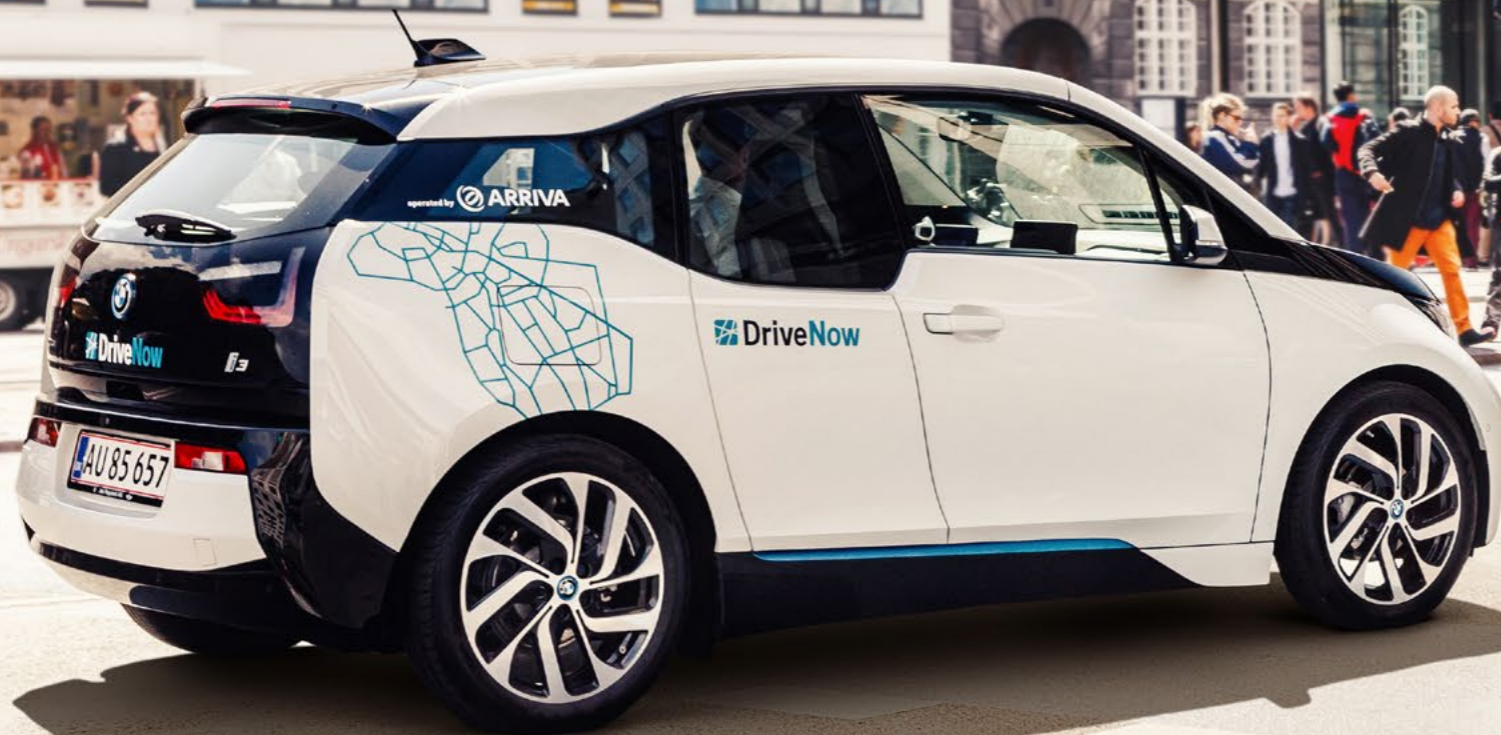


# SUSTAINABLE VALUE REPORT 2015



## ACTING SUSTAINABLY ACHIEVING OBJECTIVES

**BMW  
GROUP**

THE NEXT  
100 YEARS 



Rolls-Royce  
Motor Cars Limited



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You will find the consumption and CO<sub>2</sub> emissions figures of the vehicles presented in this publication here > [page 154](#).

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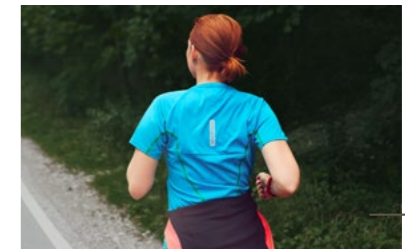
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# Sustainable management

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For the past 100 years, our company has inspired people around the world with fascinating products and services for individual mobility. Not many companies reach such an age – and not many companies have the opportunity and the resources to shape their own future.



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**Harald Krüger**  
Chairman of the Board of Management of BMW AG

Long-term thinking and responsible conduct lay the foundation for the BMW Group's economic success. The company has firmly established environmental and social sustainability throughout its value chain. This also includes comprehensive product responsibility and a clear commitment to resource conservation. We remain committed to the principles of the United Nations' Global Compact, which we have implemented at all our locations since 2001.

Our actions are aimed at shaping the mobility of the future and securing our leading position as a successful company. We have set ourselves concrete sustainability targets for 2020. Last year, once again, our projects and activities brought us a good deal closer to these targets – as confirmed by the key performance indicators in this Sustainable Value Report.

However, it does not stop here. In 2016, we will once again be looking ahead. We see electrification and digitalisation as two of the main driving forces for the future. Over the next few years, these factors will change the automotive industry more than anything we have seen over the past 100 years. We recognised the direction the industry was going from automobile manufacturer to provider of the individual premium mobility and services of tomorrow.

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This vision of the future not only includes vehicles with lower emissions and better fuel economy, it is also about developing new solutions for urban mobility – to improve the quality of life in cities.

We stand by our promise of cutting fleet emissions in Europe from 1995 levels in half by 2020 and will continue to increase the percentage of renewable energies used in production. We will offer plug-in hybrids in all segments as well as expand our car-sharing service to further cities worldwide.

Digitalisation offers enormous potential – especially for traffic in urban areas. Vehicles that are connected to one another enable traffic in cities to be organised much more efficiently: new traffic guidance systems will help avoid traffic jams, while intelligent parking management solutions will reduce traffic. In short, the connected vehicle will become the nucleus of a plethora of new services.

Through all this technological progress and development, our actions will always remain focused on the individual and their specific needs. The year 2015 demonstrated that our society still faces major challenges. We firmly believe that intercultural understanding is one of the most important factors in overcoming these challenges, together.

For many years now we have been and remain very committed to promoting intercultural exchange of inside and outside the company. Through our partnership with the UN Alliance of Civilizations, we are proud to present the Intercultural Innovation Award to honour exemplary grassroots initiatives in this area.

The BMW Group foundations also aim to create added value for society. All activities of this kind will now be concentrated in the BMW Foundation Herbert Quandt. The BMW Group will also increase the Foundation's funding by 50 million euros to 100 million euros.

The BMW Group can look back on one hundred years of history. And we will continue to take responsibility in the future – when it comes to both technology and society. We will continue to captivate our customers with our fascinating products and services. And by implementing innovative concepts, we will continue to build a positive future for our company.

*Yours*



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**Harald Krüger**

Chairman of the Board of Management of BMW AG

# An overview of the BMW Group

Our production network

**30 production and assembly facilities in 14 countries**

Our suppliers

**Around 13,000 suppliers**

Our sales network

**Around 6,000 dealerships in over 150 countries**

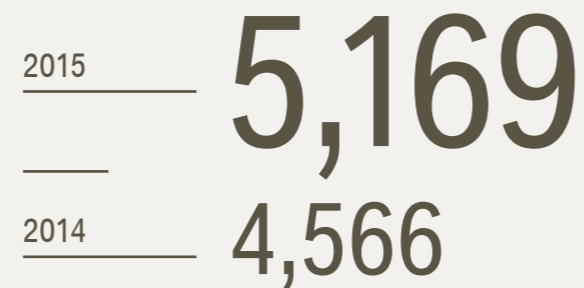
**Profit before tax in 2015** (in € million)



**Sales volume automobiles in 2015** (in thousand units)



**Research and development expenditure in 2015** (in € million)



**CO<sub>2</sub> emissions of BMW Group Automobiles in 2015** (in g/km\*)

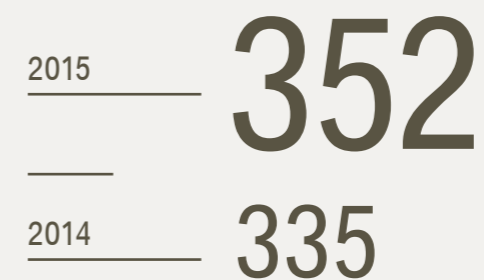


\* Fleet consumption of newly registered vehicles in Europe (EU-28)

**BMW Group employees in 2015** (number)



**Investment in further education and training in 2015** (in € million)



# Value chain

Research and development	Supply chain	Production	Logistics and transport	Sales and utilisation	Disposal and recycling
					
<p><b>Main activities</b></p> <p>Development of innovative, fascinating cars, motorcycles and services</p> <ul style="list-style-type: none"> <li>– Vehicle design</li> <li>– Series development</li> <li>– Production planning</li> </ul>	<p>Global cooperation with suppliers to create</p> <ul style="list-style-type: none"> <li>– Modules/systems</li> <li>– Components</li> <li>– Parts</li> <li>– Raw materials</li> </ul>	<p>Manufacturing of cars and motorcycles by a highly expert and diverse workforce</p> <ul style="list-style-type: none"> <li>– Engine construction</li> <li>– Bodywork</li> <li>– Paintwork</li> <li>– Assembly</li> <li>– Quality control</li> </ul>	<p>Securing customer-oriented transport logistics in the network of</p> <ul style="list-style-type: none"> <li>– Suppliers</li> <li>– Plants</li> <li>– Dealerships</li> </ul> <p>worldwide through the seamless combination of various modes of transport</p>	<p>Range of premium products and services for individual mobility through</p> <ul style="list-style-type: none"> <li>– Coordination of a worldwide dealership/repair shop network</li> <li>– Implementation of a coordinated and target-group-oriented marketing mix</li> <li>– Provision of financial services</li> </ul>	<p>Recovery and dismantling of vehicles for</p> <ul style="list-style-type: none"> <li>– Reuse</li> <li>– Recycling and disposal of vehicle components and materials</li> </ul>
<p><b>Areas of action</b></p> <ul style="list-style-type: none"> <li>– Environmentally friendly product design</li> <li>– Design for recycling</li> <li>– Development of more efficient and alternative drivetrains (Efficient Dynamics strategy)</li> <li>– Planning and development of new mobility services</li> <li>– Connected drive, digital networking</li> <li>– Life cycle engineering</li> </ul>	<ul style="list-style-type: none"> <li>– Implementation of environmental and social standards in the supply chain</li> <li>– Promotion of transparency and resource efficiency in the supply chain</li> <li>– Purchase of raw materials from environmentally and socially friendly sources</li> <li>– Purchase of renewable raw materials and materials with sustainable characteristics, e.g. secondary aluminium</li> </ul>	<ul style="list-style-type: none"> <li>– Reduction in resource consumption (energy, water, waste)</li> <li>– Reduction in environmentally damaging waste water and emissions</li> <li>– Use of recycling material</li> <li>– Promotion of lifelong learning and the development of key skills among employees</li> <li>– Promotion of diversity within the company</li> <li>– Creation of a working environment that fosters long-term health and high performance</li> </ul>	<ul style="list-style-type: none"> <li>– Production in the sales markets</li> <li>– Increase in the share of modes of transport with low emissions</li> <li>– Optimisation of capacity utilisation of modes of transport</li> </ul>	<p>Promotion of sustainable mobility behaviour patterns based on</p> <ul style="list-style-type: none"> <li>– Information (e.g. vehicle fuel consumption data) and training in fuel-efficient driving</li> <li>– Connected drive</li> <li>– Mobility services in the area of electromobility, e.g. 360° ELECTRIC</li> <li>– Car-sharing products (DriveNow)</li> <li>– Mobility assistance services</li> <li>– Mobility services to promote intermodal mobility</li> </ul>	<ul style="list-style-type: none"> <li>– Expansion and management of a network for vehicle recovery and recycling</li> <li>– Research on recycling and second life use of components (e.g. carbon-fibre-reinforced plastic and batteries)</li> </ul>

GRI G4-12



# Business model

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Please find further information about the BMW Group and its brands at:

> [www.bmwgroup.com](http://www.bmwgroup.com)

> [www.bmw.com](http://www.bmw.com)

> [www.mini.com](http://www.mini.com)

> [www.rolls-roycemotorcars.com](http://www.rolls-roycemotorcars.com)

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Bayerische Motoren Werke Aktiengesellschaft (BMW AG) has its headquarters in Munich/DE. Bayerische Motoren Werke GmbH came into being in 1917, having been founded in 1916 as Bayerische Flugzeugwerke AG (BFW). It became Bayerische Motoren Werke Aktiengesellschaft (BMW AG) in 1918.

The BMW Group is one of the most successful manufacturers of cars and motorcycles in the world and its BMW, MINI and Rolls-Royce premium brands are three of the strongest in the automotive industry today. In addition to its car brands, the BMW Group also has a strong market position in the motorcycle industry and is a successful financial services provider. In recent years, the company has also become one of the leading providers of premium services for individual mobility. One example of this is DriveNow, the car-sharing programme the company offers in collaboration with Sixt SE.

The BMW Group is an international company, represented in over 150 countries around the globe. At the end of the year it employed a total of 122,244 people (2014: 116,324 employees). The company has a large research and innovation network, with 13 locations in five countries around the world. Currently, its production network comprises 30 locations in 14 countries. The worldwide vehicle sales network is currently made up of around 3,310 BMW, 1,550 MINI and 140 Rolls-Royce car dealerships. The company also has around 1,150 BMW Motorcycle dealerships worldwide.

With its brands, the BMW Group offers its customers a broad spectrum of individual mobility in the premium segment. Furthermore, with the BMW i brand, the BMW Group has continued to expand the meaning of the term premium. BMW i is even more strongly characterised by the idea of sustainability; it stands for vehicles that lead the way in terms of electric drive, revolutionary lightweight construction, exceptional design and mobility services that have been designed from the ground up.

BMW Motorcycles also focuses on the premium segment and offers a wide range of products. Innovative technologies and a large number of driving apparel options contribute towards increasing customer safety and comfort.

The financial services segment is a partner to the sales organisation, and is represented in over 50 countries worldwide. The largest business area in the financial services segment is loan financing and leasing of BMW brand cars and motorcycles for private customers. Under the brand name Alphabet, the BMW Group has an international multi-brand vehicle fleet business that offers loans to large customers to finance their car fleets. It also provides comprehensive management of company vehicle fleets in 18 countries. This also includes full-service solutions such as the corporate car-sharing programme AlphaCity, as well as AlphaElectric, a comprehensive e-mobility solution.

Thinking for the long term and responsible action have always been the basis for our business success. In addition to business aspects, other integral parts of the BMW Group's strategy are environmental and social criteria along the entire value chain, product responsibility in all areas as well as a clear commitment to resource efficiency.

# STRATEGY

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4 EMPLOYEES  
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5 FUNDAMENTALS

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# Strategy

## OUR VISION

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

In order to make sure we are fit for the future, we continuously invest in integrating sustainability into our business model. We see global sustainability challenges as an opportunity to develop innovative products and services. In this way, sustainability makes a long-term contribution to the business success of the BMW Group. Our innovations are not developed to be of benefit to our customers only – 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 is based increasingly on acting responsibly and ensuring social acceptance. We want to 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.

## INTEGRATING SUSTAINABILITY

In order to ensure our long-term success, we integrate sustainability into all levels of our corporate strategy, business model and value chain. When we began to realign our corporate strategy in 2015, we set the course for a successful future. Sustainability is a key component in this regard and makes an important contribution towards our competitive edge. It is also deeply established within our corporate culture and our basic principles.

Our sustainability goals are in line with the Action 2020 programme we developed in collaboration with other companies on the > **World Business Council of Sustainable Development (WBCSD)**. They provide the basis for our goals and activities. The BMW Group integrates sustainability along the entire value chain and in all underlying processes – thus creating added value for the company, the environment and society. GRI G4-14

### Identifying key 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 use an “environmental radar” to scan external trends on an ongoing basis. In addition, we carry out a regular materiality process. To do this, we analyse the importance of current sustainability topics, both from the perspective of different stakeholder groups as well as that of the company. The changes picked up by the environmental radar form the basis for identifying topics and validating the results of the materiality process. The environmental radar and the results of the materiality analysis (the materiality matrix) then form the basis for regular reviews of our strategic direction as well as our sustainability goals and indicators > Figure 1.01. The result of our materiality analysis 2015 confirmed that our long-term sustainability goals cover the relevant topics. In future, we will place more strategic focus on new topics in the matrix such as “autonomous driving”.

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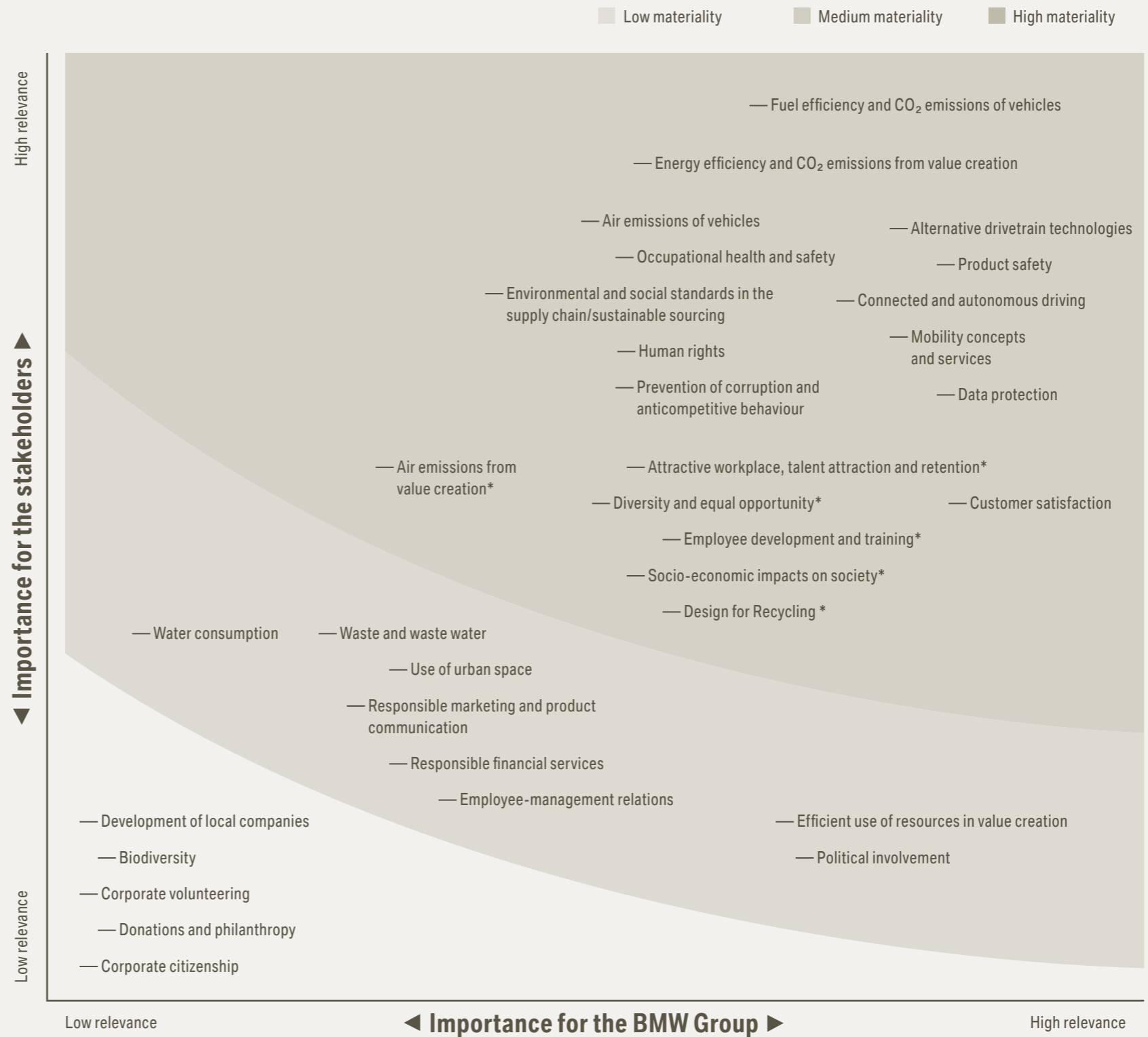
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Materiality analysis

F1.01



\*These areas were rated highly material, as they were among the three topics the respondent stakeholder groups considered most important. Further information: > [Identified material aspects and boundaries of the BMW Group](#)

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**Materiality analysis 2015**

In 2015, a survey was carried out among internal experts and telephone interviews were held with 13 representative stakeholders as part of the review process to get an update on how the topics are seen from an external perspective. The list of topics for evaluation was updated based on the BMW Group's list of topics from 2013, the stakeholder dialogues > [Chapter 5.4](#), the > [GRI G4 Guidelines](#), the > [UN Global Compact](#), the main topics of the > [Sustainability Accounting Standards Board \(SASB\)](#) and the > [UN Sustainable Development Goals \(SDG\)](#). Customers, suppliers, investors, authorities, NGOs and scientists from different regions of the world were among the interviewees. In addition, the topics were reviewed by internal BMW Group experts who are in regular contact with the main stakeholders. The analysis was accompanied by an internal document analysis of the sustainability context. To get an update from an internal perspective, we carried out a materiality workshop and prioritised relevant sustainability topics from the perspective of the BMW Group. The relevant corporate areas (including strategy departments of the divisions) as well as corresponding executives subsequently validated the materiality matrix. GRI G4-18 The review process resulted in the revised materiality matrix. Topics that both stakeholders and the BMW Group considered highly material were rated in the matrix as highly relevant. Topics that the BMW Group considers extremely relevant as well as the top three most relevant topics for the stakeholder respondents were also included in the matrix. The analysis identified 19 topics as highly material. > [Figure 1.01](#).

GRI G4-19, GRI G4-26, GRI G4-27

**Pursuing long-term sustainability goals**

The BMW Group has set itself ten strategic sustainability goals running through to 2020. The goals focus on three areas:

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

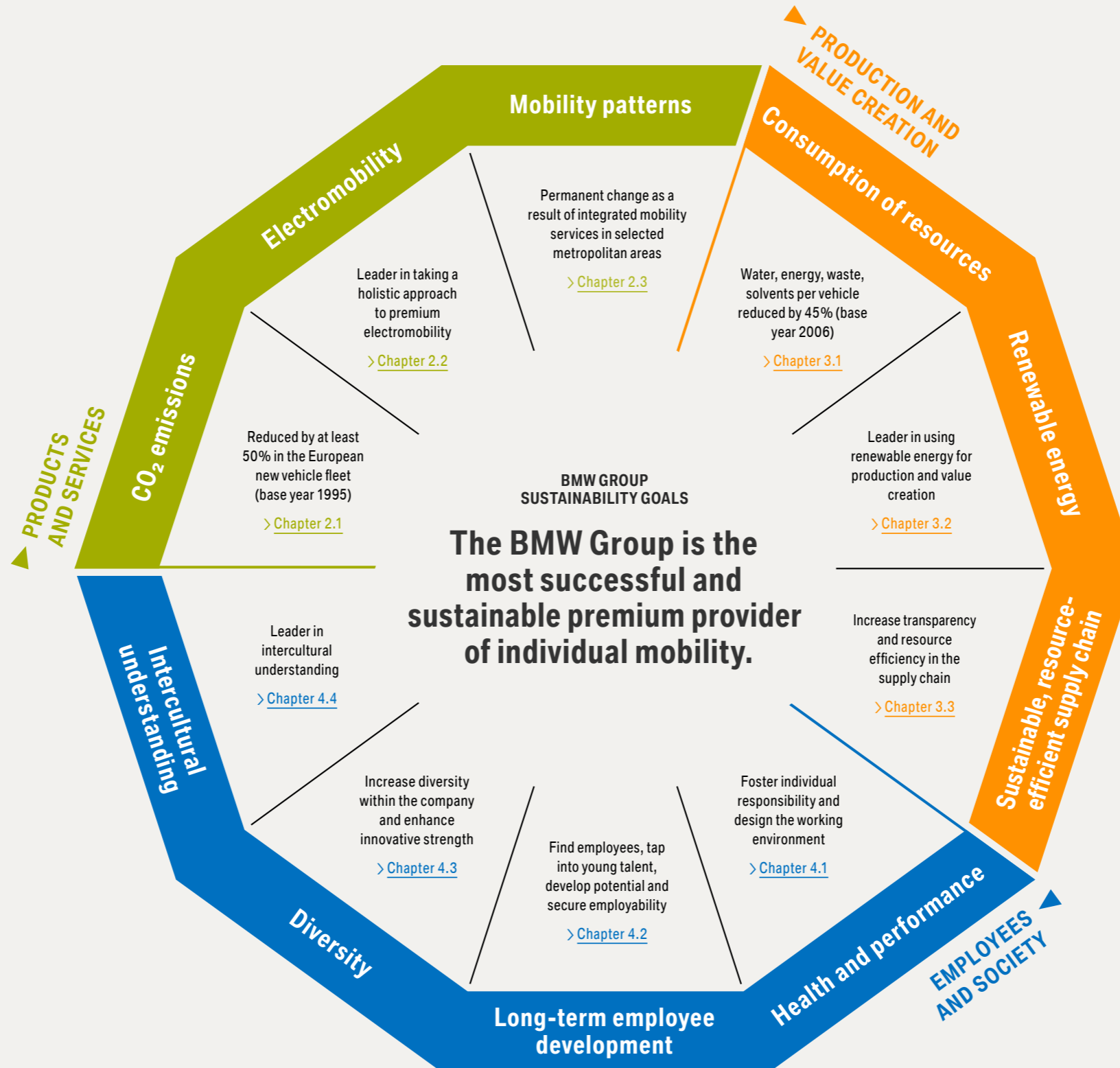
> [BMW Group sustainability goals](#).

With our long-term sustainability goals we are fulfilling our vision of being the most successful and sustainable premium supplier of individual mobility. In our opinion, sustainable operations contribute towards higher profits. We take the entire supply chain into account in this regard. This includes the development of products and services, the supply chain, production and responsibility towards our employees, customers as users, and vehicle recycling. In addition, we continuously address the issues and challenges that are topics of much discussion among the general public. Some examples of this would be our positions on manipulation of emissions values > [Chapter 2.1](#), on digitalisation > [Chapter 2.3](#) and on receiving refugees > [Chapter 4.4](#).



# Our goals

The BMW Group has set itself ten strategic sustainability goals through to 2020. They focus on three main areas: products and services, production and value creation, employees and society.



## MEASURING SUSTAINABILITY PERFORMANCE

### Five-year overview of key sustainability indicators

T 1.01

	11	12	13	14	15	Change to previous year in %
<b>Business activities</b>						
Revenues (in € million)	68,821	76,848	76,059	80,401	92,175	14.6
Profit before tax (in € million)	7,383	7,803	7,893	8,707	9,224	5.9
Sales volume automobiles (in thousand units)	1,669.0	1,845.2	1,963.8	2,118.0	2,247.5	6.1
<b>Products and services</b>						
CO <sub>2</sub> emissions of BMW Group Automobiles (EU-28) (in g/km)	145	138	133	130	127	-2.3
Sales of BMW i vehicles (number)	-	-	311	17,793	29,513	65.9
DriveNow users (number)	13,000	75,000	214,000	395,000	579,000	46.6
<b>Production and value creation</b>						
Energy consumption per vehicle produced (in MWh/vehicle)	2.43	2.41	2.36	2.25	2.19	-2.7
Water consumption per vehicle produced (in m <sup>3</sup> /vehicle)	2.25	2.22	2.18	2.18	2.24	2.8
Process waste water per vehicle produced (in m <sup>3</sup> /vehicle)	0.57	0.51	0.47	0.47	0.45	-4.3
CO <sub>2</sub> emissions per vehicle produced (in t/vehicle)	0.75	0.72	0.68	0.66	0.57	-13.6
Waste for disposal per vehicle produced (in kg/vehicle)	8.49	6.47	5.73	4.93	4.00	-18.9
Volatile organic compounds (VOC) per vehicle produced (in kg/vehicle)	1.75	1.78	1.59	1.29	1.22	-5.4
Share of renewable energy purchased from third parties (in %) <sup>1</sup>	28	36	48	51	58 <sup>2</sup>	13.7
Share of production-relevant purchasing volume in the CDP Supply Chain Programme (in %)	-	-	-	45	53	17.8
<b>Employees and society</b>						
BMW Group employees at end of year (number)	100,306	105,876	110,351	116,324	122,244	5.1
Attrition rate at BMW AG (as a percentage of workforce)	2.16	3.87	3.47	1.41	2.08	47.5
Share of women in the entire workforce of the BMW Group (in %)	16.1	16.8	17.4	17.8	18.1	1.7
Share of women in management positions at BMW Group (in %)	11.8	12.7	13.8	14.2	14.5	2.1
Average days of further training per BMW Group employee (days per employee)	3.3	3.7	3.5	3.9	4.1	5.1
Accident frequency at BMW Group (per one million hours worked)	7.1	5.8	4.8	5.1	4.4	-13.7
Expenditure on donations by the BMW Group (in € thousand)	12,873	9,638	8,485	10,199	17,066	67.3
Expenditure on corporate citizenship (in € thousand)	36,846	31,979	28,944	34,524	39,109	13.3

<sup>1</sup> 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 (Modification in calculation method for Germany and Austria due to use of transparency data in supplier invoices since 2012).

<sup>2</sup> Figure not directly comparable to 2014. Figure includes all BMW Group production locations as well as corporate functions, development and administration in Munich/DE. The 2014 figure was based on vehicle production. Figure for vehicle production in 2015: 56%.

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**BMW Group and the Sustainable Development Goals (SDGs)**

In autumn 2015, the General Assembly of the United Nations announced the **> Sustainable Development Goals (SDGs)**. We see the SDGs as a suitable framework within which companies can align their activities in such a way that they contribute towards solving global environmental and societal challenges. The United Nations' goals are a good basis on which the BMW Group can review and further improve its sustainability goals and measures. The SDGs are therefore considered in our strategic deliberations and were taken account of when the topic list for our 2015 materiality analysis **> Figure 1.01** was being prepared.

**The BMW Group and the Climate Change Conference in Paris**

The 21st UN Climate Change Conference took place in Paris in 2015. At the Conference, 195 countries reached an agreement that obliges all countries to engage in climate protection by international law. The countries committed to operating on a de facto carbon-neutral basis by the second half of this century in order to keep global temperatures from rising by more than 2 degrees. The results of the conference were seen by many players from government, industry and civilian society as a breakthrough in the struggle against climate change. The BMW Group played an active role in the discussions during the conference. Since as far back as 1992, the company has been contributing its expertise to the Climate Change Conferences worldwide. For example, at the first international BMW Group Student Forum in Paris on 30 November 2015, students from 12 countries talked to BMW experts about challenges and solutions of urban mobility. In addition, high-level company representatives took part in a variety of conferences and meetings. Among others Peter Schwarzenbauer, Board member of BMW AG, spoke at the Sustainable Innovation Forum 2015 in Paris about challenges and potential solutions for urban mobility.

At the conference, the BMW Group announced that it had joined the **> American Business Act on Climate Pledge**. Companies participating in this initiative support far-reaching agreements within the scope of the Climate Change Conference and commit to company-specific goals as well as action against climate change. In addition, the BMW Group participates in the **> RE100 Initiative of the Climate Group**, in which influential companies worldwide commit to using 100% renewable electricity in the future.

**Recognition of sustainability performance**

A number of different ratings document our sustainability performance and how it is externally perceived. In 2015, the BMW Group again ranked high in several sustainability indices and received a number of awards **> Figure 1.02**.



Focus on urban mobility: the BMW Group Student Forum at the 2015 Climate Change Conference in Paris.



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Sustainability ratings 2015

F 1.02

Ratings



Evaluation and results

The BMW Group again reached first place in the automotive industry on the **> Dow Jones Sustainability Indexes (DJSI)** and is now the only automotive company that has been listed on the index since the very beginning.

In the **> CDP**, the BMW Group achieved for the third consecutive time 100 out of a possible 100 points for transparent reporting as well as a top mark A for climate protection measures. This makes the BMW Group one of only three companies worldwide that have been awarded an A in the CDP for the sixth time a row.

In 2015, the BMW Group was again listed on **> FTSE4Good**, an index of the British index family on sustainability and corporate governance provided by FTSE in London.

**BUSINESS CASE FOR SUSTAINABILITY**

Systematic integration of sustainability into our business model and along our entire value chain contributes towards the business success of the company. The following sections and chapters will give some examples that describe in more detail how sustainability contributes towards the business success of the BMW Group:

- **Achieving a competitive edge through our Efficient Dynamics strategy**  
Strategic corporate planning leads to long-term success. The competitive edge achieved based on the Efficient Dynamics development strategy, which was launched in the year 2000, is one of the reasons why in 2015 the BMW Group had its sixth consecutive record year **> Chapter 2**.
- **Increase revenues through innovative products and mobility services**  
Investments in innovative mobility concepts made a considerable contribution towards the company's business

success in 2015. One indicator that this is the case is that 24,057 BMW i3s and 5,456 BMW i8s were sold in the year under report. At the end of 2015, just under 580,000 customers were registered with our car-sharing service DriveNow (2014: over 390,000), an increase of around 50%. With these products and solutions, the BMW Group also helps our fleet customers achieve their CO<sub>2</sub> targets **> Chapter 2**.

- **Reducing costs through resource efficiency**  
Efficient use of resources reduces risks that can be generated by availability bottlenecks and fluctuations in price. In addition, it makes a direct contribution towards the result by reducing costs, while at the same time being good for the environment. Between 2006 and 2015, we were able to significantly reduce energy and water consumption, waste and VOC emissions per vehicle produced in the BMW Group's worldwide production network. As a result, we achieved cost savings of €8.2 million in 2015 **> Chapter 3**.

- **Remaining competitive through sustainable HR policies**  
In 2015, the BMW Group was able to further consolidate its position as one of the most attractive employers worldwide. Our leading role in the area of sustainability ensures that our employees identify with and are satisfied with the company and its products. The resulting low attrition rate enables us to keep HR recruitment costs low. In addition, it is our experience that a satisfied workforce leads to higher levels of productivity > [Chapter 4](#).
- **Savings through Ideas Management**  
The Ideas Management system at the BMW Group enables all employees to play a part in change within the company by contributing their ideas. The ideas submitted result in improvements to the products and processes as well as cost savings. In 2015, around 4,900 ideas were implemented, leading to €17.5 million in savings. In addition, Ideas Management improves our competitiveness by, on the one hand, reinforcing loyalty to the company and, on the other, fostering motivation as well as entrepreneurial thinking and action.
- **Fostering innovation by involving employees**  
The Innovationswerk is the BMW Group's internal consulting company for user-focused innovations. The teams help employees to understand future requirements and to generate innovative products and services that users will love. Special facilities at the research and innovation site in Garching/DE have been set up for work on innovation projects. These allow the project teams to act with empathy and focus in their research work and to optimally apply the tools of design thinking, the lead/extreme user method and strategic consulting. GRI G4-2

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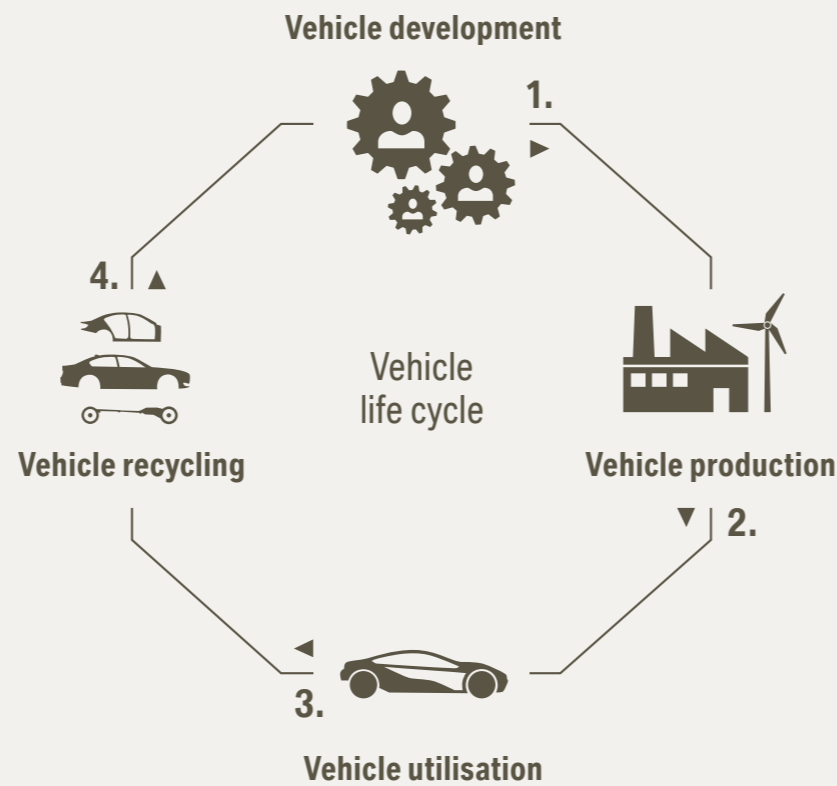
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**5 FUNDAMENTALS**

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**Key measures**

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  - Clean Production
  - Green Logistic Concepts
- 3.**
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  - Active and Passive Safety
  - Traffic Management Concepts
  - Mobility Services
  - Alternative Engines
- 4.**
  - Take-back Systems
  - Recycling Concepts

A large part of the environmental and social impact caused by a vehicle throughout its life cycle is determined during the initial development stage. Some of the main influencing factors are material selection, production technologies, supplier selection, engine type, as well as the recyclability of the vehicle’s components. Challenging sustainability goals are therefore just as much part of the development process of the vehicle as, for example, cost or weight criteria. The basis for this is holistic accounting, which evaluates the impact of our products along the entire life cycle in terms of environmental, economic and social criteria.

We use Life Cycle Engineering to increasingly integrate environmental aspects into the design and development of our products.

We aim to achieve a substantial improvement from one vehicle generation to the next. We manage the implementation of the goals and evaluation of progress by applying the Life Cycle Assessment in accordance with ISO 14040/44. The latest example of this is the new BMW 7 Series. Systematic optimisation of the drivetrain as well as more efficient use of resources in materials and production led to a reduction of 25% in greenhouse gas potential (measured in CO<sub>2</sub> equivalents) throughout the entire life cycle of this vehicle, compared to the previous model.

In line with our principle of Design for Recycling, we create our vehicles in such a way that their components can largely be reused or recycled efficiently throughout the life cycle. GRI G4-EN27



# PRODUCTS AND SERVICES

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Introduction

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1 STRATEGY

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**2 PRODUCTS  
AND SERVICES**

2.1 CO<sub>2</sub> emissions

2.2 Electromobility

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3 PRODUCTION AND  
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4 EMPLOYEES  
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Further key indicators

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GRI G4 Content Index

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Appendix

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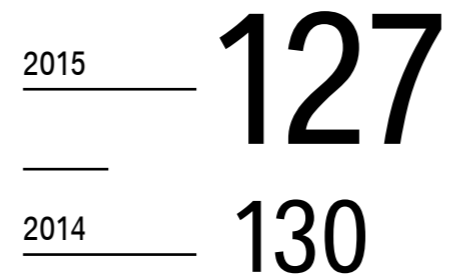
2

## Relevance for BMW Group

For us, sustainable mobility begins with the development of efficient vehicles with low emissions. In doing this, we comply both with stricter legislation worldwide and our customers' increasing awareness of environmental issues. With innovative electric and hybrid drivetrains as well as smart services, we are shaping the mobility of the future. Our autonomous driving technologies contribute towards sustainable and safe mobility for our customers and other road users.

# Key facts and figures

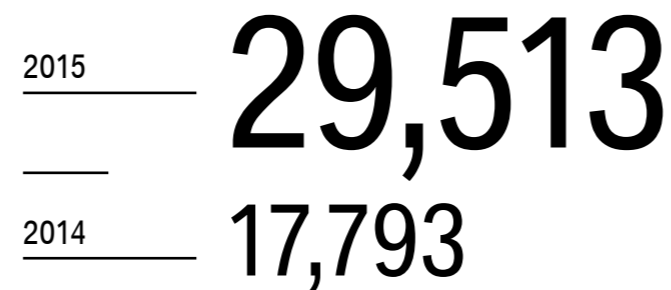
## CO<sub>2</sub> emissions of BMW Group Automobiles (EU-28) (in g/km)



## DriveNow users (number)



## Sales of BMW i vehicles (number)







Sustainability goal  
**Products  
and services**

## CO<sub>2</sub> emissions

**By 2020, the BMW Group will have reduced CO<sub>2</sub> emissions in the European new vehicle fleet (EU-28) by at least 50% compared to the base year 1995.**



DriveNow: more and more BMW i3s are available for customers to use in the car-sharing fleets.



## 2.1 CO<sub>2</sub> emissions

**Due to climate change issues and ever scarcer resources, we reduce the CO<sub>2</sub> emissions of our vehicles on an ongoing basis. We start accounting for reduction targets from the product development stage onwards. Our range of efficiency technologies represents the first and currently most effective component in the reduction of CO<sub>2</sub> emissions.** GRI G4-EC2

Statutory emissions limits pose a considerable challenge to the automotive industry worldwide. Almost all of the cars we sell are subject to varying national climate protection regulations in the individual countries. These regulations may continue to become more stringent, leading to difficult market conditions.

Between 1995 and 2015, we were able to reduce CO<sub>2</sub> emissions of our newly sold vehicles in Europe (EU-28) by 40% > [Table 2.01](#). Average fuel consumption in 2015 was 5.7 litres of petrol per 100 kilometres and 4.7 litres of diesel per 100 kilometres. In Europe (EU-28), average emissions were 127 g CO<sub>2</sub>/km (internal BMW calculation, not yet officially confirmed by the European Commission). GRI G4-EN7, GRI G4-EN17, GRI G4-EN27 In 2015, 86 of our models had maximum CO<sub>2</sub> emissions of 120 g/km. This means that we have similar fuel consumption and CO<sub>2</sub> emissions in Europe as a number of other large carmakers. The average fleet CO<sub>2</sub> emissions per kilometre worldwide decreased in 2015 by 3.3% to 147 g CO<sub>2</sub>/km (2014: 152 g CO<sub>2</sub>/km). Average CO<sub>2</sub> emissions in the USA were 170 g CO<sub>2</sub>/km (internal BMW calculation, not yet officially confirmed by the Environmental Protection Agency EPA) and in China 170 g CO<sub>2</sub>/km. The regional differences in fleet use are a result of differing consumer behaviour, which is in turn due to a variety of factors. These include differing tax situations for different types of vehicle engines, as well as local consumer preferences for diesel vehicles or specific types of vehicles such as SUVs. GRI G4-EN19

### Global CO<sub>2</sub> regulation

Medium to long-term targets to reduce fuel consumption and CO<sub>2</sub> emissions from vehicles have already been set in Europe, North America, Japan, China and other countries. However, the targets cannot be directly compared on an international level, as the calculation cycles in the individual countries are different, and segment and drivetrain mixes also tend to vary considerably.

Europe set a target average of 130 g CO<sub>2</sub>/km to be reached by 2015 for all new vehicles sold. The EU regulation defined its targets for CO<sub>2</sub> emissions based on vehicle weight. For the BMW Group, this meant a target of below 140 g CO<sub>2</sub>/km. The regulations stipulate that the European new vehicle fleet of all manufacturers must achieve an average of 95 g CO<sub>2</sub>/km by 2020.

In the USA, consumption and CO<sub>2</sub> targets have been set through to 2025. Based on a gradual reduction starting in model year 2012, the new vehicle fleet of all manufacturers must achieve an average of 250 g CO<sub>2</sub>/mile (155 g CO<sub>2</sub>/km) by model year 2016 and 163 g CO<sub>2</sub>/mile (101 g CO<sub>2</sub>/km) by model year 2025. These targets have also been calculated based on vehicles sold.

Japan also set ambitious targets for reducing fuel consumption. For 2020, a consumption target of 20.3 km/l was set – this is equivalent to a CO<sub>2</sub> emissions level of 117 g CO<sub>2</sub>/km.

In China, the fuel efficiency of the vehicle fleet is regulated. For 2020, an average consumption target of 5 litres per 100 kilometres has been set. Discussions about subsequent regulation have already begun. In addition, weight-based consumption limits have been set for individual vehicles.

Above and beyond national regulations, measures are increasingly being taken on regional and municipal levels. Varying requirements for drivetrain technologies in particular will start to have considerable influence on product strategy (e.g. the Californian Zero Emission Vehicle (ZEV) programme or the limits on registration plates in Chinese metropolises).

## SAVING FUEL AND REDUCING EMISSIONS

Our Efficient Dynamics Technologies are not just optional extras for niche or special models but have been gradually introduced as standard components in every new vehicle since March 2007. These include efficient engines and gearboxes, optimised aerodynamics (air flap control, air curtain/breather, Aero wheel rims), intelligent energy management, lightweight design, forward-looking drive control, connectivity services for low-consumption and shortest routes, the Auto Start Stop function, brake energy regeneration, and tyres with reduced rolling resistance. GRI G4-EN27

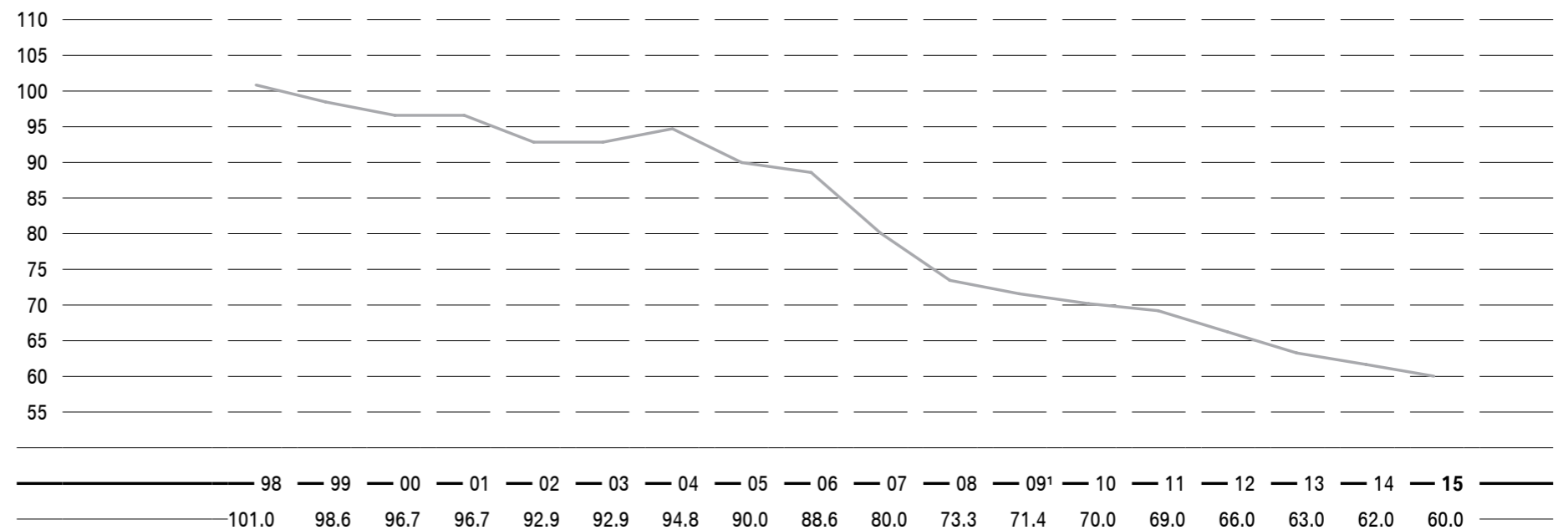


ECO PRO mode in BMW models: greater fuel economy and lower emissions through optimised vehicle efficiency settings.

### Development of CO<sub>2</sub> emissions of BMW Group cars in Europe

T 2.01

(Index: 1995 = 100; Basis: Fleet consumption of newly registered cars in Europe [EU-15] measured on the basis of the New European Driving Cycle in accordance with the ACEA self-commitment)

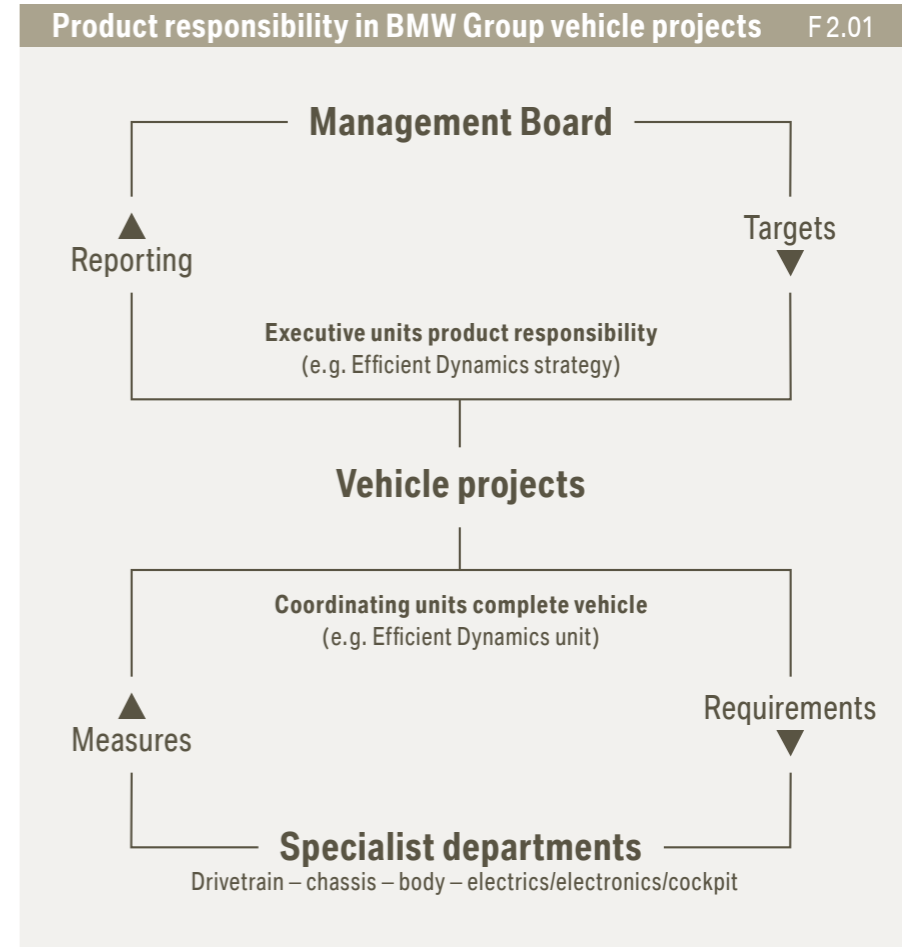


<sup>1</sup> Measured only on EU-27 basis from 2009 onwards and on EU-28 basis from 2014 onwards.

As well as reducing the carbon emissions of our cars, we are constantly working to bring down other emissions. The Euro 6 standards call for a further reduction in nitrogen oxide (NO<sub>x</sub>) levels for diesel vehicles. We apply the best implementation concept in accordance with the specific requirements of the vehicles, engines and markets. Depending on the vehicle concept, we use the maintenance-free NO<sub>x</sub> catalytic converter or Selective Catalytic Reduction (SCR) using urea (also known as AdBlue) or a combination of both systems. To close the gap in emissions measurements between test and real conditions, a new testing cycle (WLTP – Worldwide Harmonized Light Vehicles Test Procedures) and a new emissions test for real driving situations (Real Driving Emissions RDE) are currently being developed. We support the rapid introduction of the new regulations in order to create transparency for consumers and for the industry as soon as possible.

**TAKING ACCOUNT OF CO<sub>2</sub> TARGETS IN PRODUCT DEVELOPMENT**

The above-mentioned aspects of product responsibility are an integral part of the target systems and organisational processes of our vehicle development units > [Figure 2.01](#). This process entails the BMW Group defining specific CO<sub>2</sub> targets for each product line and each new vehicle project. A department within the Strategy unit is responsible for monitoring and further developing these targets. The Complete Vehicle Architecture unit coordinates the development and implementation of fuel-saving technologies in the individual vehicle projects. This ensures that the market-specific fleet requirements are taken into consideration in the very early stages of vehicle development and are subject to Efficient Dynamics measures during the development process.



## **DIGITAL ENERGY SOLUTIONS – DRIVING FORWARD THE ENERGY TRANSITION**

In order to be a participant in the energy market of the future and to help drive forward the energy transition, the BMW Group founded a joint venture called Digital Energy Solutions in collaboration with Viessmann. The main aim of this business model is to identify and create energy flexibility and to provide digitally based, operationally optimised management of this energy for small and medium-sized enterprises from the industrial and trades sectors. Customers benefit from this in three ways: their energy costs are optimised holistically, their CO<sub>2</sub> footprint is reduced sustainably and they can be sure of improved security of supply at their company locations. The overall aim of the joint venture is to achieve the CO<sub>2</sub> emissions targets in the energy, heat and transport sector at low cost, in particular in Germany. At some BMW locations, e.g. at the Leipzig/DE and Eisenach/DE plants and at the Research and Innovation Center in Munich/DE, the BMW Group has been using this business model since 2015 to sell its flexible capacity from the heat and power it generates in-house.

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### **FORECAST**

**In 2016, we will continue to expand the integration of our efficient technologies into the fleet, thus further reducing fleet emissions. However, the drop in fuel prices and the accompanying changes in customer demand will present some challenges with regard to achieving the 2020 fleet targets.**





Sustainability goal  
**Products  
and services**

## Electromobility

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

Electrification: charging a BMW ActiveE.

## 2.2 Electromobility

In order to further reduce CO<sub>2</sub> emissions in our new vehicle fleet, to improve the air quality in cities and, in particular, to be able to offer our customers an entirely new, dynamic driving experience, we have been adding electric vehicles to our model range. We started to do this in 2013 when we introduced the fully electric BMW i3, followed by the plug-in hybrid vehicle BMW i8 in 2014. In 2015 and 2016, we will add four new plug-in hybrid vehicles in the medium and luxury categories to our range.

The market for electric vehicles is growing, but in overall numbers it remains relatively small. To help our customers become used to the idea of electromobility, we offer plug-in hybrid vehicles that, in contrast to purely electric vehicles, enable both electrically powered commutes and also long-distance capabilities, when required. At the same time we are introducing BMW i3 vehicles into our DriveNow fleet.

Another key factor for the success of electromobility is sufficient availability of (fast) charging points. The BMW Group is working in China, the EU and the USA to expand the necessary charging infrastructure – both for private customers as well as in public spaces. With ChargeNow, BMW i drivers can easily find one of 38,000 public charging points in a large and constantly growing network worldwide.

Positive political framework conditions can also make an important contribution towards a breakthrough for electromobility. This has become clear in fast-growing electromobility markets such as Norway. For this reason, the BMW Group is working with partners from government, industry and society to improve framework conditions: for example in the Nationale Plattform Elektromobilität (NPE) in Germany, in the Foreign Expert Panel of a high-level advisory committee for the Chinese central government as well as in the **PEV Collaborative** in California, which addresses issues around market access and of which the BMW Group was a founding member.

### LEVERAGING FURTHER POTENTIAL WITH PLUG-IN HYBRID DRIVETRAINS

Plug-in hybrid models use up to 50% less fuel than their combustion-powered equivalents. Typical commutes during the week, for example, could be driven in electric mode, while longer journeys can also be covered using the combustion engine.

### ZERO-EMISSIONS LOCAL DRIVING WITH ELECTRIC DRIVETRAINS

Since 2007, our BMW i project has been developing completely new concepts for individual mobility as well as vehicle architecture and production that integrate our sustainable solutions in an even more innovative fashion along the entire value chain.

The resulting models of the BMW i brand do not simply replace the combustion engine with an electric one or add an electric engine (conversion approach). What we did from the very beginning was to plan new and independent vehicle concepts (purpose-built approach) in order to exploit the full potential of the new drivetrain technology and make it practicable for customers. This includes intelligent lightweight design using carbon-fibre-reinforced plastic (CFRP) and a host of new materials, as well as highly resource-efficient and at the same time environmentally friendly production methods. The result is visionary vehicles that represent an ideal balance between emissions, range and driving enjoyment. This is how BMW i creates the basis for a considerable reduction in CO<sub>2</sub> emissions throughout the entire product life cycle. The BMW i value chain stands out for its consistent use of renewable energy sources – from the manufacture of energy-intensive materials such as CFRP and aluminium, to vehicle production, right up to the BMW Green Energy package we offer our customers when they purchase their vehicle.

### Using renewable energy to charge electric vehicles

An electric car can only reach its full sustainability potential when it runs on electricity that is as carbon-neutral as possible. We estimate that around three-quarters of all electric vehicle owners in Germany recharge their vehicles at home using renewable energy sources.

BMW i customers in Germany can benefit in this regard from the BMW Group's strategic partnership with [Naturstrom AG](#). This gives BMW i customers the option of purchasing a suitable green electricity package for charging their electric vehicles. We also have a partnership with Solarwatt, a company that manufactures solar modules for surfaces like carports and house roofs. This allows customers themselves to produce green energy to recharge their [BMW i3](#) or [BMW i8](#) in their own homes.

The BMW i Green Energy products now provide customers in 15 countries with support in the use of energy from renewable sources. Ten providers of green energy as well as four manufacturers of solar energy systems for carports, house and garage roofs are among the companies the BMW Group has partnerships with in this area.

### Recycling batteries to improve our carbon footprint

Instead of being recycled, batteries that are too old for in-vehicle use are reused for stationary energy storage. During this "second life", they help us to integrate renewable energy into the power grid and reduce overall energy costs. BMW has demonstrated the technical and economic feasibility of this approach by introducing a large number of pilot systems in Europe, Asia and the USA.

### Electric scooters for more sustainable urban mobility

We launched our electric scooter in 2014. The fully electrically powered scooter produces 47.5 hp with a range of 100 km. It is designed to be a "commuting vehicle" for travel between the outskirts and the city centre. The main focus here is on two requirements: firstly, that performance is comparable to that of a combustion-powered maxi-scooter, and secondly, that it has a long range in practice.

### Increasing range with hydrogen and fuel cells

As an alternative to developing purely electric drivetrains, we are also doing research into hydrogen fuel cell technology, with a view to developing further long-term solutions for long-distance emissions-free driving. Here, hydrogen is used as an energy source that is converted by the fuel cell into electricity and water. The BMW Group is collaborating with the Toyota Motor Corporation in this area.

### FORECAST

**We will continue to offer innovative solutions for the diverse mobility needs of our customers. We are deliberately focusing our efforts on building a broad technology base so that in the coming years we can offer tailored solutions worldwide for different individual mobility needs. We will gradually integrate the plug-in hybrid technology from the [BMW i8](#) into the BMW 2 Series, BMW 3 Series, BMW 7 Series and BMW X5 models.**

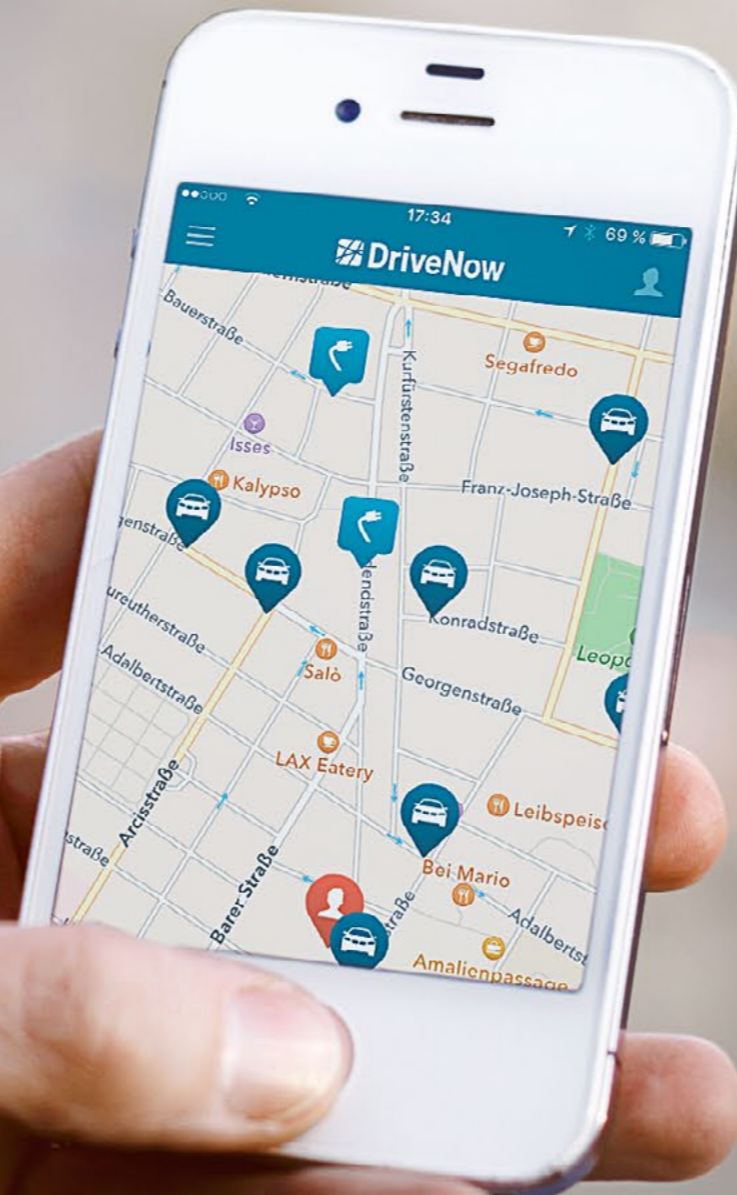




Sustainability goal  
**Products  
and services**

## Mobility patterns

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



DriveNow: find and book vehicles with an app.



## 2.3 Mobility patterns

We want to offer safe and sustainable individual mobility in premium quality. We are meeting the challenges of urban mobility, not only by making changes in the vehicles but also with mobility services. In addition, our safety technologies and smart driving technologies promote sustainable and safe mobility for our customers and other road users. The main driver of these new opportunities is the digitalisation of our business model.

We are convinced that digitalisation can make a key contribution to the sustainable design of urban mobility. What is the future of individual mobility in cities with increasingly dense populations? What concepts are needed in order to make mobility climate-friendly and easy on resources? In order to answer these questions from an even more strategic perspective and in dialogue with our stakeholders, we founded the Center of Competence for Urban Mobility in 2015. This interdisciplinary team was given the task of working with cities and local stakeholders to develop and promote solutions for urban mobility. For example, we established an e-alliance partnership with the City of Munich/DE, which will take strategic approaches towards improving the framework conditions necessary for market success, for example by entering into public-private partnerships to finance and operate charging infrastructure. It will also, however, carry out a non-monetary function by promoting the application of legislation that privileges electromobility. Similar agreements have also been made in Hamburg/DE and Berlin/DE. The corresponding action plans will be developed and implemented in 2016. In addition, further talks are being held with other cities in Europe and beyond.

### Opportunities and challenges of digitalisation

We see digitalisation as an area that is bringing huge change to the automotive industry and which will be even more challenging than the introduction of electromobility.

We are getting ready for a world in which Connectivity, i.e. digitally networked vehicles, will be just as important to customers as aspects like vehicle design. We already offer a traffic jam avoidance service, RTTI (Real Time Traffic Information) and a certain degree of automated driving in stop-and-go traffic. In five to ten years, our vehicle generations will offer a much broader range of services than they do today, for example business trip organisation or hotel bookings. And vehicles will be able to find the closest parking spaces and park themselves.

To find the best mode of transport to get from A to B in a specific situation, the “GoNow @ BMW Group” pilot project developed an intermodal navigation mobility app in 2105 for BMW Group employees at our location in Munich/DE.

### OFFERING SUSTAINABLE MOBILITY SERVICES ON A GLOBAL SCALE

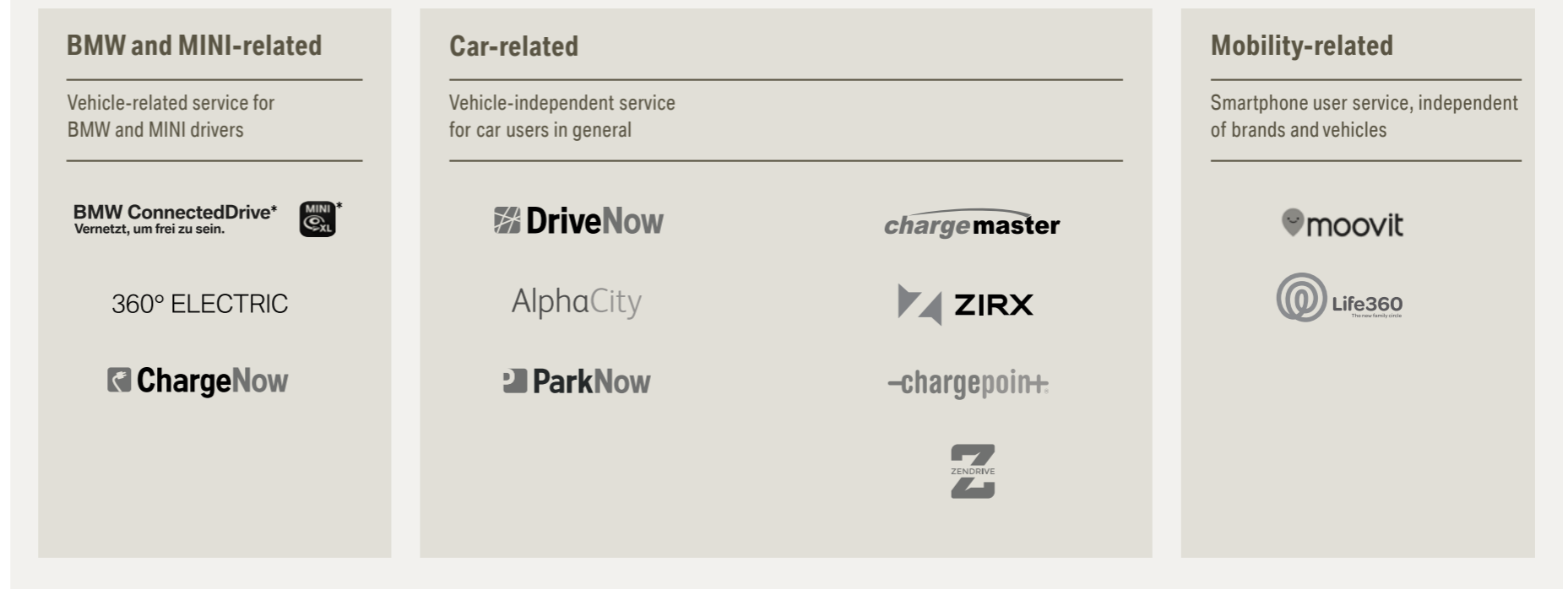
Our BMW i brand offers innovative services that enhance urban mobility – both with and without a car > [Figure 2.02](#).

#### Promoting premium car-sharing with electromobility

Since 2011, the BMW Group and Sixt SE have been offering their joint venture car-sharing service > [DriveNow](#). We are also integrating electric vehicles into the range of cars available from DriveNow. For example, in 2015 we introduced over 800 > [BMW i3](#) vehicles into our car-sharing fleets worldwide (400 of which were in Copenhagen/DK). By 31 December 2015, DriveNow had a total of around 490,000 customers in Germany and around 580,000 worldwide (in 2014: over 390,000 worldwide).

BMW Group mobility services for different user groups

F 2.02



**Creating sustainable parking patterns with ParkNow**

> **ParkNow** is an app- and Web-based service that is fundamentally changing parking patterns. First, it makes the parking space situation in a city more transparent. And it also allows users to book their parking space in advance and then be guided directly to their selected spot. So ParkNow users are also protecting the environment and avoiding stress as the tiresome traffic caused by drivers having to search for parking spaces is no longer generated.

**Creating convenient electromobility with BMW i**

**360° ELECTRIC and ChargeNow**

One example of our holistic approach to electromobility is our > **360° ELECTRIC** product and service package. It includes recharging both at home with the BMW i Wallbox and on the go at public charging points that accept > **ChargeNow** – a recharge card that currently enables access and payment at 38,000 public charging points installed by various providers

worldwide. The BMW Group also offers an installation service that checks whether the BMW i Wallbox Pure can be installed at the customer's home. If requested, the qualified on-site electrician from our partner installation company can also deliver, install, start-up and provide instructions on how to use the system. 360° ELECTRIC also includes Assistance Services with connected drive services designed specifically for electromobility, as well as further service and repair offers.

In addition, BMW Add-on Mobility gives customers access to conventional BMW or MINI vehicles for long-distance travel as well as to the car-sharing service DriveNow. 360° ELECTRIC thus provides easy and convenient electromobility in virtually any situation.

## PROMOTING SAFETY IN ALL AREAS

As a provider of premium products, safety is fundamental to the BMW Group's sense of product responsibility. This goes for our customers' safety as well as that of other road users.

### Reducing accidents through active and passive safety systems

Active safety includes perfect chassis tuning, optimal traction and effective brakes. Electronic chassis control systems as well as a range of driver assistance systems also contribute towards preventing accidents. In addition, a number of passive safety systems in our vehicles keep road users safe and save lives every day. These include energy absorbing crumple zones, safety passenger cells, belt systems and airbags.

In addition, driver safety training courses ensure the safety of road users. Today the BMW and MINI Driving Experience programme offers some 50 different training courses in over 30 countries worldwide for BMW and MINI cars and BMW motorcycles, with over 26,000 participants in 2015 in Germany alone.

### Guaranteeing product and service information for customers

Information on the safety of our vehicles and on protecting the health and safety of our customers can be found in the in-vehicle operating manuals, in printed form or as an app, and they are also available on the Internet. This is complemented by vehicle signage and additional background information on services, accessories and components.

The BMW Group is obliged by the applicable legislation to inform customers about the proper use of its products and services as well as any potential risks and hazards. In the European Union, for example, we report on the fuel economy of our vehicles based on the NEDC (New European Driving Cycle). We also publish information on fuel consumption and CO<sub>2</sub> emissions for each vehicle model on the websites of the individual brands.

### Using safe materials

In the early development phase, we evaluate the potential materials to be used in a product in order to determine their risk potential and eliminate any problematic materials from the outset. This ensures that all legislation with regard to product safety, health and the environment is complied with worldwide for every phase of the vehicle life cycle (from development to utilisation, and right up to the recycling stage). People with nickel allergies, for example, will be happy to hear that there are no exposed nickel surfaces in current BMW vehicles.

Due to our internal commitment to Responsible Care, the BMW Group has been collaborating with independent toxicologists since the 1990s to measure emissions in vehicle interiors, in order to ensure that the targets set by the experts are met in all new vehicles.

## SMART VEHICLES FOR MORE SAFETY AND ENVIRONMENTAL PROTECTION

BMW ConnectedDrive is a package of intelligent technologies that interconnect the driver, vehicle occupants, the vehicle itself and the environment. The system is based on the two pillars of driver assistance systems (comfort and safety functions) and services (infotainment and mobility products).

BMW i ConnectedDrive Services, for example, uses the Intermodal Routing service to find public transport, free parking spaces close to the respective stop and any bicycles available from Call a Bike – the bike rental system of Deutsche Bahn AG. In this way, the BMW Group makes an active contribution towards increasing intermodal mobility in cities.

With the products and services provided by the navigation service HERE, which we purchased in cooperation with other carmakers in 2015, we are taking an important next step towards further smart networks. A wide range of maps and state-of-the-art understanding of location-based services as well as secure processing of private data form the basis on which HERE will expand its growth in future. HERE will remain open for all customers and other investors, in order to broaden the shareholder base.

#### Safe driving with driver assistance systems

Driver assistance systems play an important role in making driving safer by providing a second set of eyes to observe what is happening on the road in order to warn and support the driver. These systems are now available for all models, from MINI to all BMWs, right up to the Rolls-Royce models. Driver assistance systems that enable partially automated driving are already integrated into BMW 7 Series vehicles. Drivers themselves decide in each situation what they want to use. One example is Driving Assistant Plus with a steering and lane control assistant as well as remote-controlled parking. The lane control assistant with side collision protection not only ensures that the car does not leave its lane but also actively controls the steering wheel to avoid accidents caused by vehicles approaching from the side. These systems are an important step towards highly automated driving, the aim being to increase safety, convenience and efficiency in the future.

The next goal for the BMW Group to achieve by 2020 is to enable highly automated driving on European motorways, with all the challenges this entails, such as crossing country borders or driving through roadworks.

#### Preventing manipulation and ensuring data protection

In order to prevent system manipulation, we have a clear procedure in place that forms an integral part of our development work. Methodically executed “penetration tests”

identify potential weak points and close security gaps even before the components are approved. We turn newly emerging knowledge into binding standards on an ongoing basis in order to provide the greatest possible protection against manipulation, both with regard to access to control devices as well as external penetration of vehicle interfaces.

Personal data of our customers is only collected, processed or used if this is legally permissible, or with the consent of the person in question. In addition, we invest in technical measures to protect the data.

To protect employee data, the BMW Group successfully completed the approval process for the Binding Corporate Rules (BCR) in 2014. The BCR guarantee a statutory data privacy standard that must be implemented and complied with by BMW AG and all its international subsidiaries.

#### PROMOTING INNOVATIVE MOBILITY CONCEPTS

In order to create ideal conditions for the use and promotion of innovative mobility services, the BMW Group founded **> BMW i Ventures** to invest in innovative start-up companies. Our partners benefit from our many years of experience, our reach and our broad network of established brands.

BMW i Ventures has made 14 investments so far. In 2014/15, these included:

- **> Zendrive for lower-cost driving**  
Drawing upon mobile technologies and large data volumes, Zendrive provides driver-specific analyses of the economy of the driving style, for example. The driver can access these analyses at any time.



– **Intermodal route planning with > Moovit**

The Moovit app integrates comprehensive information on bus, tram and subway schedules by using the timetable data of local transport companies as well as real-time data and live information from the “Moovit Community”.

– **> ZIRX on-demand parking service**

Users can enter their destination into the ZIRX smartphone app. When they arrive, a ZIRX agent will be there to park the car. While the car is parked, users can book additional services via the ZIRX app.

**RESEARCHING THE MOBILITY OF THE FUTURE**

**Placing the focus of research on mobility in megacities worldwide**

In 2015, the **> Institute for Mobility Research (ifmo)** carried out a project on the topic of “New Utilisation Concepts for Individual Mobility” to analyse how car-sharing is changing user mobility patterns. The research found that the average number of kilometres driven per person each year had dropped. Furthermore, the vehicles were used more efficiently.

In another project, the ifmo is currently investigating the long-term effects on mobility patterns of a fully automated vehicle fleet.

**Sustainable Mobility Project – working together to shape urbanity**

Under the auspices of the **> World Business Council for Sustainable Development (WBCSD)**, the BMW Group participated in the **> Sustainable Mobility Project 2.0** from 2013 to 2015. In this project, global and cross-sectoral groups of mobility-related companies came together with selected city governments to promote sustainable urban mobility, define tracking indicators and identify solutions.

You will find further information and data on products and services here [> Further key indicators](#).

**FORECAST**

**We will continue to work on intelligent networking of mobility services, vehicles and infrastructure in order to make urban mobility more flexible, convenient and sustainable.**

**Digitalisation will lower entry barriers to the sector, and there are new competitors with offerings such as vehicles with driver assistance systems and mobility services. With its strong brands and innovative solutions such as connected drive, the BMW Group is well prepared for this competition. In addition, digitalisation also comes with new vehicle safety challenges. By complying with the relevant standards, we aim to consistently meet these challenges, thus maintaining our customers’ trust.**

# PRODUCTION AND VALUE CREATION

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Introduction

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1 STRATEGY

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2 PRODUCTS  
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**3 PRODUCTION AND  
VALUE CREATION**

3.1 Consumption  
of resources

3.2 Renewable energy

3.3 Sustainable,  
resource-efficient  
supply chain

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4 EMPLOYEES  
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5 FUNDAMENTALS

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Further key indicators

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Appendix

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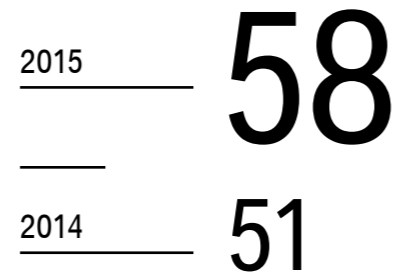
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## Relevance for BMW Group

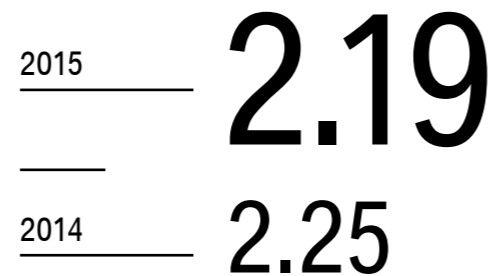
Climate change, scarce resources and social inequality are some of the greatest challenges facing society today. In order to fulfil our vision of being the most sustainable premium manufacturer, we are continuously reducing CO<sub>2</sub> emissions and resources used per vehicle produced, as well as increasing our use of renewable energy sources to supply our locations worldwide. In addition, we foster transparency, resource efficiency and the implementation of environmental and social standards in our supply chain. In doing this, we are making a contribution towards solving the challenges faced by society, and are at the same time reducing both risk and production costs.

# Key facts and figures

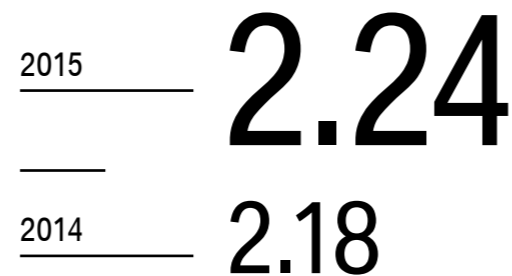
## Share of renewable energy purchased from third parties (in %)



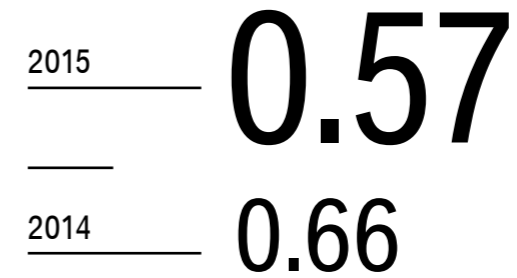
## Energy consumption per vehicle produced (in MWh/vehicle)



## Water consumption per vehicle produced (in m<sup>3</sup>/vehicle)



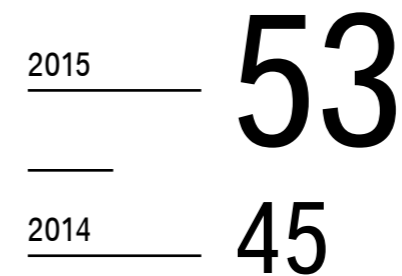
## CO<sub>2</sub> emissions per vehicle produced (in t/vehicle)



## Waste for disposal per vehicle produced (in kg/vehicle)



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







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).**

Environmentally friendly energy generation: the methane gas plant in the US BMW Group plant in Spartanburg.



## 3.1 Consumption of resources

**We apply an environmental management system in order to continuously reduce the energy required to produce our vehicles, CO<sub>2</sub> emissions and raw materials. As a result we reduce our environmental impact, make a contribution towards climate protection and save on scarce resources. At the same time we reduce our production costs.**

Since 2006, we have reduced our use of energy and water, waste and waste water as well as solvents and CO<sub>2</sub> emissions from vehicle production per vehicle produced by an average of 48.1% > [Table 3.01](#).

Improvement in resource consumption and emissions from vehicle production since 2006		T 3.01
Energy consumption	-36.0%	
Water consumption	-31.3%	
Process waste water	-45.1%	
Waste for disposal	-78.9%	
Solvent emissions	-51.4%	
CO <sub>2</sub> emissions	-45.7%	

In 2015, utilisation of resources and emissions per vehicle produced were reduced by an average of 7.0% compared with the previous year, yielding savings of €8.2 million.

Environmental protection is part of our sustainability management system. When we signed the [International Declaration on Cleaner Production](#) of the United Nations Environment Programme in 2001, we expressly committed to keeping the environmental impact and resource consumption of our production activities as low as possible.

The BMW Group has thus established environmental management systems at all of its existing production plants and plans to install them at all future facilities. With the exception of the motorcycle production in Manaus/BR, which is certified

in accordance with a national standard, all of our production locations, German dealerships, as well as six others in Europe (Vienna/AT, Zurich/CH, Rome/IT, Milan/IT, Madrid/ES and Barcelona/ES) are now certified in accordance with ISO 14001 > [Further key indicators](#).

Environmental improvements that have been effective at one location are implemented at other locations wherever possible. Our six competence centres (for water, waste, energy, emissions, training and the environmental management system) are staffed by environmental experts from the different plants and by specialists from Corporate Environmental Protection. They 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.

### INTELLIGENT APPLICATION OF RAW MATERIALS THROUGHOUT THE LIFE CYCLE OF OUR VEHICLES

In the early stages of vehicle development, the decisions our designers and engineers make, including the materials and components they select, will determine the resource efficiency of our vehicles. We use Life Cycle Engineering to increasingly integrate environmental aspects into the design and development of our products > [Figure 1.01](#).

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**Using secondary and renewable raw materials**

Secondary raw materials are finding more and more applications in our vehicles. Up to 20% of the thermoplastic materials in our automobiles are already made from recyclates (2012: up to 15%, 2013 and 2014: up to 20%). These materials account for an average of 12% of vehicle weight > [Tabelle 3.14](#). The increasing proportion of recyclates used shows how successful our efforts to complete material cycles in our vehicles have been. Wherever it makes technical, business and environmental sense and is socially acceptable, we replace technical primary materials with natural, renewable materials. This enables us to make an important contribution towards resource efficiency.

**Reducing use of rare earths**

Rare earths are key raw materials of a number of components in modern vehicles. How we use rare earths can contribute towards reducing fuel consumption, for example by increasing the efficiency of electrical systems. They are among the critical raw materials when it comes to availability risks. When using them, we carefully balance weight, function and costs.

For example, we are working to further develop magnetic materials in order to reduce the use of rare earths without any negative functional impact. For other components, too, it has been possible to find alternatives to rare earth elements which may become scarce.

**End-of-life vehicle recovery and recycling**

Established recovery systems for end-of-life vehicles, components and materials ensure that they are reintegrated into the raw materials cycle. So we do not consider end-of-life vehicles as waste to be disposed of, but rather as a secondary source of raw materials.

Together with its sales organisations in each country, the BMW Group has installed recovery systems for end-of-life vehicles in 30 countries and offers vehicle owners environmentally friendly vehicle recycling at dedicated recovery centres. GRI G4-EN27, GRI G4-EN28

In 2015, the legally required recycling rate for end-of-life vehicles, components and materials in the EU and South Korea was raised to 95% overall recovery (85% reuse and recycling of materials). We laid the groundwork for this early on: all BMW Group vehicles brought to market since 2008 already meet the requirements set for 2015.

At our recycling and disassembly centre, we continuously test new recycling concepts for new vehicle components, for example for the innovative lightweight material carbon-fibre-reinforced plastic (CFRP).



Modern lightweight design: the carbon-fibre frame for the production of the BMW i3 at the BMW Group plant in Leipzig.

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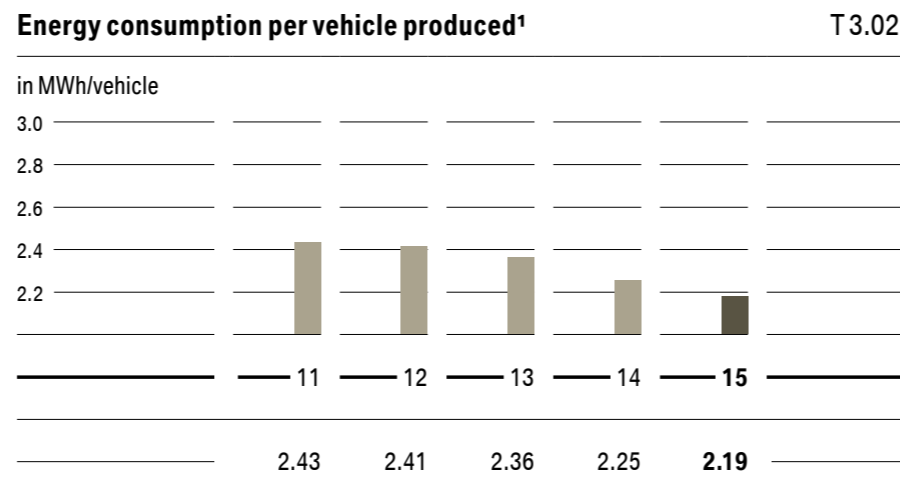
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**OPTIMISING ENERGY EFFICIENCY**

In 2015, we further reduced energy consumption from vehicle production per vehicle produced to 2.19 MWh. This is an improvement of 2.7% compared to the previous year (2014: 2.25 MWh) and a reduction of 36.0% compared to the base year 2006 > [Table 3.02](#). Our measures to reduce energy consumption are thus having an effect and we are coming closer to our goal of reducing consumption per vehicle by 45% by 2020 compared to 2006. GRI G4-EN5, GRI G4-EN6 In addition, the resulting reduction in energy costs in the face of rising energy prices in the medium term makes a significant contribution towards the BMW Group becoming more profitable and more competitive.



<sup>1</sup> Efficiency indicator = energy consumption from vehicle production (without motorcycles) minus CHP losses divided by the total number of vehicles produced, not including the vehicles from the Magna Steyr/AT and Nedcar contract production plants.

GRI G4-EN5, GRI G4-EN6

**Smart management of energy data**

At its locations in Spartanburg/USA, Leipzig/DE, Regensburg/DE, Munich/DE and Landshut/DE, the BMW Group employs a smart energy data management system. The system is based on smart electricity meters that continually measure the energy consumption of production systems and robots and

compare it against the central company network. It is thus seamlessly integrated into and complementary to the existing energy consumption metering systems within the facility and supply structures. As a result, electricity consumption can be reduced and at the same time production security and product quality can be increased. The development of the smart energy data management system is part of the BMW Group's production concept for Industrie 4.0, and it received funding from the > **European Regional Development Fund (ERDF)**.

**SYSTEMATICALLY REDUCING CO<sub>2</sub> EMISSIONS**

Climate change is highly relevant for the BMW Group. Reducing CO<sub>2</sub> emissions not only makes environmental sense – it is also a business opportunity for the BMW Group. Fewer CO<sub>2</sub> emissions mean cost savings and competitive advantage due to less energy consumption and avoidance of CO<sub>2</sub> levies. In addition, many of our fleet customers have high expectations with regard to green car policies. So we are reducing CO<sub>2</sub> emissions both at our own locations as well as along the value chain.

**Minimising CO<sub>2</sub> emissions at company locations**

CO<sub>2</sub> 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<sub>2</sub> emissions from our production facilities, which account for around 90% of these Scope 1 and 2 emissions. We are pursuing our vision of CO<sub>2</sub>-free energy supply at all locations.



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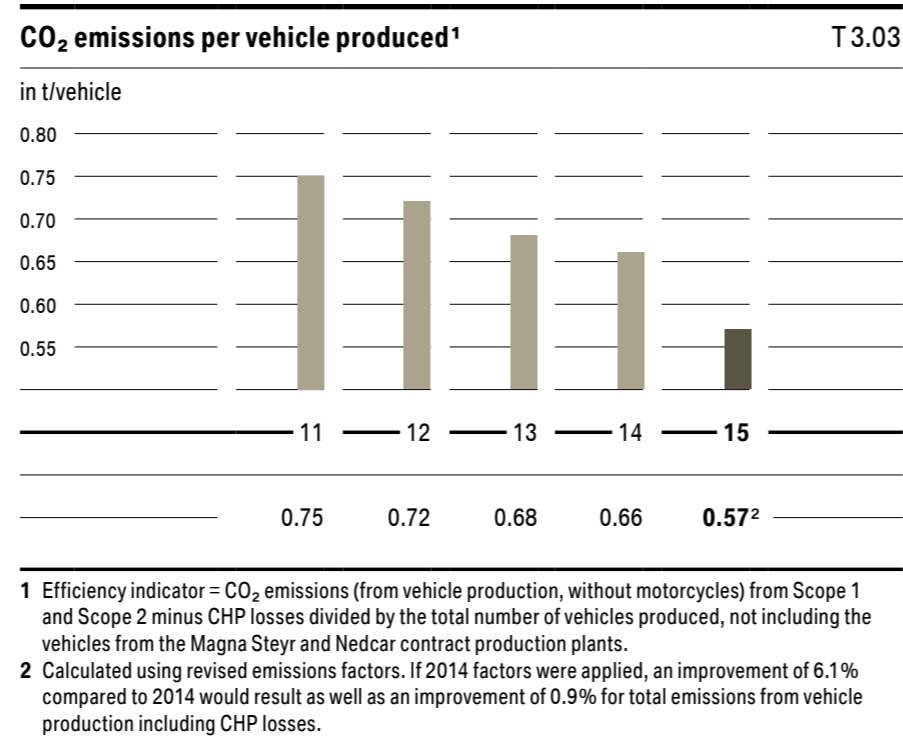
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Through the use of our eight highly efficient combined heat and power plants currently in operation, the use of renewable energy at our production locations as well as improved energy efficiency, CO<sub>2</sub> emissions from vehicle production per vehicle produced decreased in the reporting period by another 13.6% compared to the previous year, to 0.57 tonnes (2014: 0.66 tonnes CO<sub>2</sub> per vehicle). We see the continuous decrease in CO<sub>2</sub> emissions per vehicle in recent years as proof of the effectiveness of our measures > [Table 3.03](#).



GRI G4-EN18

In 2015, total emissions in our production network amounted to 1,267,485 tonnes of CO<sub>2</sub> (2014: 1,369,877 t). This means that, in spite of an increase in production volume in 2015 compared to 2014, we achieved a decrease in overall CO<sub>2</sub> emissions in this area. GRI G4-EN18, GRI G4-EN19

**Reducing CO<sub>2</sub> emissions in the value chain**

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). Just over 70% of these Scope 3 emissions are generated during the utilisation phase (not including upstream fuel). With our Efficient Dynamics Strategy we are continually reducing the average fleet emissions of CO<sub>2</sub> per kilometre worldwide – in 2015 by 3.3% to 147 g CO<sub>2</sub>/km (2014: 152 g CO<sub>2</sub>/km).

Another 24% of the Scope 3 emissions were generated in the upstream supply chain. We constantly work with our suppliers to look for further possibilities to use resources more efficiently > [Chapter 3.3](#). Around 2% of the 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<sub>2</sub> emissions to an absolute minimum, we work on the principle “production follows the market”. We are also continually increasing the share of low-carbon modes of transport. For example, we were able to significantly reduce the share of air freight in overall transport volume in the reporting period. The large number of new vehicles that leave our plants by rail also contribute towards lower CO<sub>2</sub> emissions. We were able to keep this number at a high level of 63.1% (2014: 63.3%).

With Design for Recycling, we 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<sub>2</sub> emissions in the value chain > [Introduction](#).

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**BMW Group CO<sub>2</sub> footprint** T 3.04

in t CO<sub>2</sub>

	11	12	13	14	15
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Total emissions <sup>1</sup>	2,715,364	61,603,503	64,019,874	66,913,264	68,991,955
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**Scope 1: Direct greenhouse gas emissions**

Total emissions	450,828	484,612	492,798	494,931	536,168
— Emissions of BMW Group locations	370,241	395,012	399,473	403,810	443,575 <sup>2</sup>
— Company vehicles	76,120	84,633	88,695	85,695	87,358
— Company-owned planes	4,468	4,966	4,630	5,426	5,235

**Scope 2: Indirect greenhouse gas emissions**

Total emissions	858,785	862,214	922,843	966,067	923,313 <sup>3</sup>
— Electricity/heat purchased by BMW Group locations	858,785	862,214	922,843	966,067	923,313 <sup>3</sup>

**Scope 3: Indirect greenhouse gas emissions**

Total emissions	1,405,751	60,256,678	62,604,233	65,452,266	67,532,474
— Logistics	1,195,887	1,247,100	1,383,774	1,518,304	1,402,082
— Business trips	108,492	111,971	113,388	137,601	138,522
— Employees' commuter traffic <sup>4</sup>	101,372	113,505	122,584	121,428	133,690
— Upstream chain <sup>5</sup>	–	12,592,090	13,274,865	14,331,118	14,886,300
— Utilisation phase <sup>6</sup>	–	45,251,958	46,696,786	48,239,470	49,582,958
— Disposal <sup>5</sup>	–	940,054	1,012,836	1,104,345	1,145,158

<sup>1</sup> 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. Climate-relevant gases other than CO<sub>2</sub> are not included in Scope 1 and 2 emissions.

<sup>2</sup> Figure 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 corporate functions, development and administration in Munich/DE. Application of VDA emissions factors revised in 2015.

<sup>3</sup> Figure 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 corporate functions, development and administration in Munich/DE. Market-based emissions in accordance with GHG Protocol Scope 2 Guidance. Application of supplier electricity labelling 2014 in Germany, RE DISS II factors 2013 in UK and AT as well as the VDA factors revised in 2015. Scope 2 emissions calculated using "location-based" method (overall third-party electricity and heat purchased calculated using VDA factors): 1,472,437 t CO<sub>2</sub>.

<sup>4</sup> Extrapolation from the table "Means of transport used by BMW employees and indirect CO<sub>2</sub> emissions from employees' commuter traffic".

<sup>5</sup> 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<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, NF<sub>3</sub>, among others). Corresponding with the CO<sub>2</sub>e emissions, energy consumption (lower heating value) is calculated based on the environmental footprints. Around 67,850,000 MWh in the supply chain as well as 460.000 MWh at the disposal companies.

<sup>6</sup> 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 G4-EN4, GRI G4-EN15, GRI G4-EN16, GRI G4-EN17

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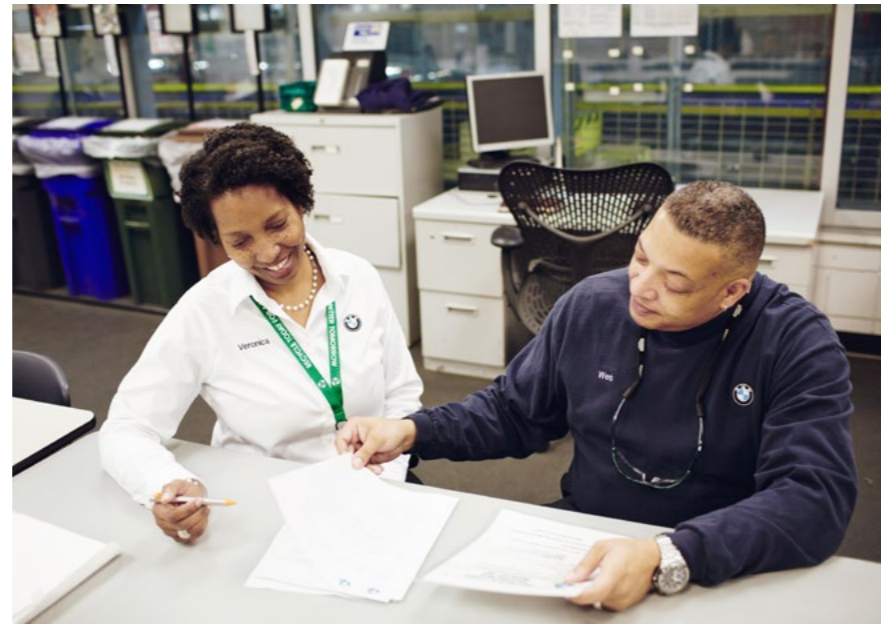
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Avoiding waste: waste management employees at the US BMW Group plant in Spartanburg.

**AVOIDING AND RECYCLING WASTE**

With raw materials becoming increasingly scarce worldwide, the BMW Group engages in recycling management throughout material life cycles. We want to reduce all waste to a minimum, to the extent that it is technically possible. This also makes business sense, because what we think of as waste is often a valuable resource.

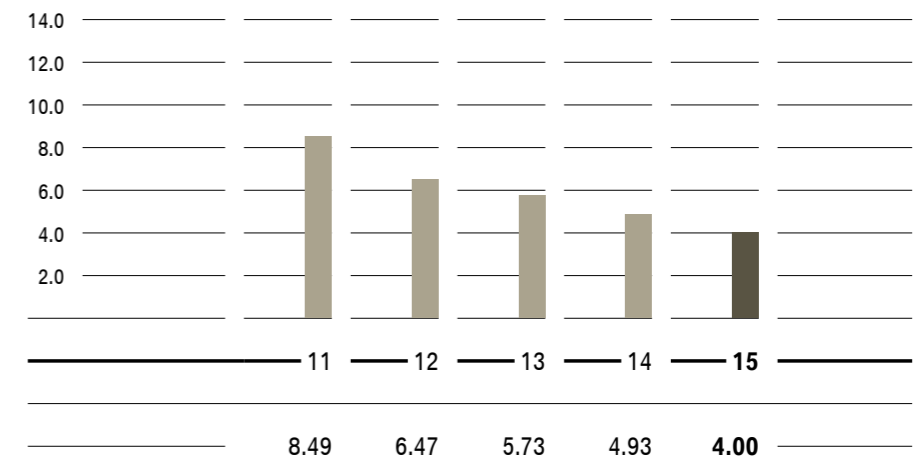
We have already achieved our aim of reducing waste volume by 45% by 2020 compared to the base year 2006. In spite of this, we continue to minimise the share of waste for disposal, and integrate as many residual materials as possible into a complete life cycle management system. We achieve this by improving our waste separation processes and working hard to find further recycling and reuse options for the individual waste types.

Non-recyclable production waste was further reduced in 2015, to 4.0 kg per vehicle produced (-18.9% compared to 2014, >Table 3.05). We see this as evidence that our waste reduction efforts have been successful.

**Waste for disposal per vehicle produced<sup>1</sup>**

T 3.05

in kg/vehicle



<sup>1</sup> Efficiency indicator = waste for disposal from vehicle production divided by the total number of vehicles produced, not including the vehicles from the Magna Steyr/AT and Nedcar contract production plants.

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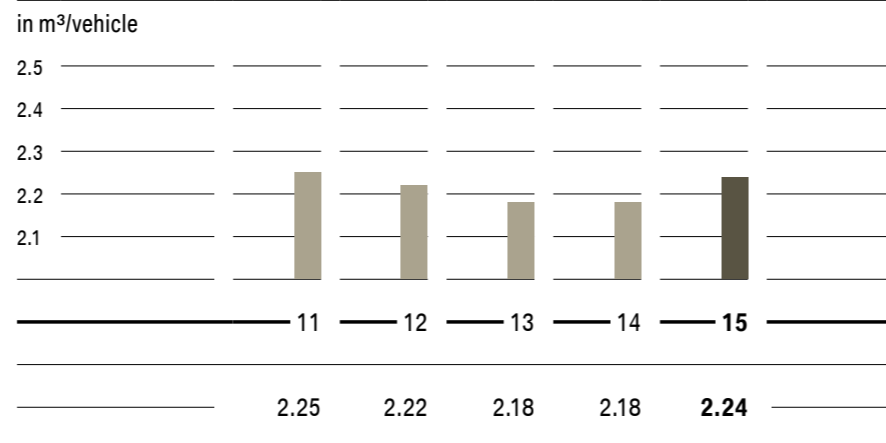
**REDUCING WATER CONSUMPTION AND WASTE WATER**

Water is becoming an ever scarcer resource. Currently, there is no risk to water supply at the BMW Group's production plants, even though we are active in countries with high water risk, such as South Africa, the USA and China. However, in these countries in particular, we are continuing to reduce our water consumption in order to help preserve this very scarce resource.

We work on an ongoing basis to implement our vision of waste-water-free processes in our production facilities.

The three largest water consumers at the BMW Group are the sanitary facilities for our workforce (45%), evaporation, mainly in cooling towers (around 35%), and the production processes, in particular at the paint shops (20%). We are continuously improving our resource efficiency in all three areas.

**Water consumption per vehicle produced<sup>1</sup>** T 3.06

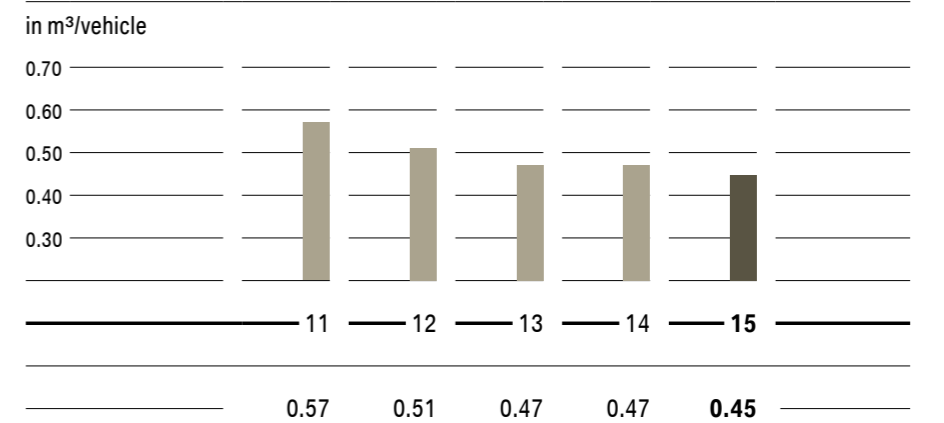


<sup>1</sup> Efficiency indicator = water consumption from vehicle production divided by the total number of vehicles produced, not including the vehicles from the Magna Steyr/AT and Nedcar contract production plants.

Water consumption from vehicle production per vehicle was 2.24 m<sup>3</sup> in 2015. This is a decrease of 31.3% compared to the base year 2006; however, it is a slight increase compared to the previous year (2014: 2.18 m<sup>3</sup>). The main reason for this is the extremely hot and dry summer worldwide, which led to significantly higher water consumption for cooling and air humidification. 86% of the water used by the BMW Group comes from the public drinking water system. The remaining 14% is groundwater. We avoid consuming water from sensitive sources (i.e. water from conservation areas). There was no such consumption in the reporting period, nor is it planned in the future.

In 2015, 0.45 m<sup>3</sup> of process waste water was generated per vehicle > Table 3.07. Through continuous improvement of our plants, in particular the optimisation of our paint shops, a reduction of 4.3% compared to the previous year was achieved (2014: 0.47 m<sup>3</sup>). This is a reduction of 45.1% compared to 2006. So we have already achieved our savings target for 2020 (45% reduction compared to 2006).

**Process waste water per vehicle produced<sup>1</sup>** T 3.07



<sup>1</sup> Efficiency indicator = process waste water from vehicle production divided by the total number of vehicles produced, not including the vehicles from the Magna Steyr/AT and Nedcar contract production plants.



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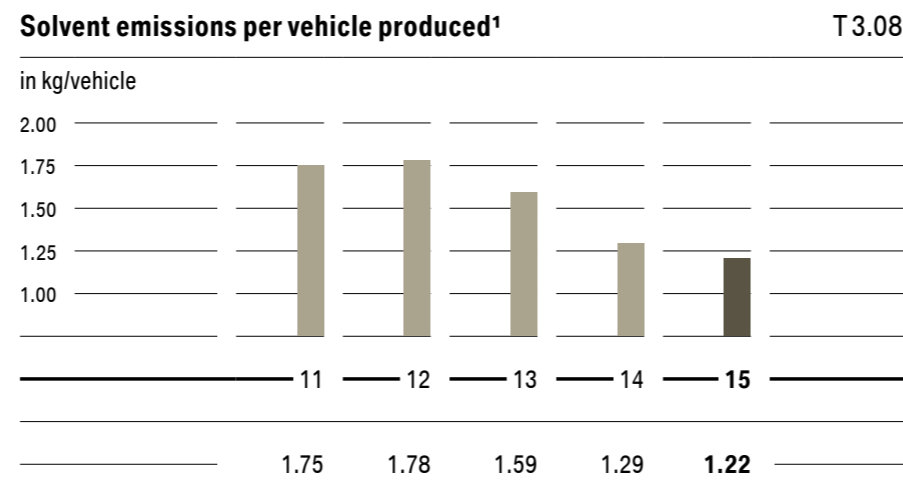
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**MINIMISING SOLVENTS**

In our Group-wide environmental efforts, we also aim to minimise the impact on the environment of our emissions of volatile organic compounds (VOC). These are primarily generated in our paint shops. By the end of 2015, VOC emissions from vehicle production per vehicle produced had been reduced by 51.4% compared to 2006, significantly exceeding the goal we had set ourselves of a 45% reduction by 2020 > [Table 3.08](#). This decrease was achieved by modernising older plants, optimising existing plants and improving post-process treatment systems.

With an average of 1.22 kg VOC emissions per vehicle produced, we are below the stringent maximum levels stipulated in Germany at almost all plants worldwide. The maximum levels stipulated by the individual countries are also complied with at all production locations. VOC emissions per vehicle produced dropped by 5.4% in 2015 compared to 2014 through the use of integrated paint process technology and improved post-process treatment of waste air.



<sup>1</sup> Efficiency indicator = VOC emissions from vehicle production divided by the total number of vehicles produced, not including the vehicles from the Magna Steyr/AT and Nedcar contract production plants.

**FORECAST**

The BMW Group will continue to successfully pursue its efforts to increase resource efficiency in the coming years. For example, at our plant in Munich/DE, we are currently building a new top-coat lacquer system that will start series production in the third quarter of 2017.

In order to further reduce our energy consumption, we plan to switch a large number of our production plants to LED lighting technology in 2016 and 2017. In addition, we intend to continue to expand the existing combined heat and power plants and install new ones at further locations.

To further reduce water consumption, we plan to introduce measures to reduce freshwater consumption in the paint shop of our Spartanburg/USA plant. In addition, we are making a contribution towards reducing freshwater consumption by rebuilding our paint shop in Munich.

We will continue to work to reduce VOC emissions, although in 2016 process start-ups in Munich/DE and Dingolfing/DE are likely to cause a temporary increase.



Sustainability goal  
**Production and  
value creation**

## Renewable energy

**By 2020, the BMW Group will be the leader  
in the use of renewable energy in production  
and value creation.**

Renewable energy: the photovoltaic system on the roof  
of the BMW Group plant in Oxford.



## 3.2 Renewable energy

Global climate change has led us to continuously reduce CO<sub>2</sub> emissions caused by energy consumption at our production facilities. The BMW Group takes a holistic approach to energy. Top priority is given to systematic reduction of energy consumption, as energy savings are always the best alternative, both for the environment and for our business. To cover the remaining energy requirements, we are expanding our own renewable energy generation systems and are increasingly drawing power from local renewable sources.

We continually increase the use of renewable energy along the entire value chain. In addition to promoting the use of renewable energy in vehicle utilisation > [Chapter 2.2](#), we primarily focus on our own plants. A large share of CO<sub>2</sub> emissions in the manufacture of our products are generated by our suppliers. That's why we support the use of renewable energy in our supply chain, too.

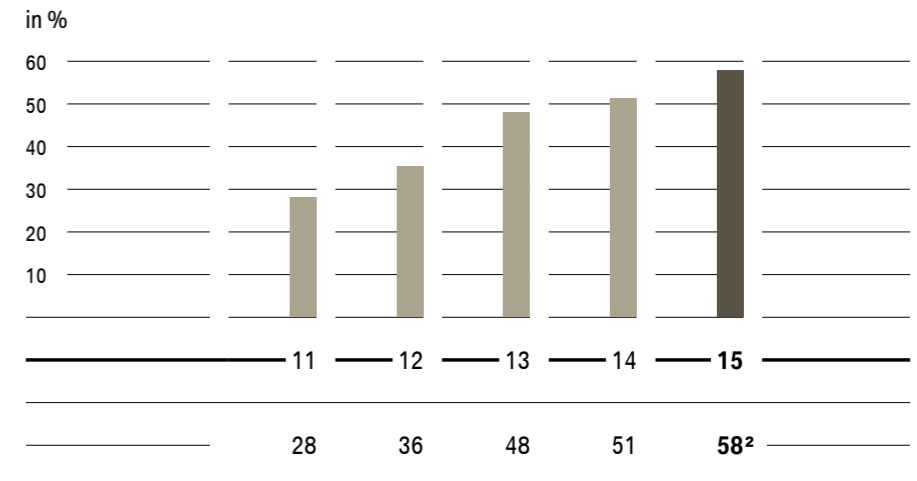
This enables us to promote the use of sustainable energy sources, reduce our environmental impact and make sure that we work as efficiently as possible with scarce raw materials. Depending on the region and measures taken, our commitment pays off, as technological advances have made green energy increasingly affordable and it is already sometimes cheaper than CO<sub>2</sub>-emitting power from the public networks.

### Continuing to increase the share of renewable energy at our locations

In 2015, we continued to expand our use of renewable energy. There was a significant increase in the volume of electrical energy drawn from renewable sources worldwide. For the BMW Group, this share amounted to 58% > [Table 3.09](#). This increase is the result of our continuous measures to increase the use of renewable energy sources.

Share of renewable energy purchased from third parties<sup>1</sup>

T 3.09



<sup>1</sup> Calculated based on volumes of green energy purchased (directly or indirectly via certificates of origin) as well as the conservative calculation of country-specific energy shares from renewables purchased from third parties. (Modification in calculation method for Germany and Austria due to use of transparency data in supplier invoices since 2012.)

<sup>2</sup> Figure not directly comparable to 2014. Figure includes all BMW Group production locations as well as corporate functions, development and administration in Munich/DE. The 2014 figure was based on vehicle production. Figure for vehicle production in 2015: 56%.

### EXPANDING USE OF RENEWABLE ENERGY AT BMW GROUP LOCATIONS

We do not focus on any one particular renewable energy source at our locations. We decide at each location which concept makes the most sense in view of local conditions. A number of different technologies are therefore used to generate energy at our locations. Two examples of this are our plants in South Africa and Austria:

#### – Rosslyn/ZA

Since October 2015, a combined heat and power plant of an independent operator > [Bio2Watt](#) has been supplying renewable energy to our plant in Rosslyn/ZA. The power plant runs on biogas drawn from waste from cattle and chicken farms as well as from food production plants. In 2015, the plant delivered 3.1 GWh, or 4.5% of the entire electricity volume required by our plant.

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Using new ideas: environmentally friendly energy from biomass for the South African BMW Group plant in Rosslyn.

– Steyr/AT

The majority of the energy supplied to our plant in Steyr/AT is green energy. Just under half of the heat required comes from district heating that is completely carbon-neutral as it is drawn from wood chip combustion. The remaining heat required is primarily drawn from CO<sub>2</sub>-efficient gas-fired combined heat and power plants installed directly in the plant.

OFFERING FLEXIBLE SOLUTIONS FOR RENEWABLE ENERGY

A key prerequisite for the expansion of renewable energy is to separate generation and consumption of energy in terms of time. To achieve this, we are taking a number of innovative approaches. One example is Battery Second Life:

– Battery Second Life

Battery Second Life offers a solution for flexible storage of renewable energy. Old BMW i batteries are used for stationary storage of excess energy. We already have a system at our Leipzig/DE plant that shows how this can work. We combined four used >BMW i3< batteries to make one large, 1,000 kg-heavy storage system. This store is sufficient to supply a three-person household with energy for one week.

The system stores the energy from four wind turbines that supply the plant, thus making it possible to have renewable energy available, even when the wind is not blowing. The >BMW i3< charging points installed at our plant are also supplied with energy from this source, so the vehicles can be run on energy from wind power.



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Harnessing existing potential: carbon-fibre production in Moses Lake/US with hydroelectric power.

PROMOTING RENEWABLE ENERGY IN THE SUPPLY CHAIN

We also promote the use of renewable energy in our supply chain. Our work begins at the strategic level: based on information we draw from our suppliers as part of the Supply Chain Programme of the [CDP](#) [Chapter 3.3](#), we agree with our suppliers that they will increase the share of renewable energy they use.

Manufacturing carbon fibres with hydropower

We use our own experience with the use of renewable energy in order to also reduce CO<sub>2</sub> emissions within our supplier network. One example of this is the production of carbon fibre by our joint venture with the SGL Group in Moses Lake/US, where the carbon fibres for our BMW i models are manufactured.

The production of carbon fibre is very energy-intensive. Therefore, the availability of renewable hydropower was key in the decision to build the plant in Moses Lake/USA. The plant is run entirely on renewable energy, which is mainly generated by two neighbouring power plants at Columbia River. With our joint venture, we are laying the foundation stone at the very beginning of the value chain for the reduction of CO<sub>2</sub> emissions throughout the life cycle of the BMW i models.

FORECAST

In the coming years, we will further intensify our activities to expand renewable energy use. Among other things, we plan to expand our in-house energy generation via photovoltaic systems at our plants in Germany. Similar plans are in place for our international locations. In addition, we plan to support the generation of renewable energy at plants close to our production locations in Germany and the UK.

And we will also analyse the economic, political and regulatory framework conditions to expand renewable energy in all countries with BMW Group production locations, and define further steps to expand our use of green energy.





Sustainability goal  
**Production and  
value creation**

Sustainable, resource-efficient supply chain

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



Working together with suppliers: seats for the  
Tiexi plant in China.



## 3.3 Sustainable, resource-efficient supply chain

As part of the global growth of the BMW Group, we are shifting our value creation more strongly towards the respective sales markets. Increasing internationalisation of procurement leads to great opportunities but also to new sustainability risks. In view of our large number of suppliers and sub-suppliers, maintaining sustainability standards is a huge challenge. Only if we work closely with our business partners can we increase transparency and resource efficiency in the supply chain and ensure that sustainability standards are complied with.

Because much of the value-added is created by our suppliers, it is not enough for us to comply with sustainability standards only for our own production. This is why we insist that our suppliers also implement social, environmental and governance standards. In addition, we train our own employees as well as those of our business partners to implement sustainability criteria along the value chain.

We have set ourselves the goal of significantly increasing transparency and resource efficiency in the supply chain by 2020. To do this, we have a comprehensive risk management system in place to ensure that our sustainability standards are complied with, in particular at the production facilities of our direct suppliers. We work with our suppliers to develop increasingly efficient ways of using resources, provide direct support for innovations in the area of sustainable technologies and processes, increase transparency and improve the working conditions at our suppliers' companies. For selected raw materials we also analyse what action needs to be taken to implement sustainability criteria along the supply chain and carry out the required measures in collaboration with our suppliers. This helps us to reduce risk, raise awareness for sustainability and protect resources.

We were able to make significant progress in 2015:

- Around 1,900 supplier locations were assessed for the first time based on an industry-specific sustainability questionnaire. Assessments are carried out at all nominated supplier locations as well as at potential and already active facilities.
- Supplier locations that do not comply with the BMW Group's minimum requirements (e.g. in accordance with **> UN Global Compact** criteria) must agree to install a corrective action plan. In 2015, our system logged corrective action plans with target deadlines for around 400 supplier locations.
- Suppliers who took part in the Supply Chain Programme of the CDP in 2015 reported an overall reduction of 35 million tonnes in CO<sub>2</sub> emissions (2014: 21 million t).

### Principles and standards for suppliers

For the BMW Group, it is essential that our business partners meet the same environmental and social standards we have set ourselves. The BMW Group Supplier Sustainability Standards are the foundation on which this process is based. The standards establish basic principles that are to be adhered to by all BMW Group suppliers. This includes compliance with all internationally recognised human rights as well as environmental, labour and social standards. The BMW Group Sustainability Standard is an integral part of the request for proposal documentation for new suppliers and is thus a key tool in the integration of sustainability aspects into the procurement process.

Each potential new supplier must take into consideration the BMW Group sustainability requirements when submitting a proposal. All agreements concluded by BMW AG with its suppliers contain clauses based on the principles of the **> UN Global Compact** and the **> International Labour Organization (ILO)**. These agreements also specify that a contractual

commitment must be made to comply with human rights, labour and social standards as well as to implement environmental management systems [> BMW Group website on supplier network](#). When they sign the contract, our suppliers also commit to ensuring that their suppliers in turn comply with these agreements.

**Adapting purchasing to local value creation**

Increasing globalisation, networking of supplier markets and expansion of the BMW Group’s sales and production activities overseas leads to constant change in the distribution of purchasing volumes. The focus of growth in the coming years in this area will be in the NAFTA region (USA, Canada and Mexico). In 2015 the share of local value creation was 15.9% (2014: around 14.5%). This is due to the increase in production volume at the Spartanburg plant in the USA. It is also the result of the construction of the BMW Group plant in San Luis Potosí in Mexico, which is scheduled to open in 2019. This is in line with the company’s strategy of balanced global growth in sales, production and purchasing volumes. [> Table 3.10](#) gives an overview of the origin of our production material.

**Training employees and suppliers**

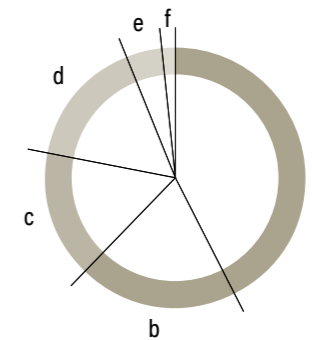
Our sustainability training programmes are designed both for our purchasers and our suppliers. We raise their awareness of the topic and they learn about cause and effect. We also clearly communicate our expectations to them. In this way, we enable participants to make decisions that contribute towards greater sustainability in the supply chain.

We aim to train as many of our purchasers as possible. In 2015, around 247 new purchasers (2014: 581) took part in this training. We also provided training for 20 of our suppliers (2014: 38) and carried out cross-industry training courses for BMW suppliers with identifiable sustainability deficits in India (15 suppliers) and South Africa (46 suppliers).

**Regional mix of BMW Group purchase volumes in 2015**

T 3.10

in %, basis: production material



a) Germany	42.6	d) NAFTA	15.9
b) Central and Eastern Europe	19.7	e) Asia/Australia (incl. China)	4.6
c) Rest of Western Europe	15.8	f) Africa	1.4

GRI G4-12

Another important enabling measure in 2015 was our sustainability day for suppliers and all employees of the BMW Group at the Munich/DE location, where 19 of our most innovative suppliers presented their sustainability strategies and measures.



Risk management process of the BMW Group						F 3.01
1. Identify risks		2. Retrieve self-assessment questionnaire		3. Carry out assessments and audits		
Identify high-risk supplier locations based on sustainability risk filter	Identify and analyse high-risk suppliers based on media screening	Obtain self-assessment/ sustainability questionnaire	Develop supplier-specific corrective action plan, based on self-assessment	Sustainability audit conducted by independent external auditors	Corrective action plan based on audit result	

**MINIMISING RISKS**

The main instrument we use to ensure implementation of our sustainability standards is our sustainability risk management process. It is made up of the following three steps > [Figure 3.01](#).

**1. Identify risks**

In order to identify risks, we use a BMW Group-specific sustainability risk filter. This filter takes account of both regional and product-specific risks. This includes, for instance, an assessment of social risks in certain countries, such as child labour or forced labour. However, we also consider environmental risks such as damage to nature, emissions and process materials containing substances that can be hazardous to health.

**2. Retrieve self-assessment questionnaire**

In many areas, it is more efficient to take a cross-industry approach. In autumn 2014, we replaced the BMW Group self-assessment questionnaire with a sustainability questionnaire for the automotive industry. Each nominated supplier must provide information about their implementation of environmental, social and governance standards, for example with regard to compliance with human rights and bans on forced labour at their production locations. Sustainable use of materials such as secondary aluminium is also verified at the request for proposal stage. The existence of an environmental

management system in accordance with ISO 14001 is also logged by the new questionnaire and is the basic prerequisite for our suppliers of production material and capital equipment. After the proposal has been submitted, these details are included as key decision-making indicators in the procurement process. In 2015, a total of around 1,900 nominated, active and potential suppliers were assessed via this questionnaire. By establishing sustainability requirements in the tendering process, we not only increase transparency along the supply chain but also raise the awareness of this topic on the part of our suppliers' top managers. As a result, a number of our suppliers have taken decisive measures to better establish sustainability within their companies. GRI G4-EN32, GRI G4-LA14, GRI G4-HR10, GRI G4-SO9

If a low sustainability level is identified on a supplier's questionnaire, we communicate the industry-wide standard recommendations to them, which we evaluate based on the BMW Group sustainability standards for the supplier network. In order to ensure that such a supplier qualifies for nomination in the tendering process, the BMW AG purchaser requires that improvement measures be implemented by start of production at the latest.

In 2015, our system logged corrective action plans with target deadlines for around 400 supplier locations. An external service provider checks that the measures have been implemented by the date agreed upon. The key corrective measures

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from the perspective of the > **UN Global Compact** were related to implementation of the following aspects: Sustainability policy for suppliers and their sub-suppliers, Human Rights policy, social and compliance management systems, as well as instructions on how to work with chemicals.

For suppliers with sustainability deficits, we supplement the supply contracts with corrective action plans and binding rules. We can thus ensure that all sustainability requirements will be met by start of production or provision of services.

GRI G4-EN33, GRI G4-LA15, GRI G4-HR11, GRI G4-SO10

In the case of sub-suppliers, we only have indirect influence on the implementation of sustainability standards. However, we oblige our direct suppliers to ensure that our sustainability requirements are also met by their sub-suppliers. In addition, we develop specific measures for individual supply chains such as participation in the > **Aluminium Stewardship Initiative (ASI)**, a cross-industry initiative for sustainable manufacture of aluminium. The ASI aims to establish a standard for responsibly produced aluminium along the entire value chain. The initiative was able to make significant progress in recent years. This includes the formulation of principles, criteria and indicators in a multi-stakeholder process. In addition, a traceability model for the value chain was developed. The next step is to establish the ASI as an independent organisation and carry out a pilot application of the standard.

**3. Carry out assessments and audits**

If the sustainability risk filter identifies supplier locations that demonstrate an increased risk of non-compliance with sustainability standards, they are checked, trained and, if applicable, certified by independent sustainability audits or BMW Group sustainability assessments. The sustainability audits are carried out by external auditors, while the sustainability assessments are implemented by employees of the BMW Group.

If the results of an audit show non-compliance or potential for improvement, we work with the supplier to develop a specific plan of action and provide as much assistance as possible with implementation, which generally must take place before start of production. If the supplier is uncooperative or in breach of a fundamental BMW Group sustainability clause, the contract may not be granted or termination of business relations may follow. Our goal, however, is to determine the majority of risks during the first two steps, to manage these risks and to help suppliers raise their sustainability standards.

Our Supply Chain Response Team responds to individual non-compliance with our sustainability principles. The team is made up of one representative each from Operational and Strategic Purchasing, Corporate Strategy (a sustainability expert), Corporate Communications and the Works Council. In 2015, the Supply Chain Response Team had no cases to address as there were no reports of potential non-compliance with our sustainability principles.

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Innovative logistics: the first electric 40-tonne truck to supply the BMW Group plant in Munich.

INCREASING TRANSPARENCY AND IMPROVING RESOURCE EFFICIENCY

Our sustainability risk management system increases transparency with regard to social and environmental risks in the supply chain, raises awareness among our suppliers' top management and helps us to introduce and track the corresponding corrective measures. A further measure to increase transparency in the supply chain and to improve resource efficiency is the Supply Chain Programme of the > CDP .

Since 2014, we have been participating in the Supply Chain Programme of the CDP and have set ourselves the ambitious goal of having a large part of our direct purchasing volume covered by the CDP reporting of our suppliers by 2016. In 2015, we were already able to cover around half of our purchase volume. Within the CDP, participating suppliers report on their CO<sub>2</sub> status and, if applicable, the water consumption status of the previous year. A large number of qualitative and

quantitative questions are answered, ranging from integration into corporate strategy, to risk management, targets and initiatives, right up to CO<sub>2</sub> emissions and volumes of renewable energy used. An overall evaluation verifies the completeness and content of the answers. The results are fed into the purchasing strategies of the relevant departments and a competitive comparison is played back to the key suppliers during their annual supplier development interviews. Based on this, we make agreements with our suppliers on development paths for improvement.

Of the 99 BMW suppliers participating in the CDP in 2015, 84% integrated measures to combat climate change into their corporate strategy and 64% also set themselves corresponding targets. 80% of participating suppliers already reported reduced emissions for individual projects and 35% were even able to keep their overall CO<sub>2</sub> emissions constant or reduce them. Savings of 35 million tonnes of CO<sub>2</sub> equivalent were reported to us from our supplier network for the year 2015 (2014: 21 million t). These savings mainly resulted from an increase in energy efficiency in production processes and from optimisation of transport processes.

The rising number of suppliers in the CDP as well as the increase in average disclosure within the CDP would seem to indicate that our efforts to increase transparency in the supply chain are effective. In addition, the rise in CO<sub>2</sub> savings communicated to us indicates that resource efficiency in the supply chain is increasing.



## SUSTAINABLE EXTRACTION AND PROCUREMENT OF RAW MATERIALS

With today's multilayered and dynamic global supply chains, tracing the route of a raw material from the mine to the end product is an extremely complex undertaking. This is mainly due to the intermediate trade and processing stages and commodities trading on the stock exchange. It is therefore quite a challenge to implement sustainability standards as early as the raw materials extraction stage.

In view of this, the BMW Group focuses on selected relevant or critical raw materials and supply chains. We analyse and evaluate both the supply chains as well as the action required and then derive measures that we implement in conjunction with our suppliers. We also participate in cross-industry initiatives for sustainable use of raw materials. One example of this is the [Aluminium Stewardship Initiative \(ASI\)](#) [Minimising risks](#).

### FORECAST

**From 2016 onwards, progress compared to the previous year will be evaluated during the suppliers' CDP interviews. A pilot project to consider CO<sub>2</sub> emissions levels in the tendering decision is also planned.**

**We also work with our suppliers to look for further possibilities to use resources such as energy more efficiently as well as to continuously improve working conditions in the supply chain.**

# EMPLOYEES AND SOCIETY

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## Relevance for BMW Group

The success of the BMW Group is based on the performance of its employees. Their dedication makes the crucial difference in remaining competitive. The increasing average age of the world population as well as the diversity of lifestyles and cultures call for foresight and flexibility. As a company that is currently active in over 150 countries, these developments affect us worldwide. With secure and attractive jobs and our commitment to promoting intercultural communication, we make a contribution to safeguarding our future viability.



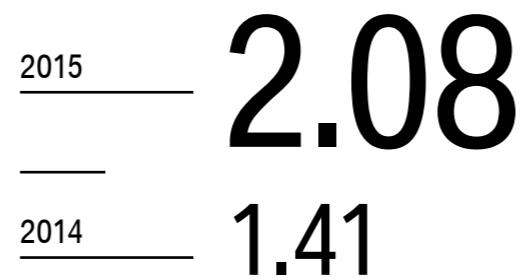
## Key facts and figures

### BMW Group employees at end of year (number)

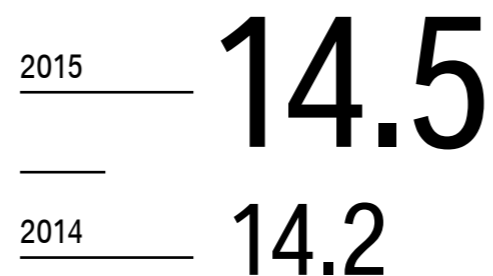


### Attrition rate at BMW AG

(as a percentage of workforce)



### Share of women in management positions at BMW Group (in %)

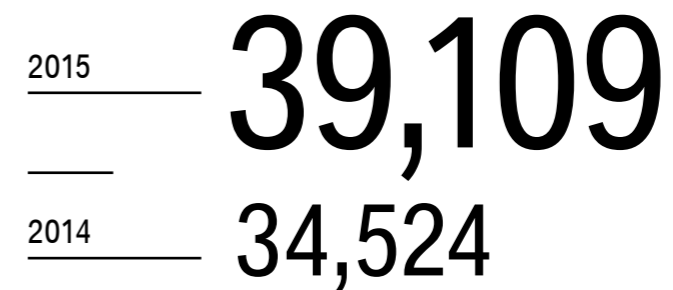


### Expenditure on donations by the BMW Group

(in € thousand)



### Expenditure on corporate citizenship (in € thousand)





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Sustainability goal  
**Employees  
and society**

## Health and performance

**To preserve the health and the performance of our employees in the long term, we promote personal responsibility and an appropriately designed work environment.**

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Mutual interest: the BMW Group supports and promotes the health of its employees.





## 4.1 Health and performance

**In an ageing society, we can only be successful in the long term if we contribute towards ensuring that our employees remain healthy. The merging of our Health Management, Occupational Safety and Ergonomics and Corporate Catering departments to form the “Working Environment and Health” unit led to more efficient collaboration between areas related to preventive occupational health and safety. The measures we take are geared towards avoiding accidents, maintaining the health and performance capacity of our employees, and reducing absenteeism as well as health-related costs. Our health promotion activities also pay off in other ways as they lead to more creativity, productivity and innovation.**

The health and performance of our employees is a top priority at BMW. As the workforce ages, absenteeism tends to increase. We carry out prevention campaigns in specific areas, e.g. high blood pressure prevention and resilience measures. We implement the campaigns internationally, according to common goals and standards. Our prevention measures contributed, for example, towards keeping absenteeism low in 2015 in spite of the influenza epidemic. Absenteeism due to illness was below average in Germany.

Some of our main activities in the areas of occupational health and safety include integrated health management, ageing-appropriate work systems, a high level of work safety and a focus on offering healthy canteen meals. At the same time, we are raising employees’ awareness of healthy eating habits by labelling meals and carrying out campaigns – and we have achieved measurable success in this area. Compared to 2013, the number of employees choosing healthier meals has increased by 5,000. We also offer an extensive prevention and rehabilitation programme, which includes fitness courses and other sports activities as well as nutrition seminars, occupational health and safety and ergonomics courses as well as stress management. We hold special events that draw attention to important topics such as resilience, cancer prevention and addiction hazards. They are designed to motivate

employees and executives to become active in these areas. The measures and programmes listed form part of the BMW Group’s Health Initiative, which was launched in 2011 to serve as an umbrella entity for the company’s commitment to the health and performance of its employees. These measures contribute to the BMW Group keeping its HR costs competitive.

### FOSTERING HEALTH AND PERFORMANCE IN A HOLISTIC MANNER

The “Health Management 2020” programme is a holistic, internationally focused approach to fostering the long-term health and performance of our employees throughout their working life. The programme includes building knowledge about health (information, talks, seminars, training courses), identifying health issues (questionnaires, medical check-ups), as well as deriving and developing needs-based measures (e.g. prevention).

Around 10,100 employees have participated and received personal health reports since the programme was launched in 2014. At departmental level, 170 reports were compiled in 2015, identifying a range of potential improvements and strengths in the area of health promotion within the departments. From this we derive specific measures for the working environment. The programme contributes to reinforcing individuals’ personal responsibility and designing a healthy working environment. The aim is to integrate 10% of the BMW Group’s workforce annually into the “Health Management 2020” programme from 2016 onwards. The percentage of participants was 7.5% in 2015.



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Working with new technologies

Working with new technologies and increasing automation presents the company with new challenges in terms of occupational health and safety. For example, the BMW Group is taking a very close look at the area of human-machine collaboration, which is already used, for example, to roll out the door soundproofing in the Spartanburg/USA and Dingolfing/DE plants. Risks are avoided by carrying out innovative measures. Employees can also suffer from mental stress due to the increasing diversity of components and the rising number of different vehicle models. To counteract this, plant information systems are there to provide support. For example, employees can see which components to assemble without having to read long article codes.

INTEGRATED HEALTH AND SAFETY MANAGEMENT

Occupational health and safety committees are in place at almost all BMW Group locations, with representation from both the employer and employee sides.

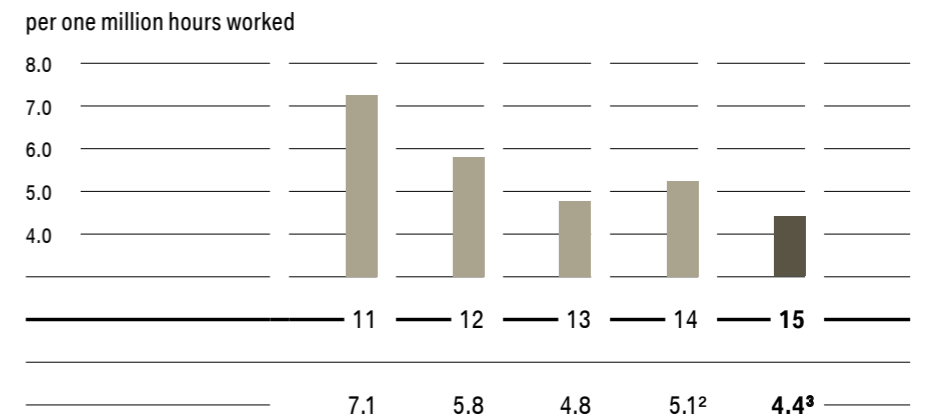
At the BMW Group, occupational health and safety issues are dealt with in collaboration with the works councils. GRI G4-LA8 Well over 90% of employees are represented on the health and safety committees. This figure also includes temporary workers, interns, thesis students working at the company as well as doctoral candidates. GRI G4-LA5

At present, 25 of our 30 production locations have occupational health and safety management systems certified according to the OHRIS (Occupational Health and Risk Management System) or OHSAS (Occupational Health and Safety Assessment Series). The other facilities work with systems that meet national standards. The new production plant in Brazil as well as the UK location Hams Hall will be certified in 2016 according to OHSAS 18001.

Continuous improvement of occupational health and safety systems, workplace safety conditions and dedicated safety training courses contributed to a decrease in the accident frequency rate at the BMW Group in 2015 to 4.4 accidents per one million working hours > Table 4.01. At our German dealerships, the accident frequency rate decreased by over 20% compared to the previous year, i.e. less than half the industry average (BGHM).

There have been no fatal accidents at the BMW Group for the last ten years. GRI G4-LA7 In 2011, we set ourselves the target of reducing the long-term accident frequency rate worldwide to below 4.5 accidents per one million hours worked by 2020. This is a decrease of around 50% compared to the accident frequency rate in 2010. We were already able to beat this target for the first time in the current reporting period.

Accident frequency rate at BMW Group<sup>1</sup> T 4.01



<sup>1</sup> Number of occupational accidents per one million hours worked with at least one day of absence from work.  
<sup>2</sup> Figure not directly comparable to previous years' due to expansion of scope to include the German dealerships (2014 figure not including dealerships: 4.4). Around 88% of BMW Group employees captured.  
<sup>3</sup> Figure not directly comparable to previous year due to expansion of scope to include the plants in Brazil, Thailand and India (2015 figure in 2014 scope: 4.5). Around 90% of BMW Group employees captured.

GRI G4-LA6

## SUPPORTING AGEING-APPROPRIATE WORKING CONDITIONS AND PEOPLE WITH PERFORMANCE LIMITATIONS

The BMW Group sees demographic change as a challenge that we are actively addressing. We have been developing constructive responses to this trend for many years in our “Today for Tomorrow” programme. We aim to create working conditions worldwide in which young employees can remain healthy as they grow older and older, employees can contribute their particular strengths. The BMW Group therefore speaks not of age-appropriate but of ageing-appropriate working conditions that preserve employee health and performance.

At our plants, we make every effort to secure the workplaces of employees with debilitating health issues in the long term. One preventive measure from the “Today for Tomorrow” programme in 2015 is the “Chairless Chair” pilot project, which helps keep assembly employees healthy. This stand-up/sitdown device helps employees with debilitating health issues by reducing physical stress and improving workspace ergonomics.

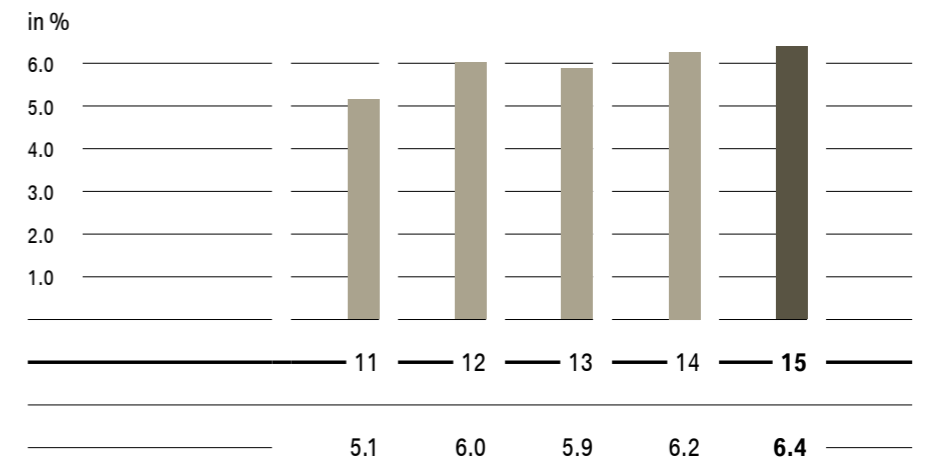
The share of BMW AG employees with severe disabilities continued to increase in 2015, reaching 6.4% of the workforce > [Table 4.02](#).

### Training centre for the deaf in Dingolfing/DE

The BMW plant in Dingolfing/DE has developed a dedicated support programme aiming to fully integrate deaf employees into the manufacturing processes. In addition to an information and communication forum for the exchange of expertise and skills, the programme also offers conversation support by providing interpreters or technical tools (e.g. iPad voice recognition).

Share of employees with severe disabilities at BMW AG<sup>1</sup>

T 4.02



<sup>1</sup> 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 €26.3 million to workshops for the severely disabled in Germany in 2015, of which €6.8 million can be written off in accordance with the compensatory levy act.

### FORECAST

Due to its success, the “Health Management 2020” programme will continue to be implemented internationally in 2016. The campaigns launched in 2015 as part of the “Health Initiative 2015”, i.e. the international campaign to improve mental health and resilience as well as the healthy drinking campaign, will continue in 2016. The accident frequency rate, which currently covers 90% of BMW Group employees, including BMW AG, the German subsidiaries and all production locations worldwide, will be continuously extended to apply to 100% of the workforce.





Sustainability goal  
**Employees  
and society**

Long-term employee development

**The BMW Group ensures long-term employee development by fostering its employees' abilities, making the most of their talents, developing potential and ensuring employability.**



Staff development: young BMW Group talents at a workshop on the future design of the company.



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## 4.2 Long-term employee development

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. To achieve this, we offer them attractive and secure jobs, comprehensive development and training opportunities, and good long-term career prospects.

The BMW Group attaches great importance to the training and further education of our employees. This is essential for keeping pace with the technological advances in the automotive industry. We therefore continuously invest in the qualification of our employees as a way of promoting the long-term innovative strength of the BMW Group. The BMW Group consistently pursues the concept of life-long learning. We also pay above-average compensation and give our employees a range of options to help them find the right work-life balance.

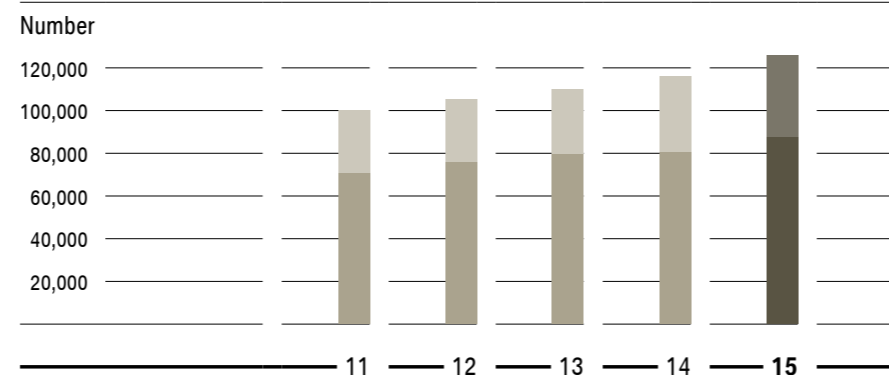
As one of the world's most attractive employers, the BMW Group has a decisive advantage in the competition for skilled workers. This is demonstrated, for example, by studies on the attractiveness of employers conducted by Trendence and Universum, in which we were once again given top ratings in 2015.

Thanks to the high demand for our products and services, the number of employees working for the BMW Group increased worldwide by 5.1% to a total of 122,244 by the end of 2015 > [Table 4.03](#). Job security is our highest priority here.

### OFFERING FAIR PAY AND ATTRACTIVE SOCIAL BENEFITS

The BMW Group policies for remuneration and additional benefits apply for all of our companies, and we follow the guiding principle that the total remuneration package must be above the average for the respective labour market. Our remuneration policy is furthermore based on the principle of quid pro quo: we see pay as a reward for good performance and not simply as an incentive. The total remuneration package, made up of the monthly fixed salary, a variable share in the company's profits and a wide range of social benefits, enables us to reward personal performance in a fair manner while continuously promoting employee motivation. Our remuneration policy is thus an integral part of a consistent and transparent process of employee development. GRI G4-LA2

**BMW Group employees at end of year<sup>1</sup>** T 4.03



Total	2011	2012	2013	2014	2015
	100,306	105,876 <sup>2</sup>	110,351 <sup>3</sup>	116,324 <sup>4</sup>	122,244 <sup>5</sup>

■ Employees in Germany ■ Employees international

<sup>1</sup> Figures exclude suspended contracts of employment, employees in the non-work phases of pre-retirement arrangements and low income earners.

<sup>2</sup> Of whom 35.2% are tariff-bound production employees of the BMW Group.

<sup>3</sup> Of whom 35.1% are tariff-bound production employees of the BMW Group.

<sup>4</sup> Of whom 36.1% are tariff-bound production employees of the BMW Group.

<sup>5</sup> Of whom 36.3% are tariff-bound production employees of the BMW Group.

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Training and upskilling: employee training at the BMW Group plant in Munich.

**Guaranteeing a gender-neutral remuneration system**

The BMW Group policies for remuneration and additional benefits apply regardless of gender, religion, origin, age, disability, sexual orientation or country-specific characteristics. Our commitment to equal pay is pursued worldwide and monitored regularly.

In 2014, the BMW Group established a multidimensional monitoring process to annually verify that remuneration is gender-neutral. Men’s and women’s monthly salaries are compared based on the dimensions of full- or part-time, pay grade and age. There were no significant differences between the base salaries of women and men for either non-tariff employees or for tariff employees paid based on working time (administration, IT and development) or performance (production). GRI G4-LA13

**ENCOURAGING WORK-LIFE BALANCE**

To enable the best possible work-life balance, the BMW Group offers its employees a wide range of flexible modules so they can tailor their working hours and locations to their personal needs. More and more private services (for example, laundry services) are also being offered close to the workplace to free up more time for people to spend either on work or private pastimes.

**Offering flexible working hours**

In addition to statutory working time arrangements such as part-time work or parental or caregiver leave, the BMW Group also offers employees options such as sabbaticals (worldwide) or the “Vollzeit Select” (Fulltime Select) scheme to provide further attractive ways to individually plan working hours. Our “Vollzeit Select” working time tool allows employees in Germany and Austria to take 20 additional days of leave each year with corresponding adjustments to their salaries, without any complicated red tape. Demand for these options continued to grow in 2015, confirming that the offer of flexible working time arrangements meets a real need.

**Enabling mobile working**

In 2014, the first year after the introduction of mobile working, the number of tariff employees working all day on a mobile basis already more than quadrupled, with some 25,072 users > [Table 4.04](#). Mobile working does not change the volume of work but allows for a more flexible organisation of existing working hours to gain more personal freedom and flexibility. Childcare and caring for dependents, for example, can then be better integrated into the everyday work routine. Outside of agreed working hours, employees also have the right to switch off and be unavailable.

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Alternative work forms at BMW AG<sup>1</sup>

T 4.04

Number of employees	11	12	13	14	15
Part-time employees	3,825	3,948	3,966	3,739	3,943
in % of total number of employees	6.0	5.8	5.7	5.1	5.1
Teleworking positions <sup>3</sup>	11,717	15,235	18,094	22,297 <sup>2</sup>	25,072
in % of total number of employees	16.4	22.5	25.9	49.9	53.0
Sabbaticals	450	514	511	516	462
in % of total number of employees	0.6	0.8	0.7	0.7	0.6
Parental leave	1,513	1,674	1,968	2,271	2,535
in % of total number of employees	2.1	2.5	2.8	3.1	3.3

<sup>1</sup> Figures refer to employees with permanent and part-time contracts.

<sup>2</sup> Reporting logic was adapted when teleworking was introduced in 2014. In the past, reporting was based on the technical possibility of teleworking; since 2014, the number of employees is reported who actually engage in teleworking.

<sup>3</sup> Administrative positions.

GRI G4-10, GRI G4-LA3

Supporting parents through childcare

We have established childcare services at many of our German and international locations. With the support of parents' initiatives, we were able to accommodate over 300 children aged zero to six years at our German sites as of the end of 2015.

employee receives a consistent and comprehensive individual performance and career development review at least once a year. GRI G4-LA11

In 2015, we had over 1,500 apprentices worldwide. There are currently over 4,700 young people taking part in vocational and young talent programmes in the BMW Group, over 3,800 of them in Germany > [Table 4.24](#).

FOSTERING TALENT AND TRAINING EMPLOYEES

We invest in training our employees and fostering their talents on an ongoing basis. This enables us to fill our long-term staffing requirements in a dynamic, fast-changing environment. The BMW Group's global package of measures ranges from vocational training to young talent programmes for student target groups to high-potential programmes for future managers. BMW Group expenditure on training and further education increased in 2015 to €352 million. On average, our employees participated in 4.1 days of further training in 2015 > [Table 4.05](#). GRI G4-LA9 Furthermore, every BMW Group



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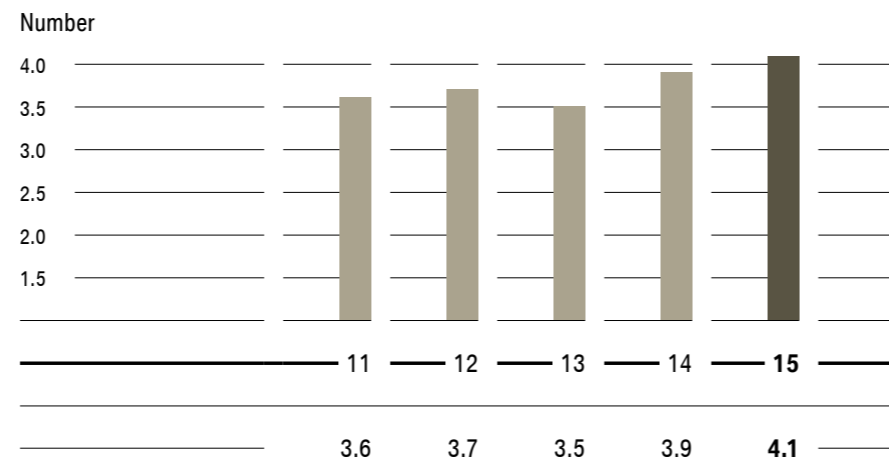
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Average days of training and further education per BMW Group employee<sup>1</sup> T 4.05



<sup>1</sup> Data retrieved by direct capture of the number of participants as well as a small share by qualified extrapolation.

GRI G4-LA9

Establishing dual vocational training worldwide

We believe in the dual vocational training system because it optimally combines theoretical content with the acquisition of practical skills. For this reason, we are extending the dual concept, which has proven so successful in Germany and at our production sites in China, the USA, South Africa and the UK, to our other international locations. In 2015, we launched dual training programmes in Brazil, Thailand and Mexico. In Germany, we introduced a new recruiting process for trainees that is tailor-made for the BMW Group. In addition to the applicant’s academic credentials and technical skills, it also takes into account interdisciplinary abilities and personality traits. This enables us to select those best suited for vocational training.

Training managers and employees

Our Group-wide “Corporate Leadership Programme” offers our managers a wide range of advanced training opportunities. The programme promotes the further development of strengths-based leadership skills at all hierarchy levels.

To foster international young talent, the BMW Group developed the “Global Leader Development Programme”. Integral components of the programme are various practical phases in Germany and abroad, targeted training measures, and diverse networking and exchange opportunities. Special emphasis is placed on developing intercultural competence GRI G4-LA10.



Executives and employees: average number of training and further education days increased.

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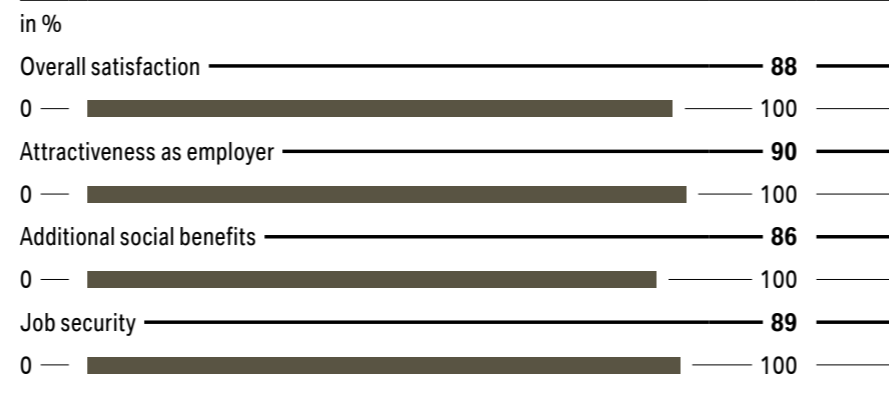
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**Retaining satisfied employees**

A Group-wide employee survey is conducted every two years, most recently in June and July 2015. 88% of those surveyed were satisfied with the BMW Group. Very positive ratings were also given to attractiveness as an employer (90%), social benefits (86%) and job security (89%) > [Table 4.06](#).

**Group-wide BMW Group employee survey in 2015** T 4.06

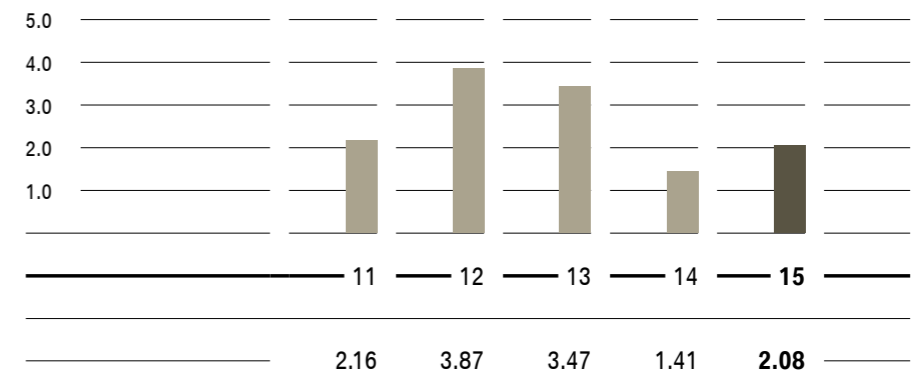


In 2015, the employee attrition rate rose to 2.08% > [Table 4.07](#). This was mainly due to more employees entering the non-work phase of pre-retirement arrangements in 2015. If retirement figures are excluded, the attrition rate remains at a constant low level, as the BMW Group's proven programmes and measures geared toward increasing the attractiveness of the company as an employer are having the desired effect.

**Employee attrition rate BMW AG<sup>1</sup>**

T 4.07

as a % of the workforce



<sup>1</sup> Number of employees on unlimited employment contracts leaving the company.

GRI G4-LA1

**FORECAST**

In terms of in-house advanced training, the focus for 2016 will be on expanding expertise in the BMW Group in new and strategically important fields such as lightweight construction and digitalisation. We also plan to expand our international education and change management network to further improve the transparency, attractiveness and availability of training and qualification programmes. To this end, the marketing of training programmes will be standardised globally, and more on-demand Web-based training will be offered. This network can then be used to implement new standards for quality assurance and process efficiency, putting in place worldwide standards for trainer selection and certification.





Sustainability goal  
**Employees  
and society**

## Diversity

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



Achieving goals, together: employees from more than  
50 countries work at the BMW Group plant in Munich.



## 4.3 Diversity

Modern society is characterised by a variety of different lifestyles. The diversity of the population as a whole has increased as a result of demographic change, changing values in society and increasing global mobility. As an international company, the BMW Group regards an intercultural workforce, an appropriate gender balance and a good age mix as beneficial to our business. We are convinced that a diverse workforce enhances our innovative strength and further increases our competitiveness, for example by helping us to better understand customers' needs. The right mix lets us see the bigger picture so we can make smarter decisions.

Each and every one of our employees, in all their diversity, is accorded equal levels of appreciation, respect and opportunity. To further promote diversity among our workforce, the Board of Management passed a Diversity Concept in 2010, defining three dimensions where diversity is to be strengthened throughout the BMW Group, taking due consideration of local conditions: gender, cultural background, age and experience.

### Ensuring equal opportunities

The BMW Group's declared goal is to promote human diversity in the company worldwide, because employees' unique and different talents and personalities are a valuable resource. At all of our locations, we seek to prevent discrimination on the grounds of gender, age, sexual orientation, religion, disability or origin. The BMW Group Legal Compliance Code prohibits discrimination of any sort. Employees can address any queries in this connection to their own managers, the relevant offices of the BMW Group, the HR department or the works council. The BMW Group SpeakUP Line furthermore gives all employees worldwide a way to anonymously and confidentially report possible breaches of this principle. GRI G4-HR3

### PROMOTING FEMALE EMPLOYEES AND MANAGERS

The BMW Group's Diversity Concept aims to bring the share of women in management positions into line with the overall employee structure. This also means that we are complying with the recommendations of the German Corporate Governance Code. In 2011, together with the other DAX-30 companies, we made a commitment to increase the share of females in management positions. We want to maintain the 15–17% share of women in our general workforce and also achieve this ratio in management positions by 2020, both in Germany and worldwide. The ratio of female managers in the BMW Group worldwide was 14.5% as of the end of 2015 (share of women in the entire workforce: 18.1%). In Germany, the proportion of women in the total workforce reached 15.3%, and in the Board of Management 12.5%. GRI G4-LA12

#### Share of female employees in management positions at BMW AG/BMW Group T 4.08

in %	13	14	15
Supervisory Board	20.0	25.0	30.0
Board of Management	12.5	12.5	12.5
Non-tariff employees			
BMW AG	10.9	11.4	11.9
BMW Group	13.8	14.2	14.5

GRI G4-LA12

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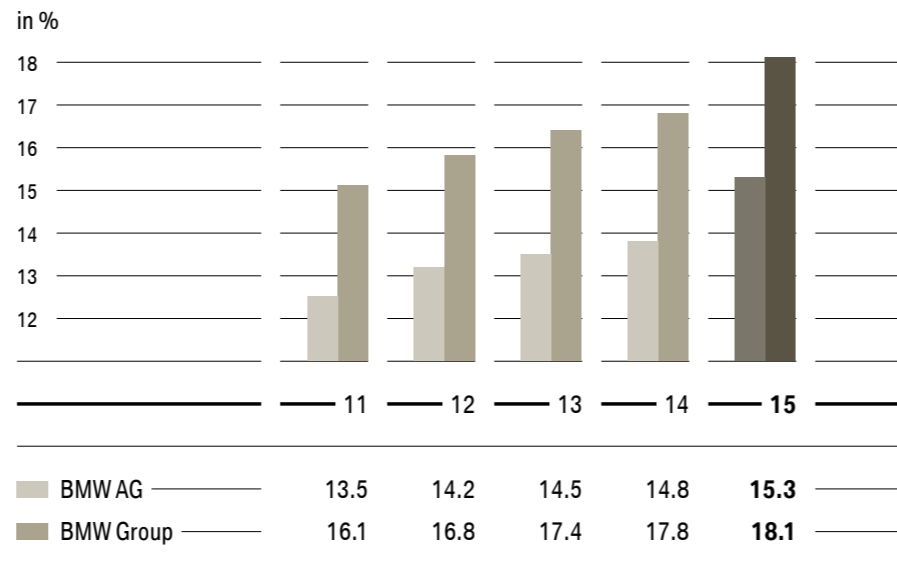
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Share of female employees in total workforce of BMW AG/BMW Group

T 4.09



GRI G4-LA12

Getting women interested in technical occupations

We place a special emphasis on women in both our academic youth talent programmes and our vocational training programmes in an effort to recruit more female employees in the long term. The proportion of women in the “Global Leader Development Programme” was 44% at the end of December 2015. This creates the basis for a new generation of leadership that is more feminine, technically competent, well-networked, and sensitive to cultural and social issues.

UNDERSTANDING CUSTOMERS BETTER THROUGH CULTURAL DIVERSITY

As a company that is currently active in over 150 countries, we see diversity among our workforce as a major opportunity. In Germany, we currently have employees from 115 different countries working together very successfully. GRI G4-LA12.

The diversity of our employees helps us to understand the specific needs of our customers worldwide. Moreover, we are convinced that mixed teams are more creative and perform better.

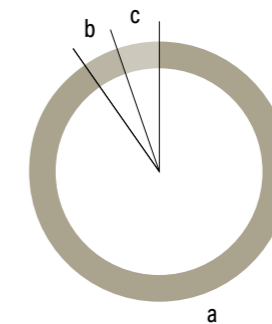
We foster cultural diversity by focusing on recruiting new employees locally at our facilities in the growth markets and by recruiting employees from other countries to work in Germany. To enhance cooperation, we also promote employee exchanges between BMW Group companies worldwide.

To further promote an international perspective and intercultural understanding among our new employees, we designed our BMW vocational training as well as the “Global Leader Development Programme” with the needs of international participants in mind.

Share of employees at BMW AG from Europe (not including Germany) and from non-EU countries

T 4.10

in %



a) From Germany	90.5
b) Europe (not including Germany)	4.4
c) Non-EU countries	5.1

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As an international company with an intercultural workforce, we focus on recruiting managers with international experience and are also working to increase the share of non-German top managers. The international character of the Board of Management and the Supervisory Board of BMW AG also reflects the global scope of the company's business.

**TAKING ACCOUNT OF AGE DIVERSITY**

When setting up new locations or divisions we recruit people from a range of age groups. For example, at our new BMW locations in Brazil and Mexico we are recruiting a mixed-age workforce from the start. This will allow us to avoid age structure issues and to focus on tapping into the specific strengths of different age groups.

The number of years each employee works for the BMW Group is increasing. This is a result of earlier entry into the company and later exit, due for example to rising retirement ages. In order to benefit from the special strengths and experiences of employees of different ages, we have introduced extensive programmes for flexible and mobile working > [Chapter 4.2](#). To maintain employees' performance as the workforce ages, we introduced the "Today for Tomorrow programme" > [Chapter 4.1](#). In addition, the wide-ranging support offered by our Health Initiative helps employees stay healthy in the long term. To complement this, we raise awareness among managers of the challenges posed by mixed-age teams.

**BMW AG employees according to age group, divided into functions and gender<sup>1</sup>** T 4.11

in %

	< 30 years old	30 – 50 years old	> 50 years old
2013 total	12.5	64.1	23.5
2014 total	12.5	62.0	25.5
2015 total	12.95	60.56	26.49
— direct <sup>2</sup>	16.71	55.71	27.59
— indirect <sup>3</sup>	10.47	63.76	25.77
— male	11.62	60.57	27.81
— female	21.05	60.46	18.49

<sup>1</sup> Figures refer to employees with permanent contracts.  
<sup>2</sup> Clock-controlled production employees.  
<sup>3</sup> All employees without clock control.

GRI G4-LA12

**FORECAST**

**In the coming years we intend to integrate our Diversity and Inclusion Concept even more thoroughly in the entire BMW Group. The dimensions of gender, age, experience and cultural background will be given particular emphasis here. In view of the company's increasingly international scope, we aim to focus more strongly on hiring foreign employees at our German sites. When setting up our plant in Mexico, we will engage in specific human resources marketing that addresses and recruits candidates from target groups of different ages. This will allow us to avoid too many simultaneous retirements.**





Sustainability goal  
**Employees  
and society**

Intercultural understanding

**The BMW Group is a leader in intercultural understanding.**



Discussing future challenges with stakeholders: the first international BMW Group Student Forum 2015 in Paris.



## 4.4 Intercultural understanding

**If you want to be successful tomorrow, you have to start laying the groundwork today. The BMW Group works in a complex, fast-changing environment. Our success depends not only on our own performance and innovative strength, but also on the social climate. With our commitment to resolving intercultural conflicts, we contribute towards creating added value for society and lay the cornerstone for our future viability.**

Corporate citizenship forms an integral part of the BMW Group's vision of itself as a business enterprise. We attach particular importance to knowledge transfer and to ensuring that our support measures help people to help themselves in the long run.

In addition to our focus on intercultural understanding, we also develop specific educational offerings and corporate citizenship projects for our various locations. Before we launch a project, we examine the social challenges faced at the local level. The key question we ask ourselves is whether and how the expertise we provide can actually improve local conditions. We also benefit as a company from our corporate citizenship activities. For example, we become more familiar with local social structures, we learn to see things from an alternative perspective, and on this basis we are able to reach new target groups. Our corporate citizenship activities moreover enhance the reputation of the company and lead to closer dialogue with our stakeholders.

### PROMOTING INTERCULTURAL UNDERSTANDING AND SOCIAL INCLUSION

As a global corporation with a multinational workforce, the BMW Group has been working for many years now to promote understanding between different nations, religions and ethnic groups. In 2011, we inaugurated for this purpose the Inter-

cultural Innovation Award in collaboration with the **> United Nations Alliance of Civilizations (UNAOC)**. The award recognises innovative projects designed to solve intercultural tensions and conflict.

The partnership between UNAOC and the BMW Group is unprecedented, representing a new model of cooperation between the United Nations and the private sector. The partners manage the project together and mobilise their resources, time and networks to support the award winners. Both partners bring their respective expertise to bear in order to ensure the sustained impact of the awarded projects. In addition to providing financial support, we also offer award winners the opportunity to benefit from any BMW Group competencies that may serve their purpose. For a period of one year, a pool of experts offers project-related support and provides advice on organisational development.

We set ourselves the goal of reaching out to a total of one million people by 2020 with our activities in the areas of intercultural understanding and social inclusion. This goal was, however, achieved much sooner: by the end of 2015 we had already supported more than one million people worldwide, primarily through the **> Intercultural Innovation Award**.

### Integrating refugees

Another example of intercultural understanding and social integration is the initiative "WORK HERE!", which the BMW Group launched in late 2015. In cooperation with the German Federal Employment Agency and the job centre, the BMW Group offers qualified refugees the opportunity to take part in a nine-week course of practical training. The participants are accompanied by BMW Group employees as mentors and also receive language lessons and integration training. The project started with 37 refugees in Munich/DE and will be extended to further BMW Group locations in 2016. A pro-

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programme offering a six-month “starter qualification” preparing younger refugees for the job of production mechanic will also be extended, with up to 20 additional places available in Munich/DE from January 2016.

The BMW Group has been assisting refugees in the vicinity of the Munich plant since early 2015. Through the neighbourhood project “Lifetalk”, we foster mutual learning and exchanges between refugees and other young people with and without a migratory background. The initiative is geared toward promoting encounters within the company and assisting young people in their vocational orientation. Some 40 young people and unaccompanied refugees regularly took part in the workshops in 2015. The project was able to give more than half of the participants a better idea of possible future occupations.



“Work here!” qualification programme for young refugees at the BMW Group plant in Munich.

SHAPING SOCIETY THROUGH FOUNDATIONS

We believe it is possible to successfully shape a society that is based on social cohesion and innovation if the competencies and skills of each individual are harnessed for the general good and used to implement social change. Our foundations contribute towards making this happen. The BMW Foundation Herbert Quandt and the Eberhard von Kuenheim Foundation have been working in these fields for decades, receiving financial support from the BMW Group. Both foundations are independent, both legally and with respect to their content, and they plan and manage their programmes themselves.

BMW Foundation Herbert Quandt

The > BMW Foundation Herbert Quandt brings people from different cultures, nations and sectors together to drive social innovations, promote global dialogue and encourage decision-makers to act responsibly. We take this approach in order to break down barriers between policymakers, industry and civil society, so that the community can benefit from the creative diversity that results from cross-border collaboration.

Eberhard von Kuenheim Foundation

BMW AG’s > Eberhard von Kuenheim Foundation sees itself as a creator of forums within which social responsibility can be fostered in Germany. Its mandate is to promote entrepreneurial thinking and action above and beyond the economic context. According to the motto “freude am neu:wagen” (try something new), it develops and tests new solutions for today’s social issues. Projects are undertaken with selected partners in the fields of education, employment and sustainable action. When the projects reach completion they become independent entities that can have an impact on day-to-day life.



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CORPORATE CITIZENSHIP ON A GLOBAL SCALE

The BMW Group has 30 manufacturing and assembly plants in 14 countries. Its sales network has 42 sales locations. Wherever we are represented in the world, we are committed to social responsibility. Two good examples of our activities in this area are the BMW Warm Heart Fund in China and the BMW Korea Future Fund. Both funds offer a platform that enables the BMW Group, its workforce, dealerships and customers to make a contribution towards improving society in the respective countries.

Raising awareness of how to work responsibly with resources

Using natural resources responsibly is an important challenge in today's society. The BMW Group aims to raise the awareness of people living close to its production locations by providing training and projects focusing on environmental and resource protection.

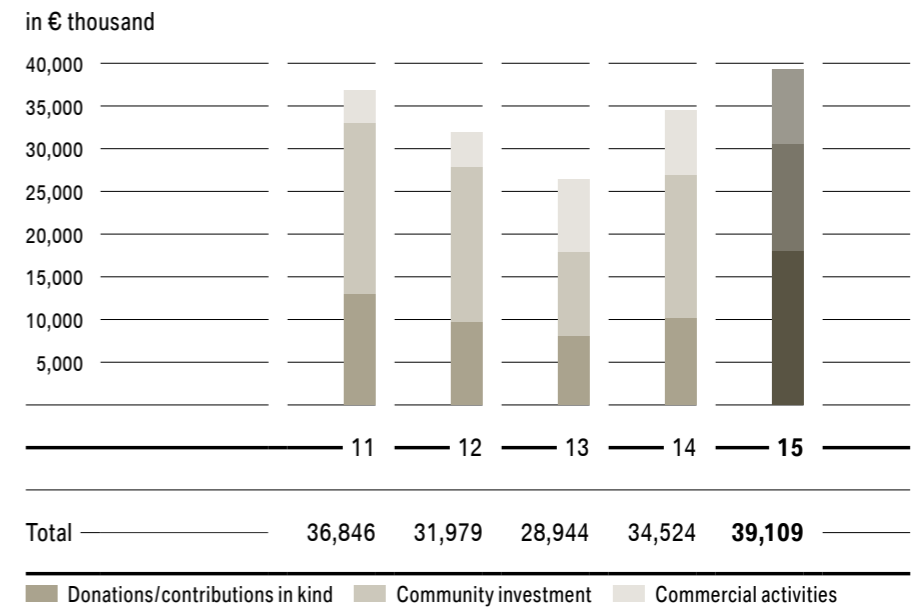
One example of this is the **Care 4 Water** initiative, which is carried out by BMW Group Financial Services in collaboration with the non-profit organisation "Waves For Water". The mission of "Waves For Water" is simply to ensure that every person who needs clean water receives it. To achieve this, the organisation uses portable and durable water filters to support people in need all over the world. The initiative draws upon employee fundraising activities in over 50 markets as well as the direct engagement of employees on the ground, who distribute the water filters to the local population and explain how they work. In line with the motto "Helping people to help themselves", the idea is to enable communities to secure their own access to clean water.

Measuring the effects of our activities

Corporate citizenship should have a measurable effect. For this reason measurability is high on our list of priorities. Since 2010, we have been measuring the effects of our corporate citizenship activities using the iooi (Input Output Outcome Impact) method. This approach provides us with important feedback on whether projects are continuing to develop and whether they are having a long-term impact.

Amount of expenditure on corporate citizenship, by type of activity<sup>1</sup>

T 4.12



<sup>1</sup> The activities of the BMW Group in the area of corporate citizenship are divided into three main areas. Firstly: monetary donations and donations in kind. Secondly: community investment. Community investment refers to investment in project initiatives conceived in-house, cooperative endeavours and partnerships as well as corporate volunteering by BMW Group employees. And thirdly: commercial activities, i.e. sponsorship and cause-related marketing.

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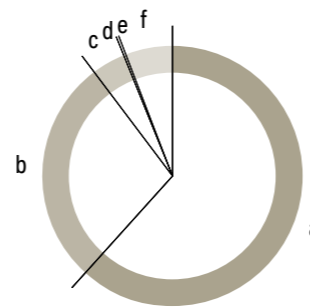
**Expenditure on corporate citizenship**

In 2015, we spent a total of €39.1 million on our corporate citizenship activities (2014: €34.5 million). To see how these funds were allocated to our various areas, please refer to > [Table 4.12](#) and > [Table 4.13](#). The significant increase in total expenditure of the BMW Group on corporate citizenship activities compared to financial year 2014 is mainly due to a rise in donations to the BMW Foundation Herbert Quandt and the Eberhard von Kuenheim Foundation.

**BMW Group donations worldwide in 2015**

T 4.13

in %, total amount € 17,065,895<sup>1</sup>



a) Science/education	61.9	d) Politics	0.2
b) Society/community	27.9	e) Environment/sustainability	0.2
c) Culture	4.1	f) Sport	5.7

<sup>1</sup> The sum indicated here does not include either cause-related marketing or sponsorship and does not contain the projects and activities carried out in the context of the company's corporate citizenship and cultural activities.

GRI G4-EC1

**Rewarding volunteer work by employees**

To complement our corporate citizenship measures, we bestow annual awards on employees worldwide who deserve recognition for what they have given back to society. The non-profit organisation > [The Banyan](#) in India, for example, helps disabled and mentally ill people, and the project "Alltagslotse für Asylbewerber" (Everyday Guide for Asylum Seekers) assists refugees arriving in the German town of

Rackwitz in Saxony. The BMW Group bestows awards on such projects as a way of thanking employees worldwide for volunteering in their free time.

You can find further information and data on employees and society at > [Further key indicators](#).

**FORECAST**

The BMW Group will continue to expand on the content and structure of its corporate citizenship activities in the focal areas of intercultural understanding and social inclusion. Our aim is to further implement this strategy at our locations worldwide in 2016 and to create platforms for actively involving employees, customers and dealerships.

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# Relevance for BMW Group

The BMW Group manages its business in accordance with the principles of sustainable and responsible Corporate Governance. This includes observing sustainability criteria and respecting human rights along the entire value chain. We also maintain an ongoing dialogue with our stakeholders and integrate sustainability as a watchword for all we do into our corporate structure, culture and processes. This enables us to increase customer satisfaction and ensure the long-term competitiveness of the BMW Group. At the same time, our sustainable business operations contribute to value creation and the advancement of society.

## 5.1 Customer satisfaction

**Customer focus is one of our basic principles. Satisfied customers are essential to the long-term success of the company. In many markets, the overall image of a company increasingly depends not only on classical factors such as product and service quality but also on taking the right approach to sustainability. Sustainability is therefore fundamental to our brands and plays an increasingly important role in our sales operations.**

### RESPONDING TO CUSTOMER EXPECTATIONS

Most customers hold the companies they purchase from responsible for developing their products and services in a sustainable manner. They expect sustainability to be an integral part of the business model. This is a stable trend that has been identified in all areas, not just among customers with a special awareness of sustainability.

But there are also contradictions between our customers' expectations of sustainability and their individual preferences. Many different factors play a role in the purchase decision. For example, the current low fuel costs mean that fewer customers are opting for the most fuel-efficient vehicle types.

Beyond such short-term trends, however, our brands address sustainability in multiple ways, from the development of fuel-efficient and electric drivetrains and the use of renewable raw materials in the vehicle interior all the way to our mobility services.

We conduct annual surveys to enable us to optimise our products, services and support according to the needs and expectations of our customers and prospective customers. We also continuously measure customer satisfaction on the basis of uniform global standards. Customers furthermore have the opportunity to contact us directly with qualitative feedback, which we analyse according to a uniform classification system.

The results are evaluated both at the BMW Group level and also at our subsidiaries and dealerships so that we can respond quickly to customer wishes. Our 2014 and 2015 surveys, for example, provided important insights, contributed by purchasers of battery-powered electric vehicles, that can be incorporated into product strategies for future vehicles. This will allow us to align their design even more closely with customer requirements. Our surveys show that our customers' needs vary considerably from country to country. This is a finding we have also made in our global stakeholder dialogues > [Chapter 5.4](#). We take these national and cultural differences into account in our decisions. GRI G4-PR5

To help us track the effectiveness of our measures, the sales organisations in our largest markets (such as the USA, China and Germany) report regularly to a specially established committee which deals exclusively with customer satisfaction. In addition, specific customer concerns are analysed at the management level to identify potential process weaknesses and develop appropriate solutions.



Customer focus: vehicle delivery at BMW Welt in Munich.

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**EXPERIENCING SUSTAINABILITY IN SALES AND SERVICES**

As we integrate sustainability into our strategies, activities and brands, we want this commitment to be tangible for our customers. Since 2012, for example, our architectural advisers have been helping our dealerships to implement “Green Building standards”, in particular for new buildings, and to ensure the efficient use of resources in sales operations. For this purpose we have developed our own standard – based on the conventional “Green Building certificates” – that is specially adapted to the needs of our sales organisation.

Implementing this standard allows us to plan dealerships that consume a minimum of energy while offering customers and employees maximum light and a pleasant room climate. One example is the ZK Motors dealership in Kielce/PL, where a combination of daylight and LEDs ensures optimum lighting conditions throughout the building. Geothermal energy provides heating and air conditioning, while an innovative building management system monitors and controls energy consumption at all times.

In addition to taking into account various aspects of sustainability in our dealerships, our goal is for our staff there to be so well-informed that they are able to answer almost any question customers may have on the BMW Group’s sustainability activities. Aspects of sustainability are therefore an integral part of our sales training, and all sales staff are trained on the theme of sustainability from the very start of their career. We also carry out special train-the-trainer qualifications for multipliers in sales in which we go into topics such as our vehicles’ CO<sub>2</sub> emissions throughout the product life cycle and environmental protection in aftersales.



Sustainability in sales: ZK Motors in Kielce/PL is the first dealership in the world to achieve “BMW dealership Sustainable Standard” certification.



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# 5.2 Economic effects

**Sustainable management combines long-term commercial success with added value for society. As a global company, the BMW Group creates jobs around the world and contributes to economic prosperity.**

The BMW Group currently employs 122,244 people in attractive jobs (2014: 116,324) and is training 4,700 young people at its worldwide locations (2014: 4,595). The purchase of

intermediate products also secures jobs in our supply chains. In 2015, the BMW Group paid a total of approximately €2.828 million in income taxes (2014: €2.890). These funds promote development in the regions where our production sites are located. We see the positive trend in our figures as confirmation of our contribution to social prosperity.

GRI G4-EC7, GRI G4-EC8

## Vehicle production of the BMW Group by plant

T 5.01

in units	14	15	Change in %	Share of production in %
Munich, DE	228,126	221,998	-2.7	9.7
Dingolfing, DE	369,027	360,804	-2.2	15.8
Regensburg, DE	272,015	304,509	11.9	13.4
Leipzig, DE	211,434	233,656	10.5	10.3
Rossllyn, ZA	68,771	71,353	3.8	3.1
Spartanburg, US	349,949	400,904	14.6	17.6
Dadong <sup>1</sup> , CN	143,390	142,767	-0.4	6.3
Tiexi <sup>1</sup> , CN	144,076	144,988	0.6	6.4
Rayong, TH	6,012	8,928	48.5	0.4
Araquari, BR	5,616	9,936	76.9	0.4
Chennai, IN	4,824	7,716	60.0	0.3
Oxford, UK	179,318	201,206	12.2	8.8
Graz (Magna Steyr) <sup>2</sup> , AT	113,401	82,655	-27.1	3.6
Born (VDL Nedcar bv) <sup>2</sup> , NL	29,196	57,019	95.3	2.5
Goodwood, UK	4,495	3,848	-14.4	0.2
Assembly plants	35,916	27,216	-24.2	1.2

<sup>1</sup> BMW Brilliance Automotive Ltd., Shenyang/CN (joint venture).

<sup>2</sup> Contract production.

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Financial figures

T 5.02

in € million

	11	12	13	14	15	Veränderung in %
Capital expenditure	3,692	5,240	6,711	6,100	5,890	-3.4%
Revenues	68,821	76,848	76,059	80,401	92,175	14.6%
Profit before financial result	8,018	8,275	7,978	9,118	9,593	5.2%
Profit before tax	7,383	7,803	7,893	8,707	9,224	5.9%
Income taxes	2,476	2,692	2,564	2,890	2,828	-2.1%
Net profit	4,907	5,111	5,329	5,817	6,396	10.0%

GRI G4-EC1

CREATING VALUE FOR OUR STAKEHOLDERS THROUGH GROWTH

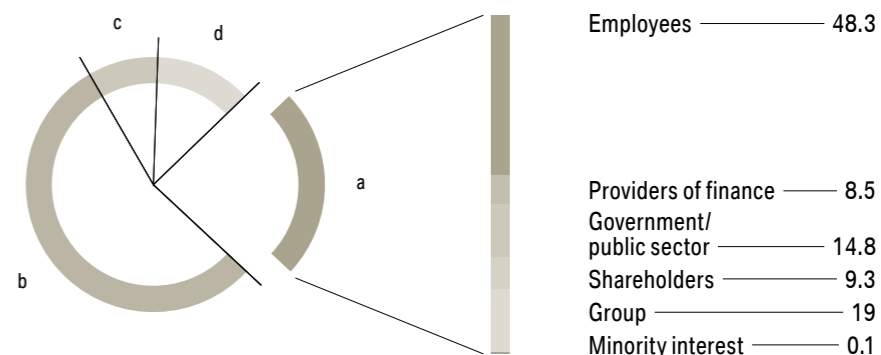
The sustainable, profitable growth of the BMW Group creates value. Direct positive economic benefits are risk-commensurate returns for capital providers, attractive salaries for employees as well as a social contribution through income tax payments. These are quantified in the allocation statement for net value added.

At €22,524 million (2014: €20,620 million), the net value added of the BMW Group has remained at a constant high level. GRI G4-EC1 The bulk of the net value added, 48.3%, is applied to employees (2014: 47.4%). The proportion applied to providers of finance remained at the previous year's level of 8.5%. The government/public sector (including deferred tax expense) accounted for 14.8%. The proportion of net value added applied to shareholders, at 9.3%, was higher than in the previous year. Other shareholders take a 0.1% share of value added. The remaining share (19.0%) will be retained in the Group to finance future operations > [Table 5.03](#).

BMW Group value added

T 5.03

in %



a) Net value added	24.2
b) Cost of materials	54.8
c) Depreciation and amortisation	8.8
d) Other expenses	12.2

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DRIVING ECONOMIC DEVELOPMENT

By implementing innovations and opening up new business fields, the BMW Group fosters the creation of new value chains and jobs. Examples:

- The BMW Group continues to build on its capabilities in the field of electromobility and alternative drivetrains. Based on the experience and expertise gained from series production of the BMW i3, BMW i8 and other plug-in hybrid vehicles, we are pushing ahead with the further spread of electric vehicles.
- The BMW Group has been conducting research on fuel-cell-powered vehicles for more than 15 years. The fuel cell converts hydrogen into electrical energy and water vapour, enabling emissions-free driving without forfeiting the brand's signature dynamics. The fuel cell strategy is an innovative long-term option for emissions-free mobility. Through our research in this area, we are not only expanding the variety of drivetrains offered by the



Breaking new ground: a hydrogen filling station at Innsbruck in Austria.

BMW Group but also fostering the development of new markets for sustainable mobility.

- The broader market launch of fuel cell technology calls for the corresponding refuelling infrastructure. For this purpose, the BMW Group has joined forces with four other carmakers to form the European "HyFIVE Project". This is one of the largest projects in Europe dedicated to promoting fuel-cell-powered vehicles. As part of the project, the BMW Group, in cooperation with TOTAL, opened one of the first public hydrogen filling stations in the summer of 2015, offering two alternative techniques for refuelling.
- **> BMW i Ventures**, based in New York City/USA, is investing in start-ups in the field of mobility services and aspires to enter into long-term strategic partnerships in the areas of e-mobility, flexible use, parking and intermodality. In 2015, the start-up **> ZIRX** joined the BMW i Ventures portfolio. ZIRX offers innovative parking services in congested urban areas.
- In order to benefit from the energy market of the future and play a part in driving the transformation of the German energy industry, the BMW Group has founded the joint venture **> Digital Energy Solutions** with the company Viessmann. The business model is based on identifying and creating energy flexibility as well as digital-based energy marketing for small and medium-sized companies in industry and commerce. Energy flexibility is achieved through intelligent coordination of energy production, storage and consumption. The joint venture is thus promoting sustainable economic development and contributing to reaching CO<sub>2</sub> emissions targets in the electricity, heat and transport sectors.



## 5.3 Compliance and human rights

We regard lawful conduct and respect for human rights as fundamental prerequisites for fair competition and good corporate citizenship. As an international enterprise with highly complex supply chains, the BMW Group is exposed to increased risk of being confronted directly or indirectly with legal or human rights violations. We therefore treat compliance with legal provisions and the protection of human rights as top priorities and require our business partners to do the same.

### MANAGING COMPLIANCE

In order to protect the company systematically against compliance-related and reputational risks, the Board of Management created a Compliance Committee several years ago. The BMW Group Compliance Management System includes training and communication measures, individual counselling, consistent follow-up on cases of non-compliance as well as the management of compliance-relevant processes and controls.

The extent and intensity of compliance activities are based on an annually updated Group-wide compliance risk assessment covering more than 300 BMW Group business units and functions worldwide. GRI G4-S03

The **> BMW Group Legal Compliance Code**, which was updated in 2014, is the cornerstone of the Group's Compliance Management System, spelling out the Board of Management's acknowledgement of the fact that compliance is a joint responsibility (Tone from the Top). In our **> Annual Report 2015**, we provide comprehensive information on the actions we take to ensure responsible and lawful conduct.

### ENSURING DUE DILIGENCE WITH REGARD TO HUMAN RIGHTS

Our due diligence process for human rights is modelled on the **> UN Guiding Principles on Business and Human Rights**. In particular, we expect our employees to respect human rights and protect them in their daily actions. We also require our business partners to comply with human rights. G4-HR9 Starting in 2016, we will gradually integrate human rights requirements into our global Compliance Management System in order to entrench them even more firmly at all our locations.

#### Commitment to international conventions and principles

Our models for ensuring compliance with environmental and social standards along the value chain are based on various internationally recognised guidelines. The BMW Group is thus committed to adhering to the Organisation for Economic Cooperation and Development (OECD) **> Guidelines for multinational companies**, the contents of the **> ICC Business Charter for Sustainable Development** as well as the United Nations **> Environment Programme Cleaner Production Declaration (UNEP)**.

By signing the United Nations Global Compact in 2001 and, together with employee representatives, issuing a **> Joint Declaration on Human Rights and Working Conditions** in the BMW Group, the Board of Management gave its commitment to abide worldwide by internationally recognised human rights and with the fundamental working standards of the International Labour Organization (ILO).

GRI G4-15, GRI G4-56

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TRAINING EMPLOYEES IN HUMAN RIGHTS

We educate our employees on the position taken by the BMW Group and on the specific requirements with regard to human rights in business operations. The training is geared in particular toward managers and focus groups, for example in Purchasing. They are informed of what they have to be aware of in their daily actions and whom they can turn to for questions. GRI G4-HR2

ADDRESSING HUMAN RIGHTS VIOLATIONS

If employees have any questions regarding human rights, they can ask their line managers or the BMW Group Human Rights Contact helpline. Employees also have the opportunity to submit information about possible human rights violations within the company via the BMW Group SpeakUP Line – anonymously and confidentially. The Human Rights Response Team, which includes one representative from the Works Council, handles the reports by employees and initiates measures as required to remedy possible violations.

In 2015, no human rights violations within the company were reported via internal channels. Nor were any relevant reports received regarding our supplier network. GRI G4-HR12

OBLIGING BUSINESS PARTNERS TO OBSERVE HUMAN RIGHTS

We expect our business partners to consistently observe human rights and see this as an important criterion for long-term business relations. We implement this principle at the following levels:

- **Suppliers:** We ensure our suppliers’ commitment to respecting human rights via our risk management process > **Chapter 3.3**. Human rights requirements are also taken into account in investment decisions and the choice of company sites. In 2015, 100% of the order volume for all our material investments in property, plant and equipment (including production equipment and buildings) were covered by human rights clauses. G4-HR1
- **Dealers and importers:** Since 2015, all dealership contracts in Europe as well as all contracts with importers worldwide have contained a binding human rights clause, including a requirement to comply with the core labour standards of the > **International Labour Organization (ILO)**. In the course of revising and harmonising BMW Group sales contracts worldwide, we intend to gradually integrate this clause into all non-European dealership contracts as well.
- **Joint ventures:** By joining the > **UN Global Compact** in January 2014, our joint venture BMW Brilliance Automotive Ltd. in China also explicitly committed to observing human rights.

We see the integration of human rights clauses into contracts with business partners as an important step in establishing human rights requirements in the value chain, and as an indicator of growing awareness on the part of our partners.

## 5.4 Stakeholder engagement

As a global corporation, both our manufacturing activities and our products have an effect on the environment as well as on diverse groups of 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 with its stakeholders at all its locations and in relevant markets.

By fostering dialogue with our stakeholders, we want to build trust, gain a better understanding of each other's positions, identify trends and consolidate partnerships. These exchanges also give us an opportunity to clearly and transparently explain the extent of our potential influence on social and environmental issues.

Our **Stakeholder Engagement Policy** forms the basis for continuous dialogue. It defines the goals of the dialogue, sets the criteria for identifying and prioritising our stakeholders, and provides a template for a range of suitable dialogue formats and communication channels. GRI G4-25



In discussion with stakeholders: the BMW Group Student Forum in London.

### REGULARLY AND SYSTEMATICALLY EXCHANGING VIEWS WITH STAKEHOLDERS

Our subsidiaries, our political offices in the different markets as well as our plants engage in regular dialogue with local stakeholders on relevant topics. A range of committees and channels allow our different corporate departments to contact relevant stakeholder groups directly.

One of the cornerstones of this dialogue is our ongoing and systematic identification and prioritisation of stakeholders and their topics of interest. To this end, we regularly map out stakeholder groups that are involved in strategically important topics at all relevant locations.

Our basic goal is to host at least one multi-stakeholder dialogue per year in Europe, Asia and North America respectively. We set the themes for these stakeholder dialogues according to how topical they are and how well they lend themselves to comparing and contrasting the different regions. In 2015, for example, we conducted stakeholder dialogues on the topic of urban mobility in Berlin/DE, London/UK, Shanghai/CN, Seattle/USA and Paris/FR. In addition to these events, we also have direct contact with individual stakeholders on specific occasions when special topics arise (for example, in 2015, there were requests for information on environmental protection at our plant in Tiexi/CN and on social and environmental standards in the value chain). This is usually a case of questions or criticisms expressed by NGOs or individuals on different issues or incidents at our production sites or in the supply chain.

Our Supply Chain Response Team looks into each case in a matter of days. The management of the supplier company is asked to respond to the specific issue or case. If any doubts remain, we intensify our investigation and send someone to look into things-on site.

For an overview of the forms of dialogue and stakeholder groups of the BMW Group, see [Figure 5.01](#).



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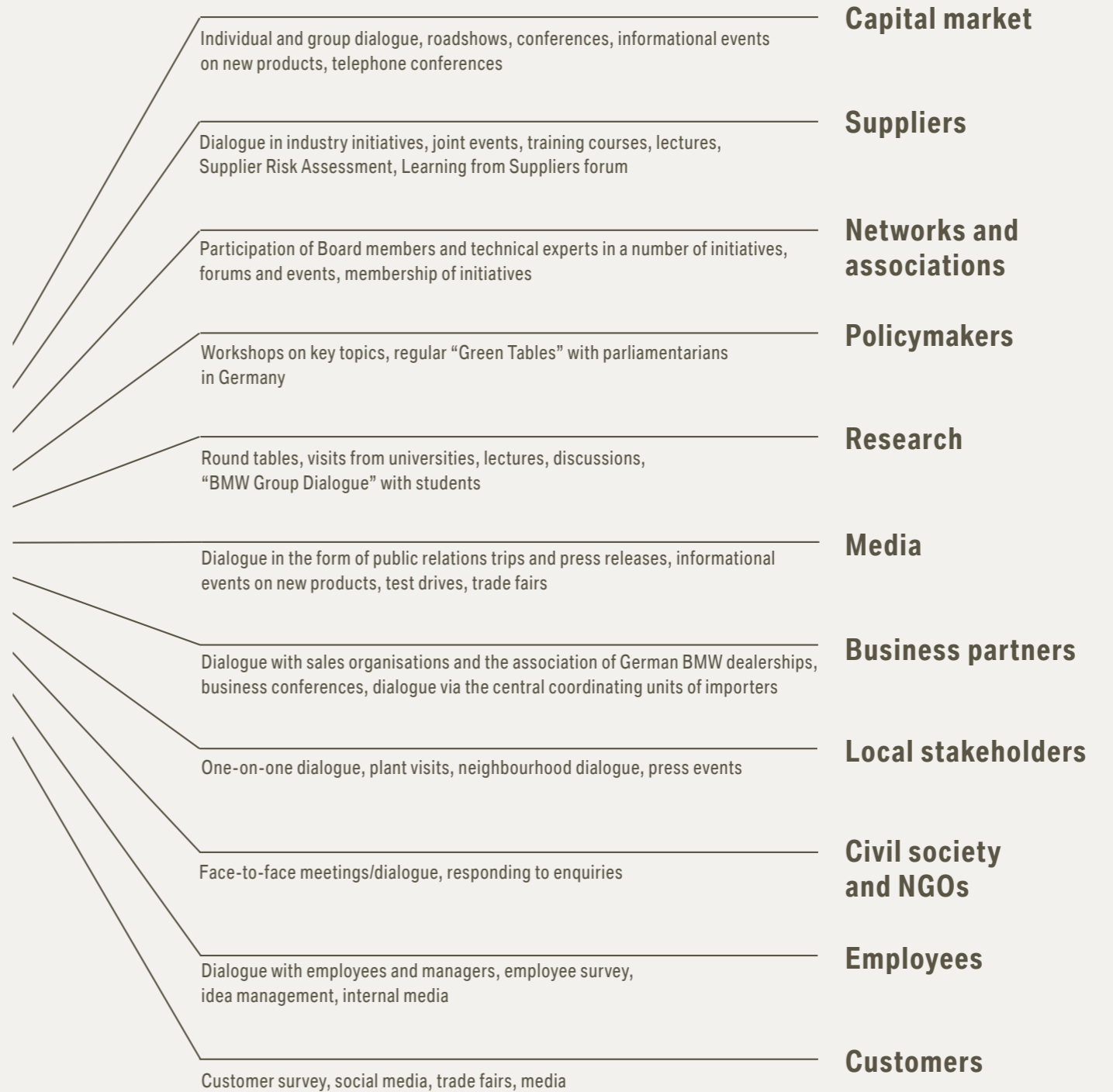
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**Stakeholder groups and forms of dialogue**

F 5.01

**BMW Group in dialogue**

The BMW Group fosters both individual dialogue with stakeholders as well as multi-stakeholder dialogue with representatives of different stakeholder groups.



GRI G4-24, GRI G4-26

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Seven key stakeholder perceptions and recommendations F 5.02

1. Individual premium mobility

Demand for individual premium mobility remains but strategic evaluation is needed since vehicle use cases are challenged.

2. Policy focus

Policy focus is on clean air, congestion and land use, but electric vehicles cover only one area.

3. E-mobility

E-mobility still requires policy support but also new business models can foster the market uptake.

4. Car sharing

Car sharing has a growing customer base which could be increased by additional customer value.

5. Mobility services

IT-enabled mobility services offer great opportunities but stakeholder expectations are still vague.

6. Autonomous driving

Autonomous driving is perceived as being positive but will bring complex and new challenges for carmakers.

7. Dialogue format

The stakeholder dialogue format contributes to trust in BMW but could be used even more strategically.

GRI G4-27

All of our stakeholder dialogue formats are based on one principle: that the views of our stakeholders feed back into the company. On the other hand, the stakeholders become familiar with the BMW Group's views and positions on certain topics and can take account of these in their day-to-day work. For an overview of the results of the stakeholder dialogues in 2015 see > [Figure 5.02](#).

Further information on specific events taking place as part of the > [BMW Group Dialogue](#) are published online on the BMW Group website.

IN DIALOGUE WITH POLITICAL DECISION-MAKERS

By engaging in regular, active and open dialogue with political decision-makers, union representatives and associations as well as non-governmental organisations (NGOs), we play a constructive and transparent role in shaping the general political framework for our business activities. We offer our expertise to help promote fair competition for all involved and find sustainable solutions. We regard this as an important aspect of our corporate responsibility.

The political offices concern themselves with public affairs as they affect environmental, financial and socio-political topics and deal with relevant economic policy and industry-specific issues. In the period under report, the main topics in this regard were how to put CO<sub>2</sub> regulation into practice, how to deal with trade barriers, fair taxation legislation, changes brought about by digitisation, the challenges of urban mobility as well as international regulations on measuring emissions.

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**Improving CO<sub>2</sub> regulation**

Legal regulations on emissions are becoming increasingly stringent worldwide, continually posing new challenges to the automotive industry. As early as 2000, the BMW Group set the course for reducing fuel consumption and emissions with its Efficient Dynamics strategy. Electromobility is essential for achieving further reductions.

Favourable economic conditions have proven conducive to the successful introduction of new technologies. This is why we maintain a dialogue with the political stakeholders in the main markets on central issues such as promoting electromobility, not distorting competition according to market segment, supporting new efficiency technologies, a realistic connection between targets and measuring methods as well as consistency of supply-side and demand-side policies.

The BMW Group would like to see countries in all markets take effective measures to promote electromobility, such as those already in place for example in Japan, China and California.

**Promoting the transatlantic free trade agreement**

As a global enterprise, the BMW Group supports the further opening of worldwide markets as well as the continuous reduction of tariff and non-tariff trade barriers. The BMW Group is one of the biggest payers of customs duties in transatlantic trade. We therefore welcome the bilateral negotiations on a comprehensive and far-reaching economic and trade pact between the EU and the USA ( > **Transatlantic Trade and Investment Partnership, TTIP** ). Reducing trade barriers should lead to considerable benefits for corporations and will therefore also have positive effects for consumers on both sides of the Atlantic. At the same time, closer regulatory cooperation is urgent not only in the areas of fuel economy and emissions, but above all in drafting rules and regulations for networking between vehicles and autonomous driving. Common standards will help to pave the way for the spread of new technologies.

**Supporting democratic parties**

The BMW Group supports the work on social policy carried out by the democratic parties in Germany (CDU, CSU, SPD, FDP and Bündnis90/Die Grünen). The company places high value on transparency in this regard and complies with the relevant legislation. Since 2014, the BMW Group has supported the work of political parties in Germany solely through content-based partnerships, for example by sponsoring public discussion forums and dialogue formats. All partnerships are subject to the clear sponsorship guidelines of the BMW Group.

**FORECAST**

**We will continue to hold at least one annual Stakeholder Dialogue event in Europe, North America and Asia. Key topics for 2016 include “digitalisation” and “urban mobility”.**



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## 5.5 Reinforcing sustainability

The BMW Group manages its business in accordance with responsible corporate governance principles geared to long-term value creation in all areas of the company.

The Board of Management governs the enterprise under its own responsibility, acting in the interests of the BMW Group with the aim of achieving sustainable growth in value. It thus determines the strategic orientation of the enterprise and ensures its implementation. The Board of Management is furthermore responsible for compliance with all provisions of the law and internal regulations as well as for adequate risk management and risk controlling. The Supervisory Board advises and supervises the Board of Management in conducting its duties (dual management system). GRI G4-34, GRI G4-39

Sustainability is a component of our corporate strategy. For this reason, our Sustainability and Environmental Protection department has been directly incorporated into our Corporate Planning and Product Strategy unit since 2007, under the mandate of the Chairman of the Board. This unit is responsible for the sustainability strategy and sustainability management worldwide. Some of the department's tasks are:

- To identify and take an internal approach to addressing core challenges.
- To develop and monitor sustainability goals.
- To further develop, specify and integrate our sustainability initiatives into individual divisions, taking account of the entire value chain.
- To ensure the cooperation of all departments in the company involved in sustainability.
- To provide a central corporate function for environmental protection (Group Representative) and manage the environmental protection network.
- To manage global centres of competence on a range of environmental issues.

### MANAGING SUSTAINABILITY

The Sustainability Board makes decisions on the long-term alignment of the sustainability-related areas of action included in Strategy Number ONE. The entire Board of Management is represented on the Sustainability Board, along with the heads of Sustainability and Environmental Protection and of Corporate Communications. GRI G4-34 The Sustainability Board convenes twice a year to assess the company's progress on economic, environmental and social issues. In particular, it determines the degree to which sustainability principles have been integrated into the various departments. GRI G4-43, GRI G4-47 The Supervisory Board in turn requests progress reports from the Board of Management.

#### Organisation of sustainability in the BMW Group F 5.03

##### Sustainability board

- Comprises the entire Board of Management
- Chairman: Chairman of the Board of Management
- Responsible for strategic alignment



##### Sustainability circle

- Comprises department heads from all divisions
- Responsible for preliminary work to support decision-making



##### Specialist divisions

- Implement measures and processes needed for the BMW Group to achieve its sustainability goals

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For example, the Supervisory Board has established the Board of Management's obligation to report on the subject of diversity. GRI G4-44 The Sustainability Circle, which comprises department heads from all divisions, prepares decisions for presentation to the Sustainability Board > [Figure 5.03](#). GRI G4-35, GRI G4-36, GRI G4-42, GRI G4-43

The BMW Group management principles are also set down in the > [Corporate Governance Code](#).

**INTEGRATING SUSTAINABILITY AS A STRATEGIC CORPORATE OBJECTIVE**

Sustainability has been established at the BMW Group since 2009 as a strategic corporate objective based on specific targets and key performance indicators. Sustainability is therefore an explicit component of the BMW Group's management system. This means on the one hand that every major project must be measurable in terms of "Sustainability" as a corporate objective, ensuring 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 have an effect on their performance-based remuneration.

**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 ecological innovation (e.g. reduction of carbon emissions), customer focus, leadership accomplishments and the ability to lead change processes.

Further key performance indicators for measuring contributions made to the sustainable development and future viability of the company are enhancing its attractiveness as an employer, progress in the implementation of the diversity concept as well as activities in the field of corporate social responsibility > [Compensation Report in the 2015 Annual Report](#). GRI G4-44, GRI G4-51

You can find further information and data on fundamentals at > [Further key indicators](#).

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# About this report

The BMW Group Sustainable Value Report (SVR) 2015 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.

In accordance with the "Comprehensive" option of the > Global Reporting Initiative (GRI).

For the first time, the BMW Group's Sustainable Value Report 2015 has been compiled in accordance with the "Comprehensive" option of the Global Reporting Initiative (GRI G4) guidelines.

### Structure of report

The report is structured along the long-term sustainability goals of the BMW Group. In addition, the weighting of the topics in the report is based on the results of our systematic materiality process > Chapter 1. GRI G4-23 As a result, changes in content have primarily been made in the areas of Compliance and Risk Management, which refer more extensively to the Annual Report in the SVR 2015.

Each chapter starts with a one-page overview of the main facts. The sub-sections of each chapter are introduced by a statement of the long-term sustainability goal of the BMW Group. The report contains the key performance indicators that control and monitor the BMW Group's sustainability performance. Where appropriate, references are also provided to supplementary information in the Annual Report or on other BMW Group websites.

In addition to the key indicators presented in the main text, the Annex contains further key indicators on sustainability, including explanatory notes.

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.

### Reporting period

The reporting period is the 2015 calendar year. The effective date for all figures and facts is 31 December 2015. GRI G4-28 The figures and facts section generally maps the key indicators for 2011–2015 (with the exception of key figures that only became relevant after 2011). They refer to the entire BMW Group. There are, however, some exceptions concerning site-specific topics and local sustainability programmes. Wherever this is the case, the entity the figures apply to is specified accordingly, e.g. BMW AG. The statements made in the SVR 2015 about the BMW Group generally refer to the group of consolidated companies in the 2015 Annual Report. Any deviations from the group of consolidated companies referred to in the 2015 Annual Report with regard to specific key indicators are indicated and their scope specified in the footnotes of the respective tables and charts. GRI G4-17 Calculation methods are explained in footnotes to the respective charts. Nothing has changed with regard to the structure of the supply chain and relationships with suppliers, including the selection and termination of contracts. GRI G4-13

The Sustainable Value Report (SVR) is published annually. GRI G4-30 The last SVR was published in March 2015 as an interactive pdf covering financial year 2014. GRI G4-29

The BMW Group Sustainable Value Report is published on the BMW Group website. The next Sustainable Value Report will be published in early 2017.

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**UN GLOBAL COMPACT – COMMUNICATION ON PROGRESS**

The BMW Group committed to implement the principles of the **> Global Compact** in 2001, and in this report once again reports on progress achieved in complying with these principles. References to the Global Compact principles have been integrated into the **> GRI G4 Content Index**.

**Third-party verification**

The entire report (the texts of all chapters as well as further key indicators were audited by PricewaterhouseCoopers AG, with limited assurance in accordance with ISAE3000 (revised) **> Assurance Report**. GRI G4-33 Indicators from the areas of environmental protection and occupational health and safety were audited by external auditors and experts in accordance with ISO 14001, EMAS and OHSAS.

The Corporate Reporting, Corporate Communications and Policy as well as Corporate Planning and Product Strategy departments select the external auditors for the SVR. 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 (see Assurance Report). Third-party auditing enables us to document for the public the reliability and trustworthiness of the information provided. In addition, we regularly receive impetus for improvement and innovation in the reporting process. GRI G4-33, GRI G4-48

**FORWARD-LOOKING STATEMENTS**

**The BMW Group Sustainable Value Report 2015 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.**

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TO BMW AG, MUNICH

We have been engaged to perform a limited assurance engagement on the sustainability information in the Sustainable Value Report 2015 of BMW AG, Munich, (hereinafter the "Company"), for the period 1 January to 31 December 2015 (hereinafter the "Sustainable Value Report").<sup>1</sup>

MANAGEMENT'S RESPONSIBILITY

Company's Management is responsible for the preparation and presentation of the Sustainable Value Report in accordance with the criteria as set out in the G4 Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI) (hereinafter the "GRI Criteria").

This responsibility includes the selection and application of appropriate methods to prepare the Sustainable Value Report as well as the use of assumptions and estimates for individual sustainability disclosures which are reasonable in the circumstances. Furthermore, the responsibility includes designing, implementing and maintaining systems and processes relevant for the preparation of the Sustainable Value Report, which is free of material misstatements due to intentional or unintentional errors.

AUDIT FIRM'S INDEPENDENCE AND QUALITY CONTROL

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

The 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 joint opinion of the Wirtschaftsprüferkammer (Chamber of German Public Auditors; WPK) and the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): requirements to quality control for audit firms ("Gemeinsamen Stellungnahme der WPK und des IDW: Anforderungen

an die Qualitätssicherung in der Wirtschaftsprüferpraxis": "VO 1/2006") – 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 an opinion on the sustainability information in the Sustainable Value Report based on our work performed.

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

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information" published by IAASB. This Standard requires that we plan and perform the assurance engagement to obtain limited assurance whether any matters have come to our attention that cause us to believe that the sustainability information in the Sustainable Value Report has not been prepared, in all material respects, in accordance with the GRI-Criteria.

In a limited assurance engagement the evidence-gathering procedures are more limited than for a reasonable assurance engagement and therefore significantly less assurance is obtained than in a reasonable assurance engagement. The procedures selected depend on the practitioner's judgement. This includes the assessment of the risks of material misstatements of the sustainability information in the Sustainable Value Report with regard to the GRI Criteria.

<sup>1</sup> Our engagement applies to the German version of the Sustainable Value Report. This text is a translation of the Independent Assurance Report issued in the German language – the German text is authoritative.



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Within the scope of our work we performed amongst others the following procedures:

- Obtaining an understanding of the structure of the sustainability organisation and of the stakeholder engagement;
- Inquiries of personnel involved in the preparation of the Sustainable Value Report regarding the preparation process, the underlying internal control system and selected sustainability information;
- Performance of site visits as part of the inspection of processes for collecting, analysing and aggregating selected data:
  - in the corporate headquarters in Munich
  - in the production plant in Berlin (Germany)
  - in the production plant in Dingolfing (Germany)
  - in the production plant in Goodwood (UK)
  - in the production plant in Spartanburg (USA)
- Analytical procedures on selected sustainability information of 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 official information available from the Federal Office for Motor Traffic of Germany;
- Comparison of selected sustainability information with corresponding data in the consolidated financial statements and in the group management report;
- Assessment of the presentation of selected sustainability information in the Sustainable Value Report regarding the sustainability performance.

CONCLUSION

Based on our limited assurance engagement, nothing has come to our attention that causes us to believe that the sustainability information in the Sustainable Value Report of the Company for the period 1 January to 31 December 2015 has not been prepared, in all material respects, in accordance with the GRI Criteria.

EMPHASIS OF MATTER – RECOMMENDATIONS

Without qualifying our conclusion above, we make the following recommendations for the further development of the Company's sustainability management and sustainability reporting:

- Further standardisation and formalisation of reporting processes and the internal control system for sustainability information
- More focused representation of Disclosure on Management Approaches, as well as stronger inclusion of challenges, especially with regard to a more balanced reporting

RESTRICTION ON USE AND DISTRIBUTION

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

Munich, March 16, 2016

PricewaterhouseCoopers

Aktiengesellschaft

Wirtschaftsprüfungsgesellschaft

sgn. Andreas Fell

Wirtschaftsprüfer

(German Public Auditor)

sgn. Hendrik Fink

Wirtschaftsprüfer

(German Public Auditor)

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# Fuel consumption and CO<sub>2</sub> emissions ratings for the vehicles referred to in this report

Model	Urban (l/100 km)	Extra-urban (l/100 km)	Combined (l/100 km)	CO <sub>2</sub> emissions combined (g/km)
BMW 116d EfficientDynamics Edition 5-door	4.4–3.9 [–]	3.5–3.1 [–]	3.8–3.4 [–]	101–89 [–]
BMW 116i Hatch 5-door	6.8–6.3 [–]	4.6–4.2 [–]	5.4–5.0 [–]	126–116 [–]
BMW 116d Hatch 5-door	4.8–4.3 [4.6–4.1]	3.7–3.3 [3.8–3.4]	4.1–3.7 [4.1–3.6]	107–97 [107–96]
BMW 320d Touring	5.7–5.2 [5.4–4.9]	4.1–3.8 [4.0–3.7]	4.7–4.3 [4.5–4.1]	123–113 [119–109]
BMW X3 xDrive 20d	6.3–5.8 [5.7–5.3]	5.0–4.7 [5.1–4.7]	5.5–5.1 [5.3–4.9]	145–135 [139–129]
Mini One D 3-door	4.0–3.9	3.2–3.1	3.5–3.4	92–89

Model	Urban (l/100 km)	Extra-urban (l/100 km)	Combined (l/100 km)	CO <sub>2</sub> emissions combined (g/km)	Average total energy consumption (kWh/100 km)
BMW i3 (Range Extender)	omitted	omitted	– [0.6]	– [13]	– [13.5]
BMW i3	omitted	omitted	– [0]	– [0]	– [12.9]

Model	Urban (l/100 km)	Extra-urban (l/100 km)	Combined (l/100 km)	CO <sub>2</sub> emissions combined (g/km)	Electricity consumption combined (in addition to fuel consumption) (kWh/100 km)
BMW i8	omitted	omitted	– [2.1]	– [49]	– [11.9]
BMW X5 xDrive40e	omitted	omitted	– [3.4–3.3]	– [78–77]	– [15.4–15.3]

Figures in brackets apply to automatic transmission. Fuel consumption and CO<sub>2</sub> emissions are dependent on wheel and tyre size. Fuel consumption is determined in accordance with the ECE driving cycle. Valid for vehicles with a European country specification. All engines comply with at least Euro 5 emissions standards. Further information on the official fuel consumption, specific official CO<sub>2</sub> emissions and power consumption of new passenger vehicles can be found in the "Guideline for fuel consumption, CO<sub>2</sub> emissions and electric power consumption of new passenger vehicles", 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 <http://www.dat.de/angebote/verlagsprodukte/leitfaden-kraftstoffverbrauch.html>.

As at March 2016.

Further, regularly updated information on the vehicles referred to in this publication can be found at [www.bmw.com](http://www.bmw.com), [www.mini.com](http://www.mini.com) and [www.rolls-roycemotorcars.com](http://www.rolls-roycemotorcars.com).

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# We look forward to hearing from you

Numerous BMW Group employees participated in creating this Sustainable Value Report 2015. We will be happy to answer your questions and forward them to the relevant departments if needed.



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