which was chaired by the BMW Group. The aim is to make results of audits that were carried out or initiated by one VDA member available to other members.

Addressing resource efficiency and CO_2 emissions at our suppliers

By encouraging them to participate in the Carbon Disclosure Project's (CDP) → **Supply Chain Programme**, we support our suppliers in their efforts to reduce the impact of their business activities on the climate. The annual reports for the programme take a large number of aspects into account: from making climate protection part of the company strategy to actively managing potential risks. In this context, measures for reducing CO_2 emissions and increasing the share of renewable energy play an important role. The reporting results in an overall evaluation reflecting the increase in resource efficiency and the reduction of emissions. It is our aim that 60% of our suppliers participating in the CDP Supply Chain Programme achieve at least a B rating by 2020 (A is the highest and D is the lowest rating in terms of implementing the CDP criteria).

In 2018, we initiated a working group in collaboration with other companies from the automotive sector in order to further advance the implementation of the CDP Supply Chain Programme along the entire supply chain. In this group we exchange experiences and viewpoints and jointly hold information events for suppliers.

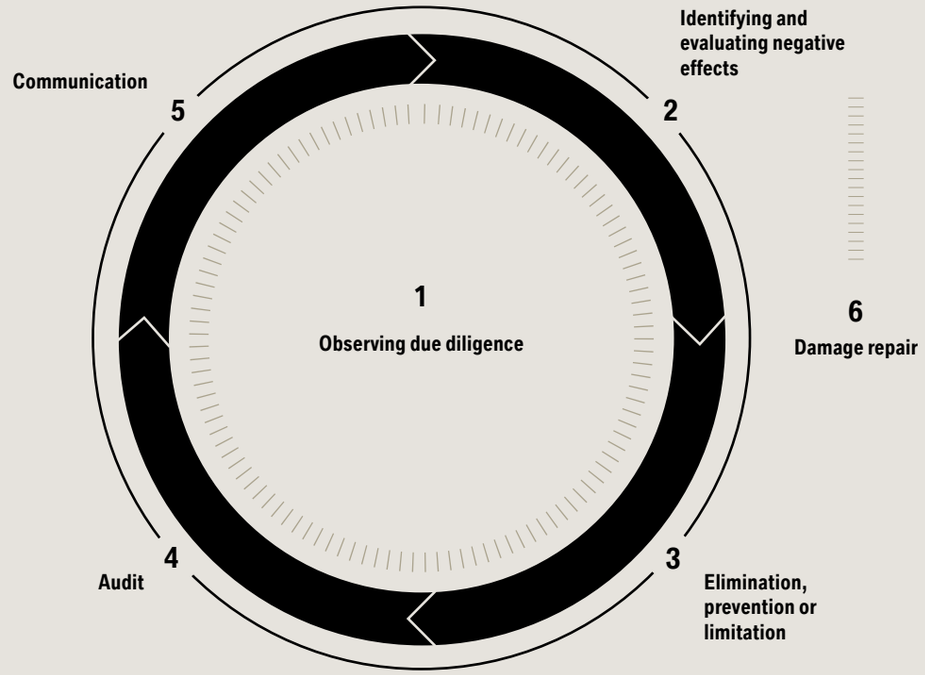
Due diligence processes:

Increasing transparency and minimising risks

The increase of transparency and resource efficiency in our supply chains is based on compliance with environmental and social standards as defined in the → **BMW Group sustainability standard for the supplier network.** The standard is an integral part of the application documents for suppliers and must be taken into account at the time of preparing an offer. In addition, all supplier agreements concluded by the BMW Group for materials required for production as well as for materials not required for production contain specific clauses in the → **purchasing conditions.** These conditions are based on the principles of the → **UN Global Compact** and the → **International Labour Organization** (ILO) → GRI 412-3 and contain specifications for resource efficiency. When they sign the contract, our suppliers also commit to ensuring that their own suppliers in turn comply with these agreements. Our employees in Strategic Purchasing are responsible for sustainability topics concerning the supply chain. We use due diligence processes to monitor the implementation of sustainability standards at our suppliers.

Observing due diligence at the BMW Group*

→ G3.19



1

Observing due diligence
in measures and management systems

— BMW Group Legal Compliance Code
— BMW Group sustainability standard for the supplier network
— BMW Group terms and conditions of purchase for direct and indirect material

2

Identifying and evaluating negative effects
in business operations, in the supply chain and in business relations

— BMW-specific risk filter
— Media screening
— Cross-OEM sustainability questionnaire
— Third-party (external) sustainability audits
— Second-party (internal) sustainability assessments
— Supply chain assessments

3

Elimination, prevention or limitation
of negative effects

— Cross-OEM sustainability questionnaire
— Third-party (external) sustainability audits
— Second-party (internal) sustainability assessments
— Supply chain assessments
— Escalation process

4

Audit
of implementation and results

— Media screening
— Cross-OEM sustainability questionnaire
— Third-party (external) sustainability audits
— Second-party (internal) sustainability assessments
— Supply chain assessments

5

Communication
about how we manage effects

— Sustainability report
— Stakeholder dialogues
— CDP Supply Chain
— DJSI

6

Damage repair
through our own measures or collaborations

— BMW Group Human Rights Contact (complaint procedure)
— Ad-hoc team
— Escalation process

* Based on OECD Due Diligence Guidance for Responsible Business Conduct.

OECD
BETTER POLICIES FOR BETTER LIVES

Any information about potential breaches of our sustainability standards for the supply chain is processed by the Supply Chain Response Team. In addition, we have established the Human Rights Contact Supply Chain as a central contact point, which can be reached by phone → **+49 89 382-71230** and → **e-mail** to anonymously report potential infringements against social and also environmental standards by our suppliers. In the reporting period, we also launched a pilot version of a smartphone app, which enables BMW Group employees such as quality assurance engineers or purchasers to record suspicious sustainability-related matters when visiting suppliers. Our experts in the Supply Chain Response Team evaluate this information and initiate immediate measures with the supplier if required. They may also commission more in-depth analyses of the matter in question through third-party audits or BMW Group assessments should they deem it necessary to do so.

Results and performance indicators:

Relevant supplier locations evaluated

In the period under review, we assessed 4,168 (2017: 4,886) nominated and potential supplier locations on the basis of the industry-wide sustainability questionnaire. Our focus is on suppliers with a large tendering volume. Therefore, the evaluation included 97% (2017: 94%) of suppliers of materials required for production with a tendering volume of more than €2 million from BMW AG, as well as 80% (2017: 77%) of new suppliers of materials that are not required for production with a tendering volume of more than €10 million from BMW AG. → GRI 308-1, 412-1, 414-1

→ see performance indicators

Sustainability deficits were identified at 2,320 potential and existing supplier locations, for example in the area of environmental management or with regard to a human rights policy not being in place at the company in question. Corrective measures to remedy the sustainability deficits were defined for 1,123 of those cases.

In our terms and conditions of purchase for materials required for production and in our general contract terms for materials not required for production, we stipulate the requirement for a certified environmental management system according to ISO 14001 or EMAS. In addition, 79 audits and ten assessments were carried out by or on behalf of the BMW Group in 2018. Crucial areas of action identified by audits and assessments have been highlighted, particularly in the areas of hazardous substance management, waste management and working conditions or occupational safety. → GRI 308-1, 308-2, 414-1, 414-2

A total of 193 supplier locations were not commissioned because they did not meet the sustainability requirements of the BMW Group, among other things. We did not, however, terminate any existing cooperation in 2018. We regard this as confirmation of the success of our approach of addressing and demanding sustainability requirements early on in the procurement process. → GRI 308-2, 414-2

We received information through the relevant channels on nine instances of potential breaches of our sustainability standards for the supply chain in the year under review. The notifications concerned human rights in mining, working conditions in the logistics sector, animal welfare at leather supply companies and child labour, among other things. We were able to investigate and close all enquiries in 2018 before the end of the year. → GRI 308-2, 414-2

Increase in transparency due to the CDP Supply Chain Programme

In 2018, a total of 190 of our suppliers (2017: 189) reported their resource efficiency through the CDP Supply Chain Programme. These suppliers account for 75% of the production-relevant purchase volume of the BMW Group (2017: 77%). The decrease is due to the fact that some large suppliers did not submit reports.

As in the previous year, our participating suppliers, including the 20 companies that entered the programme in 2018, achieved an average rating of C. 30% achieved a rating of B and higher (2017: 25%). There have been significant improvements at suppliers who have been reporting for at least three years. We regard this as evidence that the programme is well established at the companies that have been participating for longer periods and that it yields the expected results.

Participating suppliers reduced their CO_2 emissions by 39 million t in 2018 (2017: 34 million t). This was mainly due to two larger divestments, renewable energy projects and an increase in energy efficiency.

The positive results that have been achieved thus far by the programme would seem to indicate that our efforts to increase transparency and resource efficiency in the supply chain are effective.

Our next steps:

From 1 January 2019, the new evaluation system for the sustainability questionnaire, which we completely revised in 2018, will take effect. In future, we will, for example, require our suppliers to have an ISO 45001 certified occupational health and safety management system in place.

In the coming years, we will continue to support our suppliers in their efforts to improve resource efficiency with the help of the CDP Supply Chain Programme.

Other topics with strategic relevance

Action taken on selected raw materials

Steel and aluminium

In terms of weight, steel and aluminium make up the largest share of materials used in our vehicles. Therefore, we are consistently looking for ways to increase efficiency and transparency in the supply chains and to ensure that we source our materials in an environmentally friendly and socially viable manner.

As a founding member of the Aluminium Stewardship Initiative (ASI), we have helped define the standard for a transparent and sustainable supply chain from mine to vehicle from the outset (Performance Standard, Chain of Custody). We are currently working on getting certification for our own manufacturing processes and those of our suppliers.

We have also been supporting the formalisation of the Responsible Steel Initiative (RSI) for a long time and we are actively contributing towards developing a sustainability standard. This year, we have joined the initiative officially in order to meet our responsibilities.

Cobalt

Another relevant raw material is cobalt, a key component in the production of electrified vehicles. Large amounts of cobalt are contained in batteries of electric vehicles and plug-in hybrids. As cobalt mining is associated with high risks, in particular in terms of human rights, we are working towards establishing maximum transparency in the supply chain. We are in constant contact with our suppliers and, for some years now, we have asked them to disclose the origin of this raw material. At the end of 2017, we made information on smelters and countries of origin of cobalt → **available to the public**, and we update this on a regular basis.

We are also a founding member of the Responsible Cobalt Initiative (RCI), where we are represented on the Board and which we officially joined after it was formalised in the reporting period. The objective of this initiative is to increase the level of transparency and to implement measures pertaining to overcoming social and environmental risks in the cobalt supply chain. In collaboration with the Responsible Minerals Initiative and the Chinese Chamber of Commerce (CCCMC), we developed an auditing standard and an auditing process for refineries and smelters, which are being validated and further refined by means of pilot audits in 2018 and 2019.

In addition, we have, in collaboration with partner companies from our supply chain, commissioned the German development agency Gesellschaft für Internationale Zusammenarbeit (GIZ) to run a three-year project to investigate how working and living conditions in small-scale mining in the Democratic Republic of Congo can be improved. The project focuses on a pilot mine where cobalt is extracted using artisanal methods. The pilot project, which is 100% privately funded was set up to test approaches for improving the working and living conditions for miners and the people in the surrounding communities. If the project is successful, these approaches can then also be used for other artisanal mines in the long term.

Copper

With the electrification of our fleet, the demand for copper is also on the rise, since large amounts of the material are contained in the vehicles' electrical systems as well as the high-voltage battery and the drivetrain. Therefore, in this supply chain as well, we want to address potential negative effects on the environment and society. We collaborate with the state-owned Chilean copper producer Codelco and are committed to increasing transparency in the copper supply chain and ensuring sustainability from mine to production line. To this end, we are working in collaboration with the copper industry, representatives from civil society and end consumers to establish a cross-industry initiative that will develop a sustainability standard for copper.

In addition, we have set up a pilot project with DRÄXLMAIER Group, one of our suppliers, to make the copper supply chain for the vehicles' electrical system more transparent. Together with our partners from the supply chain we are using supply chain mapping to thoroughly analyse all steps along the chain. We utilise the transparency that we gain in this way in order to identify and manage sustainability risks and opportunities.

Natural rubber

Fostering sustainability in the natural rubber supply chains, a raw material which is mainly used in tyre products, is also particularly important to us. The BMW Group initiated talks with suppliers and NGOs on this topic as early as 2015. Since then, we have been seeking opportunities for dialogue and collaboration with the relevant stakeholders in this sector in order to establish a multi-stakeholder initiative on this topic. Our objective is to make consensus decisions and come up with joint solutions. In April 2018, the BMW Group hosted a round table, organised by Drive Sustainability, on the topic of sustainable natural rubber for representatives from civil society, tyre manufacturers, carmakers and representatives from standardisation organisations.

Conflict minerals

In order to promote responsible supply chains from conflict-affected and high-risk areas (in particular the Democratic Republic of Congo and neighbouring countries, including Rwanda, Uganda and Burundi), the BMW Group uses the relevant OECD Due Diligence Guidance. In view of the EU Conflict Minerals Regulation, which is set to come into force on 21 January 2021, we want to foster transparency with regard to the origins of minerals. In this context we are focusing initially on the BMW Group suppliers with the highest turnover and are asking to fill out a → **standardised form** to provide information about their supply chain from mine to smelter. This survey is part of the sector-specific sustainability questionnaire and thus an integral part of our procurement process. In addition, the BMW Group → **conflict minerals team** provides training, information and support for the suppliers. In order to improve our understanding of the processes in the mineral-processing sector, we visited selected European smelting works in 2018.

Further key indicators

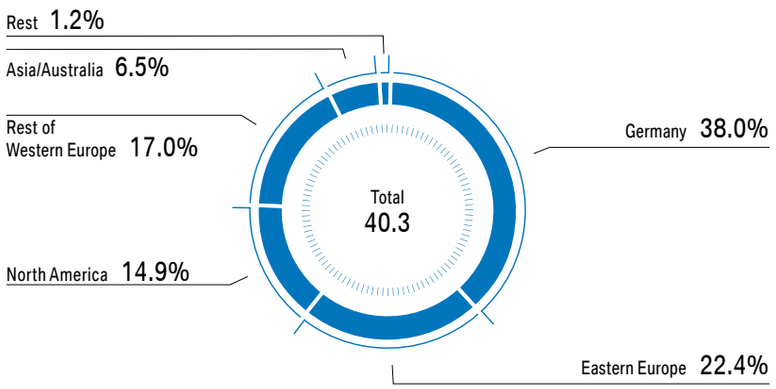
Distribution of BMW Group purchase volumes

It is the BMW Group's strategy to maintain a good long-term balance of sales, production and purchasing volumes in the various regions. The BMW Group plans the development of regional purchasing volumes in such a way that it correlates to the global distribution of development, investment, production and sales activities.

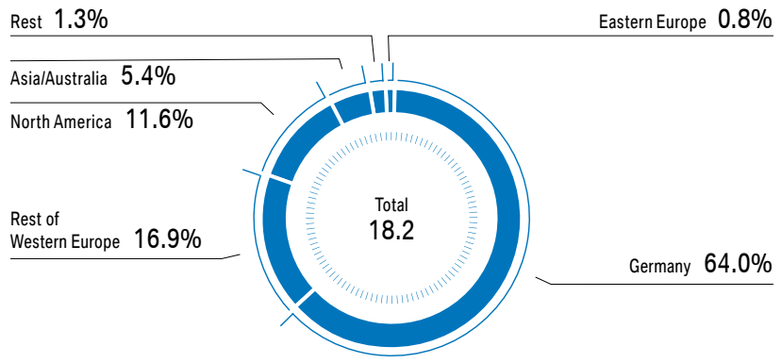
Regional distribution of the direct and indirect BMW Group purchase volumes

→ G3.20

Basis: direct production material[1], in € billion



Basis: indirect goods and services[2], in € billion



[1] Incl. raw materials based on production locations.
[2] Incl. production partners; based on order locations.
→ GRI 102-9

EMPLOYEES AND SOCIETY

4

Foresight and flexibility are what is called for when it comes to the far-reaching changes in the working world brought about by digitalisation and automation coupled with a greater diversity of lifestyles. As a company that is currently active in over 140 countries, the BMW Group is responding to these developments worldwide. Through secure and attractive jobs and the targeted promotion of diversity, we offer our employees long-term career prospects. We foster their individual talents and potential and thereby lay the groundwork for our future success. We are convinced that our approach contributes to overcoming societal challenges and to intercultural understanding.

Focus on Sustainable Development Goals (SDGs):

PERFORMANCE INDICATORS

BMW Group employees at end of year

in numbers

134,682
2018

129,932
2017

124,729
2016

Attrition rate at BMW AG

in % of workforce[2]

2.8
2018

2.6
2017

2.7
2016

[2] The attrition rate is not consolidated to BMW Group level.

Employee satisfaction

in %[1]

87
2017

88
2015

[1] The employee survey is carried out every two years. The last survey was conducted in 2017.

Average days of further training per employee

3.4
2018

3.4
2017

3.8
2016

Share of female employees in total workforce in %

19.9
2018

19.3
2017

18.7
2016

Share of female employees in management positions in %

17.2
2018

16.0
2017

15.3
2016

PERFORMANCE INDICATORS

Accident frequency in numbers of accidents with at least one day absent per one million hours worked

3.5
2018

3.6
2017

4.0
2016

Sickness rate at BMW AG

in %[1]

4.9
2018

4.6
2017

4.6
2016

[1] The sickness rate is not consolidated to BMW Group level.

Expenditure on donations worldwide

in € thousand

15,829
2018

16,205
2017

70,356
2016

Total expenditure on corporate citizenship

in € thousand

37,242
2018

33,436
2017

87,837
2016

HEALTH AND PERFORMANCE

To preserve the health and the performance of its employees in the long term, the BMW Group promotes personal responsibility and an appropriately designed work environment.

BMW's LeaseRad bike scheme offers employees a good-value option for more exercise on the way to work.

4.1 HEALTH AND PERFORMANCE

Sustainability goal:

To preserve the health and the performance of its employees in the long term, the BMW Group promotes personal responsibility and an appropriately designed work environment

Our employees are the BMW Group's most important success factor. Maintaining their health and performance is therefore a top priority for us. High demands are sometimes placed on employees at work, and, what's more, there is often additional mental stress. As an employer, the BMW Group has to be able to react flexibly to changes in lifestyles and the needs of an ageing society. Our occupational health and safety concept therefore includes a holistic health management programme, work safety and ergonomics, ageing-appropriate work systems and a wide variety of healthy food in our canteens. These programmes also help us contribute towards achieving SDGs 3 (Good health and well-being for people) and 8 (Decent work and economic growth).

Key measures:

Promoting health

Since 2011, our "Health Initiative" has been coordinating the measures to promote the health and performance of our employees in the three areas of health management, work safety and ergonomics as well as corporate catering.

As part of this initiative, we have developed an extensive prevention and rehabilitation programme covering the areas of nutrition, exercise, relaxation and addiction prevention. International campaigns are designed to promote health awareness among employees – in 2018, for example, under the headings "Burn what you eat" and "Keep moving". In addition, we hold campaign days, dialogue events, courses and training for executives in order to regularly inform our employees about current health topics such as cancer prevention, the dangers of addiction, and resilience.

And since 2014, the "Health Management 2020" (GM 2020) programme has been running in collaboration with the company's doctors. It is designed to strengthen employee's sense of individual responsibility and to provide a work environment that meets the respective requirements for optimal health and performance. The programme includes a health check-up and an employee survey about their working environment. Subsequently, participants receive an extensive personal medical report and have the option of consulting a physician for advice on any preventive measures required. In Germany, for example, we had compiled around 28,500 personal medical reports by the end of 2018. Internationally, too, the Health Management 2020 programme forms the basis for prevention measures within the respective country's local conditions.

After the check-up, the participating employees' departments receive an anonymous overall report laying out the relevant health aspects and information on how to structure the working environment. By the end of 2018, around 750 reports had been compiled for the various departments of the company. While they do not allow identification of any individual person, they do help to determine general areas for improvement.

As an evaluation of the Health Management 2020 programme carried out in 2017 was positive, we continued to implement it in 2018.

Managing occupational health and safety

At all of our locations, we continually evaluate and improve work safety on the basis of certifications, through health and safety committees, and with the help of risk assessments such as the Safety and Ergonomics Risk Assessment system (SERA). This system was introduced in 2016 and expanded by 2018 to a total of twelve locations worldwide.

In order to avoid accidents even more effectively, a "Behaviour Based Safety" project was piloted in 2017 in the corporate catering area of the Research and Innovation Centre in Munich/DE. This project entails an extensive training programme for executives and employees, during which they are supported by a trainer in analysing risks in their working area and defining long-term accident prevention measures. After the successful pilot phase and a decrease in accident numbers, corporate catering began to implement the project at the Munich plant in 2018.

An analysis of accidents at the BMW Group dealerships showed that most occupational accidents in the workshops result in cuts or bruises. In 2018 we therefore introduced a campaign to prevent these types of injury.

It is of the utmost importance to us that all third-party companies that are present at the BMW Group locations work as safely as possible. Safe collaboration with contractors is regulated by the contractor declaration, which determines risks and derives protective measures from the first day of work onwards. In addition, all employees of external companies who are working on the large construction sites receive safety instruction above and beyond the statutory stipulations from a specialist BMW trainer (on smaller construction sites this is the task of the external company).

Enabling long-term employment

A workforce that is increasing in average age brings with it new health challenges. Our "Today for Tomorrow > NEXT", programme, which started to be introduced company-wide in 2018, is helping to ensure that our employees remain healthy and able to work as they age. The programme focuses on muscular-skeletal disease as well as physical indications. It includes measures for employees and executives in the four action areas of prevention, ergonomics, management of employee's work and leadership. In Germany, the programme additionally includes a prevention and integration process that integrates employees with health limitations as best as possible into the work processes.

Due diligence processes:

Evaluating risks and implementing measures at our locations

The BMW Group carries out comprehensive risk management in the area of occupational health and safety. → GRI 102-11 For example, the health check-ups of the Health Management 2020 programme help with prevention. At present, 27 of our 31 production locations have occupational health and safety management systems certified according to OHRIS (Occupational Health and Risk Management System) or OHSAS 18001 (Occupational Health and Safety Assessment Series). Both systems are designed to reduce risk of injury and accident and prevent work-related illness. In addition, occupational health and safety committees with representation from both the employer and employee sides are active at almost all BMW Group locations, making continuous improvements in health and safety standards at the workplace. → GRI 403-4 89.2% of employees are represented on the occupational health and safety committees, for example by union representatives (2017: 88.4%). This figure also includes temporary workers, interns, thesis students working at the company as well as doctoral candidates. → GRI 403-1

In order to identify work-related risks, we carry out a number of risk and stress analyses. For example, we record mental stress experienced at the workplace by conducting observational interviews. The risk analysis in production plants and in production-adjacent areas was simplified by the SERA risk analysis. Further measures include the office workstation analysis (BAPA) and the central logging system for environmentally relevant substances (ZEUS).

The right to health and safety at the workplace is a key component of our new → **BMW Group Code on Human Rights and Working Conditions**. In it, the BMW Group undertakes to consistently comply with the currently applicable occupational health and safety legislation worldwide and in addition to set its own standards for improving occupational safety.

All issues within the company that affect occupational health and safety are consolidated within the "Work Environment and Health" unit, which is part of our Human Resources portfolio within the Board of Management. Internationally, occupational health and safety management is under the charge of regional hubs at the different locations. In general, the on-site managers are responsible for all operational processes. The health management and occupational health and safety teams (company doctors, medical assistants, safety experts and officers) support and advise the respective departments in carrying out the statutory tasks involved in occupational health and safety.

Results and performance indicators:

The success of our efforts is demonstrated by the accident frequency rate, the rate of absenteeism due to illness (sickness rate) and the number of days missed.

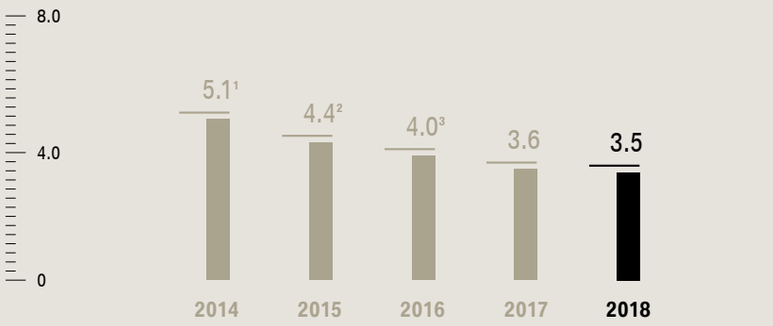
Further reduction in accident frequency

→ see performance indicators

Accident frequency was further reduced, with 3.5 accidents per one million hours worked (2017: 3.6). On-site occupational health and safety management systems, the continuous improvement of safety conditions in the workplace as well as targeted safety training are decisive factors for this success. By 2015, we had already attained the target we set in 2011 to reduce this rate to below 4.5 worldwide by 2020, thus more than halving it. → GRI 403-2

Unfortunately, there was a fatal accident in October 2018 at the Steyr/AT plant. The BMW Group is currently investigating the details of the cause of the accident. → GRI 403-2

Accident frequency rate at BMW Group*
→ G4.01



* Number of occupational accidents with at least one day of absence from work per one million hours worked.
¹ Figure not directly comparable to those in previous years due to expansion of scope to include the German dealerships. Around 88% of BMW Group employees captured.
² Figure not directly comparable to previous year's figures due to addition of plants in Brazil, Thailand and India to scope. Around 90% of BMW Group employees captured.
³ Expansion of scope to include 100% of BMW Group employees.
→ GRI 403-2

Days of absence and sickness rate kept at a low level

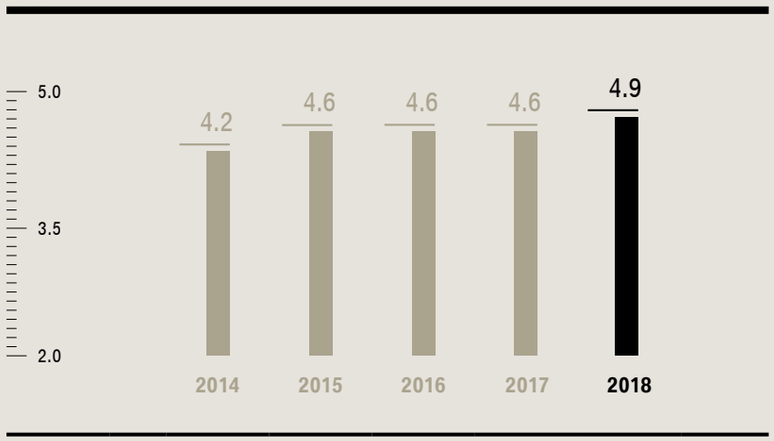
The number of days of absence, which has been consolidated at BMW Group level since 2017 and maps the degree of severity of accidents (number of days of absence due to an occupational accident per one million working hours), increased slightly compared to the previous year (2017: 68.7, 2018: 71.3). → GRI 403-2 Based on the slight change of 3.8%, we cannot currently identify any trend in accident severity at the BMW Group.

The sickness rate (number of hours of absenteeism due to illness, divided by the contractually agreed number of hours to be worked) was 4.9%* (2017: 4.6%), slightly higher than in the previous years. However, as in the previous years, the rate was below the average for the industry. → GRI 403-2

→ see performance indicators

* This figure refers only to BMW AG, as the sickness rate is not consolidated to BMW Group level.

Sickness rate at BMW AG*
→ G4.02



* Number of hours: absenteeism due to illness, divided by the contractually agreed number of hours to be worked. This figure refers only to BMW AG, as the sickness rate is not consolidated to BMW Group level.
→ GRI 403-2

Our next steps:

Due to the positive evaluation results of Health Management 2020, we decided to continue the programme and extend it under the name Health Management 2025 (GM 2025). In addition, we will continue to run the Health Initiative as well as the Today for Tomorrow > NEXT programme in 2019.

Further key indicators

Graphic G4.03 shows the main activities during which accidents occur at the BMW Group. It shows that most accidents happen while employees are walking or doing assembly and dismantling work. Walking accidents can result in injuries such as concussions, fractures, sprains and contusions. To counteract this, we continued to implement the BMW Group "safe walking" campaign launched in 2016. In 2018, we launched a campaign at the dealerships to reduce accidents that could lead to cuts and bruises during assembly and dismantling work. This includes employee and manager surveys (before and after the campaign), communication materials (such as flyers and posters) as well as one-day workshops on behaviour-related occupational safety with the master craftspeople and safety officers at the dealerships.

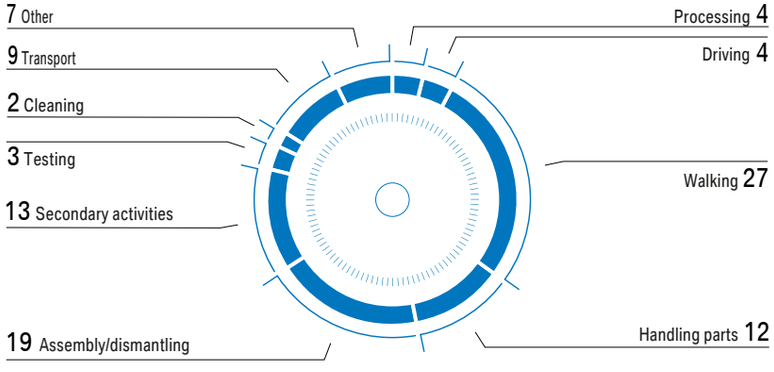
→ see graphic 4.03

→ GRI 403-2

Main accident factors

→ G4.03

in %



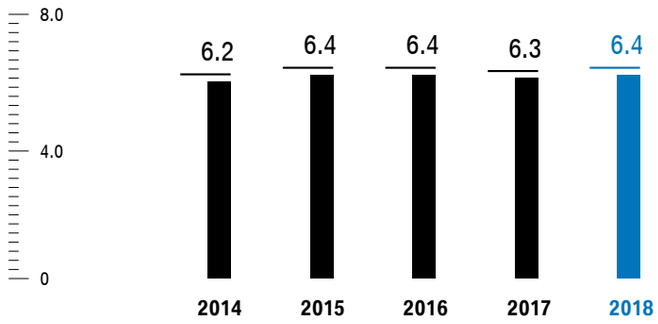
Long-term employment for people with performance limitations

At our locations, we make every effort to enable employees with health-related performance limitations to remain in long-term employment with us. The share of employees with severe disabilities at BMW AG was 6.4%, thus remaining on a similar level as in the previous years (2017: 6.3%).

Share of employees with severe disabilities at BMW AG*

→ G4.04

in %



* The share of employees with severe disabilities is based on the statutory requirements in accordance with the German Social Code (SGB IX). In addition, the BMW Group awarded contracts amounting to around €33.6 million to workshops for the severely disabled in Germany in 2018, of which around €9.0 million can be written off in accordance with the compensatory levy act. The volume of orders was thus at a consistently high level in 2018 again.

Occupational health and safety management systems at BMW Group production plants

→ G4.05

Production plant	Management system	Most recent year of certification
BMW GROUP PLANTS		
Aquari/BR plant	OHSAS 18001	December 2016
Berlin/DE plant	OHSAS 18001	December 2017
Chennai/IN plant	OHSAS 18001	December 2018
Dingolfing/DE plant	OHRIS	May 2018
Eisenach/DE plant	OHSAS 18001	September 2018
Goodwood/UK plant	OHSAS 18001	September 2018
Hams Hall/UK plant	OHSAS 18001	January 2017
Landshut/DE plant	OHRIS	October 2018
Leipzig/DE plant	OHRIS	March 2016
Manaus/BR plant	National standard[1]	Implemented
Munich/DE plant	OHRIS	March 2018
Oxford/UK plant	OHSAS 18001	January 2016
Rayong/TH plant	OHSAS 18001	November 2018
Regensburg/DE plant	OHRIS	June 2018
Rosslyn/ZA plant	OHSAS 18001	December 2017
San Luis Potosí/MX plant[2]	National standard[1]	Implemented[3]
Spartanburg/US plant	OHSAS 18001	April 2016
Steyr/AT plant	OHSAS 18001	January 2016
Swindon/UK plant	OHSAS 18001	December 2018
Wackersdorf/DE plant	OHRIS	June 2018
PARTNER PLANTS		
Cairo/EG production plant	OHSAS 18001	August 2017
Jakarta/ID production plant	OHSAS 18001	March 2017
Kaliningrad/RU production plant	National standard[1]	Implemented
Kulim/MY0 production plant	OHSAS 18001	December 2018
BMW BRILLIANCE AUTOMOTIVE HOLDINGS LTD. JOINT VENTURE		
BMW Brilliance Automotive Ltd., Shenyang/CN (joint venture)[4]	OHSAS 18001	December 2016
CONTRACT PRODUCTION		
Chongqing/CN	OHSAS 18001	January 2018
Magna Steyr Fahrzeugtechnik Graz/AT	OHSAS 18001	August 2018
TVS Motor Company Hosur/IN	OHSAS 18001	January 2017
VDL Nedcar, Born/NL	National standard[1]	Implemented

[1] Legal requirements complied with. [2] 2018 only pre-series production, opening in 2019. [3] ISO 45001 certification planned for 2020. [4] The joint venture comprises three locations.
The BMW Group (including all contract manufacturers and external production companies) currently has certified occupational health and safety management systems in accordance with OHRIS and OHSAS in place at 27 of its 31 production locations and corresponding systems in accordance with national standards at four further sites.

Accident frequency rate at BMW Group by country

The regional differences in accident frequency are due to differences in type and size of the individual companies of the BMW Group (e.g. dealerships, plants) and their individual scopes of activity and corresponding risk potential. → GRI 403-2

While countermeasures are taken at all locations where accidents happen, special focus is placed on the locations with higher accident frequency rates. Based on an analysis of typical accident areas, targeted preventive measures are implemented at these locations. For example, a workshop took place at the Vienna dealership in order to counteract the high accident frequency rate there. Initial assessment indicates that such workshops are effective.

Accident frequency rate at BMW Group by country*

→ G4.06

per one million hours worked	Accident frequency
Australia	1.5
Austria	6.2
Belgium	3.6
Brazil	1.0
Bulgaria	0.0
Canada	0.0
China[1]	0.0
Czech Republic	0.0
Denmark	0.0
Finland	0.0
France	5.2
Germany	4.3
Greece	0.0
Hungary	0.0
India	0.0
Indonesia	0.0
Ireland	0.0
Italy	5.7
Japan	1.4
Malaysia	0.0
Mexico	0.0
Netherlands	0.0
New Zealand	0.0
Norway	0.0
Poland	0.0
Portugal	0.0
Rumania	0.0
Russia	0.0
Singapore	0.0
Slovakia	0.0
Slovenia	0.0
South Africa	2.0
South Korea	1.4
Spain	0.7
Sweden	0.0
Switzerland	1.4
Thailand	0.0
UK	2.0
United Arab Emirates	0.0
USA	2.4

* Reported occupational accidents with at least one day of absence from work per one million hours worked.
[1] Excluding BMW Brilliance Automotive Ltd., Shenyang/CN joint venture.
→ GRI 403-2

LONG-TERM EMPLOYEE DEVELOPMENT

The BMW Group ensures long-term employee development by seeking out the right employees, making the most of their talents, developing potential and ensuring employability.

Attractiveness as an employer: in 2018 another 4,964 young people started their vocational education at the BMW Group locations all over the world, for example here at BMW Motorrad in Berlin/DE.

4.2 LONG-TERM EMPLOYEE DEVELOPMENT

Sustainability goal:

The BMW Group ensures long-term employee development by seeking out the right employees, making the most of their talents, developing potential and ensuring employability

The success of the BMW Group is based on the dedication and technical expertise of its employees. We make every effort to recruit and keep the best people. This means offering them attractive and secure jobs, comprehensive development and training opportunities, as well as a range of options for achieving a better work-life balance. In doing this, we are also fulfilling our commitment to SDGs 4 (High-quality education) and 8 (Decent work and economic growth).

Especially in these times of digitalisation and technological change, it is vital for the BMW Group to be an attractive employer. The company is facing considerable challenges in terms of increasing competition with leading technology companies, a global scarcity of qualified technical workers and demographic change. With this in mind, it is essential for us to invest in our employees, to offer them opportunities and to foster continuous learning. This approach to long-term employee development helps us to fulfil this vision.

Key measures:

Offering attractive overall remuneration

We aim to ensure that the total remuneration package is above the average for the respective labour market. To verify this, we carry out annual remuneration studies worldwide. The total compensation package is made up of monthly remuneration, a variable compensation component and a wide range of additional benefits, such as a company pension.

The same remuneration policies apply for all of the BMW Group companies – regardless of employees' gender, religion, origin, age, disability, sexual orientation or country-specific characteristics. Our remuneration policy is thus an integral part of a consistent and transparent process of employee development. → GRI 401-2

Encouraging work-life balance

The working hours that function best for employees vary depending on what phase of life they are in, their individual life plans and their work situation. For this reason, the BMW Group offers all employees a range of options to help them find the right work-life balance – for example through flexible working hours, sabbaticals or mobile working. In addition, we have for many years been offering employees family support services.

Offering a wide range of training and further education options

The BMW Group also invests on an ongoing basis in training its employees and fostering their talents. This lets us ensure that they have the skills needed to keep pace with future challenges. We follow the principle of life-long learning with a focus on the digital transformation. Thus, our medium-term goal is to switch to agile working and leadership methods. → GRI 404-2

Vocational training at the BMW Group is being redesigned worldwide due to digitalisation and the spread of electrification. In addition to three new vocational training occupations in the areas of IT and electronics, training year 2018 saw the introduction of twelve STEM-subject bachelor's degrees in the German dual system (STEM: sciences, technology, engineering, mathematics). We modified the content of the existing 27 vocational occupations to focus on the future topics of big data analytics, agile development methods, robotics as well as smart production and logistics. Our long-term need for skilled workers in the company is being served by the introduction of new skill sets, modern equipment and innovative teaching methods.

To foster young talent, in addition to its regular scholarship programmes, the BMW Group offers entry to highly talented graduates via the Global Leader Development Programme. It focuses among other things on teaching personal, professional and intercultural as well as team and collaboration skills. The programme is offered at the BMW Group locations worldwide.

In 2018, we considerably expanded our range of specialist training courses. Here, the focus was on new skill set areas such as data analytics.

Fundamentally, our aim is to develop leaders who stand out as much for their personal initiative as for their ability to work well with others to successfully manage teams and build networks. To achieve this, we continuously refine our training programmes for executives and have added new courses focusing on "Leadership in the digital age".

In addition, every BMW Group employee receives a consistent and comprehensive performance and behaviour review at least once a year in order to support their individual development. → GRI 404-3

Surveying employees, achieving improvements

We want our employees to identify with the company and to translate their passion into top performance each and every day. We therefore conduct an employee survey every two years to identify potential for improvement.

Due diligence processes:

Systematically identifying and managing need for action

Our → **BMW Group Code on Human Rights and Working Conditions**, published for the first time in 2018, sets down our principle of exceeding minimum standards with regard to our working conditions.

The BMW Group has established a strategic process for human resources planning in recent years in order to detect new skills required at the company in good time and promptly find the right people for the tasks at hand. This process takes place every year, and is steered by the "Group Human Resources, Strategy and Goals" department. The planning results serve as a basis for the systematic alignment and success tracking of our training and further education programmes as well as relevant HR tools such as personnel marketing, recruitment and young talent programmes.

In order to ensure gender parity in remuneration, the BMW Group has established a monitoring process that compares the monthly pay of men and women based on the categories of full-time, part-time, pay grade and age. The analysis carried out in the year 2018 found no significant differences between the overall compensation packages of women and men. → GRI 405-2

Results and performance indicators:

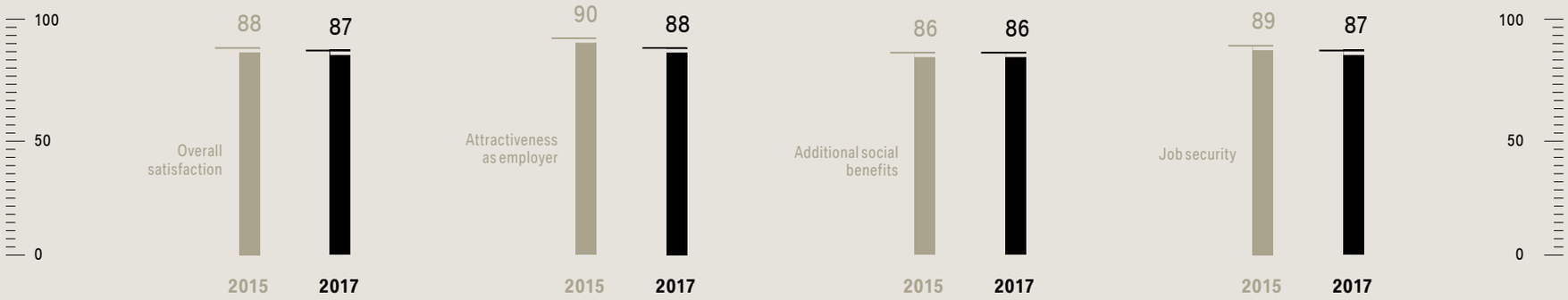
Attractiveness as an employer confirmed

In studies on the attractiveness of employers conducted by the consultancy firms trendence and Universum, the BMW Group was once again given top ratings in 2018. These results demonstrate that we are one of the most attractive employers both in Germany and worldwide. This is also confirmed by the low attrition rate of 2.8% at BMW AG as well as by our most recent employee survey conducted in summer 2017. Compared to the 2015 survey, the ratings fell slightly but are still at a very high level. Very positive ratings were given for example to attractiveness as an employer (88%), social benefits (86%) and job security (87%). The 2017 survey also demonstrated that employees have responded very well to our Strategy NUMBER ONE > NEXT. At the same time, we noticed that external factors such as the diesel affair, electromobility and digitalisation are on employees' minds. This has led to the BMW Group launching initiatives in the areas of culture, values and leadership in order to further establish system changes for long-term development of the business and culture in the interest of operational excellence and new ways of thinking. The next Group-wide employee survey is planned for 2019.

→ see performance indicators

Group-wide BMW Group employee survey in 2017*
→ G4.07

in %



* The employee survey is carried out every two years. The last survey took place in 2017.

Further training programmes expanded

We were able to expand our range of education and training programmes in 2018 and to equip our employees with up-to-date skills where needed. On the reporting date, 4,964 young people had vocational training contracts or were employed in youth talent programmes at the BMW Group (2017: 4,750). The number of people starting their working life at the company's German training centres remained constant at 1,200 (2017: 1,200).

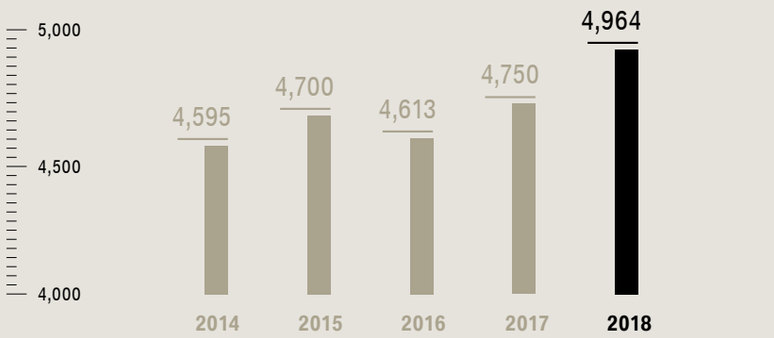
As in the previous year, the average time spent in training and further education per employee was 3.4 days (2017: 3.4). On the one hand, web-based preparation increased the level of knowledge before courses started, leading to a reduction in the amount of face-to-face training time required. And on the other hand, we used new e-learning formats to make employees less time dependent and to increase efficiency by offering condensed learning content.

→ see performance indicators
→ GRI 404-1

Apprentices and participants in youth talent programmes

→ G4.08

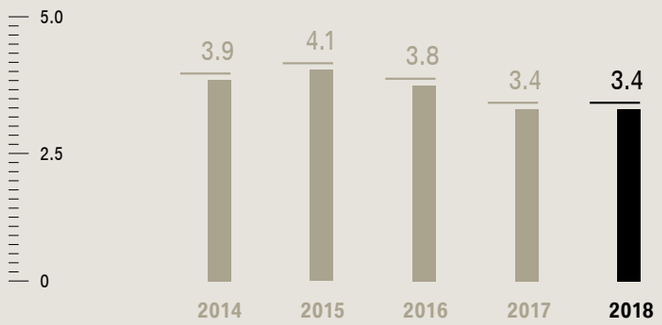
Number



Average days of further training per employee*

→ G4.09

Number of days

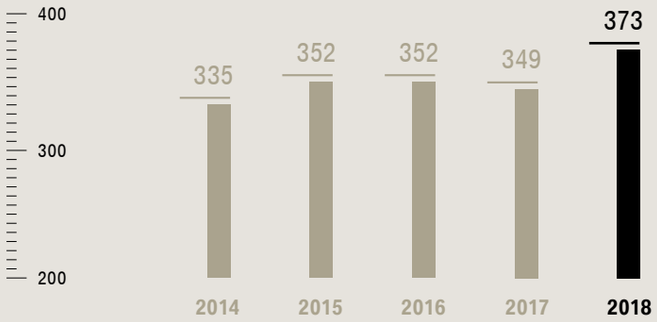


* Data retrieved by direct representation of the number of participants as well as a small share by qualified extrapolation. The data also includes e-learning formats.
→ GRI 404-1

BMW Group expenditure on training and further education in 2018 increased to €373 million (2017: €349 million). Our commitment to human resources is an investment in the future. It lets us maintain our standing as an attractive employer and ensures that we achieve our goal of long-term employee development.

Investment in further education and training
→ G4.10

in € million



Our next steps:

In order to make sure that the right skills are available in good time as digital and cultural transformation progresses within the company, ongoing strategic HR planning processes are in place. The results of these are integrated into our vocational education, student promotion and further education programmes.

Further key indicators

BMW Group employees

The number of employees working for the BMW Group increased worldwide by 3.7% to a total of 134,682 by the end of 2018. The company continues to recruit experts and IT specialists for future-related topics such as digitalisation, autonomous driving and electromobility. 3.7% of the entire workforce are on fixed-term contracts.→ GRI 102-7, 102-8

→ see performance indicators

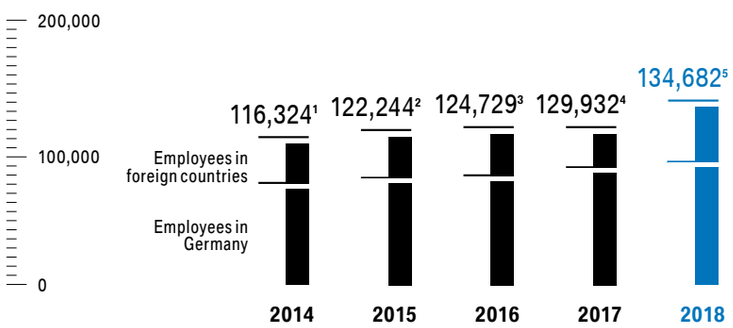
BMW Group employees at end of year
→ G4.11

	2014	2015	2016	2017	2018
Workforce by segment					
Automotive	106,064	111,410	112,869	117,664	**121,994**
Motorcycles	2,894	3,021	3,351	3,506	**3,709**
Financial Services	7,245	7,697	8,394	8,645	**8,860**
Other	121	116	115	117	**119**
Share of employees with fixed-term contracts[1, 2]	4,563	5,359	4,270	4,685	**4,638**
Employees in part-time employment	4,271	4,497	4,753	5,553	**6,299**

[1] Figures exclude suspended employment contracts, employees in non-work phases of pre-retirement part-time arrangements, low income earners, trainees and students.
[2] Within BMW AG (which employs around two-thirds of the entire workforce of BMW Group), 0.4% of the 1.5% of fixed-term contracts are women. For systemic reasons these data are only calculated for BMW AG.
→ GRI 102-8

BMW Group employees at end of year*
→ G4.12

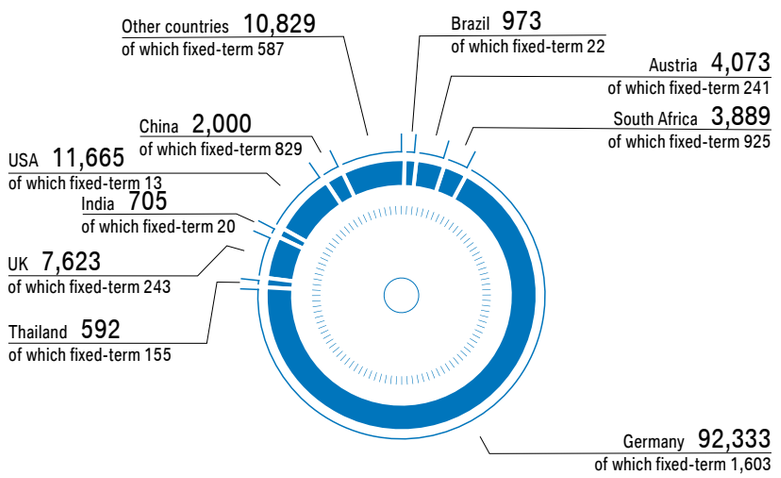
Number of employees



* Figures exclude suspended employment contracts, employees in non-work phases of pre-retirement part-time arrangements, low income earners, trainees and students.
[1] Of whom 36.1% are tariff-bound production employees of the BMW Group.
[2] Of whom 36.3% are tariff-bound production employees of the BMW Group
[3] Of whom 35.4% are tariff-bound production employees of the BMW Group.
[4] Of whom 35.7% are tariff-bound production employees of the BMW Group.
[5] Of whom 35.3% are tariff-bound production employees of the BMW Group.
→ GRI 102-7

Share of employees per country with production location(s) in 2018
→ G4.13

Number of employees



A good two-thirds of BMW Group employees are employed in Germany, followed by the USA with 8.7% and the UK with 5.7%.
→ GRI 102-8

Number of people leaving and employee attrition rate at BMW AG

The number of people leaving BMW AG was at the same level as the previous year. The share of women in the total of 2,247 people who left the company was 14% in 2018, the same level as the previous year (2017: 14%). The number of newly recruited permanent employees also remained constant at 22% (2017: 22%). The attrition rate at BMW AG remained on a very low level in 2018, at 2.8% (2017: 2.6%). If figures for retirement, part-time pre-retirement and death are excluded, the attrition rate for 2018 was 1.2% (2017: 1.1%). Overall, our programmes and measures help to ensure that the BMW Group can continue to position itself as an attractive employer. → GRI 401-1

→ see performance indicators

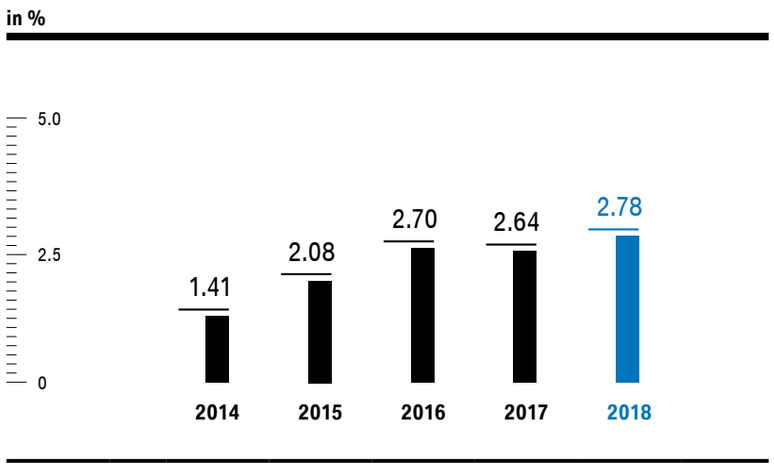
Total number of employees leaving BMW AG, by reason for leaving*

→ G4.14

Number	2014	2015	2016	2017	2018
Total	**1,014**	**1,577**	**2,067**	**2,077**	**2,247**
Part-time retirement, retirement, death	363	978	1,199	1,207	**1,314**
Voluntarily left company (termination or suspension of employment contract by employee)	609	556	809	809	**873**
Dismissed by employer	42	43	59	61	**60**

Employee attrition rate at BMW AG*

→ G4.15



* Number of employees on unlimited employment contracts leaving the company.

→ GRI 401-1

Alternative work forms at BMW AG

In 2018, over 34,000 employees, or around 66% of those working outside the direct production areas, chose to work at least one partial and/or full day on a mobile basis (2017: 63%). This represents a renewed increase compared to 2017. Mobile working at the BMW Group stands for a culture of trust and constructive dialogue. Outside of agreed working hours, employees have the right to switch off and be unavailable. Our flexible working programmes thus meet a real need.

Alternative ways of working at BMW AG*

→ G4.16

Number of employees	2014	2015	2016	2017	2018
Part-time workers[1]	3,739	3,943	4,294	4,572	**5,000**
in % of total number of employees	5.1	5.1	5.0	5.2	**5.6**
Teleworking positions[2]	22,297	25,072	28,088	31,754	**34,339**
in % of total number of employees	49.9	53.0	59.4	63.3	**66.1**
Number of employees who use "Vollzeit Select"	2,668	3,592	3,998	4,690	**5,508**
in % of total number of employees[3]	3.6	4.7	5.1	5.3	**6.1**
Sabbaticals	516	462	598	567	**648**
in % of total number of employees	0.7	0.6	0.7	0.6	**0.7**
Parental leave	2,271	2,535	3,028	3,389	**3,675**
in % of total number of employees	3.1	3.3	3.5	3.9	**4.1**

* Figures refer to employees with permanent and part-time contracts.
[1] At BMW AG, 3,416 women work part-time. For systemic reasons, this number is only calculated for BMW AG.
[2] Administrative positions. Number of employees who engaged in teleworking.
[3] Statistical population not including apprentices, interns, thesis students working at the company and doctoral candidates.
→ GRI 102-8, 401-3

Investment in further education and training at the BMW Group

Worldwide, the company invests continuously in training its managers. In Germany the number of days of participation in the standard management training courses was slightly below that of the previous year.

In 2018, a total of over 1,696 managers took part in dialogue-based training to prepare them for the future leadership challenges resulting from the digital transformation.

Accordingly, 1,424 days of participation in management dialogue events (such as "Treffpunkt Führung Next") were logged. → GRI 404-1

Average training hours at the BMW AG Academy, by employee category

→ G4.17

Employee category	2016	2017	2018
Non-tariff employees	30.0	19.2	**22.7**
"Meister" (master craftsmen)	27.8	17.7	**17.7**
Tariff	17.3	12.8	**11.9**
Days of further training for managers in the BMW Group			
Number	16,985	16,883	**15,151**

→ GRI 404-1

Unions and collective bargaining

As laid down in the → **BMW Group Code on Human Rights and Working Conditions**, the company recognises the rights of all employees to set up employee representation and carry out collective bargaining to regulate working conditions. At the BMW Group, institutionalised co-determination is implemented Group-wide according to the applicable national regulations. At all BMW AG plants and dealerships as well as in Austria and the UK, elected works councils observe co-determination for the employees. In China and South Africa, employees are represented by local workers' councils. At locations that have no workers' representatives, the BMW Group encourages regular dialogue between employees and the company.

The BMW Group complies with conventions 87 and 98 of the ILO (International Labour Organization), which guarantee workers freedom of association and the right to collective bargaining. This also includes the right to establish and to join independent C93 trade unions and other advocacy organisations as well as protection against discrimination on the grounds of membership in an employee representative body. Freedom of association is thus one of the principles set down in the → **Joint Declaration on Human Rights and Working Conditions at the BMW Group.** The timely and comprehensive involvement of employee representatives is ensured in the BMW Group by the Supervisory Board of BMW AG with equal representation of all parties as well as by works councils and local employee representatives.

→ GRI 102-41

Share of employees represented by a trade union or falling under collective agreements

→ **G4.18**

in %	2014	2015	2016	2017	2018
Germany[1]	100	100	100	100	**100**
UK[2]	86	86	85	86	**85**
China (plant)	100	100	100	100	**100**
Austria[1]	100	100	100	100	**100**
South Africa	60	59	58	53	**62**
USA (no collective agreements exist)	0	0	0	0	**0**

[1] Excluding executives.
[2] From 2012 onwards, all employees in corporate functions as well as the employees at the Goodwood/UK plant were included in this figure.
→ GRI 102-41

→ DIVERSITY

Through its diverse workforce, the BMW Group increases its competitiveness and enhances its innovative strength.

Diversity as a driver: in 2018, employees from a total of 124 countries were working together successfully at BMW AG alone.

4.3 DIVERSITY

Sustainability goal:

Through its diverse workforce, the BMW Group increases its competitiveness and enhances its innovative strength

Modern society is characterised by a variety of different backgrounds and lifestyles. The BMW Group is aware of its social responsibility as an employer to promote equal opportunities in an increasingly versatile society through a diverse workforce. As a global enterprise, the BMW Group regards an intercultural workforce, an appropriate gender balance and a good age mix as very beneficial to our business. We are convinced that a diverse workforce increases our innovative strength and further enhances our competitiveness, for example by helping us to better understand customers' needs. The action we are taking in this area is also designed to achieve SDGs 5 (Gender equality) and 10 (Reduced inequalities).

Key measures:

Promoting diversity and equal opportunity in the company

The → **BMW Group Code on Human Rights and Working Conditions**, published in 2018, declares that equal treatment of all employees is a fundamental principle of our corporate policy. The Diversity Concept for the BMW Group workforce passed by our Board of Management in 2010 defines three dimensions where diversity is to be strengthened Group-wide while taking due consideration of local conditions: gender, cultural background, age/experience.

The BMW Group focuses for this purpose on event and dialogue formats designed to raise awareness of diversity issues among managers and employees. We also take measures in the areas of recruitment and human resources development to foster diversity and equal opportunity throughout the company. In addition, we develop formats that address different target groups in specific company portfolios and divisions. For example, female production managers take part in a special onboarding programme when they join the company.

In 2018 a special focus was placed on communications and events. We developed for example a new communications concept to draw attention throughout the year to the topic of diversity.

Diversity-promoting concepts were also developed for the management boards (Board of Management and Supervisory Board). We report in detail on these concepts and their implementation in our → **Annual Report 2018**.

To further promote an international perspective and intercultural understanding among our new employees, we designed our young talent programmes such as the "Global Leader Development Programme" with the needs of international participants in mind. We also focus on recruiting managers with international experience, while working to increase the share of employees of non-German origin in the long term.

The international character of the Board of Management and the Supervisory Board likewise reflects the global scope of the company's business.

We benefit from the age diversity of our workforce by leveraging the strengths of different age groups and fostering the exchange of knowledge and experience between the generations. When setting up new locations or divisions we recruit people from a range of age groups.

Since 2013, the share of BMW Group employees aged between 30 and 50 has been steadily decreasing. At the same time, the proportion of those over 50 years of age has grown. → GRI 405-1 To maintain employees' performance as the workforce ages, we adapted the "Today for Tomorrow" programme in 2017. To complement this, we raise awareness among managers of the opportunities and challenges posed by mixed-age teams. → GRI 404-2

→ see performance indicators
→ see graphic 4.20
→ see performance indicators
→ see chapter 4.1

Due diligence processes:

Counteracting discrimination through clear policies and grievance mechanisms

The BMW Group Legal Compliance Code prohibits discrimination of any sort. Employees can address related queries to their own managers, the relevant offices of the BMW Group, the HR department or the works council. The BMW Group SpeakUP Line, a telephone hotline available in over 30 languages, furthermore gives our employees worldwide a way to anonymously and confidentially report possible breaches of the Legal Compliance Code.

In addition, a grievance office for discrimination, staffed based on equal representation, was installed at our Munich/DE location in 2018. This provides employees with a downstream procedure so that they can track the progress of their grievance.

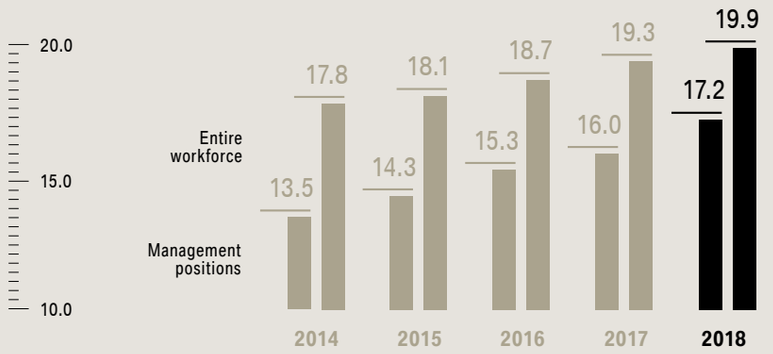
The department of Human Resources Policy and Strategy, in cooperation with the operational human resources staff and the disciplinary executives, is responsible for all measures specified by our Diversity Concept. We report on the responsibility for diversity concepts in the Board of Management and Supervisory Board and the monitoring of their implementation in our →**Annual Report 2018.**

Results and performance indicators:

Further increase in diversity in the company

We have been able to increase the proportion of women in the total workforce from 19.3% (2017) to 19.9% (2018). This is above our self-imposed target range of 15–17%. The share of female managers in the BMW Group rose to 17.2% (2017: 16.0%). In the young talent groups, the proportion of women in the year under review was around 44% for the trainee programme and about 28% for the academic youth talent programmes. With a share of 30.0% of women on the Supervisory Board, we are in compliance with the recommendation of the German Corporate Governance Code. → GRI 405-1

Share of female employees in management positions and in the entire workforce*
→ **G4.19**



* The share of female employees at BMW AG is 16.5% of the total workforce and 15.1% in management positions. The share of women on the Supervisory Board is 30.0% and 12.5% on the Board of Management.
→ GRI 405-1

In the area of cultural diversity, we continue to benefit from the great variety of cultural backgrounds in our workforce. In 2018, employees from a total of 124 countries were working together successfully at BMW AG alone (2017: 118 countries). When it comes to securing talent for the future, we also take an international approach: young people from eight countries took part in the Global Leader Development Programme that fosters young talent.

We also continued to promote age diversity in 2018. At BMW AG[1] the share of employees over the age of 50 increased from 28.3% (2017) to 29.1%. This is the result not only of demographic change but also of our efforts to support age(ing)-appropriate working conditions. → GRI 405-1

BMW AG employees according to age group, divided into functions and gender*
→ G4.20

in %	< 30 years old	30–50 years old	> 50 years old
2016 total	12.5	60.2	27.3
2017 total	12.0	59.7	28.3
2018 total	11.7	59.2	29.1
direct[1]	15.7	52.6	31.7
indirect[2]	9.2	63.4	27.4
male	10.4	58.8	30.8
female	18.7	61.5	19.8

* Figures refer to employees with permanent contracts.
[1] Clock-controlled and production employees.
[2] All employees without clock control.
→ GRI 405-1

These figures confirm the effectiveness of our measures to further strengthen diversity in the BMW Group.

We report in detail on the achievement of diversity goals in the Board of Management and Supervisory Board in our →**Annual Report 2018.**

[1] This figure is currently not consolidated to BMW Group level.

Our next steps:

The BMW Group will continue to pursue an integrated diversity strategy – in particular with regard to gender, age and cultural background. The measures already implemented will be continued and intensified next year.

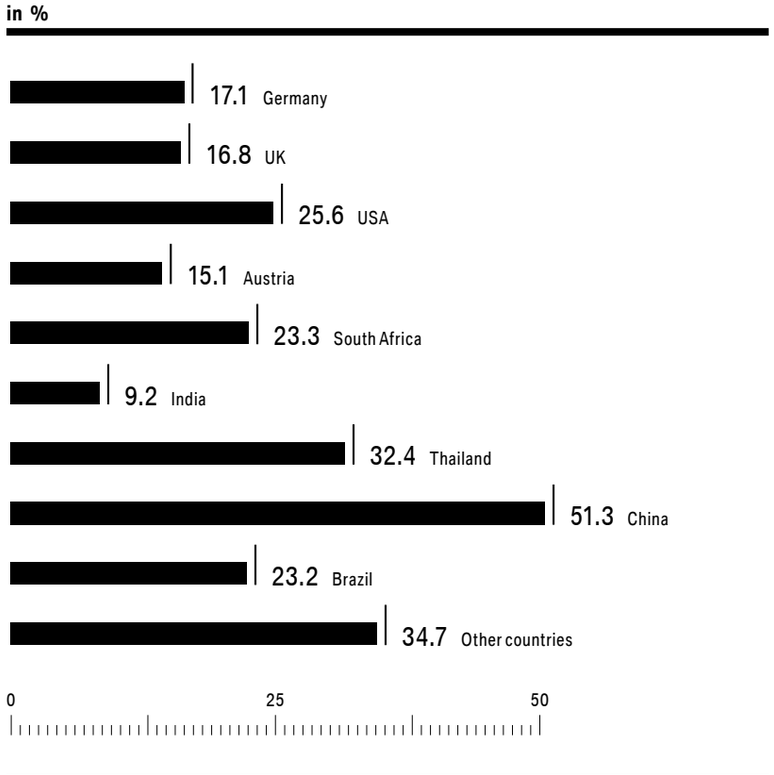
Further key indicators

Share of women in the workforce per country with production site(s)

The share of women in our workforce varies strongly in the different functional areas: the share of women in production-related activities in Germany is less than 8%, while it is over 21% in sales-related activities. At international level too, the share of women is lower in production-intensive countries. → GRI 405-1

Share of women in the workforce by country with production site(s)

→ G4.21



→ GTRI 405-1

Share of local employees in leadership positions at major company locations

While the share of local employees in leadership positions in Germany is very high and is around 87% at other western locations, the share at our locations in threshold countries is somewhere between 57% and 83%. → GRI 405-1

Share of local employees in management positions at major company locations*

→ G4.22

in %	2014	2015	2016	2017	2018
Munich plant/DE	98.9	99.0	99.1	99.2	**99.2**
Dingolfing plant/DE	99.7	99.7	99.7	100.0	**100.0**
Berlin plant/DE	100.0	100.0	100.0	100.0	**100.0**
Landshut plant/DE	100.0	100.0	100.0	100.0	**100.0**
Leipzig plant/DE	99.2	99.2	100.0	99.3	**99.3**
Regensburg plant/DE	100.0	100.0	99.5	100.0	**99.5**
UK	85.2	85.2	87.5	86.3	**86.9**
USA	86.8	86.1	89.4	87.7	**88.3**
Austria	86.2	75.1	84.8	82.8	**85.6**
South Africa	89.9	85.4	85.4	83.0	**82.8**
China[1]	50.6	65.2	65.8	76.5	**76.7**
India	61.8	71.1	66.7	70.0	**74.4**
Thailand	61.3	72.4	65.6	56.8	**56.8**

* "Local" refers to managers with local contracts. People deployed to work at the location who do not have a local employment contract are not included. These are reflected in the difference to 100 in each case.
[1] Including employees of the joint venture BMW Brilliance Automotive Ltd., Shenyang/CN, which is not consolidated in the BMW Group.
→ GRI 405-1

Sustainability goal
Employees and society

CORPORATE CITIZENSHIP

The BMW Group is a leader in intercultural understanding.

The BMW Group is active all over the world in a wide range of social projects. The Care4Water initiative in Mexico gives people access to clean drinking water.

4.4 CORPORATE CITIZENSHIP

Sustainability goal:

The BMW Group is a leader in intercultural understanding

Effective corporate citizenship forms an integral part of the BMW Group's vision of itself as a business enterprise. As a global company, we take responsibility and address current issues in society, focusing on areas where we can best bring our competencies to bear to achieve measurable improvements. We are convinced that our activities contribute to overcoming societal challenges while also creating added value for the company. This is accomplished, for example, by implementing new ideas that arise when a variety of social stakeholders work together. Experiences thus gained can also go towards strengthening innovation in our core business. With our projects, we also want to make a contribution towards achieving the SDGs, specifically SDG 4 (High-quality education), 5 (Gender equality), 8 (Decent work and economic growth), 10 (Reduced inequalities) as well as 17 (Partnerships to achieve the goals).

Key measures:

Actively promoting intercultural understanding and social inclusion

Corporate citizenship at the BMW Group focuses on long-term solutions that are internationally transferable and bring lasting results according to the principle of "helping people to help themselves". We therefore concentrate on our core competencies: intercultural understanding and social inclusion.

As a global corporation with a multinational workforce, the BMW Group has a vital interest in tolerance and understanding between different nations, religions and ethnic groups. With the annual → **Intercultural Innovation Award**, we collaborate with the → **United Nations Alliance of Civilizations (UNAOC)** to recognise innovative projects that pursue solutions to intercultural tensions and conflict. The winning individuals and initiatives receive support in the form of both a grant and expert advice. The main focus here is on projects that promote gender equality.

Globally, the BMW Group fosters social inclusion through education projects – from primary level right through to higher education. We make a lasting contribution to more equality of opportunity by helping disadvantaged young people to gain entry to the labour market. We conduct corresponding projects at our company locations that are tailored to the respective local needs – in 2018 in such countries as the USA, Thailand, India, Brazil, Mexico, China, Korea and Germany.

One example of this is the "Joy Home" initiative of the BMW Warm Heart Fund in China. This initiative was set up so that we can provide facilities for children who live far away from their parents – e.g. if the parents are working in other provinces. Thanks to a modern education programme combined with plenty of games and sports activities, we aim to bolster the physical and mental health of the children who have been left behind and to equip them for the future. Our "Livelihood for Youth" in India teaches young people English and basic computer skills so that they can realise their potential on the labour market. The BMW Araquari plant in Brazil runs a social and leisure centre where children up to nine years of age receive meals and educational support. In England, the "BMW Education" programme gives children and adolescents insights into sustainable mobility of the future. And finally, in the "Young Engineers Dream" programme in South Korea, BMW and MINI engineers share their knowledge and experience with senior pupils in technical secondary schools. The experts are also available to the pupils as mentors, working with them to develop life goals and career plans. The one-year programme consists of monthly day-long workshops, mentor meetings, basic training at the BMW Group Korea Trainings Academy, a visit to an

automotive trade fair and even a trip to a BMW plant in Germany. For further information, see the BMW Group → **website Corporate citizenship**.

Fostering responsible leadership through the BMW Foundation Herbert Quandt

We also foster responsible leadership through the BMW Foundation Herbert Quandt. This foundation encourages leaders worldwide to take on their responsibility to society in line with the Agenda 2030. With its leadership programmes, its network of around 1,500 members and its investments, the foundation gives managers a platform for personal and professional engagement. The foundation also uses its own budget to fund initiatives from the network as well as social organisations that achieve a proven and sustainable impact. Through the Eberhard von Kuenheim Fund, the foundation additionally invests a share of its core assets in realising not only financial returns but also positive effects on society. For further information on the BMW Foundation Herbert Quandt, see → **website.**

Due diligence processes:

Avoiding risks by applying clear guidelines and systematically evaluating impact

The hallmarks of all of the corporate citizenship activities undertaken by the BMW Group are transparency, compliance with all statutory requirements as well as careful documentation of the measures taken. The BMW Group policy on "Sponsorship, donations and memberships" was drafted for this purpose in 2011. It prescribes binding rules of conduct for all internal departments and locations of the BMW Group.

We want to make sure that our corporate citizenship efforts address actual needs and have a lasting impact. With this in mind, the Corporate Citizenship department leads and coordinates the activities. It collaborates with the different locations in shaping and evaluating corporate citizenship efforts. To obtain a complete overview of all activities, the department conducts an annual global survey in all relevant areas of the company.

Based in Munich/DE, the department also reviews the impact of the BMW Group as a whole with respect to corporate citizenship. Since 2010, the iooi (Input Output Outcome Impact) method has been used for this purpose. By listing the resources deployed (inputs), the services provided (outputs), the results achieved (outcomes) and the effects attained (impacts), this method makes it possible to differentiate corporate citizenship activities according to the effort involved and the benefits realised, making their impact measurable and demonstrable. This gives us a basis for evaluating and further developing our projects.

Results and performance indicators:

Further increase in people reached

We regularly formulate clear objectives that allow us to measure the impact of our sponsorship measures. For example, between 2011 and 2025, we want to reach six million people through the diverse projects recognised by the Intercultural Innovation Award. We are on the right track. Between 2011 and the end of 2018, we were able to help over 2.58 million people through the winning projects, meaning we had already reached over 43% of our target.

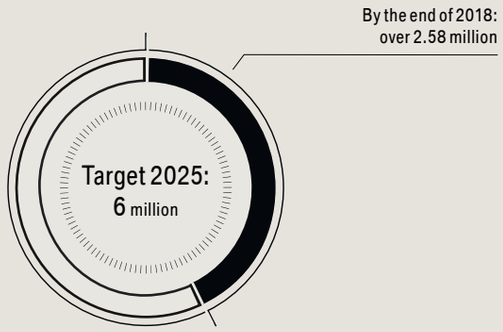
In addition, between 2017 and 2025 we intend to provide an education of good quality to one million young people – particularly in technical areas. Our education and training programmes had already reached 316,000 young people at international BMW locations by the end of 2018 (2017: 150,000). This represents a 31.6% achievement of our target.

These results are proof of our contribution to strengthening intercultural understanding and social inclusion worldwide.

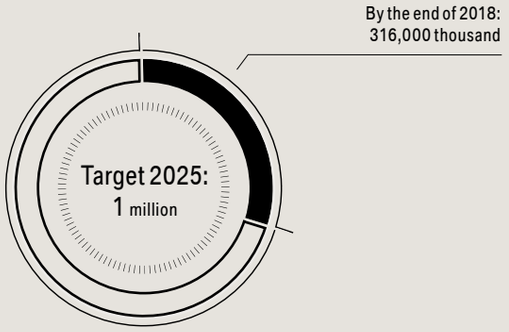
People reached by corporate citizenship activities of the BMW Group
→ **G4.23**

in %

People reached by Intercultural Innovation Award winning projects since 2011



People reached by BMW Group education programmes



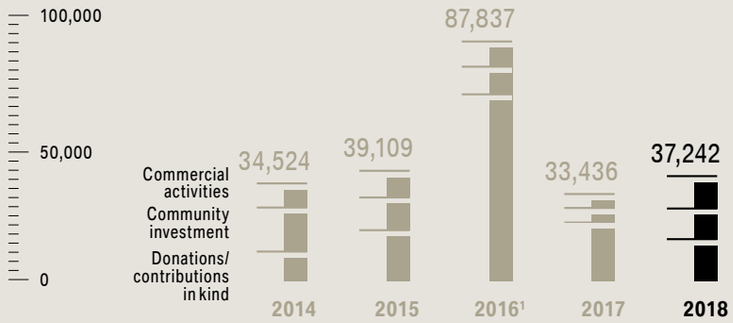
In 2018, we spent a total of €37.2 million on our corporate citizenship activities (2017: €33.4 million). To see how these funds were allocated to our various areas, please refer to graphics 4.24 and 4.25. BMW Group expenditure on community investment and commercial activities rose compared to fiscal 2017. This is a result both of new education projects at our locations and of new activities and projects that were initiated in 2018 in the area of sustainable urban development.

→ see performance indicators

Total expenditure on corporate citizenship, by type of activity*

→ G4.24

in thousand €

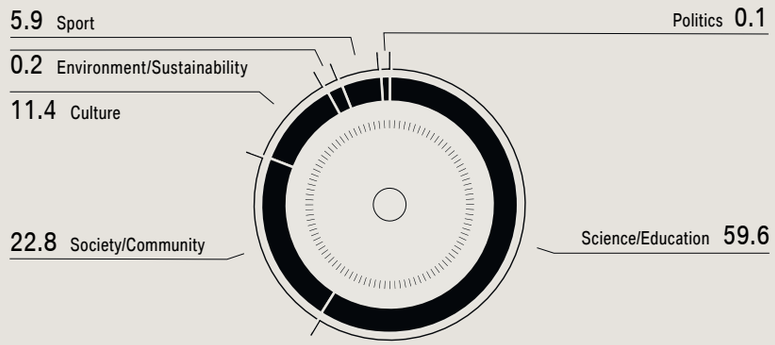


* The activities of the BMW Group in the area of corporate citizenship are divided into three main areas: monetary donations and donations in kind; community investment, which refers to investment in project initiatives, collaborations and partnerships conceived in-house, as well as corporate volunteering by BMW Group employees; commercial activities, i.e. sponsorship and cause-related marketing.
¹ 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.

Donations worldwide

→ G4.25

in %, total €15,828,558*



* in the form of cash and payments in kind.

Our next steps:

In 2019, we will adapt education and research at vocational education facilities and third-level colleges close to our locations to the latest technical innovations and we will promote training in the area of electromobility. We aim to develop solutions towards creating more equality of opportunity at the beginning of people's careers. The measures and projects we are implementing over the next year will move us towards achieving our targets through to 2025.

Combined separate non-financial report

OUR REPORTING CONCEPT

The BMW Group Sustainable Value Report (SVR) 2018 has been published to provide stakeholders with comprehensive information about the company's sustainability strategy and the progress made in integrating sustainability into its corporate processes. The requirements of the German CSR Directive Implementation Act (CSR RUG) obligate Bayerische Motoren Werke Aktiengesellschaft (BMW AG) to publish a non-financial report at company and Group level. This will be published as an integrated, separate non-financial Group report within this Sustainable Value Report. The legally required information[1] will be provided in the chapter sub-sections on the beige-coloured pages. If information only applies to parts of the BMW Group (e.g. to BMW AG), this will be indicated. This report has been prepared in accordance with the GRI Standards: Comprehensive option.

→ GRI 102-54

[1] Diversity Concept in Board of Management and Supervisory Board is contained in the Statement on Corporate Governance. → **see Annual Report 2018**

CSR Directive Implementation Act
Main topics

→ **see chapter 1.1**

Based on the results of the materiality analysis updated in the year under review in accordance with the Global Reporting Initiative (GRI) as well as the current long-term sustainability goals of the BMW Group, we derived the main topics to be complied with pursuant to the legislation. Both our own business activities, products and services as well as business relationships, e.g. along the supply chain, were taken into consideration. The topics of high relevance are presented in the integrated, separate non-financial report.

The order of the topics described is aligned with the long-term sustainability goals of the BMW Group and does not represent any particular weighting of the topics. An overview of the information on the main topics that is relevant to the legislation is presented at the beginning of each subsection of the respective chapter. Here, in accordance with the statutory materiality requirements, we have compiled the information that in each case is required for an understanding of the business performance, the financial result and the current situation of the BMW Group and which clearly expresses the effects of business activities on the non-financial aspects specified in the legislation.

→ **see chapter 1.4**

The main topics for the BMW Group's financial services were determined in 2017 by an internal workshop. They are described in Chapter 1.4.

Risks

During the reporting process, we assessed whether any risks are associated with our own business activities, our business relationships and the products and services, which would very probably have, either currently or in the future, severe negative effects on the non-financial aspects specified in the legislation. Based on this net-risk assessment as well as the general legal requirement on selecting the main reporting content, we have no risks to report in the context of the CSR RUG.

Connection to figures in financial statements

For each topic, an assessment was carried out to identify any figures in the financial statements that are required in order to understand the combined separate non-financial report and are therefore to be reported and explained. The assessment concluded that no such information is required.

Assurance engagement

The entire report (including the integrated, separate non-financial report) was audited by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, with limited assurance in accordance with ISAE 3000 (revised). → **Assurance report** → GRI 102-56

With the exception of the auditors of the legislation-relevant information – who were selected by the Supervisory Board of BMW AG – the Corporate Reporting, Corporate Communications and Policy as well as Corporate Planning and Product Strategy departments selected the external auditors for the Sustainable Value Report. Ms Ursula Mathar, Head of Sustainability and Environmental Protection and Dr Thomas Becker, Vice President of Governmental and External Affairs are responsible for expert approval of the SVR. Overall responsibility lies with the Board of the BMW Group. The Supervisory Board is responsible for reviewing the CSR RUG-relevant information. The external auditors support the Supervisory Board in fulfilling its obligation to undertake audits within the context of the CSR RUG.

References to information external to the report are considered additional information that is not part of the audit. Third-party auditing enables us to document for the public the reliability and trustworthiness of the information provided. In addition, we receive impetus for improvement and innovation in the reporting process. → GRI 102-32, 102-56

Report content in compliance with GRI standard

The weighting of the topics in the report is based on the results of our materiality process. When updating our list of main topics in the year under review, we sharpened our focus based on suggestions from our stakeholders. Therefore, although some topics continue to form part of our sustainability management, they are no longer described in detail in the SVR 2018. The topics referred to here are customer satisfaction, data protection, hazardous substance emissions in the value chain as well as socio-environmental impact on society. → GRI 102-49

Reporting period

The reporting period is the 2018 financial year. The effective date for all facts and figures is 31 December 2018. → GRI 102-50 The Sustainable Value Report is published annually. → GRI 102-52 The last report was published in March 2018 as an interactive pdf covering financial year 2017. → GRI 102-51

The statements made in the SVR 2018 about the BMW Group generally refer to the group of consolidated companies in the 2018 Annual Report. Any deviations from that are indicated and their scope specified in the footnotes of the respective tables and charts or within the text. → GRI 102-45 Nothing significant has changed in the reporting period with regard to the organisation of the BMW Group or its supply chain. → GRI 102-10

The BMW Group Sustainable Value Report 2018 will be published at the same time as the Annual Report on the BMW Group website. The → **GRI Content Index** for the SVR 2018 is available in a separate document on the website. → GRI 102-55 The next SVR will be published in early 2020.

UN Global Compact – report on progress

The BMW Group committed to implement the principles of the United Nations → **Global Compact** in 2001 and in this report once again provides information on progress achieved in complying with these principles. References to the Global Compact principles have been integrated into the → **GRI Content Index**.

Forward-looking statements

The BMW Group Sustainable Value Report 2018 contains various forward-looking statements about future developments which are based on the current status of the BMW Group's assumptions and forecasts. They are thus subject to a variety of predictable and unpredictable risks, uncertainties and other factors, so that the actual outcome, including the company's financial and assets position, its development or performance could differ considerably. The BMW Group makes no commitment to update such forward-looking statements or to adapt them to future events or developments.

The report is published in German and English. For reasons of clarity and to avoid double references, generic references to the masculine in this document should be understood as referring to both sexes.

Independent Practitioner's Report on a Limited Assurance Engagement on Non-financial Reporting and Sustainability Information[1]

To BMW AG, Munich

We have performed a limited assurance engagement on the sustainability disclosures (hereinafter the "Sustainability Information") and the combined separate non-financial report pursuant to §§ (Articles) 289b Abs. (paragraph) 3 and 315b Abs. 3 HGB ("Handelsgesetzbuch": "German Commercial Code") (hereinafter the "Non-financial Report") contained therein and highlighted in color before the respective chapters in the "Sustainable Value Report" of BMW AG, Munich (hereinafter the "Company") for the period from 1 January to 31 December 2018 (hereinafter the "Sustainable Value Report").

Responsibilities of the Executive Directors

The executive directors of the Company are responsible for the preparation of the Sustainability Information in accordance with the principles stated in the Sustainability Reporting Standards of the Global Reporting Initiative (hereinafter the "GRI-Criteria") and the Non-financial Report in accordance with §§ 315b and 315c in conjunction with 289b to 289e HGB.

This responsibility of Company's executive directors includes the selection and application of appropriate methods of sustainability reporting and non-financial reporting as well as making assumptions and estimates related to individual non-financial disclosures which are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal control as they have considered necessary to enable the preparation of the Sustainable Value Report that is free from material misstatement whether due to fraud or error.

Independence and Quality Control of the Audit Firm

We have complied with the German professional provisions regarding independence as well as other ethical requirements.

Our audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German Public Auditors and German Chartered Auditors ("Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer": "BS WP/vBP") as well as the Standard on Quality Control 1 published by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis – IDW QS 1) – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Practitioner's Responsibility

Our responsibility is to express a limited assurance conclusion on the Sustainability Information in the Sustainable Value Report and the information in the Non-financial Report based on the assurance engagement we have performed.

Within the scope of our engagement we did not perform an audit on external sources of in-formation or expert opinions, referred to in the Sustainable Value Report.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that nothing has come to our attention that causes us to believe that

- the Sustainability Information in the Sustainable Value Report for the period from 1 January to 31 December 2018 has not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria,

or

- the Non-financial Report contained within the Sustainable Value Report of the Company for the period from 1 January to 31 December 2018 has not been prepared, in all material aspects, in accordance with §§ 315b and 315c in conjunction with 289b to 289e HGB.

In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement, and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner's judgment.

[1] PricewaterhouseCoopers GmbH has performed a limited assurance engagement on the German version of the "Sustainable Value Report" and issued an independent practitioner's report in German language, which is authoritative. The following text is a translation of the independent practitioner's report.

Within the scope of our assurance engagement, we performed amongst others the following assurance procedures and further activities:

- Obtaining an understanding of the structure of the sustainability organization and of the stakeholder engagement
- Inquiries of personnel involved in the preparation of the Sustainable Value Report regarding the preparation process, the internal control system relating to this process and selected disclosures in the Sustainable Value Report
- Identification of the likely risks of material misstatement of the Sustainable Value Report
- Performance of site visits as part of the inspection of processes for collecting, analyzing and aggregating selected data:
  - in the corporate headquarters in Munich,
  - in the production plant in Rosslyn (South Africa),
  - at BMW Brilliance Automotive (BBA) in Dadong (China)
  - at BMW Brilliance Automotive (BBA) in Tiexi (China),
  - at BMW Brilliance Automotive (BBA) Engine Plant in Tiexi (China),
- Analytical evaluation of selected disclosures in the Sustainable Value Report
- Inquiries of personnel responsible for the reporting of fleet emissions and fuel consumption, as well as reconciliation of selected data points regarding fleet emissions and fuel consumptions with the fuel consumption and emission vehicle type-approval certificate from the Federal Office for Motor Traffic of Germany;
- Comparison of selected disclosures with corresponding data in the financial statements and in the management report
- Evaluation of the presentation of selected sustainability information.

Assurance Conclusion

Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that

- the Sustainability Information in the Sustainable Value Report for the period from 1 January to 31 December 2018 has not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria,

or

- the Non-financial Report contained within the Sustainable Value Report of the Company for the period from 1 January to 31 December 2018 has not been prepared, in all material aspects, in accordance with §§ 315b and 315c in conjunction with 289b to 289e HGB.

Intended Use of the Assurance Report

We issue this report on the basis of the engagement agreed with the Company. The assurance engagement has been performed for purposes of the Company and the report is solely intended to inform the Company about the results of the limited assurance engagement. The report is not intended for any third parties to base any (financial) decision thereon. Our responsibility lies only with the Company. We do not assume any responsibility towards third parties.

Munich, 27 February 2019

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Andreas Fell
Wirtschaftsprüfer
(German public auditor)

Hendrik Fink
Wirtschaftsprüfer
(German public auditor)

FUEL CONSUMPTION AND CO_2 EMISSIONS RATINGS

Figures in brackets () refer to automatic vehicles

Fully electric models (BEV)	Fuel consumption in l/100 km (combined)	CO_2 emissions in g/km (combined)	Electricity consumption in kWh/100 km (combined)
BMW i3 (120 Ah), with fully electric BMW eDrive	0	0	13.1
BMW i3s (120 Ah), with fully electric BMW eDrive	0	0	14.6 –14.0

Plug-in hybrid models (PHEV)	Fuel consumption in l/100 km (combined)	CO_2 emissions in g/km (combined)	Electricity consumption in addition to fuel consumption in kWh/100 km (combined)
BMW i8 Coupe	1.8	42	14.0
BMW i8 Roadster	2.0	46	14.5
BMW 225xe iPerformance Active Tourer	2.5–2.3	57–52	13.7–13.4
BMW X5 xDrive45e iPerformance[1]	2.1	49	23
BMW 530e iPerformance Sedan	2.2–2.1	49–47	13.6–13.3

Internal combustion engine models (ICE)	Fuel consumption in l/100 km (combined)	CO_2 emissions in g/km (combined)	Electricity consumption in addition to fuel consumption in kWh/100 km (combined)
BMW 320d Sedan	4.6–4.4 (4.6–4.2)	122–116 (119–110)	–
BMW 220i Active Tourer	5.8	133	–

[1] Provisional figures, not yet confirmed, the right to change them is reserved.

The data on fuel consumption, CO_2 emissions, power consumption and range are calculated according to the current versions of the prescribed measuring methods Regulation (EC) 2007/715 respectively. The data refers to a vehicle in its basic version in Germany, the ranges account for differences in the selected wheel and tyre size and optional extras and can change during configuration.
As at: 31 December 2018.

The figures have already been calculated based on the new WLTP test cycle and reverse-calculated to make them comparable with the NEDC. Other values than those stated here may be applicable for these vehicles when calculating taxes and other vehicle-related charges that are (also) based on CO_2 emissions.

Further information on the official fuel consumption and specific official CO_2 emissions of new passenger vehicles can be found in the "Guide on the Fuel Economy, CO_2-Emissions and Power Consumption of all New Passenger Car Models", available free of charge from all sales outlets, the Deutsche Automobil Treuhand GmbH (DAT), Hellmuth-Hirth-Straße 1, 73760 Ostfildern – Scharnhauser Park, Germany and at → **https://www.dat.de/co2/**.

WE LOOK FORWARD TO HEARING FROM YOU

Numerous BMW Group employees participated in creating this Sustainable Value Report 2018. We will be happy to answer your questions and forward them to the relevant department if needed.

If you want to stay up-to-date on sustainability at the BMW Group, you can register for the → Sustainability Newsletter right here.

Sustainable Value Report 2018 project team

→ Kai Zöbelein → Martina Hilmer → Edgar Berger

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