

**BMW  
GROUP**



**ROLLS-ROYCE**  
MOTOR CARS LTD



**CHINA SUSTAINABILITY REPORT 2022**

## ABOUT THIS REPORT

### REPORTING PERIOD

This Report is the first Sustainability Report of the BMW Group China, covering the calendar year from January 1st, 2022 to December 31st, 2022. The BMW Group China will report sustainability progress on an annual basis, and the next Sustainability Report will be published in second quarter of 2024.

### REPORTING SCOPE

Since 2013, the BMW Group China has been disclosing sustainability information in China. From 2013 to 2021, the report disclosure subject is mainly BMW Brilliance – the BMW Group's largest manufacturing base in China. In 2022, the BMW Group China takes a further step by expanding the scope of its Sustainability Report across seven entities of the BMW Group in mainland China, including BMW Brilliance Automotive Ltd. (BMW Brilliance) and its wholly-owned subsidiary LingYue Digital Information Technology Co., Ltd. (LingYue), BMW China Investment Ltd. (BMW China Investment), BMW China Automotive Trading Ltd. (BMW China), BMW Automotive Finance (China) Co., Ltd. (BMW Automotive Finance), BMW China Services Ltd. (BMW China Services) and Herald International Financial Leasing Co., Ltd. (Herald Leasing).

### REPORTING STANDARD

The BMW Group China 2022 Sustainability Report provides stakeholders with comprehensive information about the company's sustainability ambitions and progress. The topics included here have been selected and weighted in accordance with the findings of a systematic materiality process. The content of the Report was prepared in compliance with the GRI Standards by the Global Sustainability Standards Board (GSSB). Using the GRI Content Index helps to show how we are implementing the communication requirements of the United Nations Global Compact.

The BMW Group China supports and promotes the achievement of Sustainable Development Goals (SDGs) through its business operations, in particular [SDG 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17](#). The beginning of each section will use icons to illustrate the connection between our business and these SDGs.

### THIRD-PARTY ASSURANCE

PricewaterhouseCoopers Zhong Tian LLP. has provided limited assurance on selected key performance indicators in this Report.



This is our **Communication on Progress** in implementing the principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

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# THOUGHT LEADERSHIP

## ON CHINA'S SUSTAINABILITY JOURNEY

The year 2022 was full of economic and social challenges, amongst them post-pandemic pressure on the economy, rising inflation as well as the more and more visible impact of climate change. However, especially in times of uncertainty and volatility, decisive and measurable actions are essential.

Inspired by both, the United Nations' 2030 Agenda for Sustainable Development and the 20<sup>th</sup> National Congress's Vision of High-quality Development, the BMW Group China is fully committed to taking a leading role in the transformation of our industry. We aim to deeply embed sustainability into all aspects of the automotive value chain.

And our continuing China sustainability journey is not a new one, in fact we have started already 20 years ago. Based on an optimistic, long-term perspective on China, we will further expand our local investment and footprint and reinforce our strong commitment towards this country, and we will of course do this in a sustainable way. BMW Group was the first German automotive manufacturer to join the Science Based Targets Initiative Business Ambition for 1.5°C, as a result we will make sure every step to sustainability is scientifically validated and transparent also here in China.

### OUR FUTURE IS ELECTRIC, DIGITAL AND CIRCULAR

Succeeding in shaping the future of mobility requires a bold vision which for us is **Electric**, **Digital** and **Circular**.

- **Electric** drivetrains are one essential prerequisite for climate-neutral mobility. We are right now rapidly expanding our range of electric vehicles across all BMW Group brands. As of today, we offer five fully electric models in China and have

established a complete E-mobility ecosystem—from supply chain and production to sales and customer service. Looking forward, BMW Group aims to increase its annual global share of electric vehicles sales to 50% at the latest by 2030.

- **Digital** transformation across our whole company is essential to further increase the efficiency of our supply and production system, to personalise customer experiences and to emotionalise our products. In this context, the BMW i Vision Dee is showcasing how the future interaction and communication between human and vehicle could look like.
- **Circular** is another cornerstone of our vision to create the eco-friendly electric car—based on re:think, re:cycle, re:use, and re:duce—that guides us to extract valuable raw materials for the cars of tomorrow from the cars of today. We aim to significantly increase the use of secondary materials and have made quite some progress in China this year by setting up a closed-loop-circle for high-voltage batteries.

### ONLY THROUGH TRANSPARENCY CAN ACTIONS BE MEASURED

The first ever BMW Group China Sustainability Report, launched this year, is showcasing our comprehensive approach and concerted efforts on driving and managing sustainability across all our China entities. It is a testament to the strong commitments of our around 28,000 associates.

2023 will witness a growing range of sustainability and CSR projects being implemented by BMW Group China and we are inviting all our Chinese partners and stakeholders to join as we are accelerating towards the future of Electric, Digital and Circular mobility.

### Mr. Jochen Goller

President and CEO  
BMW Group China



# ROOTED IN CHINA

## COMMITTED TO ACTION

In what seems like the blink of an eye – but is now 20 years – BMW Brilliance has rooted itself in China.

Over the course of those two decades, we have grown to become the largest manufacturing facility within the BMW Group worldwide, with an annual production capacity of 830,000 units. We have nurtured an expansive network of local suppliers and dealers who thrive alongside us, joining hands to form a world-class industry chain that spans China.

We take tremendous pride in being an integral part of Liaoning's great industrial spirit, and sharing an extraordinary growth journey with the city of Shenyang – our home in China.

At the heart of our 20 years of success is a long-held and unwavering commitment to sustainable development – a responsibility that has deepened and grown over time. As our society embarks on the sustainable transformation pathways outlined in China's 14th Five-Year Plan, BMW Brilliance is poised to lead the green development of the country's automotive industry. To that end, we have prioritised our sustainability efforts in three distinct areas: low carbon emissions, circularity and social contributions. We are delighted to share our

progress in this report.

### DECARBONISING THE VALUE CHAIN

BMW Brilliance leads climate action and largescale transformation throughout our value chain.

In 2022, the Supply Chain Project China was expanded to reduce our carbon impact. A low-carbon steel supply chain was established, while more than 40% of our local suppliers and 100% of our aluminium ingot suppliers switched already to renewable electricity. Meanwhile, to reduce energy consumption and CO<sub>2</sub> emissions from our operations, we tailored BMW's iFACTORY strategy for China. We achieved 100% renewable electricity<sup>1</sup> at our Shenyang manufacturing base in 2019, and at 37 non-manufacturing sites this year. And we have launched the Network Transformation Green Star Project – an industry first – to empower dealers to provide green services. Fifty dealers have so far been certified. Logistics plays a vital role in driving green transformation across our value chain. We have reduced our carbon footprint through initiatives such as rail freight transportation, the use of E-Trucks and green warehouse management. Our pioneering efforts in sustainability are widely recognised by the government and market. BMW Brilliance has topped the China Automotive Industry Green Development Index for four years.

1. Both externally sourced and internally generated electricity is renewable.



**Dr. Franz Decker**

President and CEO  
BMW Brilliance Automotive Ltd.



**Genuine sustainable leadership spearheads the complete low-carbon and circular transformation of the entire value chain. We are propelling green innovation and practices by working with industry partners. Together, we are not merely shaping a brighter future, but also inspiring others to follow suit.**

### CIRCULARITY TO CLOSE THE LOOP

Only by recycling and reusing materials can we ensure a sustainable future. In China, we adhere to BMW's philosophies of "Secondary First" and RE:THINK, RE:DUCE, RE:USE, RE:CYCLE.

In 2022, we created a closed-loop for raw materials used in high-voltage batteries (HVBs) by facilitating the recycling of nickel, lithium and cobalt. We are making progress on secondary materials recycling and reuse for steel, aluminium, platinum group metals and plastics. Our ongoing efforts to scale up secondary use for retired HVBs and to expand the categories of parts for remanufacturing are bearing good results. Enhancing circularity also entails conserving resources and minimising waste. In 2022, by upgrading our facilities, we saved more than 150,000m<sup>3</sup> of water and prevented at least 1,000 t of waste. We were pleased to be recognised as one of the Ministry of Industry and Information Technology's first National Industrial Wastewater Recycling Pilot Enterprises, and our annual water consumption per vehicle produced declined for a fifth year.

### NURTURING OUR PEOPLE AND THE COMMUNITY

The quality of an organisation should not just be measured by its economic success but also the social contributions. A good company has to take care of conditions for employees, workers in the

value chain and local communities.

Over the years, we have created more than 25,800 high-quality jobs in China. And we cultivate local content suppliers and distributors on our sustainability journey. In 2022, our local content suppliers numbered 429, with a total purchasing volume of RMB 73.47 billion. Committed to our community, we use innovative and collaborative approaches to direct our corporate social responsibility efforts to China's most urgent social needs. We support rural revitalisation, biodiversity and cultural protection. In 2022, we achieved a historic high of nearly 31.9 million beneficiaries for our corporate social responsibility activities. And we donated RMB 2 million to earthquake relief in Luding County, demonstrating our commitment to providing robust assistance in crises.

Rooted in China, BMW Brilliance has risen from humble origins to achieve fruitful results for two decades. As we go full power on electric, digital and circular, we are committed to delivering another 20 years of success for BMW while contributing to China's ongoing, high quality development.

To usher in a more splendid chapter, we will continue to protect the environment and the climate, add value to our products, and ensure prosperity for both stakeholders and the wider community.

**Mr. Thomas Schmid**

President, BMW China Services Ltd.

**Supply chain sustainability** is the management of environmental, social and economic impacts, and the encouragement of positive practices, throughout the lifecycles of products and services. As one of the largest OEMs in China, we can leverage the influence to engage with more suppliers about respect of low-carbon, circular and social responsibility, and thereby to advance real changes throughout our value chain. By undertaking initiatives to encourage development and diffusion of environmental and social friendly approaches, in 2021 we have launched the Supply Chain Project in China and established end-to-end sustainability processes for Chinese suppliers, covering many aspects such as key raw materials, renewable energy, EHS, and social responsibility. In this way we are actively engaged with suppliers, mainstreaming values and actions down to raw material producers, with empowerment and connection to platforms such as China Development Research Foundation, to maximise the overall social, environmental and ethical impact.

**Mr. Robert Kuessel**

Senior Vice President, Technology and Manufacturing, BMW Brilliance Automotive Ltd.

For the **automotive manufacturing sector**, China's sustainability targets have sparked opportunities to create affordable, convenient and sustainable solutions. We in the auto industry are embracing automation, connectivity and electrification. As an innovative leader in premium auto-making, we are rising to the challenges of the new digital era by implementing the future-oriented iFACTORY manufacturing strategy at our BMW Brilliance Shenyang base. This is founded on digital, flexible, efficient and sustainable technologies. Our Shenyang manufacturing base is uniquely positioned to embed sustainability principles throughout the value chain: research and development, procurement and production are integrated under one roof. This allows for faster decision-making and problem-solving. With that high quality system in place, we have built a fully-fledged production base in Shenyang. It champions customer-centric and socially responsible automotive production in China, and leads the vital transformation of our industry.

**Dr. Robert Kahlenberg**

Senior Vice President, BMW Research &amp; Development China

**Circularity is a solution** — one of many needed to address climate change. Materials re-use, adapting supply chains, re-shaping market perceptions will be challenging but key to ensuring an environmental and circular transition. Our design is the nascent stages, and the attempts enhance the effective of the implementation of sustainable manufacturing. Our target of increasing the proportion of secondary materials in the thermoplastics used in new vehicles from currently around 20% to an average of over 40% by 2030. To maximise the recyclability and recycled materials used in our vehicles, we investigate each component to reduce emission. For redesigning and refurbishing, from alloy wheels to seating, we ensure the performance, safety, stability, and consistency. For instance, on top of our new BMW X1 recycled nylon practices that's synthesised from discarded fish net and worn floor covering, we also have around 150 kg of recycled aluminium had been used in the new BMW i7.



**Ms. Alice Mei**

President and CEO,  
Lingyue Digital Information Technology Co., Ltd.

**Digitalisation** has become a decisive factor in competition in our industry, and it is at the core of BMW's transformation in all aspects of our operations. On the customer front, digitalisation offers new possibilities to enhance our interactions with customers and elevate the customer-centric services we offer. As we embark on this journey, we always prioritise information security and privacy protection for our customers, recognising that these are fundamental to maintaining customer satisfaction and loyalty.

**Mr. Jörg Friebe**

President, Financial Services Region China and  
CEO, BMW Automotive Finance (China) Co., Ltd.

**BMW Group Financial Services** plays a critical role in strengthening our focus on customers and new energy vehicle (NEV) solutions. Specifically, when it comes to electrification and embracing NEV, China has a pace that is unparalleled to any other markets. We have geared our efforts toward making BMW NEV products more accessible to all customer groups across our sales channels by offering a diverse range of financing solutions, including NEV-customised financing options, leasing solutions, and insurance products for different levels of trade with customers. This is provided through a fully digitalised customer journey with paperless end-to-end financing processes, making the switch to NEV easier than ever before for our customers.

**Dr. Joachim Hensel**

CEO & Director, Herald International Financial Leasing Co., Ltd.

**Providing leasing solutions** that serves the mobility desire of BMW customers is the purpose of Herald International. The future of sustainable mobility relies on the use of eco-friendly vehicles, complemented by a range of low-carbon mobility options – this is crystal clear to us. Thus, our mission is to provide easy and convenient solutions to our BMW customers and dealers, such as vehicle leasing, to support new travel patterns and services. Together with BMW's efforts to expand our NEV product portfolio and enhance green charging services, we are pulling our efforts together to shape the future of sustainable mobility.





# AN OVERVIEW OF BMW GROUP CHINA

In April 1994, the BMW Group set up a representative office in China - BMW Automotive Trading Ltd. Beijing Representative Office, marking its official entry into the Chinese market. In May 2003, BMW Brilliance Automotive Ltd. was founded as a joint venture of the parent companies BMW Group and Brilliance China Automotive Holdings Ltd. Now, it has become BMW Group's largest manufacturing base worldwide. In October 2005, BMW (China) Automotive Trading Ltd. was established, marking another milestone in BMW Group's long-term commitment to the Chinese market.

Today, the BMW Group's business in China includes R&D, procurement, production, the import and sales of BMW branded cars, MINI cars and Rolls-Royce, aftersales service, and comprehensive services such as leasing, finance, and digital information.

For nearly 20 years, the BMW Group China has been committed to creating value for consumers, local society, and the industry, practising its promise of "At Home in China", and firmly implementing a 360° sustainable development strategy. As a leader in sustainable development in the premium individual mobility, the BMW Group China continuously promotes the sustainable transformation of the Chinese automotive value chain.



## LEGEND

Headquarter & Manufacturing Base <sup>2</sup>	🌐
Branch Office	●
Sales Regional Office	●
Research and Development Centre	●
Finished Vehicles Dispatch Area	△
Finished Vehicles Export Warehouse	△
Spare Parts Distribution Centre	▲
Training Centre <sup>3</sup>	■
Brand Experience Centre	■

## OUR LOCATION

1	Beijing	🌐 ● ● ● ▲ ■ ■
2	Shenyang	🌐 ● ▲ ▲ ■
3	Tianjin	△ △
4	Dalian	△
5	Zhengzhou	△
6	Xi'an	△ ■
7	Hefei	▲
8	Nanjing	●
9	Shanghai	● ● ● ▲ ▲ ■ ■
10	Ningbo	△ ▲
11	Chengdu	● ▲ ▲
12	Chongqing	●
13	Wuhan	△
14	Guangzhou	△ ● ▲ ■
15	Foshan	▲

### 2022 AT A GLANCE

**674,663**

Vehicles produced.

**791,985**

Retail vehicle deliveries<sup>1</sup>.

**27,982**

Total workforce at year-end.

**893**

Authorised dealer outlets nationwide.

1. Include BMW brand and MINI brand vehicles delivered to customers.  
2. Include Plant Tiexi, Plant Dadong and Plant Lydia.  
3. Managed by BMW to deliver trainings for employees and dealer partners.

## HIGHLIGHTS IN 2022



### JANUARY

- Launch of the innovative BMW iX M60 and BMW iX xDrive 40.
- BMW Short Term Rental Service landed in Hainan.

### FEBRUARY

- Launch of the innovative BMW i4.



### MARCH

- Launch of the all-new BMW i3 and BMW X5.
- BMW Brilliance achieved Best Enterprise Practice Award by Global Compact Network China for three consecutive years.

### APRIL

- The Innovative Exploration and Implementation Programme of Tsinghua BMW Innovation Centre for Intangible Cultural Heritage Safeguarding closed.
- Plant Dadong Extension officially opened in Shenyang.



### MAY

- The BMW Group China established closed-loop recycling of HVBs raw materials.
- All-new BMW i3 officially rolled off assembly line.

### JUNE

- Plant Lydia officially opened in Shenyang.
- Release of the BMW Brilliance Sustainability Report 2021.
- The 6th BMW Brilliance Associates' Congress and the 4th BMW Brilliance Union Members' Congress were held.



### JULY

- The BMW JOY Home "Self-Strengthening Movement" came to Liangshan Sichuan.
- The BMW Group China Finished Vehicles Sustainability Conference was held.
- Plant Dadong Train Station officially opened.



### AUGUST

- The BMW Group China and HBIS Group signed a MoU to create a low-carbon steel supply chain.
- The BMW Children's Traffic Safety Education training workshop was held in Qinghai.

### SEPTEMBER

- BMW become the first premium brand to have NFC and UWB ultra-wideband technology solutions.
- BMW China and BMW Brilliance donated RMB 2 million to support earthquake relief of Luding, Sichuan.



### OCTOBER

- The BMW Group collaborated with the Envision AESC on battery cells.



### NOVEMBER

- RMB 10 billion was invested into New Battery Production Project in Shenyang.
- "BMW Beautiful Homeland-Crane Wonderland" bird hide officially completed.
- The BMW Group China Sustainability Summit 2022 was successfully held.

### DECEMBER

- The BMW China Culture Journey Intangible Cultural Heritage Protection Innovation Deliverables launched.
- Launch of the innovative fully electric BMW i7 and BMW XM.
- BMW Brilliance topped the China Automotive Industry Green Development Index for four consecutive years.

Featured Topic

Featured topic #1

# OUR PATH TO DECARBONISATION

Our vision is to lead the way in sustainability practices and exploration as a premium manufacturer.

In decarbonisation, we are reducing CO<sub>2</sub> emissions across our entire value chain including

manufacturing, supply chain, use phase, logistic, dealer and non-manufacturing sites. We recognise that the impact of our operations extends beyond our own facilities, and we have taken a proactive approach to achieve decarbonisation.

## UPSTREAM



### SUPPLIER ENVIRONMENTAL MANAGEMENT FRAMEWORK

Our **Supply Chain Project China** integrates environmental criteria into the supplier management process.

### ACCELERATE RENEWABLE ELECTRICITY TRANSITION IN SUPPLY CHAIN

**>40%** Of our nominated suppliers started using renewable electricity<sup>1</sup> in 2022.  
**100%** Of our aluminium ingot suppliers used renewable electricity<sup>1</sup>.  
**~20%** Of Liaoning-based suppliers joined Green PPAs under our facilitation.

### LOW-CARBON MATERIAL SOURCING

Industry-first partnership with HBIS to develop green steel which is expected to reduce up to 230,000 t of CO<sub>2</sub> emissions per year from 2026.

## PRODUCTION, OPERATION AND LOGISTICS

### BMW iFACTORY STRATEGY

GREEN tenet leads our green production.

### REDUCING RELIANCE ON FOSSIL FUELS

Explore alternative renewable energy sources for heat and gas generation.

Geothermal Biomass

### CONTINUOUS IMPROVEMENT IN ENERGY EFFICIENCY

**52** Energy-saving initiatives implemented through STEAM platform, saving more than 15,034 MWh in energy consumption.

### GREEN WAREHOUSE MANAGEMENT

Our Hefei, Ningbo and Beijing Spare Parts Distribution Centres are LEED-certified.

### TRANSITION TO RENEWABLE ENERGY

**100%** Renewable electricity<sup>1</sup> use maintained for all manufacturing sites in 2022.  
**74.8 MWp** On-site solar PV capacity, increased from 31.1 MWp from 2022.  
**37** Non-manufacturing sites switched to using renewable electricity<sup>1</sup>.

### LOW-CARBON TRANSPORTATION MODE

**30%** Of our parts from the Greater Shanghai area to Shenyang manufacturing base are transported by train, reducing 2,160 t CO<sub>2</sub> emissions in 2022.

### LOCALISED SUPPLY CHAIN

**>30%** Of aftersales parts are sourced locally.

### UPSCALING THE USE OF RENEWABLE ENERGY CARRIERS

**39** E-Trucks deployed in inbound logistics.  
**16** E-Trucks used in finished vehicles and aftersales logistics.  
**LNG<sup>2</sup>** Trucks with an 8-unit truckload co-developed with our partners.

## DOWNSTREAM

### EXPAND NEV PRODUCT PORTFOLIO

### PROVIDE LOW-CARBON SERVICES

**BMW Network Transformation Green Star**  
**Green Charging Services**

50 BMW dealers were awarded Network Transformation Green Star in 2022.

### PROMOTE SHARED MOBILITY

**6 cities** In which we are providing car rental services in China.

### Cooperation

With Maple Leaf Car Rental to offer wider green transportation options with BMW i3.

### CULTIVATE SUSTAINABILITY AWARENESS

Raise green driving awareness through MINI's GREEN mode.

1. Both externally sourced and internally generated electricity is renewable, including solar PV, Green PPAs and I-RECs.  
 2. Liquefied Natural Gas.

Featured topic #2

# CIRCULARITY: CREATING MÖBIUS STRIP

## GUIDING PRINCIPLE: "SECONDARY FIRST"

- RE:THINK** We keep circularity in mind during all our deliberations.
- RE:DUCE** Using less to achieve more, wherever and however we can.
- RE:USE** Extending the use of our products for as long as we can.
- RE:CYCLE** Keeping resources in circulation for as long as we can.

### Research and Development



#### SUSTAINABLE PRODUCT DESIGN

Highly integrated, lightweight, scalable and modular design of NEVs.

The rare earth-free in BMW 5th Generation eDrive Technology.

BMW X5 was awarded the Green Product by MIIT.

BMW iX3 was awarded as "Platinum" China Eco-Car by CATARC.

### Supply Chain



#### INNOVATION IN MATERIAL RECYCLING & REUSE

Recycled scrap steel and scrap aluminium.

- 48,160 t scrap steel in 2022
- 14,536 t scrap aluminium in 2022

Developed a recycled PGM supplier.

Research on recycle plastic materials.

### Production



#### WATER REUSE AND RECYCLING

Water recycling system at Shenyang manufacturing base.

BMW Brilliance was recognised as one of the first "National Industrial Wastewater Recycling Pilot Enterprises" by MIIT.

#### WASTE UTILISATION

Waste for disposal per vehicle produced decreased 20% vs 2021.

Install sludge dryers at the Plant Dadong and Plant Lydia reducing waste volume and weight by 40% to 50%.

### Logistics and Transport



#### GREEN PACKAGING

Recycling and reusing packaging materials, including steel and non-steel bin programme.

Maximise bin useability: reuse rental bin 40,332 times in 2022.

### Sales and Utilisation



#### PROMOTE USED CAR MARKET

BMW Certified Used Car programme.

2022 BMW Certified Used Car Festival covers more than 400 authorised dealers in China.

#### DELIVER CIRCULARITY CONCEPTS AND SERVICES THROUGH DEALERS

BMW i-Space: all building and furnishing materials are recyclable and environmentally friendly.

Provide recycling services, including HVB, spare parts.

### Disposal and Recycling



#### EXPAND THE SCOPE OF REMANUFACTURED PARTS

Remanufactured 275,421 pieces of used parts, weight total 595 t.

#### PIONEER HVB CLOSED-LOOP AND REUSE

Closed-loop recycling of raw materials in HVB: New cooperation with Huayou recycling.

Enhance closed-loop traceability: upgrade the battery tracking system.

Scale up secondary use of HVBs: forklifts, pallet trucks, power storage station.

**We aim to extend our leading position in resource efficiency in production to the entire life cycle of our vehicles.**

# KEY SUSTAINABILITY DATA SUMMARY

## BUSINESS ACTIVITIES

	BMW BRILLIANCE						BMW GROUP CHINA <sup>1</sup>
	2018	2019	2020	2021	2022	% Change	2022
Vehicles produced (in unit)	491,888	536,537	602,936	700,787	674,663	-3.7	674,663
Retail vehicle deliveries <sup>2</sup> (in unit)	-	-	-	-	-	-	791,985
Authorised dealer outlets nationwide (number)	625	647	666	683	707	3.5	893

## PRODUCTS AND MOBILITY SERVICES

	BMW BRILLIANCE						BMW GROUP CHINA <sup>1</sup>
	2018	2019	2020	2021	2022	% Change	2022
Average fleet CO <sub>2</sub> emissions (domestic) (in g/km)	139	137.8	142.1	152.8	144.1	-5.7	144.1
Average fleet CO <sub>2</sub> emissions (imported) <sup>3</sup> (in g/km)	-	-	-	-	-	-	171.6
Corporate average fuel consumption (domestic) (in l/100 km)	5.84	5.79	5.97	6.42	6.08 <sup>4</sup>	-5.3	6.08 <sup>4</sup>
Corporate average fuel consumption (imported) <sup>3</sup> (in l/100 km)	-	-	-	-	-	-	7.24 <sup>4</sup>

**Note:**

1. Selected key figures for BMW Group China are audited on the basis of a limited assurance engagement. See LIMITED ASSURANCE REPORT on [p.106](#) for details.
2. Include BMW brand and MINI brand vehicles delivered to customers.
3. Newly added indicator since 2022.
4. This figure is publicised on the *Notice on Passenger Car Corporate Average Fuel Consumption and New Energy Vehicle Credits in 2022* by MIIT on April 10th, 2023.

## PRODUCTION AND OPERATION

	BMW BRILLIANCE						BMW GROUP CHINA <sup>1</sup>
	2018	2019	2020	2021	2022	% Change	2022
Scope 1 Greenhouse gas emissions (in t)	35,733	42,141	43,614	50,937	54,306	6.6	54,306
Scope 2 Greenhouse gas emissions (in t)	281,753	68,602	71,275	71,604	76,121	6.3	76,121
Scope 3 Greenhouse gas emissions <sup>2</sup> (in t)	13,872,546	15,307,212	17,626,158	21,269,854	24,636,801	15.8	31,276,213
CO <sub>2</sub> emissions per vehicle produced (in t/vehicle)	0.63	0.20	0.18	0.17	0.19	11.8	0.19
Share of renewable electricity (in %)	43	100	100	100	100	0	100
Total energy consumption (in MWh)	841,518	974,642	1,026,890	1,106,295	1,169,425	5.7	1,189,231
Energy consumption per vehicle produced (in MWh/vehicle)	1.65	1.63	1.51	1.40	1.60	14.3	1.60
Volatile organic compounds (VOCs) per vehicle produced (in kg/vehicle)	0.56	0.52	0.50	0.12	0.12	0	0.12
Total water consumption <sup>3</sup> (in m <sup>3</sup> )	1,214,892	1,332,876	1,188,228	1,275,998	1,191,954	-6.6	1,191,954
Water consumption per vehicle produced (in m <sup>3</sup> /vehicle)	2.47	2.40	1.97	1.82	1.77	-2.7	1.77
Process wastewater per vehicle produced (in m <sup>3</sup> /vehicle)	0.42	0.44	0.44	0.47	0.50	6.4	0.50
Total waste <sup>4</sup> (in t)	85,237	87,013	181,791	210,691	208,564	-1.0	208,564
Waste for disposal per vehicle produced <sup>5</sup> (in kg/vehicle)	8.05	7.47	2.99	2.50	2.00	-20.0	2.00
Total non-hazardous waste <sup>4</sup> (in t)	74,073	76,814	172,349	200,283	198,662	-0.8	198,662
Total hazardous waste <sup>4</sup> (in t)	11,164	10,199	9,442	10,408	9,902	-4.9	9,902

**Note:**

1. Selected key figures for BMW Group China are audited on the basis of a limited assurance engagement. See LIMITED ASSURANCE REPORT on p.106 for details.
2. Indirect CO<sub>2</sub> emissions generated in the upstream supply chain, the utilisation phase, and the disposal of automobiles for sales in Chinese mainland market and those generated by transport logistics, employee commuting and business trips of the year. Emission factors of the supply chain and the disposal are based on the carbon footprints of representative vehicles from the product lines, calculated by using the LCA tool GaBi provided by Sphera. Logistics emissions are based on the transaction mode and region. Emissions factors of logistics applied the international GLEC Framework V2.0 directive, CleanCargo and DIN EN 16258. Emissions from the utilisation phase are calculated based on the average fleet CO<sub>2</sub> emissions of automobiles produced and imported by BMW Group China and an assumed average mileage of 200,000 km (as per VDA 900-100).
3. Water consumed by vehicle production (BMW Brilliance plants).
4. Waste generated by vehicle production (BMW Brilliance plants).
5. The year-on-year reduction for this figure was mainly due to the implementation of the sludge drying project in Plant Dadong in which the water content of sludge has been reduced and leading to a reduction in waste for disposal per vehicle.
6. Include parts and raw material's suppliers and purchasing volume of BMW Brilliance only.

## DEALER AND SUPPLY CHAIN

	BMW BRILLIANCE						BMW GROUP CHINA <sup>1</sup>
	2018	2019	2020	2021	2022	% Change	2022
Local content suppliers in China <sup>6</sup> (number)	378	394	400	436	429	-1.6	429
Purchasing volume in China <sup>6</sup> (in RMB billion)	43.10	49.68	54.89	71.39	73.47	2.9	73.47

## EMPLOYEE AND SOCIETY

	BMW BRILLIANCE						BMW GROUP CHINA <sup>1</sup>	
	2018	2019	2020	2021	2022	% Change	2021	2022
Total workforce at year-end (number)	18,925	19,824	20,739	22,829	25,802	13.0		27,982
Female employees in total workforce (in %)	12.0	12.1	11.9	11.9	11.4	-4.8		14.5
Female employees in management positions <sup>2</sup> (in %)	30.0	30.6	30.2	31.4	31.8	1.3		37.1
Local employees in management positions <sup>2</sup> (in %)	87.2	86.7	87.2	90.0	91.7	1.9		91.3
Total local new employee hires <sup>3</sup> (in %)	16.6	8.2	8.2	15.4	18.3	18.9		18.0
Local attrition rate <sup>4</sup> (in %)	4.9	3.7	3.8	7.4	6.9	-7.6		7.1
Accident frequency rate (per one million hours worked)	0.28	0.17	0.09	0.13	0.08 <sup>5</sup>	-38.5		0.08
Training days of training organised by the Human Resources Department <sup>6</sup> (in day)	33,804	24,311	15,491	19,524	25,844	32.4		28,241
Average days of further training per employee (in day/person)	1.79	1.23	0.75	0.86	1.00	16.5		1.01
Training attendee satisfaction rate (in %)	97.0	98.2	98.4	99.0	99.8	0.8		99.4
Beneficiaries of BMW CSR activities (number)	80,292	2,628,710	11,568,364	11,459,458	-	-		31,885,474 <sup>7</sup>
Expenditure on social commitment activities (in RMB)	15,575,085	16,513,831	36,619,722	23,439,759	-	-		24,210,755
Total participants of CSR activities <sup>8</sup> (number)	-	212	85	300	-	-		916 <sup>9</sup>
Total hours of volunteer service <sup>8</sup> (in hour)	-	1,915	923	1,914	-	-		1,960

**Note:**

- Selected key figures for BMW Group China are audited on the basis of a limited assurance engagement. See **LIMITED ASSURANCE REPORT** on [p.106](#) for details.
- Management positions refer to employees with function levels from I to V.
- New data input to reflect the newly hired local employees since 2022. This figure does not include expatriate associates and employees transferring within the BMW Group China entities. The previous years' figures have been adjusted for comparison purposes.
- New data input to reflect local attrition rate since 2022. This figure does not include employees transferring within the BMW Group China entities and employees leaving due to retirement or death. The previous years' figures have been adjusted for comparison purposes.
- Compared to 2021, there were fewer accident cases that happened in 2022.
- This figure includes offline training only. In 2022, the overall offline training was less affected by the epidemic, the number of offline training organised has increased and the number of course participants has increased, which was the main reason for the increase in the number of days of the overall trainees compared with that in 2021.
- The increase in this figure is mainly due to the increase in online video and live-streaming activities in which the number of beneficiaries is counted by visiting times. In 2022, we enhanced the online communications on the education of popular science and Chinese traditional culture to penetrate the broad public and expand the social beneficiaries by introducing more online videos and live-streaming activities.
- Volunteers include employees, their children, and other public.
- The increase in this figure is mainly due to the scope expansion by including employees' children and other public into the scope and the launch of online program for the first time to attract associate volunteers to participate.



CHAPTER 1

# FUNDAMENTALS

1.1 From Strategy to Action

17

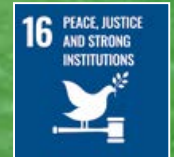
1.2 Corporate Governance

23



1.1

# FROM STRATEGY TO ACTION



SDG 16 and 17

## PRACTISING SUSTAINABILITY AT HOME IN CHINA

At BMW Group China, our sustainable development strategy is a constantly evolving framework that adapts to our business models and external landscape. On top of adaptation and scrutinisation, we highly value the communication with stakeholders. This builds mutual trust and understanding, while prioritising swift action on pressing sustainability issues. Our sustainable development is underpinned by strong governance, and we collaborate across departments and promote two-way communication to drive initiatives forward.

### BEST ENTERPRISE PRACTICE AWARD

For achieving Sustainable Development Goals by Global Compact Network China for three consecutive years.

### 1<sup>st</sup> Rank

In 2022 China's Automotive Industry Green Development Index for four consecutive years.

## SUSTAINABILITY MEGATRENDS

The past year presented formidable challenges, as the effects of climate change wrought havoc on our ecosystems and depleted our resources. This environmental crisis creates obstacles to a global green economy: resource and energy shortages, and risk of supply chain disruption.

The automotive industry has a significant impact on the natural environment. Our sustainable transformation is therefore imperative for tackling global challenges of air pollution, global warming and resource conservation. Digitalisation and electrification are driving revolutionary change in our product development and production. These advances are paving the way for a circular economy, thereby mitigating the impact of our value chain on the environment.

Therefore, 2022 compels united action and cooperation – and, as a company deeply rooted in China, the BMW Group China stands as an emblem of collaboration and growth. The 20th National Congress highlighted the need for green development and harmony between humanity and nature. This principle provides a clear roadmap for our carbon neutral targets. Consequently, 2022 saw increasingly steadfast commitment to sustainable development by BMW Group China.

## DIALOGUE WITH STAKEHOLDERS

As we evolve, so the priorities of our valued stakeholders undergo transformation. We extend our sustainable development and disclosure throughout the BMW Group in China, remain committed to ongoing engagement with stakeholders through extensive dialogues, communication activities and platforms, and honing our stakeholder focus with rigorous evaluations.

For us to be "At Home in China", we are maintaining close dialogue with local governments and being proactive to pursue win-win outcomes. In 2022, Dr. Franz Decker participated in the "China-Germany Sister City Forum" with the theme "Green and Digital-New Impetus for China and Germany Sister Cities Mutual Beneficial Cooperation", and delivered a keynote speech in the green cooperation sub-forum. To drive low-carbon transformation for our industry, we signed a Memorandum of Understanding (MoU) with the HBIS Group in 2022 to establish a green and low-carbon steel supply chain through collective efforts. We have also deepened our strategic partnership with Maple Leaf Car Rental, and the first batch of all-new BMW i3 will now be deployed to Maple Leaf Car Rental's nationwide service network. By providing customers with personalised high-quality travel experiences, we are leading the way in promoting low-carbon travel in China.

Our stakeholders, how we communicate with them, and their focuses, are listed in the adjacent table:



### OUR STAKEHOLDER GROUPS AND ENGAGEMENT APPROACH

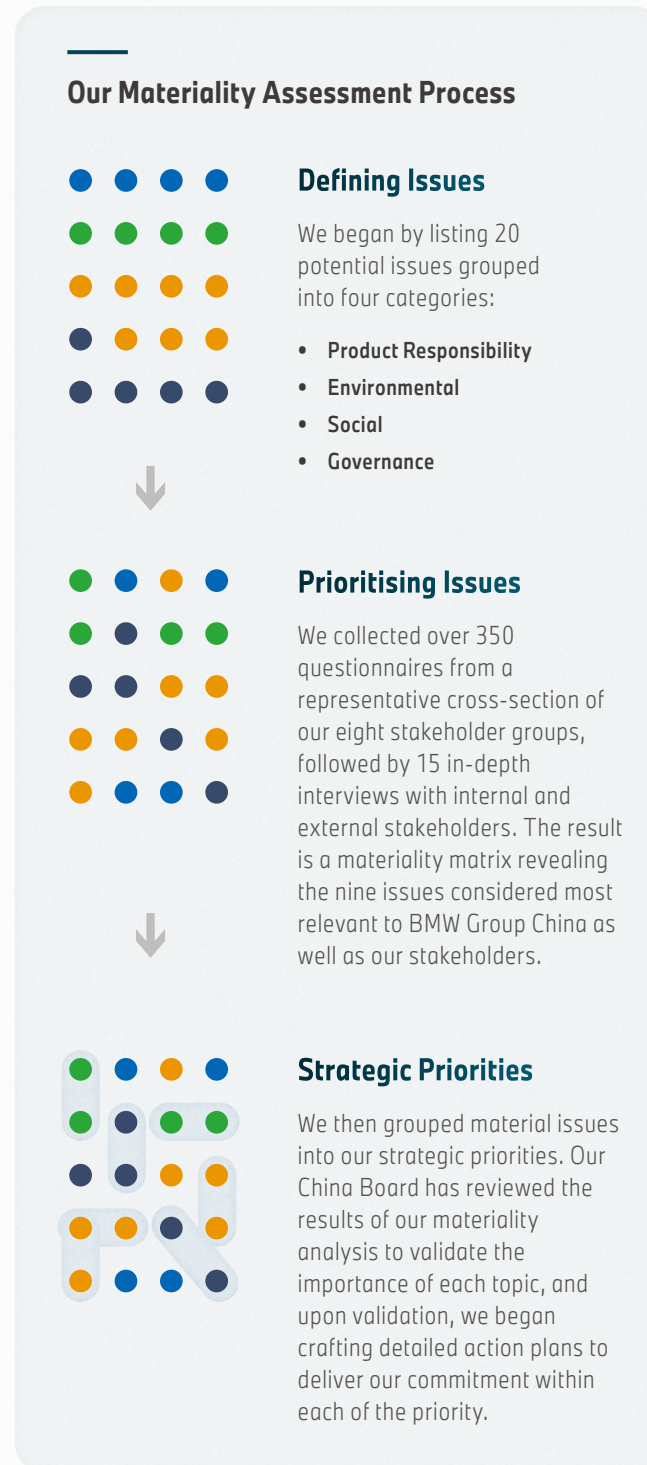
STAKEHOLDERS	COMMUNICATION CHANNELS	FOCUS TOPICS
<b>Employees</b>	Trade Union, the BMW Brilliance Congress, employee surveys, Social Drive activities, all-round training, WeChat, internal webpage, etc.	<ul style="list-style-type: none"> <li>Occupational health and safety</li> <li>Employee development and retention</li> <li>Product quality and safety</li> <li>Diversity, equity and inclusion</li> </ul>
<b>Customers</b>	Surveys, social media, trade fairs, auto shows, mass media, My BMW App, Brand Experience Centre, JOYCUBE, etc.	<ul style="list-style-type: none"> <li>Product quality and safety</li> <li>Air pollution</li> <li>Information security and privacy protection</li> <li>Compliance</li> </ul>
<b>Government</b>	Regular communication with local authorities, meetings with government officials, visits and management forums, etc.	<ul style="list-style-type: none"> <li>Product quality and safety</li> <li>Compliance</li> <li>Air pollution</li> <li>Sustainable product portfolio</li> </ul>
<b>Civil Society</b>	Roundtables, lectures and discussions with experts, and scholars, specialised local programmes, traineeships, vocational opportunities, etc.	<ul style="list-style-type: none"> <li>Product quality and safety</li> <li>Decarbonisation across the value chain</li> <li>Environment, ecology and resource management</li> <li>Compliance</li> </ul>
<b>Suppliers</b>	Regular interaction, trainings, risk assessments, forums, supplier media visits, etc.	<ul style="list-style-type: none"> <li>Responsible sourcing</li> <li>Decarbonisation across the value chain</li> <li>Sustainable product portfolio</li> <li>Environment, ecology and resource management</li> </ul>
<b>Dealers</b>	NT Green Star Project, regular interaction, conferences, dealer environment, health and safety (EHS) self-assessments, training, etc.	<ul style="list-style-type: none"> <li>Occupational health and safety</li> <li>Compliance</li> <li>Product quality and safety</li> <li>Information security and privacy protection</li> </ul>
<b>Local Residents</b>	One-on-one meetings, plant visits, press events, corporate social responsibility programmes, volunteering, etc.	<ul style="list-style-type: none"> <li>Information security and privacy protection</li> <li>Product quality and safety</li> <li>Occupational health and safety</li> <li>Air pollution</li> </ul>
<b>Mass Media</b>	Surveys, social media, trade fairs, auto shows, press releases, etc.	<ul style="list-style-type: none"> <li>Product quality and safety</li> <li>Diversity, equality and inclusion</li> <li>Sustainable governance</li> <li>Information security and privacy protection</li> </ul>

## MATERIALITY ASSESSMENT

Since our last materiality assessment in 2020, the world has undergone significant changes – not only with COVID-19, but also the conflicts in Europe, the growing urgency to take climate actions and the rapidly changing regulatory requirements, and more. As a result, our stakeholders' expectations of our performance have changed, so in 2022 we conducted a refreshed materiality assessment to identify and prioritise the sustainability issues that matter most to our business and key stakeholders.

Our refreshed assessment is based on the [double materiality assessment](#) approach, combining quantitative and qualitative methods. Our final list of material issues was developed via analysis of megatrends and policies, while adhering to the double materiality principle proposed by the Corporate Sustainability Reporting Directive (CSRD). This allowed us to consider financial and impact perspectives, for an all-round understanding of the issues.

The materiality matrix was based on 15 interviews and more than 350 questionnaires with eight internal and external stakeholder groups. The top management reviewed and confirmed the results to ensure their validity and relevance. The horizontal axis represents the significance of the environmental and social impact of the BMW Group China, and the vertical axis represents relevance to the BMW Group China's business success.



## BMW Group China 2022 Materiality Matrix



### Product Responsibility

- 1 Sustainable product portfolio
- 2 Product quality and safety
- 3 Urban mobility and infrastructure
- 4 Connected and autonomous driving

### Environmental

- 5 Decarbonisation across the value chain
- 6 Circular economy
- 7 Air pollution
- 8 Environment, ecology and resource management

### Social

- 9 Responsible sourcing
- 10 Diversity, equality and inclusion
- 11 Occupational health and safety
- 12 Employee development and talent retention
- 13 Attractive workplace
- 14 Corporate citizenship & community engagement
- 15 Human rights

### Governance

- 16 Compliance
- 17 Information security and privacy protection
- 18 Sustainable governance
- 19 Public policy participation
- 20 Stakeholder engagement

## OUR SUSTAINABILITY PRIORITIES

At BMW Group China, we believe that a truly responsible and sustainable business must have a higher purpose than simply achieving profit—it must work to improve the world. By prioritising the material issues, we can effectively identify and analyse the most pressing challenges, enabling us to better determine our sustainable development direction and implement responsible business practices that drive positive impact.

### Transparency as the foundation of trust

Responsible business is built on openness and transparency. As disclosure standards and stakeholder expectations continue to evolve, we demand ourselves to follow the most advanced disclosure requirements to present our sustainability performance with more comprehensive, material, accurate, and reliable data.



### Decarbonisation across the value chain

Decarbonisation has been topping the priority list at BMW Group China, and we are taking ambitious climate actions not only in our product design and production, but also across our value chain to initiate changes and catalyse transformation. These include amplifying development on decarbonisation technologies, low-carbon products, promoting renewable energy adoption in our suppliers, logistic partners, and dealer network, as well as forging new partnerships to innovate and pioneer total transformation in manufacturing low-carbon parts and materials.

→ [Read more on p.11](#)



### Circular for prosperity

Circularity is the critical solution to address the challenge of resource scarcity. It is both an aspiration and a promise for us. Thus, we adhere to the "Secondary First" and continuously increase the proportion of secondary materials. We strive for breakthroughs in various aspects, including the recycling and reuse of metals and plastics, the recycling and secondary use of HVB, and the remanufacturing of spare parts etc.

→ [Read more on p.12](#)

### Customer centricity

There is "no premium without sustainability", and our top priority is to meet the demands of Chinese customers for premium products and services and sustainable mobility. We consistently strive to create high-end products and services that combine quality, safety, experience, and sustainability, while shaping sustainable consumer awareness and brand recognition through meaningful communication and interaction with our customers.

→ [Read more on p.38](#)



### Social sustainability

Social sustainability encompasses many dimensions, which is why we have a broad range of measures and targets. We take responsibility for our people by promoting leadership excellence, and creating a diverse and healthy work environment and promote sustainability throughout our supply chain by implementing environmental and social standards among our partners. Moreover, we recognise our responsibility to society as a whole and invest in corporate social responsibility as a way to promote corporate citizenship and contribute to a better world.

→ [Read more on p.62, 67, 72, 75, 81](#)

## OUR ACTIONS ON MATERIAL ISSUES

Material Issues	Actions and Initiatives
<b>Sustainable product portfolio</b>	<ul style="list-style-type: none"> <li>Launched five fully electric models in the Chinese market: the BMW i7, the all-new BMW i3, the BMW i4, the BMW iX, and the BMW iX3.</li> <li>Provided low-carbon services and shared mobility to cultivate sustainability awareness among customers.</li> <li>Installed 470,534 public charging pillars, with green charging promoted via State Grid EV Service.</li> </ul>
<b>Decarbonisation across the value chain</b>	<ul style="list-style-type: none"> <li>100% renewable electricity<sup>1</sup> at all manufacturing sites and 37 non-manufacturing sites.</li> <li>Energy efficiency improvement measures recorded on STEAM platform contributed more than 15,034 MWh in 2022.</li> <li>First automobile manufacturer in China to achieve all-electric short-distance logistics.</li> <li>50 dealers awarded NT Green Star status for their outstanding performance of providing green services.</li> <li>Our imported and domestic vehicles achieved reduced Corporate Average Fuel Consumption (CAFC) in 2022.</li> </ul>
<b>Responsible sourcing</b>	<ul style="list-style-type: none"> <li>Environment, Health and Safety Protection Activity (EPA) programme.</li> <li>On-site supplier CSR audits.</li> <li>Assessment of the origin of 3TG metals (tantalum, tin, tungsten and gold) and request suppliers to follow suit.</li> </ul>
<b>Circular economy</b>	<ul style="list-style-type: none"> <li>Maximised the use of secondary materials in our products thanks to robust partnerships with suppliers.</li> <li>Established a closed-loop recycling of HVBs raw materials.</li> <li>Expanded the scope of remanufactured parts.</li> </ul>
<b>Compliance</b>	<ul style="list-style-type: none"> <li>Implemented a Compliance Management System (CMS) at each entity with strong enforcement of the "three-lines model".</li> <li>Conducted multiple compliance culture activities such as the strong Tone-from-Top, customised compliance trainings to "Make Compliance Behaviour Easier".</li> </ul>
<b>Product quality and safety</b>	<ul style="list-style-type: none"> <li>Developed a closed-loop quality-related feedback mechanism, with Natural Language Process technology aiding communication with customers.</li> <li>Participated in events to strengthen collaboration with industry partners.</li> <li>Enhanced the interior environment by minimising VOCs, PM2.5, hazardous materials and noise etc.</li> </ul>
<b>Air pollution</b>	<ul style="list-style-type: none"> <li>New air filters were installed in BMW vehicles to increase durability and enhanced filtration for PM2.5.</li> <li>Utilization of a new paint component that contains 66% less volatile organic compounds – at Plant Lydia and Dadong.</li> </ul>
<b>Environment, ecology and resource management</b>	<ul style="list-style-type: none"> <li>Incorporated nature-based solutions, such as sponge plants and soil conservation, into the planning and construction of new developments.</li> <li>Expanded the reclamation capacity in Paint Shop at Plant Dadong Extension, saving over 150,000 m<sup>3</sup> of water.</li> <li>Installed wastewater sludge dryers at Plant Dadong and Lydia to reduce waste volume and weight.</li> </ul>
<b>Sustainable governance</b>	<ul style="list-style-type: none"> <li>A comprehensive, top-down management and collaboration mechanism.</li> </ul>

Material Issues	Actions and Initiatives
<b>Information security and privacy protection</b>	<ul style="list-style-type: none"> <li>Established the Personal Information Protection Law taskforce and Cybersecurity Law of China programme.</li> <li>Enhanced cybersecurity via IT system management, inspections and drills.</li> <li>Established the Data Governance Project, focusing on enhanced data security.</li> </ul>
<b>Occupational health and safety</b>	<ul style="list-style-type: none"> <li>Robust Occupational Health and Safety Management System.</li> <li>Created E-Safety platform using digitalisation to improve and optimise the management level.</li> <li>Conducted Health initiatives for guiding healthier employee behaviours.</li> </ul>
<b>Diversity, equality and inclusion</b>	<ul style="list-style-type: none"> <li>Renewed BMW Brilliance Associate Handbook and Special Collective Contract for the Protection of Female Associates' Rights and Interests.</li> <li>Facilitated the hiring of people with disabilities, and installed accessible facilities.</li> <li>Organised Diversity Week, with visual and interactive activities.</li> </ul>
<b>Employee development and talent retention</b>	<ul style="list-style-type: none"> <li>Conducted candidate-centric recruiting, i.e., BMW Campus Carnival, innovative video job descriptions, etc.</li> <li>Provided future-oriented and comprehensive training.</li> </ul>
<b>Attractive workplace</b>	<ul style="list-style-type: none"> <li>Offered well-rounded and diverse benefits.</li> <li>Undertook diverse employee communication and engagement activities.</li> </ul>
<b>Public policy participation</b>	<ul style="list-style-type: none"> <li>Strengthened communication with the government.</li> <li>Hosted philanthropic events to promote environmental protection.</li> </ul>
<b>Stakeholder engagement</b>	<ul style="list-style-type: none"> <li>Embedded sustainability in dialogue with government, employees, suppliers, dealers, community members etc.</li> </ul>
<b>Urban mobility and infrastructure</b>	<ul style="list-style-type: none"> <li>Released the Lighthouse City - Beijing vision picture and shared our vision for sustainable mobility in Beijing.</li> <li>Partnered with the Beijing Transport Institute to research reducing urban congestion via reservation-based transportation.</li> </ul>
<b>Connected &amp; autonomous driving</b>	<ul style="list-style-type: none"> <li>Strengthened R&amp;D and research partnerships in cutting-edge technology.</li> </ul>
<b>Corporate citizenship &amp; community engagement</b>	<ul style="list-style-type: none"> <li>Cultivated concept of Associate Social Responsibility with Social Drive activities.</li> <li>Four flagship CSR programmes.</li> <li>BMW Corporate Volunteer Association.</li> <li>Public welfare donations and emergency assistance.</li> </ul>
<b>Human rights</b>	<ul style="list-style-type: none"> <li>Protected the labour rights and interests of employees.</li> <li>Demanded human rights protection in our supply chain.</li> </ul>

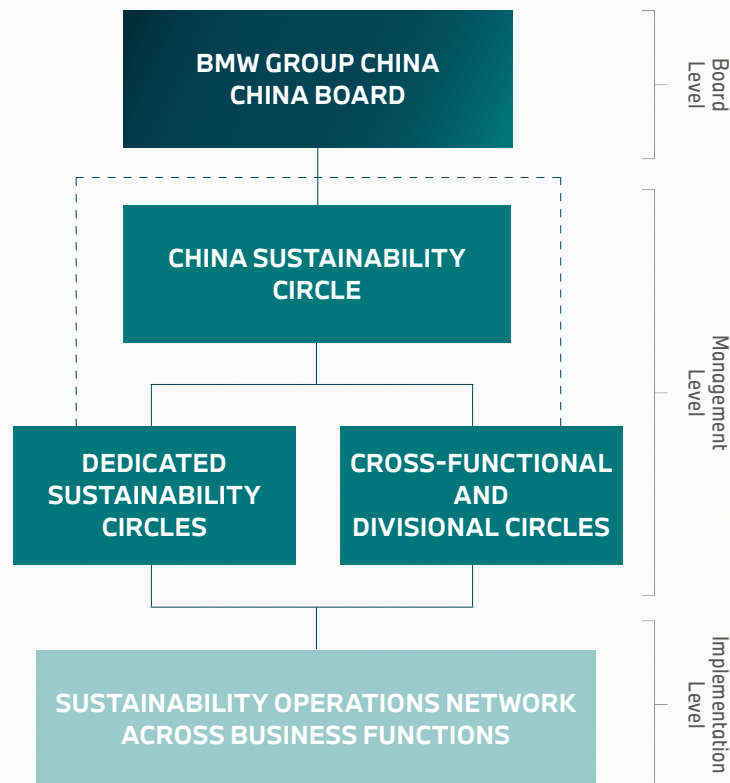
1. Both externally sourced and internally generated electricity is renewable, including solar PV, Green PPAs and I-RECs.

# SUSTAINABILITY MANAGEMENT

## SUSTAINABILITY GOVERNANCE

The BMW Group China's commitment to sustainable development is putting into action by comprehensive, top-down management and collaboration. The BMW China Board is at the core of our leadership who guides us to integrate sustainability into all key business decisions that direct our company forward.

### Sustainability Governance at BMW Group China



Sustainability is a central feature of our annual target-setting process, through which business functions must set and deliver on concrete targets, which allows us to implement the guidance of the China Board in a systematic way, with accountability for the business functions. The China Board is also responsible for ensuring compliance with all provisions of the law and internal regulations, as well as for adequate risk management and control.

Our dedicated China Sustainability Circle steers development, provides regular updates and progress reports to the China Board, assigns tasks and seeks feedback. This ensures sustainability remains at the forefront of our business.

Dedicated Sustainability Circles focus on our production and supply chain. Cross-functional and divisional circles reinforce initiatives across the company. By enabling feedback from our operations, we promote collaborative sustainable development throughout the organisation.

At the day-to-day level, our internal business functions lead progress on sustainability-related decisions made by the China Board. This process is also steered and monitored by Management Circles across business functions. Through regular reviews, Management Circles ensure that decisions from the Board of Management are translated into actionable items with measurable targets and delivered to the operational level for implementation.

## ENHANCING CLIMATE RISK ASSESSMENT AND RESILIENCE

Climate is changing faster than the world can keep up. Rising sea levels, more frequent droughts and severe storms are posing real threats not only to our

business operation, but also to our supply chain and the security of the global society.

At BMW Group China, climate change risks are given high priority by the company's top level - the China Board takes ultimate responsibility for climate change issues, and regularly reviews the impact of climate change on our business to ensure that adaptation actions are integrated into all aspects of operations, and that effective measures are taken to mitigate related risks.

We recognise that a thorough analysis and quantification of climate change risks is essential for effective management. As such, since 2021, we have undertaken a climate change risk analysis following the Task Force on Climate-related Financial Disclosures (TCFD) framework. This analysis takes into account our business characteristics, future scenarios, geographical locations, and other factors to deeply analyse the climate related risks.

In 2022, the BMW Brilliance focused a physical risk assessment on our Shenyang manufacturing base. And the results have been integrated into the corporate risk report of BMW Brilliance, ensuring future assessments and integration with overall risk management. Furthermore, by completing the assessment of transition risks in 2023, we will be able to achieve a more comprehensive understanding of the impact of climate change.

We have a deep understanding of the scientific risks posed by climate change, and we are taking proactive and effective measures to address them. At the plant level, we are developing climate mitigation and adaptation measures to ensure that our essential manufacturing facilities are resilient to

the impacts of climate change. In addition, we are integrating climate-related risk assessments into our new project investment decision-making processes, to take preventive measures at each stage. Our awareness and capacity-building efforts are also ongoing. We hold regular workshops and training sessions to empower our associates with the knowledge and tools they need to respond to climate change.



### BMW Group China Climate Resilience Alliance Initiative

To effectively address climate change, collaborative and coordinated actions are essential. For this reason, we have established the Climate Resilience Alliance within the company. It is a cross-functional group led by the strategic department and includes representatives from key business segments such as supply chain, production, and sales. Through this mechanism, we have established effective communication and cooperation channels to identify the latest climate risks, conduct capacity building and cross-functional collaboration to ensure that climate mitigation and adaptation measures are integrated into all business segments of the company.

# 1.2 CORPORATE GOVERNANCE



SDG 16

## BMW Group China Honour List

Advanced AEO <sup>1</sup>	General Administration of Customs
A-Level Tax Payer	State Taxation Administration
Level A Entity	State Administration of Foreign Exchange
Enterprise Quality Level A	China Quality Certification Centre
Labour Protection Level A	Ministry of Human Resources and Social Security
Honest Entity	Ministry of Ecology and Environment

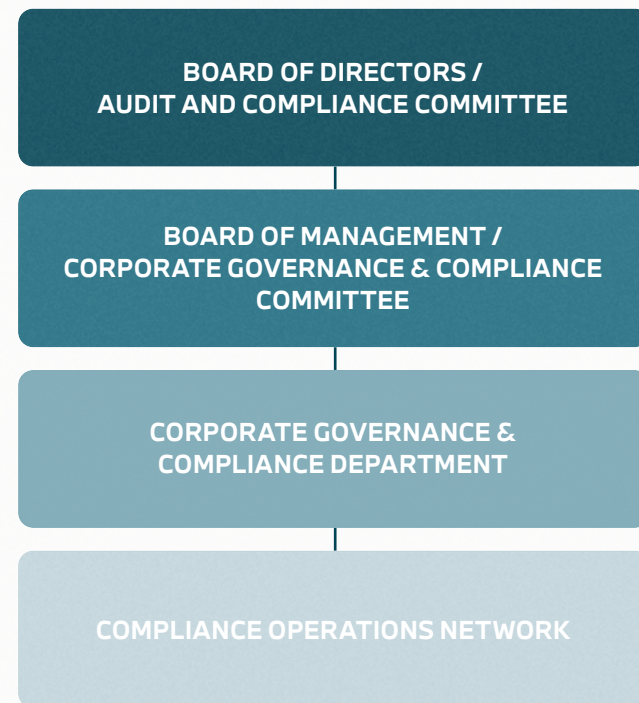
1. Authorised Economic Operator.

As part of the multinational enterprise of BMW Group, the BMW Group China upholds international and local laws and regulations, and operates according to strict management standards. With comprehensive and well-defined compliance governance framework, we have taken specific actions to address key concerns—such as antitrust compliance, corruption prevention, fraud prevention, data governance, information security, export control, anti-money laundering, and comply strictly with all regulatory requirements, while maintaining efficient management practices.

## COMPLIANCE MANAGEMENT

At BMW Group China, compliance means much more than simply complying with applicable laws and company rules. It is part of our living culture of integrity and creates a binding framework for all our business activities. Compliance is the foundation for long-term success. It builds trust in our products and brands. It shapes our public image of sustainability.

### Compliance Governance Structure



### A ROBUST GOVERNANCE STRUCTURE

At BMW Group China, compliance employs a wide network consisting of respective compliance management boards, functions and roles to implement an effective Compliance Management System (CMS) at each entity. Based on the “three-lines model”, the CMS is embedded in each entity’s overall risk management system.

- **Business departments** as the “first line” are responsible for lawful conduct during the performance of the daily business to ensure compliance requirements and processes are implemented accordingly.
- **Compliance organisation** as the “second line” assists business departments (“first line”) with exercising their compliance responsibility. A multi-layer comprehensive compliance organisation is in place consisting of **Group Compliance and Divisional Compliance** functions as well as **local compliance** functions and **Compliance delegates/ambassadors**.
- **Corporate audit** as the “third line” is responsible for independent auditing of compliance structures, processes and systems which supports company management, monitoring functions and operational management.
- **Compliance committees** are management boards that supervise and approve activities as well as manage compliance and reputation risks.

To ensure that the proper accountability structure is in place, the BMW Group China has built a strong organisational framework. At BMW Brilliance, for example, accountability for compliance at shareholder level rests with the Board of Directors (BoD) and its subcommittee, the Audit and Compliance Committee (AC). The Board of Management (BoM) and the Corporate Governance and Compliance Committee (BCC) serve as the principal oversight bodies.

To drive a successful implementation, it is a common practice to all BMW Group China entities to have clearly defined roles and responsibilities for compliance. As the first line, business departments are responsible for identifying compliance risks in their daily business, assessing these in line with corporate objectives, and controlling and receding such risks. The role of the Compliance Interface which serves as the bridge between business and central compliance function is created and nominated by all departments.

Legal and responsible behaviour is promoted via coordination between the central compliance department, the guiding roles of compliance issues, and business departments. For all entities in BMW Group China, Corporate Governance & Compliance, for example, is the department specifically responsible for overseeing compliance programmes. Legal Affairs, Controlling, Tax, Customs and Export Control, IT, Corporate Quality and Human Resources, among others, are examples of broader compliance steering functions connected to compliance topics.

### THREE-STAGE APPROACH TO COMPLIANCE MANAGEMENT SYSTEM AND COMPLIANCE TOPICS

The BMW Group China’s Compliance Management System (CMS) is based on the Prevent, Detect, Respond Model, which defines specific prevention, monitoring, control and response measures.

The CMS is tailored to BMW Group China entities’ risk situation and addresses all relevant compliance topics. Relevant compliance topics include antitrust compliance, corruption prevention, fraud prevention, data privacy, export control, anti-money laundering etc.

We have developed a well-rounded compliance management system. At the corporate level, the BMW Group Legal Compliance Code integrates the corporate principles of the BMW Group into fundamental rules of conduct. For employees and the public, it offers transparency about key compliance areas. On the basis of this, internal policies and processes are established that reflect the legal requirements for compliance concerns. Compliance risk assessment serves as the foundation for identifying business-specific compliance risks and mitigation measures. We attach great value to training and compliance awareness promotion. The integration of compliance in our business culture is significantly aided by such communication.



IT-based compliance systems have been used for transparent and efficient documentation, assessment and approval of compliance-relevant matters. The BMW Group China SpeakUP Line notification is well established and communicated to ensure questions and concerns are addressed properly. Besides, differentiated monitoring levels for reviewing observance and implementation of compliance rules and processes at regular intervals.

### COMPLIANCE MANAGEMENT IN FINANCIAL SERVICES SEGMENT

At BMW Group China, Financial Services is subject to specific regulations and risks. We focus on comprehensive compliance risk assessments and adhering to China's financial supervisory authority requirements. To ensure streamlined compliance management, the Financial Services has its own compliance governance, and collaborates closely with internal departments and external authorities.

A comprehensive compliance management team has also been established as a conduit for communicating and implementing regulatory requirements, supporting overall compliance matters and promoting compliance culture within the Financial Services segment.

### COMPLIANCE AWARENESS PROMOTION

Compliance awareness is enhanced through various internal communication and training activities, which made an important contribution towards establishing compliance in the corporate culture. This empowers employees to fulfil their personal responsibility for lawful conduct in their areas, while online and classroom sessions meet the needs of different target groups.

Strong Tone from the Top compliance messages is an essential element in compliance culture promotion. In 2022, strong and clear tone on importance of compliance and expectations has been delivered in Executive Dialogue by top management across BMW Group China entities through which conveyed the management emphasis and high standard compliance requirement from the top management.

The BMW Group China SpeakUP Line Campaign, covering different locations in different cities, gave an impetus for strengthening a culture of compliance and responsibility. This campaign was awarded and recognised by BMW Group in 2022.

Annual Compliance Quiz organised by BMW China and BMW China Services, which incorporated both a self-learning package and interactive questions, was another well-recognised and innovative campaign. On regular basis, compliance communication letters focusing on various compliance topics are sent to all associates or target groups to remind compliance risks and requirements. This also effectively helps to enhance compliance awareness and competence.



One of our goals for 2022 is to "Make Compliant Behaviour Easier". The decisive Tone from the Top is conveyed down to every level of the organisation through the development of new communication channels, such as light App "Compliance Q&A", and the creation of engaging communication materials, etc. "BMW Brilliance Compliance Management System Manual", a one-stop learning material, was distributed to all Compliance Responsibles and Interfaces of BMW Brilliance and LingYue.

At BMW Automotive Finance, to increase understanding and awareness of compliance, a quarterly compliance newsletter is emailed to all employees, with content relating to compliance and sustainability. In addition, the Compliance Training Week covering 11 regulatory compliance or internal compliance subjects was conducted in 2022.

### DATA PRIVACY AND INFORMATION SECURITY MANAGEMENT

Stringent data protection requirements are taken into account early on when developing BMW Group China products and services. We prioritise transparency, openness, and security based on a robust governance structure. To earn and maintain the trust of our customers and partners, we prioritise effective and efficient management of our data assets through our responsible teams, practices and policies. For us, protecting privacy is strongly aligned with providing excellent customer service and experience. Our policies, standards and processes are designed to ensure that data is secure and accurate, and that the BMW Group China's management of the data complies with China's and other market-specific regulatory requirements.

1. 2022 BMW Compliance Interactive Workshop.

## GOVERNANCE AND MANAGEMENT APPROACH

The BMW Group China’s data protection complies strictly with applicable laws and regulations, particularly the Personal Information Protection Law (PIPL) of the People’s Republic of China (PRC), the Data Security Law of the PRC and the Several Provisions on Vehicle Data Security Management (Trial)<sup>1</sup>. A cross-functional governance framework oversees implementation and compliance throughout the organisation. At the corporate level, we established an interdisciplinary Data Governance Project and the Cybersecurity Law of China (CSL) Programme to analyse and implement legal requirements.

Required by Data Governance Project and CSL Programme, a dedicated team of five specific focal points was created to help the company achieve its commitments as we develop and implement new technologies, products and services. The Cybersecurity Officer (CSO) is responsible for designing and implementing cybersecurity. The Data Security Officer (DSO) takes the lead in data security on important data. The Data Privacy Officer (DPO) is accountable for the design and implementation of the overall data privacy protection work. The Automotive Data Security Officer (ADSO) drives the design and implementation of automotive data security. The Data Compliance Officer (DCO) ensures conformity of design and implementation of overall data compliance and conducts compliance review on data processing activities.

1. The Various Provisions on Vehicle Data Security Management (Trial) mainly aims to standardise the management of automotive data security, safeguard the personal information security of vehicle owners, and ensure the security of vehicle networks.

## INFORMATION AND DATA SECURITY MANAGEMENT

We are reinforcing our information security management, specifically cybersecurity and IT security. This includes the promotion of our production network security, where we completed a 95% compliance assessment for a total of 4,369 types of software. Moreover, to promote office network security, we successfully completed a USB security enhancement to mitigate data leakage and security risks to office IT equipment. To promote cloud security, we developed and implemented a public cloud cyber security framework and corresponding technical tools. We developed a mobile app compliance process for apps published in Chinese iOS and Android app stores. Before being published, we ensure that mobile app compliance requirements are thoroughly tested using actual regulatory authority inspection criteria. We also adhere to norms and standards that ensure quality. The BMW Group China subject

relevant counterparts including BMW Brilliance IT and LingYue obtained the ISO/IEC 27001 and 27701 certifications. LingYue also passed the ISO/IEC 27017, ISO/IEC 27018 and ISO/IEC 38505.

Cybersecurity is vital for digital transformation. In 2022, we participated in, and passed, the Intelligent Connected Vehicles (ICV) Cybersecurity & Data Security Inspection project organised by the Shanghai Communications Administration. In addition, we participated in credible risk frameworks and standards, including 36 Multi-Level Protection Scheme (MLPS) certifications that cover more than 100 applications.

Focusing on data security, our new data management guidelines, the Data Governance Instruction, comply with the requirements of the BMW Group and are in line with domestic regulations. At the management level, in order to serve cross-entities' and cross-function's needs regarding data and ensure compliance, the Data

Governance Project was established in 2022. As a result, we became the first OEM to receive Data Security Capability Maturity Certification (DSMM) issued by the China Academy for Information and Communication Technology (CAICT), confirming the maturity of our data security management.

Our responsibility to our customers includes the careful handling of their data. In order to increase clarity and conformity, we have established a robust process to respond to the potential incidents involving data security. Incident manager will immediately assess the scope of the incident and coordinate various departments to take actions. In addition, it is part of our daily work to continuously track and test our products regularly to reduce risks.

### Types of certifications BMW Group China has accredited for regarding Information and data security management:

Certified Entities	Certification Scheme
BMW Brilliance and LingYue	ISO/IEC 27001: Information Security Management Systems
	ISO/IEC 27701: Security techniques — Extension to ISO/IEC 27001 and ISO/IEC 27002 for Privacy Information Management
	ISO/IEC 27017: Security techniques — Code of practice for information security controls based on ISO/IEC 27002 for cloud services
LingYue	ISO/IEC 27018: Security techniques — Code of practice for protection of personally identifiable information (PII) in public clouds acting as PII processors
	ISO/IEC 38505: Governance of IT — Government of data — Part 1: Application of ISO/IEC 38500 to the governance of data

15,514

Employees and partners included in our phishing awareness section in 2022.

~9,000

Employees participated in the China Data Law Online Training in 2022.

## AWARENESS PROMOTION AND COMMUNICATION

A solid information security culture is at the heart of our efforts. We provide onboarding training for employees, dealers and suppliers, and promote a security-aware company culture. Via our online platforms, we ensure appropriate behaviour and understanding of policies with training and communications, such as the Learning Management System, the E-learning System and

in-person meetings.

A phishing awareness session, for example, targeted 15,514 employees, including partners. This resulted in a 12% decrease in the clicking rate for three consecutive years. To make knowledge accessible, we successfully organised the China Data Law Online Training attracted around 9,000 participants, and the China Data Governance (DG) Workshop was offered in-person for DCO & DG delegates with more than 60 participants.

## FORECAST

To ensure compliant operations in an environment full of opportunities and challenges, we will continue to provide appropriate solutions and professional consultations that support business development and mitigate risks. We will actively enhance compliance awareness and commitment, and foster a compliance culture through strong Tone from the Top messages, customised training and multichannel communications and projects. To effectively demonstrate the “zero-tolerance” attitude towards non-compliance, we will enhance monitoring proper implementation of the compliance management system on an ongoing basis and carry out preventive compliance measures.

We will dedicate more effort to “Making Compliant Behaviour Easier”. To be in line with the company's technological advancements, additional IT tools will be created or upgraded, and the overall compliance programmes will be more digitalised. Adhering to the user-centric approach, our focus in compliance communication is, and always will be, on providing high-quality, timely, and relevant content.

Furthermore, ensuring information security in such a dynamic context is one of our priority commitments and future challenges to address. Improvements in data identification and classification will result in strengthened management measures that will guide the company on its journey. With the introduction of ICV standards in 2023, compliance of our vehicles with regard to information security and customer privacy protection will be standardised and prioritised.



### Data security responsibility in Intelligent Connected Vehicle (ICV):

At BMW Group China, consumer privacy is critical for data governance. We strive to maintain a high level of data protection, with rigorous procedures, tools and instructions that ensure customer privacy protection.

With the rising of OEM digitalisation, compliance requirements have been raised to address ICV data privacy and security. Complying with EU and Chinese regulations such as UN R155, the Several Provisions on Vehicle Data Security Management (Trial), we established processes and solutions to ensure the safety of vehicle data transfer and usage. In addition, to address ICV's security and customer data privacy risks, all products are subject to Security Process & Privacy Impact Assessment (PIA) before launch and iteration. This means that information security factors will be taken into account from the product design stage onward.

At BMW Group China, we don't just innovate and manufacture cars: we integrate our understanding and exploration of sustainable products and services throughout the entire process. We are dedicated to leading the way – via our products and services – to sustainable mobility, lifestyles, and to commercial success that generates value for society and the planet.

CHAPTER 2

# PRODUCTS AND MOBILITY SOLUTIONS

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## 2.1 **PREMIUM QUALITY AND SAFETY**

A commitment to the highest standards drives our pursuit of excellence: we take extensive measures to improve customers' health, safety and satisfaction. This includes promoting a quality-first culture, adhering to quality and safety standards throughout design and manufacturing, and enabling a safe driving environment.

**1<sup>st</sup>**

Topped the China Automobile Customer Satisfaction Index (CACSI).

**5 models**

Won first place in their respective segments of China Automobile Customer Satisfaction Index.



[SDG 3](#)



To improve customer satisfaction and dealer performance, we have upgraded the Customer Board Platform's feedback collection. This upgrade has enhanced our operating procedures and service quality, and in turn contributed to improvements in customer experience. In 2022, more than 320 dealers used the platform and implemented more than 1,000 aftersales action plans. This underscored our commitment to deliver premium customer experiences at our main customer touchpoints.

### DELIVERING QUALITY-FIRST CULTURE

The BMW Group China's quality-first culture creates a shared vision for our business units, our divisions and, especially, our industry partners. At the German Association of the Automotive Industry's first Quality Summit—themed “Sustainable and Digital Quality Experience”—we shared ideas on quality management and digital transformation with peers and industry associates.

We also convened the first BMW China Q-Auditor Conference, which gathered representatives from the BMW Group China, BMW Group and TÜV SÜD China. This strengthened connections within our Q-Auditor network, resulting in enhanced collaboration and partnerships.

## QUALITY FIRST CULTURE

A quality-first culture guides our high-quality management. The forward-thinking BMW iFACTORY strategy promotes culture by emphasising customer-centric management, and precision-targeted work.

### TOTAL QUALITY MANAGEMENT

The BMW Group China ensures that all its products and services meet the highest standards for quality and safety, as set by ISO 9001 and internal requirements. This is via comprehensive quality management. In 2022, all of manufacturing bases in China are ISO 9001 certified with latest renewal audit.

### SERVICE QUALITY

We prioritise delivering premium customer experiences, and take a customer-centric approach to pursue excellence in service quality management. To achieve this, we have developed a closed-loop feedback mechanism that facilitates the collection and analysis of aftersales quality-related feedback from various sources and customers. Key insights are channelled to our R&D, manufacturing, sales and marketing operations to drive continual improvement.

Our service quality is optimised by big data analysis. One of the digital solutions we adopted is the Natural Language Processing (NLP) to provide a holistic view of the customer experience throughout the product lifecycle. Consequently, the BMW Group China connects with customers on a deeper level, delivering personalised services tailored to specific needs.

1. Paint shop at Shenyang manufacturing base.

## PRODUCT SAFETY PRACTICES

We strive to meet the evolving demands of Chinese customers. These drive our efforts to refine our product safety features and performance.

### ENSURING PRODUCT QUALITY

To achieve our aim of zero defects, we constantly monitor and interpret all regulations that apply to premium-quality design and production. In R&D, our rigorous control includes more than 70 test benches, featuring more than 100 distinct types of approval tests. These cover areas such as emissions, safety and NEVs.

During the production, our Shenyang manufacturing base has developed a unique strength in applying the EMT<sup>1</sup> concept, allowing for faster decision-making and problem-solving on quality issues. Should a risk be identified, an independent quality management team collaborates with R&D and procurement teams to execute prompt and effective measures. This prevents nonconforming parts or vehicles from carrying over to the next step until the issue is resolved.

## CARING FOR CUSTOMER HEALTH

The safety and well-being of our customers is a top priority. We identify technologies that address air quality, and respond to evolving demands for design and standards with components made from safe materials.

Taking a holistic approach, we monitor volatile organic compounds (VOCs) and odours in the vehicle at every stage of production, from raw materials, parts to finished vehicles. All BMW Brilliance vehicles must meet the standards set forth in GB/T 27630 and be tested under extreme conditions that mimic customer use. New air filters have increased durability and enhanced filtration for PM2.5.

To manage hazardous materials, the BMW Group China strictly complies with EU regulations under Directive 2000/53/EC, REACH, and China's GB/T 30512 Requirements for Prohibited Substances in Automobiles. We strictly control – and, where possible, replace or reduce – hazardous materials in our parts and components. Our data is submitted in accordance with the China Quality Certification Centre Material Database System (CQC MDS) requirement, and the China Automotive Material Data System (CAMDS), as a requirement of type approval.

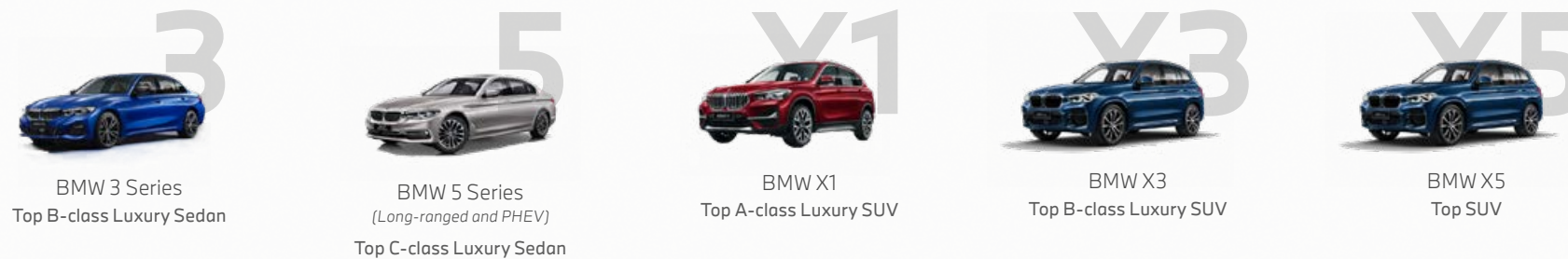
We have implemented a series of innovative measures and partner collaborations to minimise interior noise, ensuring the health and safety of our consumers. With our new car model, we have worked closely with partners to seamlessly integrate and adjust to the BMW Group's target, ensuring that the electric motor acoustics meet their rigorous standards. As tyre is a primary source of noise and a key focus for the BMW Group China, we have reduced road noise by using an improved compound and adding noise-absorbing foam for all 20-inch tyres. As a result, not only has interior noise been reduced, but exterior noise for pass-by noise has also been significantly decreased.

## PROMOTING DRIVING SAFETY

We proactively engage with customers to promote safer driving. Our BMW M Driving Experience China programme offers comprehensive training to cultivate safe driving behaviour and equip drivers with the skills to navigate challenging situations on the road. In 2022, the programme attracted 19,993 participants, showing a growing customer interest in our initiatives to enhance road safety.

## Topped the China Automobile Customer Satisfaction Index (CACSI)

Five of our models defended their titles in their own segments of the China Automobile Customer Satisfaction Index in 2022.



1. Integration of R&D, Procurement, and Production.



## 2.2 SUSTAINABLE PRODUCTS

The BMW Group China is committed to collaborating with other industry leaders to combat climate change. Low-carbon and sustainability are integrated into every aspect of our products, with a strategic emphasis on electrification, digitalisation and circularity. Our initiatives range from pioneering research and the development of eco-friendly products to the adoption of sustainable raw materials.

59,118

Retail NEV deliveries in 2022.

589,384 kg

Of HVBs recycled for region China, totalling 10,318 pieces.

275,421

Pieces of spare parts recycled, weighing over 595 t in total.



➤ SDG 9, 12 and 13



## LEADING THE FUTURE OF E-MOBILITY

We believe the future of transport is electric, digital and circular. We are therefore optimising our product portfolio and accelerating the transition to E-mobility. The BMW Group plans to launch 11 Battery Energy Vehicles (BEVs) in the Chinese market (including Hong Kong, Macau, and Taiwan) by the end of 2023. By 2030, over 50% of the global annual sales of the BMW Group will be BEVs; by then, the cumulative delivery of BEVs by the BMW Group is expected to exceed 10 million.

### A STRONG SUSTAINABLE PRODUCT PORTFOLIO

As of the end of 2022, we proudly unveiled five fully electric models in the Chinese market: the ground-breaking BMW i7, the all-new BMW i3, the BMW i4, the BMW iX and the BMW iX3. These models were met with great success, with a total of 59,118 retail NEV deliveries throughout 2022. These combine BMW's unique electric driving pleasure with sustainability throughout their life cycle, imbuing the BMW brand with a green connotation.

The highly integrated, lightweight, scalable and modular design of our NEVs achieves impressive electrical efficiency: an e-range of 455 to 665 km, with 14.3 to 19.1 kWh of energy consumption per 100 km. These remarkable achievements reflect our unwavering commitment to advanced automotive electrification and sustainability.

Our goal is to not only provide transport, but offer innovative and sustainable carriers that support a better future for society. We are proud of our achievements in E-mobility and are dedicated to driving progress towards a more sustainable world by accelerating the global electrification of the BMW Group.

### Sustainable Features in BMW iX

The all-electric BMW iX takes sustainable development as its own responsibility and practises future luxury. It not only embodies the sustainable development concept in the manufacturing process, but also runs through the entire value chain and product lifecycle.



Central control console uses Forest Stewardship Council-certified wood



Use of an olive leaf extract to replace traditional tanning agents



Carpets made with 100% recycled nylon from fish nets



Fabrics and microfibres use 50% recycled polyester



## REDUCING CARBON AND RESOURCE FOOTPRINTS

The BMW Group China conducted a comprehensive Life Cycle Assessment (LCA) analysis of our models, to identify opportunities for CO<sub>2</sub> reduction. In 2022, we completed the BMW 5 Series LCA, with consultancy by the China Automotive Technology and Research Centre (CATARC). Moving forward, we remain committed to calculating and monitoring CO<sub>2</sub> emissions for all models, as part of our dedication to sustainable product development.

We are also fully committed to optimising fuel consumption management and achieving peak aerodynamic performance, to enhance fuel efficiency and curtail CO<sub>2</sub> emissions. Accordingly, our vehicles achieved notable reductions in their corporate average fuel consumption in 2022, plummeting from 8.29 l/100km to 7.24 l/100km for imported models, and from 6.42 l/100km to 6.08 l/100km for domestic models.

Our hard work and dedication have been recognised in China. The Ministry of Industry and Information Technology (MIIT) certified the BMW X5 as a Green-design Product in 2022. Meanwhile, CATARC deemed our BMW iX3 a Platinum China Eco-Car.

## USING SUSTAINABLE MATERIALS

The BMW Group China aims to make automobiles that use fewer critical raw materials and have a smaller impact on the environment during their lifecycle. Our primary strategy for advancing the circular economy is a combination of the "Secondary First" and RE:THINK, RE:DUCE, RE:USE, RE:CYCLE frameworks.

Our circular practice is aligned with the initiatives of the BMW Group. These focus on maximising the use of recycled materials in our products, via technological innovation and close collaboration with our partners.

### PROMOTING SECONDARY MATERIAL USAGE

The BMW Group China is committed to maximising the use of secondary materials in our products through robust partnerships with suppliers. Our supply chain management and standards are aligned with the BMW Group, focusing on increasing secondary materials while ensuring safety.

By working closely with our steel manufacturing partners and encouraging them to use scrap steel, we achieved a total scrap steel recycling volume<sup>1</sup> of 48,160 t within the loop, in 2022. Meanwhile, we recycled 14,536 t of scrap aluminium in 2022.

Plastic is another area of secondary material in which we have made significant progress. We launched a first batch of research



into recycled plastics in conjunction with our suppliers, at the end of 2021. Over the course of a year-long study, we achieved significant research achievements in the industrial processes of plastic, as well as product development and verification. We also gained valuable experience in applying recycled materials to existing products. This research is a major step forward in our commitment to sustainable development.

We also actively promote the use of secondary materials in our industry. In 2022, we attended a CATARC seminar on Extended Producer Responsibility (EPR) and talked about secondary material requirements, supply chain measures, and ways to cut down on end-of-life vehicle (ELV) waste.

**7.24** l/100km

2022 Corporate average fuel consumption for BMW imported models.

↘ 12.7% vs 2021

**6.08** l/100km

2022 Corporate average fuel consumption for BMW Brilliance vehicles.

↘ 5.3% vs 2021

1. The amount of steel used is decreasing year by year, thanks to lower scrap rates in workshops and lightweight vehicle designs.

2. Aluminium recycling process in our production.

## PIONEERING IN SUSTAINABLE BATTERIES

With the rapid development of NEVs, the retirement volume of high-voltage batteries (HVBs) has been increasing year by year. It is of great significance to implement a sound system for the recycling and utilisation of HVBs in order to protect the ecological environment and ensure the sustainable and healthy development of the NEVs industry. The BMW Group China is working to foster the sustainable, circular and high-quality growth of China's high-voltage batteries (HVBs), through collaboration with industry partners.

### CLOSING THE LOOP FOR HVBS

The BMW Group China is leading the way in closed-loop recycling by partnering with suppliers to reduce China's waste pollution and CO<sub>2</sub> emissions from the mining of new materials. In 2022, we announced a new partnership with Zhejiang Huayou Recycling Technology Co. Ltd. (Huayou Recycling) for closed-loop recycling from HVBs retired from our electric vehicles. This partnership will facilitate the recycling of critical materials, including nickel, lithium and cobalt, which will be returned to our battery suppliers for the production of new HVBs.

For BMW Group, this is the first time that HVBs' raw materials have been recycled in a closed-loop system. It is estimated that CO<sub>2</sub> emissions can be reduced by 70% through implementing a closed-loop system that, which maximises the resale value of retired HVBs and reduces the need to mine raw materials.

**We are working to foster the sustainable, circular and high-quality growth of China's HVBs, through collaboration with industry partners.**

### ENHANCING HVB TRACEABILITY

Since 2017, the BMW Group China has tracked its HVBs from when they are manufactured to when they are retired and recycled. To achieve closed-loop traceability, we have enhanced this tracking to monitor each HVB throughout its lifecycle. This allows us to guarantee that critical raw materials used in manufacturing can be recycled and reintegrated into BMW's production supply chain, thereby achieving HVB circularity.

### SCALING UP SECONDARY USE OF HVBS

Since 2020, the BMW Group and Huayou Recycling have investigated the recyclability of HVBs. Consequently, we were the pioneer in China to successfully reuse HVBs to power forklifts.

In 2022, the BMW Group China and Huayou Recycling deepened this cooperation with a project to reuse HVBs in different scenarios across the BMW Group China's Shenyang manufacturing base. Forklifts, pallet-lifting trucks and stationary energy storage are all potential destinations for our retired HVBs, and both parties continue to investigate further applications.

## EXPANDING THE SCOPE OF REMANUFACTURED PARTS

The BMW Group China is consolidating its leadership in circularity with faster expansion of our scope and overall parts remanufacturing capabilities. In 2022, we increased the extent of our parts return, and improved remanufacturing parts research and development in aftersales. This enriched the remanufacturing parts reserve and resulted in the effective recycling of more materials.



1. Equipping forklift with retired vehicle HVB at our manufacturing base.

2. Secondary use of HVB in forklift.



## STRENGTHENING REMANUFACTURING RESEARCH AND DEVELOPMENT

We further promote and accelerate the development of remanufactured parts, in 2022. Our development focused on electronic steering gear, engine components, four-wheel drive transfer cases, High 3 Head Unit remanufacturing, and the expansion of applications for air conditioning compressors.

This analytical approach makes the BMW Group China well-positioned to lead the market and inspire consumer trends. We are proud of our progress and remain fully committed to both recycling and remanufacturing parts.

## PROMOTING PARTS REMANUFACTURING AND RECYCLING PROGRESS

In 2022, several actions were promoted to realise the precise management of parts remanufacturing and recycling in a highly effective manner. We expanded the scope of parts return and parts failure testing while optimising internal operational procedure with enlarged Relife Point operation spaces. As a result, we recycled an impressive total of 646 t of material, including 465 t of metal, 140 t of plastic, 36 t of paper and 5 t of fabric in 2022.

## FORECAST

Looking ahead to 2023, the BMW Group is to introduce even more compelling NEVs in the Chinese market. These include the highly anticipated BMW iX1. This new lineup will give us the most comprehensive NEV product portfolio among premium brands, covering almost all market segments.

In terms of materials, by working with our suppliers, we will continue to promote the use of secondary raw materials and standardise our energy and CO<sub>2</sub> management through verification audits. We plan to develop sustainable materials tailored for Chinese market, and increase the percentage of secondary materials used in our vehicles. And we are committed to prioritising sustainability throughout our operations, and hence creating a better future for our customers and our planet.

Meanwhile, we plan to launch a new batch of remanufactured parts to the domestic market, such as starters and alternators. We are also redesigning parts reverse logistics process and system for the next five years.

We will also enhance battery safety and traceability, to prepare for stricter legislation. This includes increasing our number of HVB Recycling Services outlets to four and developing a new traceability system. Furthermore, we will continue parts remanufacturing research and development in 2023.

## 2.3 **CUSTOMER-CENTRIC SERVICES**

We are committed to providing a premium customer-centric service, while incorporating sustainable innovation into our processes. By sharing our sustainable thinking, we aim to inspire customers to adopt a more sustainable lifestyle while enjoying the whole customer journey.

**893**

Authorised dealers outlets nationwide.

**470,534**

Number of public charging pillars connected to the BMW charging network.

↑ 28.7% vs 2021

**160,115**

Of NEV users relied on the My BMW App.



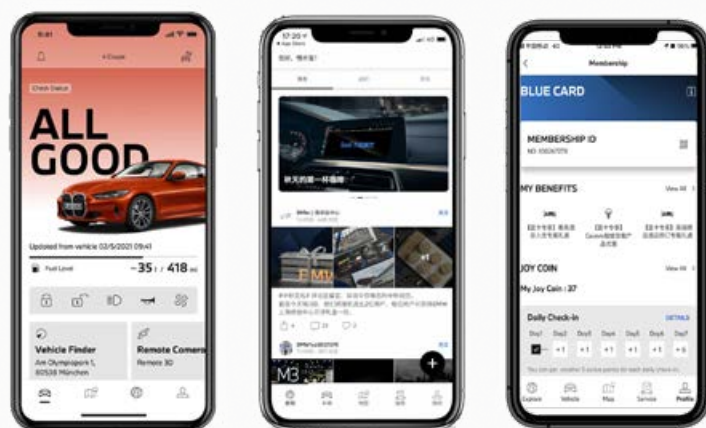
↗ SDG 7 and 9

## CUSTOMER-CENTRIC APPROACH

“Customer-centric” is our guiding ethos. We strive to establish a lasting bond during purchasing, and expand the communication ecosystem to reach our fans, supporters and potential customers. With the empowerment of digitalisation, this process is becoming more direct and efficient, which enhances our customer experiences.

## RESPONSIBLE MARKETING

To maintain trusting and long-term relationships, responsible marketing is what we constantly perform as an indispensable part of our business practice. We have established a well-functioned process to examine that all our marketing activities are fully in compliance and well-regulated. Following Four-Eyes Principles, we also have Editorial Office in charge to ensure that only legally permissible marketing material and information is published.



1

## DIGITAL CUSTOMER JOURNEY

Digitalisation fosters a multi-connection relationship between BMW's customers, products, services and brands. The My BMW App provides a well-rounded experience throughout the customer journey, its convenient functions including making down payments for cars, scheduling services, controlling cars remotely and keeping up-to-date on BMW-related news. My BMW App has earned high customer recognition and satisfaction, as indicated by a 4.9-star rating (out of 5) in the Apple Store.

BMW dealers are an important extension of our customer-centric services: the bond between dealer and customer is another of our focuses. The digital service platform SPARK-DMO enables BMW dealers to meet customers online and provide tailored services in real time.

Digitalisation also contributes to the reduction of our environmental footprint. In 2022, with online operations increasingly replacing traditional paper-based services, we prevented the use of more than 100 million pieces of paper.

## LOW-CARBON SERVICES

As an important part of our low-carbon services, we aim to provide holistic, convenient, and efficient charging services driven by customer centricity. In 2022, we continued to work with State Grid EV Service to provide renewable energy to charge NEVs, to drive research and innovation in charging technology, and through cooperation in sales and marketing. With this high-standard ecosystem, we are excited to be a sustainable partner for our customers.

## DEVELOPING CHARGING NETWORK

The BMW Group China is growing its charging network in private and public locations, to offer convenience and to lay the foundations for sustainable mobility. We also validate more than 20,000 charging pillars every year to guarantee their usability and safety.



### Private Charging

We provide high-quality Wallboxes and installation services. The smart Wallbox was created to provide customers with intelligent features including plug and charge, remote control, remote diagnosis and remote upgrade. And the charging card option is offered as a backup plan for clients who are unable to install the Wallbox. By the end of 2022, we had installed 123,000 Wallboxes.



### Public Charging

We kept working with additional Charging Point Operators (CPO). We also enabled Easy Charge technology with more CPO to charge NEVs simply by plugging them in. By the end of 2022, over 470,000 charging pillars were connected to the BMW charging network – 90,000 of which featured Easy Charge technology.



### Charging at Dealerships

We installed charging at dealerships to better demonstrate our services to customers, and hence ramp up support for BEV. By the end of 2022, 552 dealer charging stations were available.

1. The My BMW App provides a well-rounded user experience.

## GREEN CHARGING SERVICES

Charging with renewable energy effectively reduces BMW vehicles' CO<sub>2</sub> emissions in the use phase. We cooperate with the State Grid EV Service to offer sufficient renewable electric charging services in different provinces and cities. To ensure the credibility of the renewable energy source, these services feature robust traceability, enabled by blockchain technology.

To encourage green charging, we issue our customers with Green Energy Certificates. We also provide opportunities and incentives for customer engagement and roll out various incentives coupled with the usage of renewable energy in an effort to inspire customers to adopt sustainable behaviour in their daily lives.

## DIGITAL CHARGING SERVICES

We provide customers and dealers with comprehensive charging services through the My BMW App. To support customer usage and experience as well as dealer business operations, both customers and dealers can access the charging portal in the My BMW App. This is a one-stop platform for services such as charging guides, digital service, charging community and membership, online charging care, and more. By the end of 2022, 160,115 of NEV users relied on the My BMW App.

A well-established in-app customer feedback mechanism for private and public charging services has been empowered by the My BMW App with a various of functionalities, include satisfaction surveys, online evaluation and Charging FAQ portal, receiving timely feedbacks for future improvements.

BMW Instant Charging Circle is an open community on the My BMW App. Through this community, the official account Charging Power Bank periodically provides users with charging service information, professional knowledge and Q&As, as well as delivers thoughtful gifts and holiday greetings, allowing users to enjoy reliable and intelligent charging services.

## FINANCIAL SERVICES

Financial services are crucial to BMW Group China's long-term sustainable growth. By providing customers with diversified financial services and products, it encourages them to make greener purchasing decisions.

The BMW Group China is at the forefront of driving customer interest in non-fossil-fuelled transport by offering competitive financing options for NEVs. Our current loan and leasing products apply fully to NEV models, such as the BMW i3, BMW iX3, BMW i4, BMW iX and BMW i7.

In addition, Herald Leasing – the leasing service provider of BMW Group China – provides greater flexibility in the way customer pay for usage. The service offers residual value-based products for BEV models, such as the 12 and 24-month-term Joy Select Plus

offer for the BMW iX3 and BMW i3, and more terms and eligible models will be expanded to provide customers with more flexibility.

To accelerate electrification in China, lower interest rate campaign loan and leasing products for NEV models have been offered with several marketing activities across various digital and traditional channels. In 2022, our 618 online promotion programme of the BMW i3 helped raise awareness of electrification among consumers. We also launched a Double-11 themed promotion programme to encourage customer acceptance for transportation electrification.

The BMW Group China's sustainable business strategy has been effectively extended by enabling these financial tools, which also represents an exciting foray into sustainable product development. By providing incentives to buy electric vehicles, we will help the Chinese market move towards alignment with the Paris Agreement.



1. The BMW iX.

## CUSTOMER ENGAGEMENT

With the awakening of green consumption awareness, sustainable customer engagement inevitably takes centre stage to build top-of-mind awareness and overall business growth. With customer-centric approach, the BMW Group China values interaction with customers and actively conveys our sustainability strategy through different engagement activities.



## RAISING AWARENESS OF SUSTAINABILITY

As we advocate for more green actions, we are bridging the gap between sustainable concepts and customers through more conscious communications on publicising our climate-friendly products. In 2022, we launched the “MISSION i—2022 BMW Electrified Products and Technology Media Day” event in Shaoxing and Qiandao Lake in Zhejiang Province. More than 150 media outlets participated. The event’s main focus was BMW’s BEV family, which embodies the values and achievements of our sustainability efforts. Our goal was to communicate these values to the public through our products and to demonstrate our progress in transitioning to electric vehicles.

The BMW Group China’s green products combine to create a convenient, innovative and sustainable driving experience. An example of this is the MINI’s GREEN mode, which enables users to activate a consumption-reducing setting in the driving mode, raising green driving awareness. On social media platforms, a creative campaign promoted this function and prompted more than 21.6 million impressions. Public, Bimmers and MINI fans, core medias, associates and dealers were engaged and further expanded the discussion on sustainability, digitalisation and innovation topics.

## HEARING THE VOICE OF CUSTOMERS

At BMW Group China, we are dedicated to providing multiple customer engagement channels by incorporating customer-centric concept. We designed the My BMW App as an exclusive online social channel for car owners, whereas for offline channels, we inaugurated the Brand Experience Centre in Shanghai and the JOYCUBE in Beijing. These physical venues for fans and owners host events such as vehicle launches, shared experiences and branding activities.

Driving for pleasure is also integral to BMW. The BMW M Driving Experience is a platform for customers who share that passion. We aspire to establish vertical circles in areas such as art, sport and culture that resonate with target customers, nurturing deeper emotional connections and enriching brand value.

We also engage with dealerships to provide premium customer services. Designed to better satisfy customer needs and expectations, Joy Index is one way to measure customers satisfaction on sales and aftersales services provided by dealers. In 2022, we received 92.8% positive customer comments for both BMW and MINI aftersales.

Our BMW/MINI Service Experience Ambassador Programme also collects customer feedback. In 2022, we received 37,252 comments related to aftersales.

## FORECAST

In 2023, our charging services will be expanded with more efforts concentrating on the promotion of renewable energy charging and smart charging throughout the year. In 2024, we aim to take our sustainability ambition to another level and will provide Vehicle to Grid technology.

Moving forward, the BMW Group China will expand our sustainable influence to more stakeholder groups. Through innovative, interactive and playable activities, we will enable the public to integrate sustainability into their daily lives. And we will continually improve and expand our communication channels to maximise customer satisfaction and premium customer experiences.

1. BMW M Driving Experience racetrack with both BEV models and M models.  
2. Communicating with customers on BEV information during the Mission i event.



## 2.4 MOBILITY CONCEPTS AND SOLUTIONS

The BMW Group China facilitates the adoption of mobility solutions in electric ecosystems and traffic management to make our cities more liveable. Throughout 2022, we developed a number of initiatives and collaborations to advance mobility concepts and solutions that could enhance the freedom and quality of individual movement while minimising the impact on the environment and society.



### 6 cities

Where BMW shared driving rental services are launched jointly by Herald Leasing and local dealers.

### Lighthouse City BEIJING vision picture

A vision of Smart City of the future mobility, was released by BMW and partner in 2022.



## SUSTAINABLE MOBILITY

Cities face challenges from urbanisation and growing populations. This creates density, congestion, air pollution, noise, CO<sub>2</sub> emissions and scarcity of public space. As a mobility provider, we aim to find innovative solutions that address these challenges and make urban transport more sustainable.

### CONTRIBUTING TO A SUSTAINABLE FUTURE OF MOBILITY

As Beijing confronts excessive traffic congestion, solutions that transform transport are critical. Being part of the solution, the BMW Group China is taking the initiative to work with government and experts to rethink and restructure mobility in an efficient and sustainable way.

In December 2022, we released the BMW Lighthouse City - Beijing Vision Picture and shared our vision of smart city of the future mobility. The study's additional value was driven by applying our expertise and cutting-edge technology to urban planning and electrification.



Respecting the city's history and culture, the BMW Group China's vision for the future of Beijing's transportation integrates diverse architecture and streetscapes, enabling Beijing to develop towards a low-carbon, efficient, and intelligent urban transportation system while preserving its urban fabric to the greatest extent.

We suggested optimising traffic flow and improving efficiency by promoting multiple transport modes. Our partnership with the Beijing Transport Institute aims to increase the use of designated bus lanes and reduce urban congestions through reservation-based transportation. With digital traffic management methods, reservation-based transport could optimise the allocation of resources, thus easing congestion.

We want to promote widespread sustainable mobility solutions, and help make them more accessible. We used gamification to develop sustainable driving behaviour and hence reduce fuel use and CO<sub>2</sub> emissions. The initiative's scope was expanded from electric to petrol vehicles in 2022.

## SHARED MOBILITY

Vehicle-sharing is a sustainable practice that contributes to lower transport infrastructure, and reduces the environmental impact of travelling. With this in mind, the BMW Group China is leveraging its electric portfolio to offer a wider range of shared mobility options. Herald Leasing—our shared mobility services provider—has launched car rental services jointly with local dealers in six Chinese cities, promoting shared mobility. For example, customers can enjoy a worry-free rental service with the BMW iX3 in Hainan Province. Meanwhile, the BMW Group China is actively searching collaboration with domestic rental service providers to fast extend our shared mobility services to more cities and more customers.

By offering various car rental options, it not only optimises car owners' car buying and use experiences, but also develops a customer-oriented journey that begins with test drives, paves the path to a future of electric, digital, and circular.



### PROMOTING CAR RENTAL SERVICES WITH PARTNERS

BMW Brilliance and Maple Leaf Car Rental deepened their cooperation in 2022, with wider green options in multiple scenarios. A first batch of the all-new BMW i3 offered Chinese customers a high-quality shared mobility experience.

## FORECAST

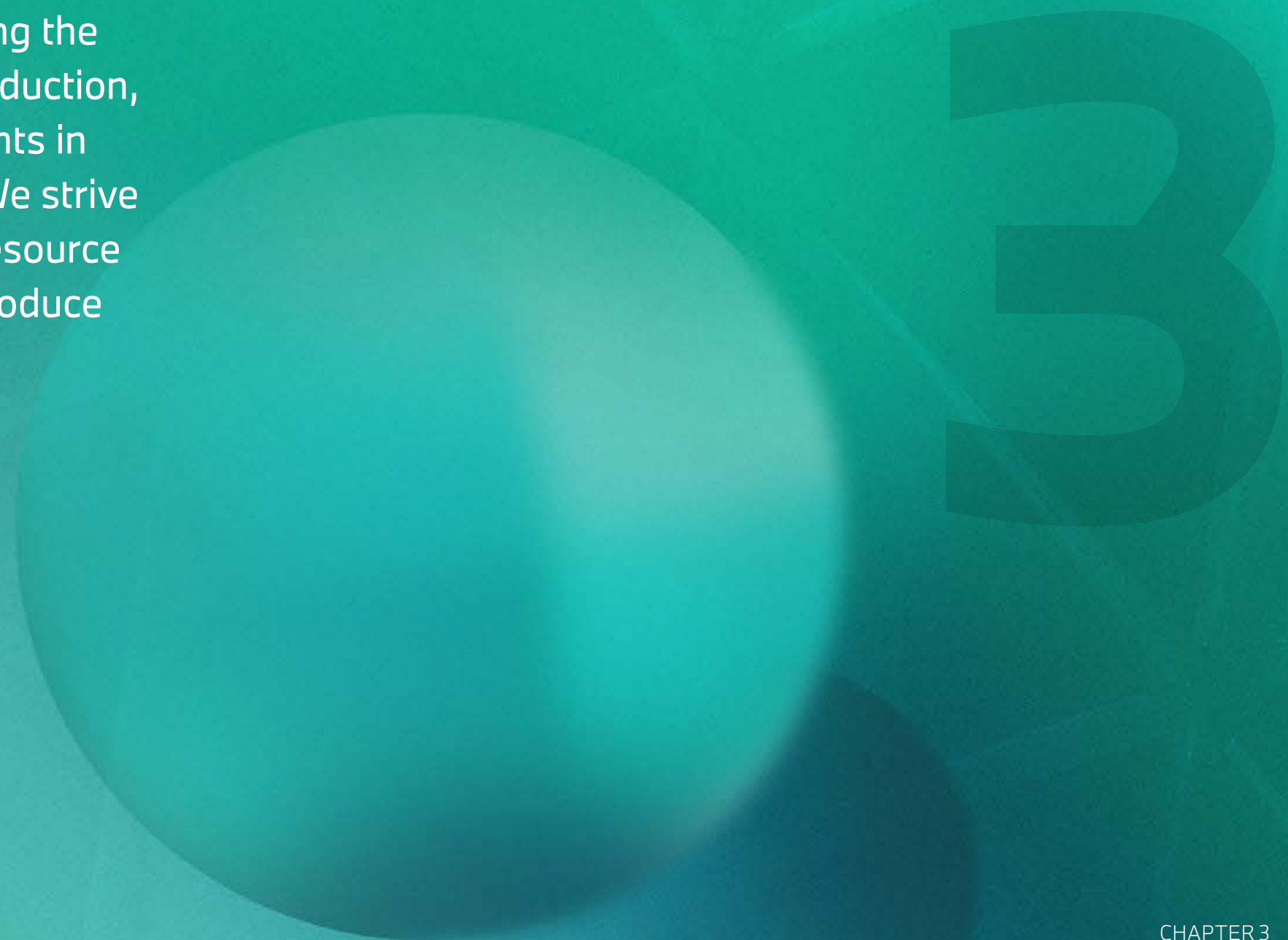
We will continue to advance initiatives that empower a sustainable future for mobility, make infrastructure more efficient, and promote smart cities. Meanwhile, we intend to deepen cooperation with the Beijing Transport Institute, to jointly develop digital solutions on traffic management. Our shared mobility service will continue to focus on digital services while progressively expanding its business scope.

Keeping exceptional customer service at the centre of our efforts, we will offer more value-added services, such as Extended Test Drive and Replacement Car, Add-on Mobility for BEV Owners, and Courtesy Service. All of these actions will position us to drive sustainable transformation in mobility.

1. Lighthouse City - Beijing Vision Picture.

2. The all-new BMW i3.

We evaluate a vehicle's environmental footprint along the entire value chain before delivering it to market. Production, facility management and logistics are key components in our environmental competency and responsibility. We strive for continual improvement in efficient energy use, resource conservation, circularity and carbon reduction, to produce each of our premium quality vehicles sustainably.



CHAPTER 3

# PRODUCTION AND OPERATION

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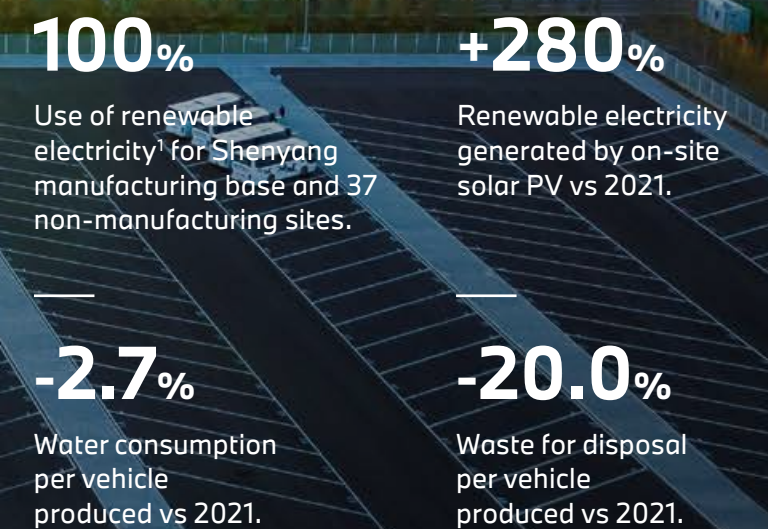
# 3.1 RESOURCE CONSUMPTION AND EFFICIENCY



↗ SDG 7, 9, 11, 12, 13 and 15

Our regional production faces multiple challenges and opportunities, including post-pandemic energy demands, increases in development-related greenhouse gases, and booming renewable capacities. At BMW Group China, we align fully with China's national mid-century target as well as BMW Group's decarbonisation goal with the clear target. Our accordance with the BMW Group's worldwide production strategy provides the agility for constant improvement while we explore new, low-carbon technologies.

1. Both externally sourced and internally generated electricity is renewable, including solar PV, Green PPAs and I-RECs.



Our approach to growth—which embraces both commercial success and sustainability—is supported by the global iFACTORY strategy. This enables a highly flexible production line that saves resources, has transparent data and promotes circularity, for every vehicle we produce.



## BMW iFACTORY STRATEGY

### THE NEW BENCHMARK FOR FUTURE PRODUCTION

A blueprint for tomorrow's automotive production, the BMW iFACTORY strategy addresses the shift to E-mobility and drives the future of plants and production. We are committed to sustainable production by promoting "LEAN, GREEN and DIGITAL" manufacturing, promoting people, and promoting EMT (the integration of R&D, procurement and production).

### BMW iFACTORY IN CHINA

At BMW Group China, we address the challenges and ambitions of the next automotive transformation, while generating value for our stakeholders and being a reliable partner. The BMW iFACTORY strategy accords with China's aspiration to combine green standards, innovation and economic growth.

### LEAN:

Driving force significantly improving production efficiency, flexibility and accuracy



Efficiency is a key ingredient for high-quality vehicles. To quickly detect risks, and adapt to shifting market conditions, our Central Measurement Process (CMP) undertakes quality analysis, involving advanced equipment monitoring and controls. This is fundamental to maintaining optimised production and ensuring the highest standards for our customers.

All of our manufacturing sites in China practised flexible production. High output and flexibility have contributed to BMW Brilliance increasing production from one million cars to five million within eight years. Our Plant Dadong allows the flexible manufacture of vehicles with internal combustion engines, those with plug-in hybrid systems, and all-electric vehicles. These include the BMW X3, the BMW X5, the BMW 5 Series, the BMW 5 Series PHEV and the all-electric BMW iX3, etc.

From early production, numerous tests cover emissions, safety and accuracy, to monitor risks and ensure that defective parts or vehicles do not proceed to production. In the post-production phase, mechanical and software tests ensure quality in all aspects, from battery cells to complete vehicles.



## LEAN

Stands for high-flexibility, precise and efficient manufacturing.

## GREEN

Encompasses resource-optimised and circular production.

## DIGITAL

The effective use of artificial intelligence, data science and virtualisation.

## GREEN:

Matching low-carbon and high water and energy efficiency, less waste, and secondary materials utilisation



Through implementing the BMW Group's manufacturing concept to be GREEN, sustainable, resource-efficiency and circular, we become a responsible manufacturer which is also our key differentiator to lead the future for premium automotive manufacturing. We enable the strategy through continuous endeavours to be efficient in using energy and resources while reducing emissions.

Towards natural resource conservation, circularity is practised across our product lifecycle. In China, we work closely with partners to recycle and reuse materials, procure secondary materials and increase the percentage of them in our products and parts packages.

## DIGITAL:

Pioneering next-level digitalisation towards sustainable manufacturing



The launch of Plant Lydia in Shenyang is a significant expansion of the BMW Group China manufacturing base. The most recent manifestation of the BMW iFACTORY strategy, it sets new benchmarks for manufacturing in the age of intelligent and electric vehicles. With Plant Lydia's plant structures, facilities, production lines, and equipment planned and put into service using virtualisation technologies, it pioneered the industrial metaverse by reducing costs and time and using cutting-edge digitalisation solutions.

Digitalisation enables the sustainable expansion of E-mobility and the entire production process. For example, our simulated logistics scenarios promote safer, more efficient and accurate container management. Our operations are data-driven, with the Industrial Internet of Things ensuring precise outcomes.

### Digital plant with 3D scanning

The Factory Viewer drives digitalisation, matching efficiency, accuracy, and integration of technology. BMW Shenyang manufacturing base has started its 3D plant scanning project to create virtual plants with 3D laser scanning technology. The system offers virtual access to 13 BMW plants worldwide, ensuring fast data exchange. The technology will be used for digital planning and upgrading projects through re-scan and technical upgrades. By 2023, the 3D environment will be completed in BMW Shenyang manufacturing base.

On top of the BMW iFACTORY strategy, our production in China is further implementing "PEOPLE" and "EMT" which are our competitive strengths in China.

### PEOPLE: Mastering complexity with the right mindset and expertise

To implement transformation within our company, programmes and opportunities foster employees' professional and personal growth. A diverse team enables us to leverage the strengths of mixed cultures, and to navigate a complex and changing environment.

### EMT: Enabling faster decision-making and problem-solving

A unique strength of our Shenyang manufacturing base is its application of the EMT concept. With the collaboration of EMT, we take prompt, effective and extensive measures to address risks and seize opportunities, focused on the needs of the China market.

## ENVIRONMENTAL GOVERNANCE AND RISK MANAGEMENT

Within BMW Group China and BMW Brilliance, there is a Technology & Manufacturing Sustainability Steering Circle. Senior managements meet monthly to review our sustainability strategy and key projects. The Circle oversees and directs efforts to reduce CO<sub>2</sub> emissions, improve energy efficiency, and minimise waste and water consumption. A Green Plant Circle at each plant tracks the execution of these efforts, and ensures continual improvement while exchanging and learning from worldwide best practices.

Our environmental and sustainability department assesses potential impacts and risks at every stage of production. In 2022, all of our manufacturing bases successfully renewed their ISO 14001:2015 Environmental Management System certification. To keep up-to-date with regulations, our environmental management department works closely with the compliance department, ensuring that we comply with changing policies.

## TARGET-DRIVEN APPROACH

From the Group to China, BMW consistently carries out target-driven environmental management. We have targets for key indicators such as CO<sub>2</sub> emissions, water consumption, waste management and energy use. To ensure these targets are achievable, they are based on past production conditions and future production capacity estimates, and align with those of the BMW Group. In 2022, we successfully met all of our annual environmental performance targets.

## CLIMATE CHANGE

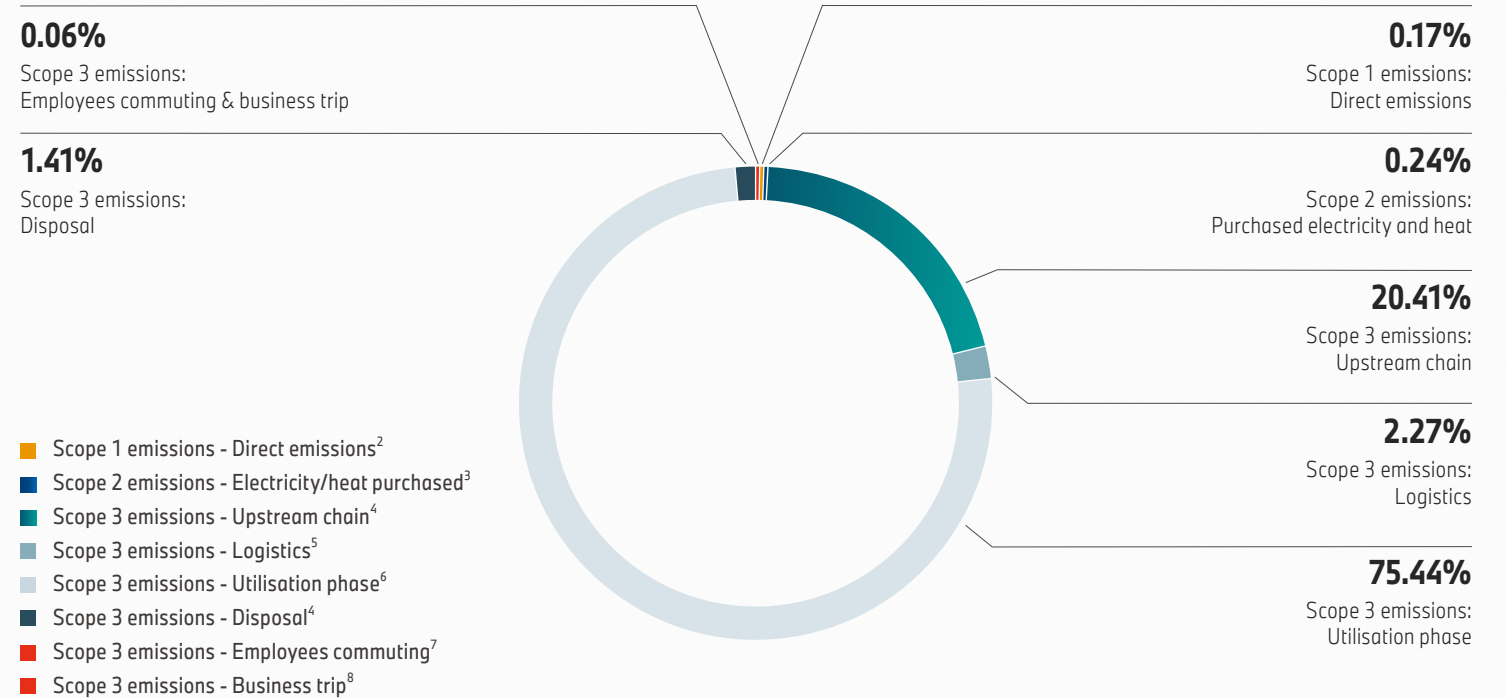
The BMW Group aims to reduce CO<sub>2</sub> emissions throughout its value chain by 2030. An integral part of that goal is to achieve carbon neutral at our production, in which remarkable progress has been made over years of effort. Since 2019, BMW Group China has transitioned to using renewable energy and attaining 100% renewable electricity<sup>1</sup> at our Shenyang manufacturing base, as well as at all our 37 non-manufacturing sites across China in 2022, including the new Spare Parts Distribution Centre in Ningbo.

### OUR CARBON FOOTPRINT

As part of the BMW Group, it is our obligation in China to align with the Group's commitment of reducing 80% CO<sub>2</sub> emissions (Scope 1 and 2) per vehicle produced by 2030 from our 2019 baseline. Typically, production related CO<sub>2</sub> emissions accounts for majority of our Scope 1 and Scope 2

greenhouse gas (GHG) emissions, which includes emissions from natural gas, purchased electricity and heating. For electricity sector, we have transformed 100% of our production electricity consumption to renewable sources by using on-site photovoltaic (PV) panel, purchasing green electricity from green power purchase agreement (Green PPAs), as well as through purchasing green certificates (International Renewable Energy Certificate, I-REC). For heating sector, we are striving to increase the replacement for lower global warming emission fuel. In 2022 we are gradually increasing the use of natural gas to generate heat, which emits approximately 50% less carbon dioxide in comparison to coal when combusted according to IPCC Emission Factor Database. The remaining GHG emissions from production are mostly from the consumption of natural gas. To overcome this challenge, we are actively exploring and undertaking technical feasibility of alternative energy sources, such as geothermal and biomethane gas, to replace fossil based energy sources in the long run.

## BMW Group China's Carbon Footprint in 2022



- Both externally sourced and internally generated electricity is renewable, including solar PV, Green PPAs and I-RECs.
- Direct CO<sub>2</sub> emissions generated by fossil fuel consumption of vehicle production (BMW Brilliance plants) and of other BMW Group China locations not directly related to production (non-manufacturing sites, e.g. Research and Development Centres, Training Centres, Office Buildings), excluding the fossil fuel consumption of construction and on-site suppliers. The coefficients used for calculation are from Emission Factors for Electricity, District Heating and Fuels issued by Application of German Association of the Automotive Industry (VDA). Other climate-impacting gases than CO<sub>2</sub> are not included.
- Indirect CO<sub>2</sub> emissions generated by the consumption of purchased electricity and purchased heating of vehicle production (BMW Brilliance plants) and of other BMW Group China locations not directly related to production (non-manufacturing sites, e.g. Research and Development Centres, Training Centres, Office Buildings), excluding the purchased electricity and purchased heating consumption of construction and on-site third-party suppliers. Scope 2 CO<sub>2</sub> emissions calculated using the market-based method in accordance with the GHG Protocol Scope 2 Guidance issued by the World Resources Institute. Other climate-impacting gases than CO<sub>2</sub> are not included.
- Emissions from the upstream chain and disposal processes of automobiles produced and imported by BMW Group China for sales in Chinese mainland market are based on the carbon footprint of representative vehicles from the BMW Group's product lines, calculated by using the LCA tool GaBi provided by Sphera which took into account Chinese market factors in the calculation.
- Emission factors of logistics applied the international GLEC Framework V2.0 directive, CleanCargo and DIN EN 16258. Include emissions from inbound logistics, finished vehicle logistics, and aftersales logistics. Started from 2022, emissions from finished vehicles logistics include those from imported finished vehicles and those from international route of exported vehicles (China ports-global dealers), and emissions from aftersales logistics include those from Spare Parts Distribution Centres to local dealerships.
- The fleet emissions are extrapolated from the average fleet CO<sub>2</sub> emissions of automobiles produced and imported by BMW Group China for sales in Chinese mainland market and an assumed average mileage of 200,000 km.
- Include employees' commuting trips by shuttle bus between Shenyang downtown and BMW Brilliance manufacturing sites.
- Include employees' air travel of BMW Group China entities for business purposes.

### Total Greenhouse Gas Emissions (in t)

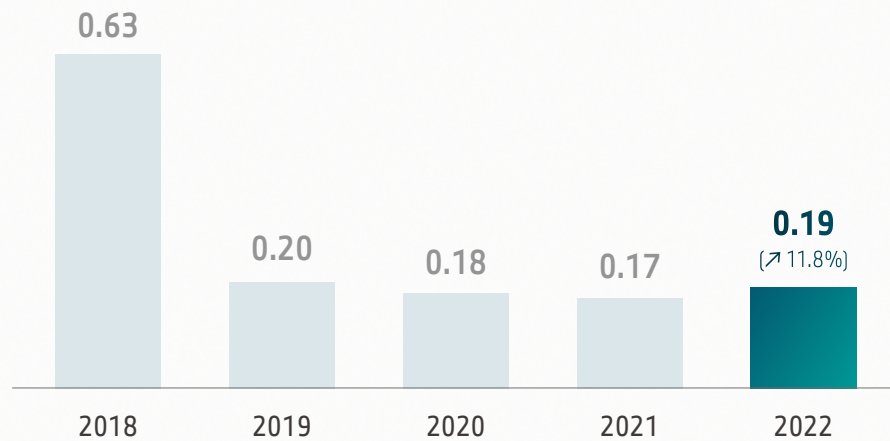
	BMW BRILLIANCE			% Change	BMW GROUP CHINA
	2020	2021	2022		2022
<b>Total Greenhouse gas emissions</b>	17,741,047	21,392,395	<b>24,767,228</b>	15.8	<b>31,406,640</b>
Scope 1 Greenhouse gas emissions <sup>2</sup>	43,614	50,937	<b>54,306</b>	6.6	<b>54,306</b>
Scope 2 Greenhouse gas emissions <sup>3</sup>	71,275	71,604	<b>76,121</b>	6.3	<b>76,121</b>
Scope 3 Greenhouse gas emissions <sup>4,5,6,7,8</sup>	17,626,158	21,269,854	<b>24,636,801</b>	15.8	<b>31,276,213</b>

→ See p.90 for the details of Scope 1, Scope 2 and Scope 3 Greenhouse Gas emissions.

→ See p.108 for the Basis of Reporting of Scope 1, Scope 2 and Scope 3 Greenhouse Gas emissions.

## CO<sub>2</sub> Emissions per vehicle produced

in t/vehicle



### Address CO<sub>2</sub> emission intensity

In 2022, with the commissioning of our two new production facilities—Plant Lydia & Plant Dadong Extension, we experienced an increase in our CO<sub>2</sub> emissions per vehicle produced as a result of the launch effects of the new infrastructures and the fluctuation in production volume. As future production operations become more efficient with a steady increase of output, we expect our CO<sub>2</sub> emissions per vehicle produced to improve to the previous level. Meanwhile, we are vigorously promoting the substitution of clean energy for enlarge the use of renewable energy to establish healthier energy-utilisation structure to continuously drive the transformation for green production and operation.

## LOW-CARBON ENERGY TRANSITION

The transition to low-carbon in automotive production has put high demands on our energy structure and energy use. In 2022, the BMW Group China's total energy consumption was 1,189,231 MWh. Fuel from non-renewable resources accounted for 25%, heating consumption for 21%, and electricity consumption for 54%.

For non-renewable sources, we aim to minimise pollutants and greenhouse gas emissions, working on gradually replacing fossil fuels with more efficient, clean and reliable options. In 2022, we introduced the Distributed Combined Heat and Power system at our new Plant Lydia and Plant Dadong Extension, accelerating the transition from coal boilers to natural gas heating. This is estimated to reduce CO<sub>2</sub> emissions by 50%, compared with coal heating. And the electric-oven powered was used at Body Shop of Plant Lydia, promoting the switch from natural gas to renewable electricity.

We have achieved 100% renewable electricity<sup>1</sup> for all our manufacturing sites as well as all 37 non-manufacturing sites in China, including our offices, Research and Development Centres, Vehicle Distribution

Centres (VDC), Decentralised Dispatch Area (DDA), and Spare Parts Distribution Centres (RDC), among others.

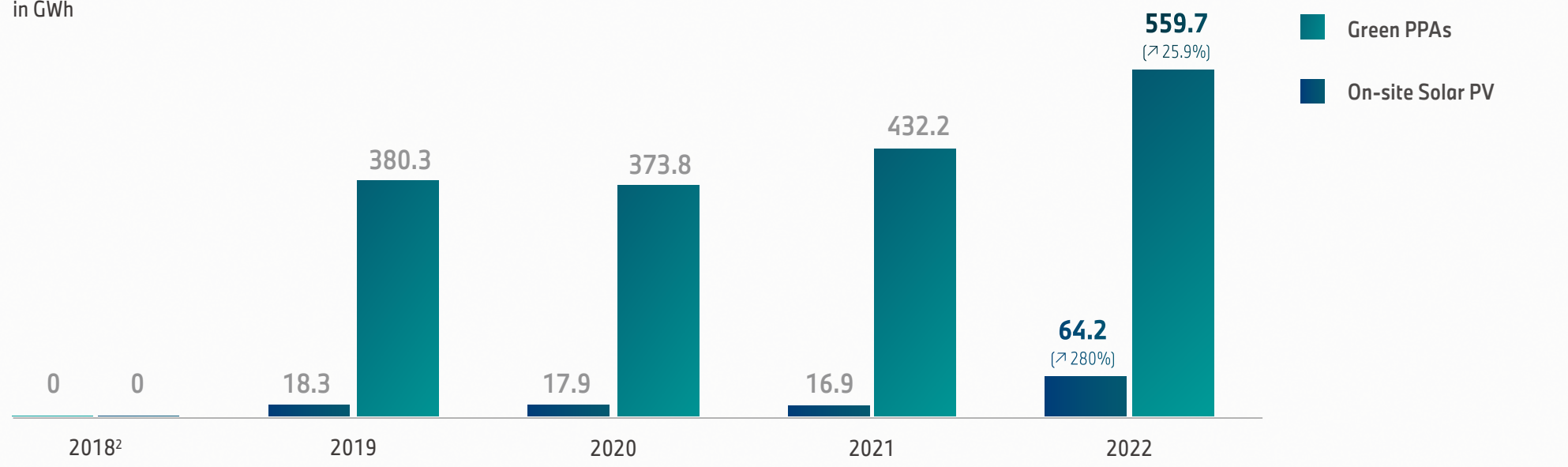
Confirming our dedication to renewable energy, our consumption from Green PPAs and on-site solar power has seen significant growth in the past few years. Our goal is to minimise the use of green electricity certificates in the future.

On-site solar is an important source of renewable energy. Through scientific evaluation, we are promoting it at manufacturing and non-manufacturing sites with suitable geographical conditions. In 2022, our on-site capacity of solar PV installation achieved 74.4 MWp across our Shenyang base—a remarkable increase of 139.2% from 31.1 MWp in 2021. In 2022, the total powered-on capacity of solar PV has reached 74.8 MWp for Shenyang base as well as Beijing's non-manufacturing operative site. Meanwhile, electricity generated by on-site solar PV over 64 GWh, which is a significant increase of approximately 280% from last year.

Last but not least, we are exploring the feasibility of using renewable heating—such as geothermal and electrical boilers—to replace purchased heating from coal and natural gas.

## Green Electricity Consumption at Production from Green Power Purchase Agreement and On-site Solar Panel

in GWh



**74.8 MWp**

Of powered-on solar PV capacity installed across our manufacturing and non-manufacturing sites in Shenyang and Beijing.

↗ 139.2% vs 2021 (for Shenyang base)

1. Both externally sourced and internally generated electricity is renewable, including solar PV, Green PPAs and I-RECs.  
2. Data was not measured in 2018 and hence not available.



## ENERGY EFFICIENCY

In line with the ISO 50001-certified Energy Management System, improving energy efficiency is an unwavering part of our production practices. By innovating in energy utilisation, we reduce energy consumption per unit, lower CO<sub>2</sub> emissions, and enhance our agility and resilience to external uncertainties.

## INTEGRATING DIGITAL SOLUTIONS

Achieving ambitious sustainability goals requires a systematic approach to transformation. The integration of digital solutions and data is needed from the very beginning.

Our BMW Brilliance production sector proactively engages with digital platforms: EnDMS platform goes beyond plant-level to workshop to monitor energy consumption. Our brand-new Smart Energy System allows the new facilities to manage beyond plant and workshop levels into individual operating areas, to get the up-to-date data on energy consumption accompanied of compliance monitoring. With agile engagement and effective data collection, we are best equipped to achieve our ambitious goals.

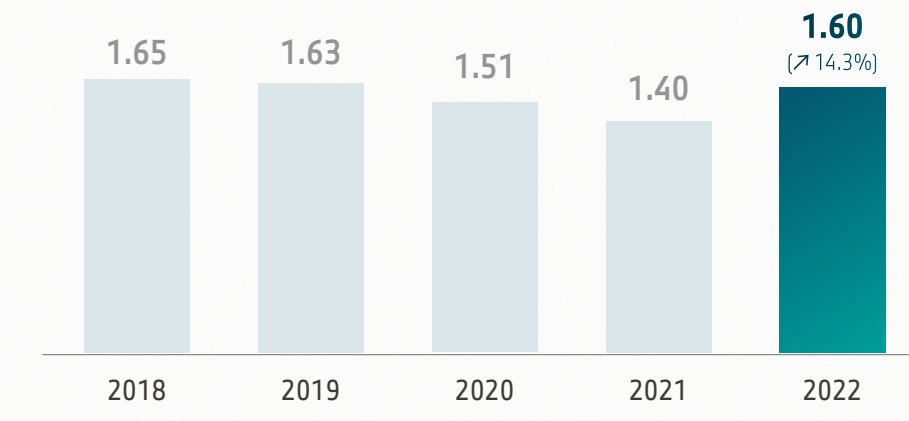
We use intelligent lighting control in multiple shops. It enables safe and energy-saving production even with the lights turned off. Meanwhile, we have expanded our heat recovery from the Plant Tiexi to Dadong.

When our plants were shut down, we took proactive measures to reduce the baseload consumption. By adjusting operation schedules, we were able to reduce the equipment output.

Our energy-saving measures are being tracked and archived throughout the year via the online Standard Tool for Efficiency Applications and Measures (STEAM) platform. In 2022, the recorded 52 measures contributed to more than 15,034 MWh the energy saving during the year.

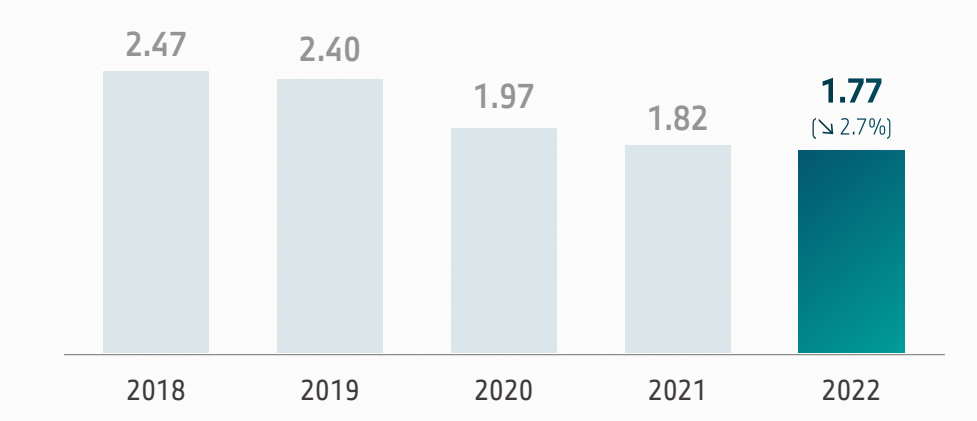
## Energy Consumption per vehicle produced

in MWh/vehicle



## Water Consumption per vehicle produced

in m<sup>3</sup>/vehicle



## RESOURCE AND ENVIRONMENT

Resource efficiency will always be central to our green production. We take full responsibility for – and strive to lower – our products' resource footprint. The "RE:THINK, RE:DUCE, RE:USE, RE:CYCLE" principle guides us to make the best use of resources in producing our vehicles. This translates to constant action in water resource recovery, waste recycling and treatment, and volatile organic compounds (VOCs) emissions reduction. We also apply nature-based solutions to protect biodiversity within our operational boundary.

### WATER STEWARDSHIP

Climate change impacts put major stress on the supply of freshwater. This matters to us, because painting in vehicle manufacturing is water-intensive. Sophisticated wastewater treatment is required to ensure that effluent is fit for reuse or discharge.

We constantly improve water efficiency in our production, and our aim is to minimise the influence on freshwater consumption from the fluctuation in production volume. A prime example of our water stewardship is state-of-the-art recycling at the Plant Dadong Extension. Multiple filtration processes separate, break down and remove organic matter and contaminants. This raises wastewater to a quality suitable for reuse in production, enabling us to achieve a closed-loop in water management.

We have also expanded the reclamation capacity in Paint Shop at the Plant Dadong Extension, saving more than 150,000 m<sup>3</sup> of water (based on 2022 production).

We have developed a benchmark for wastewater recycling and identified scalable measures for greater impacts. We were pleased to be recognised among the first National Industrial Wastewater Recycling Pilot Enterprises in 2022, as awarded by the MIIT. Our annual water consumption per vehicle produced declined for a fifth year, and we will continue to expand water recycling throughout the Shenyang manufacturing base.

**1st National Industrial Wastewater Recycling Pilot Enterprises**

awarded by the MIIT.



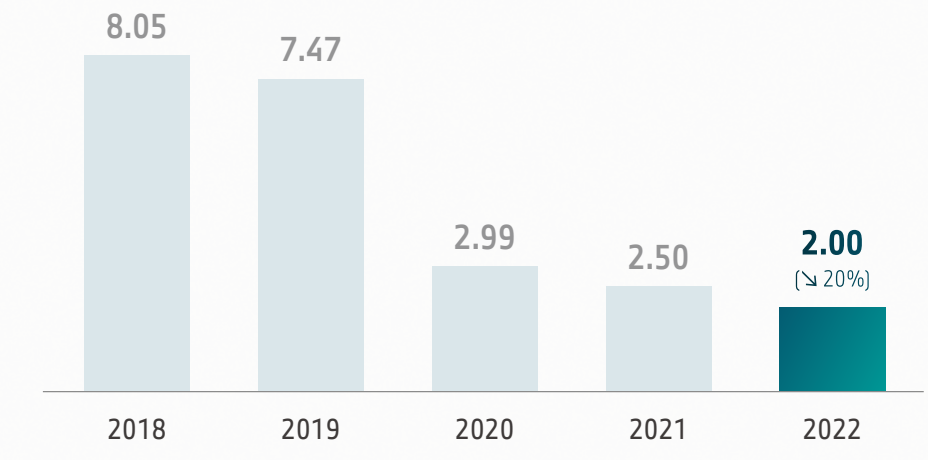
**WASTE REDUCTION AND DISPOSAL**

As we strive for a zero-waste future, we prioritise waste reduction, segregation and disposal management. Equipment upgrades at our Plant Tiexi and Plant Lydia led to a remarkable 95% reduction in the solvent used to clean painting robot atomisers. We also installed sludge dryers at the Plant Dadong and Plant Lydia, which reduce waste volume and weight by 40% to 50% via sludge dehydration. (The same measure was implemented at our Plant Tiexi in 2021.)

To ensure compliant and proper disposal of all waste, potential and existing waste-handling suppliers are subject to robust assessment. This includes regular audits and on-site inspections of their documentation and waste treatment practice to ensure full compliance with regulatory requirements.

**Waste for Disposal per vehicle produced**

in kg/vehicle



**VOCs EMISSIONS REDUCTION**

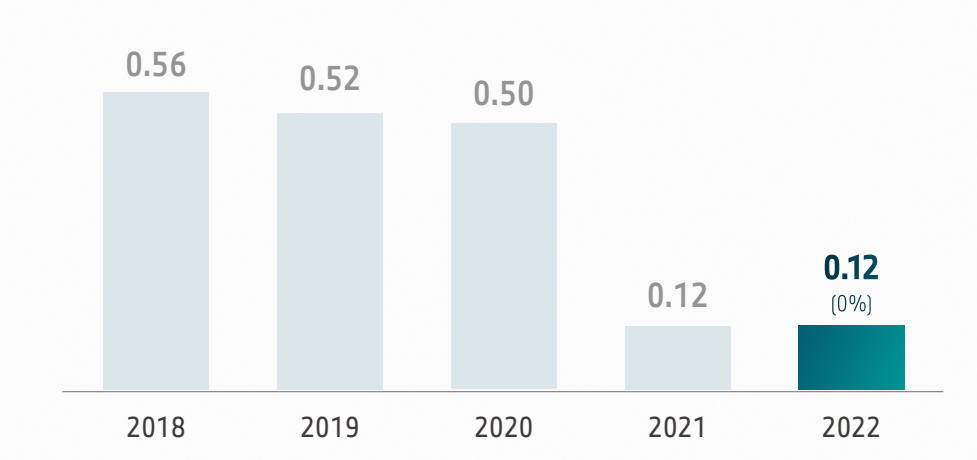
Key to our green efforts are targets for reducing VOCs emissions from production. The Paint Shop of our Shenyang manufacturing plants have state-of-the-art VOCs treatment facilities, with real-time monitoring and digital management. To further manage the VOCs emissions at source, we have begun using basecoat 1—a paint component that contains 66% less VOCs—at all manufacturing sites.

**LAND USE AND BIODIVERSITY**

Sustainability is intrinsically linked to environmental and ecological conservation. Throughout our sites' selection, construction and operation, we make every effort to minimise the impact of our production on local vegetation, soil and biodiversity. At our Shenyang

**VOCs Emissions per vehicle produced**

in kg/vehicle



manufacturing base, we incorporate nature-based solutions, such as sponge plants and soil conservation, into the planning and construction of new developments. To ensure better soil and water conservation during the landscape planning phase of our newly launched facilities, we have introduced various ecological measures such as grass planting bricks, clay water retainer layers, and more. At Plant Lydia, we have over 11,000 trees. These efforts help us preserve biodiversity and minimise land degradation, while promoting ecological well-being in the surrounding environment.

1. Water recycling system installed at our manufacturing sites.

## REAL ESTATE MANAGEMENT AND ENGAGEMENT

Our commitment to green and sustainable operations goes beyond production: it extends to our 37 non-manufacturing sites, including offices, Research and Development Centres, Spare Parts Distribution Centres, Brand Experience Centres and Training Centres. We embed sustainability into site selection, building design, construction and facility management, to minimise the environmental footprints of our non-manufacturing sites in terms of CO<sub>2</sub> emissions, waste generation and resource consumption.

In 2022, we placed a strong focus on employee engagement. Their participation and feedback are essential for creating a low-carbon, healthy and supportive working environment that helps our people thrive and prosper.

### SHAPING A SUSTAINABLE WORKING ENVIRONMENT

In 2022, we reached a significant milestone on the journey to transform our facilities into green buildings: the release of the BMW Sustainable Work Environment Standard, which is set to raise the bar for all BMW Group China buildings. Drawing on internationally recognised standards, such as the Leadership in Energy and Environmental Design (LEED), WELL, and the National Standard on Building Management and Environmental Protection, it covers the design and construction of a

green building. With this standard, we can establish, manage and deliver more quantifiable and tangible sustainability outcomes throughout a building's lifecycle.

### ENGAGING EMPLOYEES IN SUSTAINABILITY ACTIONS

The key to creating a sustainable culture across BMW Group China is to engage all employees personally in everyday efforts. Our green initiatives are designed with this in mind—promoting sustainable practices through quarterly environmental campaigns that cover topics such as energy efficiency, waste classification, resource protection, green travel and sustainable lifestyles. This engaging approach has earned positive feedback, with participants reporting a satisfaction rate of more than 99%.

Every employee can be a sustainability champion. This year, we have launched a variety of customised training courses through BMW e-learning platform, such as Waste Classification and Sustainable Actions at Work and Life, to help employees develop a more systematic knowledge on sustainability. Our Communication Letter is another important tool for promoting sustainable behaviour, providing helpful tips on promoting sustainability lifestyle and sharing insights on sustainability topics.

By making our employees a part of our sustainability journey, we hope to foster a culture of environmental responsibility and empower our people to contribute to our sustainable development goals.

Small actions can make a big impact. In day-to-day operations, we promote a green and healthy workplace, and foster behaviour change in four main areas:



#### Waste Management

We replace normal waste bins with classified waste bins in common areas and provided comprehensive training and guidance to our employees to encourage more positive behaviours on waste sorting.



#### Plastic Reduction

We pilot a new drinking water model to place more water dispensers and shared kettles throughout our offices, while minimising the provision of bottled water.



#### Indoor Air Quality

We regularly assess our indoor air quality and service the filters, to ensure a safe and healthy working environment for all employees.



#### Energy Savings

We use automated light systems in conjunction with energy-efficient LED bulbs.



### FORECAST

In 2023, the BMW Group China will promote digital tools that enhance the precision of environmental data and intelligent analysis, ultimately providing a sound scientific foundation for our energy and resources management. In particular, we will conduct a feasibility study for smart meters at non-manufacturing sites, to enable real-time retrieval and analysis of energy data.

We will enhance the transparency of data across all BMW entities, including the China Data Hub (CDH), to promote coordinated environmental management. And we will encourage benchmarking and mutual learning among our entities.

To continue our target-driven environmental management, we will make ongoing efforts and improvements in key areas. We expect an increasing variety of renewable energy to be adopted in our production, such as geothermal and biomethane. To reduce freshwater consumption, we will begin to implement and upgrade water recycling at all Shenyang manufacturing sites. And we will promote the utilisation of non-recyclable waste and minimising the amount that is sent to landfill.

1. Promoting environmentally-friendly behaviours to employees through our green initiatives in 2022.

## 3.2 GREEN LOGISTICS

Logistics plays a vital role in driving green transformation across our value chain. We have long woven sustainability into our entire logistics operation: minimising CO<sub>2</sub> emissions through pioneering initiatives, and enhancing our warehouse management to adhere to international best practices.

39

E-Trucks used across our Shenyang production facilities.

>30%

Aftersales parts sourced locally.

2,677 t

CO<sub>2</sub> emissions reduced by implementing 4RE principle in green packaging.



↗ SDG 9, 12, 13 and 17



## LOW-CARBON TRANSPORTATION MODE

The BMW Group China is deeply invested in scaling up low-carbon and multi-modal transport – such as rail and sea freight – to cut emissions and boost efficiency. In 2022, we promoted rail freight to improve logistics efficiency, and made significant progress: more than 30% of parts from the Greater Shanghai area reached our Shenyang manufacturing base by train. This shift in transportation modes alone helped us reduce annual CO<sub>2</sub> emissions by 2,160 t, compared to diesel truck transport.

For finished vehicle logistics, the Plant Dadong train station commenced full operation at our Plant Dadong Extension in 2022. This allows for the loading and dispatch of vehicles within the plant and across our Shenyang manufacturing sites via special rail lines. It significantly improved transport efficiency and reduced CO<sub>2</sub> emissions.

For aftersales logistics, our low-carbon strategy is guided by the “2025+ Aftersales Strategy”. This aims for higher performance with a positive environmental impact. As part of this strategy, we have set a target for aftersales logistics: to reduce 1/3 of our CO<sub>2</sub> emissions by 2026. In 2022, we conducted a test run for the South Route as a multi-modal transport corridor for the importing of aftersales parts from Europe to China. We also enhanced our percentage of local sourcing, to reduce CO<sub>2</sub> emissions from transport. In 2022, more than 30% of our aftersales parts were sourced locally.

## ALTERNATIVE-POWERED VEHICLE EXPLORATION

To reduce the CO<sub>2</sub> emissions of our logistics, we constantly look for cleaner energy and more efficient modes of transport.

E-Trucks are our primary choice of clean energy vehicle. In parts logistics, a collaboration with logistics service provider has made us China’s leading automobile manufacturer to realise all-electric short-distance logistics. 39 E-Trucks provide intra- and inter-plant short-distance parts transport across our Shenyang production facilities. This reduces annual CO<sub>2</sub> emissions by 150 t. We plan to expand the use of E-Trucks in the long term, to reduce CO<sub>2</sub> emissions in our inbound logistics. Meanwhile, two heavy E-Trucks and 14 light E-Trucks were used for our finished vehicles and aftersales logistics respectively in 2022.

We are also exploring using liquefied natural gas (LNG) trucks with our logistics suppliers and LNG truck manufacturers. In 2022, we sourced new LNG trucks that can load eight finished vehicles by collaborating with carriers and commercial vehicle manufacturers.

## GREEN WAREHOUSE MANAGEMENT

Sustainable warehouse management is a crucial component of green logistics, which includes the warehouse itself and the efficient management of energy and resources.

We proactively pursue green building certifications to enhance our overall green warehouse management. In 2022, we expanded our Spare Parts Distribution Centre network with two additional facilities that meet higher LEED standards. The new Spare Parts Distribution Centre in Ningbo has earned LEED Silver certification, while the new Spare Parts Distribution Centre in Beijing has earned Gold.

100% renewable electricity<sup>3</sup> has been used to power all our Spare Parts Distribution Centres, Vehicle Distribution Centres, Decentralised Distribution Centres, as well as Relife Point. Our new Spare Parts Distribution Centre in Shenyang will soon be equipped with solar panels, further reducing our carbon footprint.

To extend the circular economy, we promote returnable packaging in the value chain by tightening requirements for suppliers. In 2022, returnable packaging became mandatory during tendering for warehouse service contracts at our Spare Parts Distribution Centres in Shanghai and Foshan.

**2,160 t**

Of CO<sub>2</sub> emissions reduction by using rail freight compared to diesel truck.

**+12**

Number of logistics warehouse (DDAs, VDCs and RDCs) shifting to **100% renewable electricity**<sup>3</sup> in 2022.

1. Rail freight low-carbon transportation mode.

2. A collaboration with logistics service provider to realise all-electric short-distance logistics.

3. Both externally sourced and internally generated electricity is renewable, including solar PV, Green PPAs and I-RECs.

## GREEN PACKAGING

As carriers of automobile components, containers play an important role in the supply chain, and directly affect parts quality and operational efficiency. Our packaging planning team continuously seek process optimisation and lean concept throughout the container's lifecycle, contributing to energy-saving, CO<sub>2</sub> emissions reduction.

Meanwhile, the **4RE** principle—RE:THINK, RE:DUCE, RE:USE, RE:CYCLE—drives us to implement green packaging. Consequently, in 2022, CO<sub>2</sub> emissions were reduced by 2,677 t.



# 2,677 t

CO<sub>2</sub> emissions reduced by implementing 4RE principle in green packaging.

### MAXIMISING BIN USABILITY

Our bin-sharing and rental scheme, in conjunction with the recycling and reusing of packaging materials, has yielded great results. In 2022, our Plant Dadong, Plant Tiexi, and Plant Lydia, reduced CO<sub>2</sub> emissions by 159 t by reusing rental bins 40,332 times. We have achieved a 50% increase in the density optimisation of our universal bin packaging density, exceeding our initial target, contributing to a reduction in both packaging and CO<sub>2</sub> emissions (182 t in 2022).

### SUPPLIERS COMMUNICATION

To better leverage the role of suppliers in green packaging, we have strengthened our dialogue on sustainability issues during audits. We collect environmental data from suppliers to understand their sustainable development status. On the other hand, we actively introduce BMW's sustainable concepts and projects, promote consensus on sustainability, and provide guidance for suppliers to take green actions.

### FORECAST

In 2023, we will concentrate on low-carbon transport, including LNG and hydrogen-powered trucks for green logistics in terms of finished vehicles logistics. For aftersales logistics, we will launch the paperless process to all dealers in our after-sales logistics which finally will include most of the internal processes in the Regional Distribution Centres, the transportation to the dealers as well as the inbound processes at the BMW dealerships.

In terms of the low-carbon transition in aftersales logistics, the use of NEV trucks is planned to be extended up to 50% until 2026 for day-time deliveries for dealers in metro areas. Furthermore, the usage of railway and hydrogen trucks for long haul dealer deliveries is under investigation.

For green packaging, we will continue to optimise business modules based on the 4RE principle and make a sustainability mindset the basis for development. We will invest effort in container reuse, recycling and light-weighting, and the development and use of lower-emissions containers. Meanwhile, we will continue to drive suppliers to jointly explore innovative projects, to make a significant contribution to green packaging and sustainability.

### STEEL BIN AND NON-STEEL BIN PROGRAMME

We are actively exploring reducing our raw material consumption for steel bins. This includes innovating bin design, replacing steel with more eco-friendly options, and improving reusability etc.

For non-steel bins, we focus on increasing the proportion of recycled non-steel material and promoting the flow of non-steel material recycling.

We conducted feasibility studies on expanded polypropylene (EPP), Electro-Static Discharge (ESD) EPP, con-pearl and thermos, with further materials to be tested in future. Recycling hardware has been deployed in Shenyang and 172 sample bins – each made of one t recyclable EPP – have been delivered to part suppliers for batch tests.

#### Bin Design

Container designs for the BMW 5 Series followed BMW Brilliance's latest Bin Concept Construction Guideline. This can realise the standardisation and lighter bin concept, and improve the bin quality at the same time. This have brought more than 73 t CO<sub>2</sub> emissions saving, and we expect that 575 t CO<sub>2</sub> emissions will be deducted from 213 t steel saving.

#### Material Replacement

We try to use non-steel containers with reduced CO<sub>2</sub> emissions, such as P-containers and KLT plastic containers. And, in design, we apply finite element analysis to simulate the force analysis on containers. Using compact steel tubes for the BMW X5, we saved 3.5 t of steel and reduced 9.6 t of CO<sub>2</sub> emissions.

#### Reusability Enhancement

More than 1,000 pieces of BMW 3 Series container were reused, reducing CO<sub>2</sub> by 310 t. Standards and processes for steel container reuse were published to facilitate this measure.



Dealers and suppliers are vital partners of BMW Group China, serving as an extension of our business and as fellow travellers on our sustainability journey. By implementing BMW's sustainable standards in economic, social and environmental spheres, they work alongside us to build a mutually empowering relationship that fosters sustainable practices and generates broader social value.

CHAPTER 4

# DEALER AND SUPPLY CHAIN

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# 4.1 DEALER MANAGEMENT AND EMPOWERMENT

The BMW Group China invites dealers to be sustainability ambassadors, to motivate and empower them to create a green customer experience. Our goal is to foster a win-win partnership that generates long-term benefits. We are proud that our dealers share our vision and work with us to accelerate the development of a green and responsible dealer network.

50

BMW dealerships were awarded with NT Green Star in 2022.

99.5%

Of 607 BMW dealers conducted self-assessments.

100%

Of Sales Consultants received BEV online training.



↑ SDG 7, 8, 9, 13 and 17



## BMW NETWORK TRANSFORMATION GREEN STAR

The BMW Group China is working to build a low-carbon ecosystem throughout the customer journey and accelerate the green transition in the Chinese automobile dealer industry. Our landmark initiative – BMW Network Transformation (NT) Green Star Project, was officially launched in 2022, to empower and engage dealers to provide green customer-centric services. Our goal is to have all dealerships qualify for Green Star status by 2025, and to pass our internal audit by 2026. This is the industry's first sustainable service system for dealers, having been awarded the 50 NT Green Star by the end of 2022.

50

BMW dealerships were awarded with NT Green Star in 2022.

33,000 MWh

Green power adopted by 50 BMW green star dealers.



**Our goal is to have all dealerships implemented Green Star status by 2025, and acquire the certification by 2026.**



### Green environment

We encourage dealers to focus on four aspects of the green environment: energy savings, customer comfort, circularity, and culture and biodiversity. We inspire dealers to design a new customer experiences that are environmentally responsible, safe and comfortable by taking actions such as sustainable design, adapting high-efficiency equipment, and reducing resource waste, and using environmentally friendly furnishings and building supplies.



### Green operation

We are committed to making dealers' daily operations more sustainable – from sales and aftersales to office work. For example, dealers can implement e-reception and digital working with technologies provided by BMW Group China, to reduce the use of paper and other materials. We also encourage them to use operational consumables with smaller environmental footprints and to reduce waste by utilising reusable aftersales servicing kits and oil-filling systems.



### Green power

In 2022, we held five online training sessions and created a BMW Dealership Green Power Application Guidebook, to help dealers embrace green power through Green PPAs, distributed solar power and I-RECs. The guidebook is China's first systematic long-term service initiative in the automotive sector. We have already achieved good results: 50 BMW green star dealers adopted green power in 2022, for a total 33,000 MWh.



### Green engagement

We encourage dealers to offer green engagement activities to their consumers and employees, attracting more people to participate in sustainable actions and expanding the impact of our sustainable services by engaging in themes such as green campaigns, CSR activities, green communication, sustainability training and green lifestyles.



### BMW i-Space: Future NEVs will drive sustainability

The BMW Group China's vision for harmony between human, vehicle and nature is embodied by the BMW i-Space, our showroom for the BMW i series. Under the eco-friendly design, all construction and furniture materials are made from recyclable materials.

We strive to create a modern and natural sales environment, so

that consumers can not only experience the premium services of future BMW electric vehicles, but also feel the wonderful future brought by electric mobility. Seven i-Spaces were in operation by the end of 2022. We will accelerate the creation of more BMW i-Spaces, to meet the needs of different cities and customers.



## DEALER EHS MANAGEMENT

Dealers are a critical element in our EHS management. We therefore aim to empower and equip them with the knowledge and skills necessary to identify and prevent EHS threats.

Every year, we carry out EHS audits for our dealers, to motivate them to conduct self-assessments, identify EHS risks and take appropriate action. In 2022, 99.5% of the 607 dealers conducted such assessments. For the dealers who did not pass the assessment, we required them to conduct another assessment and provide more comprehensive information to identify their EHS challenges. This will, in time, improve the pass rate. We provide dealers with online EHS training to explain common EHS risks and the significance of the audits. One hundred dealers participated in 2022.

# 99.5%

Of 607 dealers conducted self-assessments.

## SUSTAINABLE DEALER EMPOWERMENT

Dealers are catalysts of our change and sustainability journey. Providing them with professional and all-around training system is an important aspect of our relationship. Therefore, at the BMW China Training Academy, we offer comprehensive support to our dealers for them to learn, share, and expand their business, supporting their business success and long-term growth.



### ENHANCE TALENT QUALIFICATION AND TRANSFORMATION

Dealer talent qualification and transformation has always been the foundation of BMW Group China's business sustainable growth. The competency improvement and transformation of both front-line staff and management levels were enhanced in alignment with corporate business needs.

- **Talent Transformation and Empowerment for Front-line Key Functions Staff**

As electric is one of BMW Group's strategic focuses, the BMW Group China is accelerating its electric transformation in China by extending its electric product line-up. We empowered and prepared dealer partners with sufficient BEV knowledge and abilities by enhancing BEV training and certification. The talent empowerment focus is placed on BEV for front-line and aftersale staff.

**100%**

Of Sales Consultants received BEV online training.

### Key Front-line Talent BEV Qualification and Certification

BEV focused training and certification promote workforce competency to improve dealer BEV talent readiness. Therefore, BEV online training covered 100% of Sales Consultants by 2022. 2,470 BEV Sales Consultants were certified by the end of 2022. Additionally, 2,745 BEV Service Advisors were certified by the year end, and 4,149 BEV Technicians were certified by the end of 2022. To shorten the training duration and build up the most competitive dealer talents, we offered tailored training for various functions based on the most recent needs and job requirements of front-line personnel. For example, courses for Charging Expert ensured the charging service guidance of full vehicle life cycle, eliminating customer concerns. The courses of Test Drive Genius aimed to improve customer experience, and make full use of test drive to win the confidence of both brand and product from customers.



### BEV Product Launch Training and BMW New Products Experience Training 2022

BEV Product Launch Training plays an essential role in nurturing BEV dealer talents. The BMW iX Product Launch Training, the New BMW 7 Series and the New BMW i7 Product Launch Training, and New Products Experience Training were held successfully for dealer partners in 2022. The BMW New Products Experience Training 2022 offered to General Managers and Sales Managers was an immersive experiential learning journey to support learners completely comprehend the story of luxury and electric. It helped dealers in building trust in the brand, product, and BEV business. In the Product Launch Training for dealer front-line staff, product understanding, sales skills and sales confidence were enhanced with exploration of the design concept and performance, competitor comparison and test drive sessions, laying a solid foundation for future sales and customer service. Besides, all the front-line sales staff were covered by in-house training and BMW Joylearning training system, realizing the full-scale talent empowerment.



### The Green Hour Module of the iX's Pre-market Training

Sustainability theme were included in the BEV Product Launch Training to reinforce the concept and deepen dealers' understanding of BMW i product excellence. For example, Green Hour was created as part of the first module of BMW iX product launch training. The pre-market training began with four "Green Hour" subjects, including "The Life of the Battery" "My Carbon Footprint" "Final Countdown" and "New Trends in Luxury". The circular notion of BMW's whole value chain was clearly displayed to dealer partners, allowing them to incorporate sustainability into their customer interactions.

● **Dealer Management Transformation and Development**

To support business change, the dealer management position development path and the knowledge refresh have been redesigned. On-boarding qualification applies to all newly hired dealer managers. Experienced managers must participate in mandatory training/coaching as well as work on a practice programme or a national competition to reinforce their managerial competence. Since 2021, BMW Business School has been built in collaboration with National School of Development at Peking University to build up a platform of sustainable development and transformation for Dealer Group investors and their successors, brand directors, and outstanding General Managers and customer-facing managers. In 2022, the first batch of students successfully graduated after four condensed modules of study, including strategic thinking, marketing, finance, and operational management.

The BMW BEV Business GM Workshop featured 29 sessions in order to encourage dealer management to make the decision to convert to BEV business immediately and to propose solutions to BEV challenges. The seminars were attended by 446 General Managers and Area Managers and focused on the criteria for enhancing operational efficiency and restructuring the BEV sales force to provide a competitive experience by examining the merits and drawbacks of various BEV sales models.



● **Comprehensive Support in Preparation of Future Sales Model (FSM) of MINI**

A new business model for the MINI brand has been applied to provide a better customer experience and ensure MINI's long-term growth. We launched the enabling programme of MINI FSM training and coaching to assist MINI partners in understanding the MINI retail transformation, covering both basic and management

functions. 1,333 MINI employees completed the E-learning programme by the end of the year. The FSM course study and certification will be completed completely in February of next year. The onsite instruction for MINI partners will begin in March of next year and will be available to all of 148 MINI agents.



**STRENGTHEN BRAND PASSION AND DRIVE CUSTOMER-CENTRIC CULTURE TRANSFORMATION**

As the rising auto start-ups and ever-changing customer needs have brought greater challenges to our brand and customer service, it calls for immediate action to strengthen brand passion of dealers and drive them for customer-centric culture transformation. Unremitting efforts have been made in the following key programmes.

● **The First-ever BMW National Electric Vehicle Sales Competition (BEV Competition)**

The first-ever BMW National BEV Sales Competition began in May and lasted 184 days, with the goal of encouraging dealers, strengthening BMW BEV's sales offensive, and exploring premium i customer experience. The competition received significant regional support and proactive dealer participation, fully covered front-line sales staff in the network. Social Media Competition motivated participants to actively drive social media promotion and sales leads acquisition, and to proactively think and formulate marketing strategies and proposals with the needs from business, enhancing their competencies of social media marketing; General Managers



were invited for the first time to lead their own teams to join the Management Operation Competition to tackle key business segments, such as test drive and test ride, staff efficiency, to explore and restructure the operation mode of electric vehicles from a holistic perspective. "The Answerer Sales Competition" inspired sales staff to summarize key sales challenges, and to share valuable solutions and sales talk towards these challenges.

● **Premium Customer Experience Ambassadors**

In 2022, the selection of Premium Customer Experience Ambassadors focused on supporting customers during NEV adaptation, using new media to expand customer reach, and providing tailor-made services that exceed customer expectations to keep a strong focus on every detail and win trust. After rounds of selection, 30 national Ambassadors of Premium Customer Experience from front-line positions stood out and became role models of the dealer network, promoting customer-oriented cultural change.



● **Tonality of the House**

Keeping pace with the tone of Premium Customer Experience of BMW Group, Tonality of the House has been integrated into management training content as the overall tone of the premium customer experience. To promote the customer-centric cultural change among dealer technicians, the Tonality of the House—Technician Behaviour Guidelines were formally launched this year.

1. The first students graduated from BMW Business School in 2022.  
2. The First-ever BEV Competition.  
3. The selection of Premium Customer Experience Ambassadors.

**7,018** active users

Of "The Answerer" on the BMW Joylearning App.

**~400**

BMW authorised dealers applied to adopt the Mixed-Reality POS.



### DEEPEN TRAINING DIGITALISATION TRANSFORMATION

Digitalisation has become a long-term driver of dealer training. We continued to explore further possibility of blended learning in talent empowerment and refine the existing digital training platform using cutting-edge technologies, offering dealers with high-quality courses and more flexible course design and delivery.

Blended learning was further applied in regular training courses. The course learning schedule was customised for users, and the evaluation of users' online homework will involve users' manager, which is of vital importance for training quality improvement.

"The Answerer" on the BMW Joylearning App quickly absorbs current market trends and gives proven strategies and solutions for both sales and aftersales issues. "The Answerer Sales Competition" in 2022 promoted the platform throughout the dealership and encouraged dealer users to contribute high-quality content. By the end of the year, "The Answerer" received 1,472 questions, 3,321 answers, and 4,062 shared posts, with 7,018 active users.

In 2022, we developed 12 VR courses covering topics such as NEV Accident Car VR Tool for NEV technician training, Engine Maintenance and Repair, Parts Sales, and NEV Production Safety Management. Furthermore, an AI interactive practice system has been included into the BMW Joy Learning App, allowing dealer staff to practise at any time and from any location. Mixed-Reality has become a cutting-edge training method in product demonstration, and the mass retail implementation of Mixed-Reality technology helped dealers in sales by improving customer experience when it comes to product display. Over the past 12 months, nearly 400 BMW authorised dealers throughout the country applied to adopt the Mixed-Reality POS.

BMW Education of Sales and Service Talent (BEST), which was established 16 years ago, aims to cultivate and prepare young talents for dealers through collaboration with vocational institutions. As of 2022, 17 vocational schools have been designated as BEST Training Bases, with about 10,000 students trained. Many programme

graduates have progressed to significant front-line positions in the current dealer network. The BEST online programme was developed this year to further expand junior talent pipeline for dealer positions including sales and aftersales through digital learning solution. 12 vocational schools joined, with over 400 students registered in the learning programme. The programme enables the students to learn about seven key jobs of BMW dealers in an agile way and develop better understanding towards future workplace and career development.

### FORECAST

Towards 2023, our sustainable journey with dealers will continue and is expected to have more achievements. The BMW NT Green Star Project intends to accomplish the certification of 200 dealerships by 2023, and we will also work on the sustainable building design of the dealerships, creating a greener services environment.

For environment, health and safety management, a new course will be provided for dealers. This will cover identifying compliance check points and will increase their awareness and skills. And EHS information will be communicated in accessible ways, including monthly newsletters, short films and online or offline workshops.

To better empower the dealers, in 2023, we will continue to pursue the company's strategies to support commercial development. To keep up with product transformation, we will continue to support BEV talent and business enablement through training and coaching. Talent development and transformation for basic functions and management roles will be strengthened progressively. Meanwhile, on-site MINI FSM coaching will be fully implemented for MINI partners. "The Answerer", as the customised agile platform of enabling, will take advantage of its fast response and collect dealer and customer feedback whenever they have any. The Premium Customer Experience programmes will take a step further, to align with the corporate strategy of customer-centric cultural change. We will also drive training digitalisation with blended learning implementation, training platforms and digital techniques.



1. The implementation of Mixed-Reality technology for dealers.

## 4.2 PURCHASING AND SUPPLIER NETWORK

The BMW Group China has comprehensive supplier sustainability management system that covers environmental and social aspects. For us, it is important to empower suppliers to engage in proactive sustainable practices. We are glad to see that more and more suppliers are gradually becoming sustainability pioneers, not only implementing sustainable practices in their own operations, but also working with us to explore the industry's sustainable transformation path in critical areas.

**100%**

Of our aluminium ingot suppliers have already made their switch to renewable electricity<sup>1</sup>.

**Green Supply Chain Management Enterprise**

Issued by the MIIT.

**160,000 t**

Of CO<sub>2</sub> avoided by our partnership with PGM supplier.

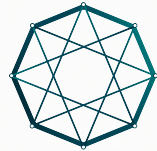
**All Tier-1 and n-Tier suppliers**

Was included in supply chain risk tracking.

1. Both externally sourced and internally generated electricity is renewable, including solar PV, Green PPAs and I-RECs.



↗ SDG 7, 8, 10, 13 and 17



### Supply Chain Project China

To support China's dual carbon goals, we have designed Supply Chain Match Plan China, which is an integrated management framework to a sustainable supply chain in China.

**100%**

Of our aluminium ingot suppliers have already made their switch to renewable electricity<sup>1</sup>.

**~20%**

Of Liaoning-based suppliers participated in Green PPAs under our coordination.

**>10%**

Of our suppliers earned ISO 50001 certification in 2022.

## SUPPLIER ENVIRONMENTAL RESPONSIBILITY

Minimising our environmental footprint – throughout the product life cycle and across the supply chain – is central to our green transformation. This entails a persistent and long-term approach that focuses on three pillars:

- **increasing** the use of renewable electricity;
- **promoting** the use of secondary materials;
- **encouraging** the adoption of green technology in the supply chain.

### OUR ENVIRONMENTAL MANAGEMENT FRAMEWORK

The BMW Group China actively implements the sustainable supply chain strategy of the BMW Group, while agilely responding to China's national green development strategy. We incorporate green supply chain management into our strategic planning, define green supply chain management goals, and promote the company's environmental performance in the supply chain.

To support China's dual carbon goals, we have designed Supply Chain Project China, which is an integrated management framework to a sustainable supply chain in China. Based on a comprehensive evaluation of our supply chain's carbon impact, we have developed eight working packages with specific goals, and established a dedicated team to improve interdepartmental collaboration and partner relations.

We have long integrated environmental criteria into our supplier selection and management process, which includes a procurement strategy that weights the utilisation of renewable electricity and secondary materials as key selection criteria. We advocate the implementation of energy management and promote ISO 50001 – Energy Management certification within our local supply chain. In 2022, more than 10% of our suppliers earned ISO 50001 certification, and more are underway.

For the year 2022, our sustainable supply chain management and practices were recognised as “five-star green supply chain management enterprises in the automobile industry” by third-party audit, while earning awards at both local and national levels in China.



### RENEWABLE ELECTRICITY IN SUPPLY CHAIN

The BMW Group's target of reducing more than 20% CO<sub>2</sub> emissions per vehicle in the supply chain by 2030 from a 2019 baseline in condition of CO<sub>2</sub> increase of BEV. This is ingrained throughout our supply chain management. We are driving our nominated suppliers, and suppliers of energy-intensive raw materials, to fully transition to renewable electricity in their own operations and productions. Over 40% of our nominated local suppliers using renewable electricity<sup>1</sup> in 2022, we achieved a significant milestone in CO<sub>2</sub> reduction in our local supply chain. 100% of our aluminium ingot suppliers have already made their switch to renewable electricity<sup>1</sup>, which is expected to reduce CO<sub>2</sub> emissions by 0.72 million t until the end of 2023. Furthermore, around 20% of Liaoning-based suppliers participated in Green PPAs under our coordination in 2022. This allowed them to achieve the maximum renewable electricity consumption ratio.

With supplier empowerment serving as the linchpin, we are proactively supporting our suppliers in a variety of ways to foster their green transformation. Through trainings, we shared our experience and practices in achieving 100% renewable electricity<sup>1</sup>. These training sessions are designed to equip our suppliers with an understanding of renewable electricity transactions and purchases across different provinces. We also launched an internal expert hotline to promptly respond to supplier's queries on renewable electricity transactions.

Won

#### Green Supply Chain Management Enterprise

issued by the MIIT.

Recognised as

#### "Five-star green supply chain management enterprises in the automobile industry"

by third-party audit.

1. Both externally sourced and internally generated electricity is renewable, including solar PV, Green PPAs and I-RECs.

## ENABLING CIRCULARITY IN THE SUPPLY CHAIN

Our "Secondary First" approach reduces dependence on primary resources while ensuring product quality. It is our priority to increase the use of secondary materials in our products through innovation and close collaboration with suppliers.

Our success in 2022 paves the way for the enablement of circularity in the supply chain. By reintroducing scrap steel, scrap aluminium and core raw materials from HVBs into the manufacturing process, we promote the use of secondary material by our suppliers. We also robustly support the recycled precious metal procurement project to encourage technological innovation among suppliers and increase the proportion of secondary materials. In 2022, after two years of intensive qualification, we successfully developed a recycled Platinum Group metal (PGM) supplier. This recycling partnership enabled us to reduce CO<sub>2</sub> by 160,000 t.

For more information on our use of sustainable materials, please refer to [Using sustainable materials](#) and [Pioneering in sustainable batteries](#).

## PROMOTING SUPPLIER TECHNOLOGY TRANSFORMATION

We are stepping up efforts to drive technological transformation in the supply chain. In 2022, we signed a MoU with the HBIS Group, aimed at establishing a green and low-carbon steel supply chain. As the first customer of HBIS's green and low-carbon automotive steel, we are progressively moving towards a 95% reduction in CO<sub>2</sub> emissions. This is supported by the hydrogen-based DRI-EAF (Direct Reduced Iron in Electric Arc Furnace) process. Through the transition towards green steel, our goal is to reduce up to 230,000 t of CO<sub>2</sub> emissions per year from 2026. Recognising the opportunities in steelmaking, our manufacturing facilities in Shenyang will transition to using green automobile steel. Our pioneering approach is having an impact and inspiring industry-wide green transformation.

## SUPPLIER EHS & SOCIAL RESPONSIBILITY

Socially responsible supply chain management can help protect, create and grow long-term value along our value chain and for our stakeholders. For this reason, we aim to develop a supply chain that is socially conscious and responsible, and we have taken series of steps in 2022. We have broadened the scope of our social responsibility programmes, addressed EHS management, and better integrated responsible sourcing. These efforts have contributed to improved quality and maturity in our purchasing and supplier networks.

## SUPPLIER ENVIRONMENTAL, HEALTH AND SAFETY RISK MANAGEMENT

At BMW Group China, we believe that responsibility extends beyond our facilities, and touches on our entire supply chain, and a vision for sustainable supply chain requires an integrated approach to manage supplier EHS risks. Our long-established EPA Programme has enabled us to implement comprehensive supplier EHS risk management. We

audited 43 suppliers in 2022, including 33 nominated suppliers and 10 n-Tier suppliers. By the end of 2022, we have successfully raised the average audit score from 83% to 94%. We also completed 90 "Challenge Rounds" for n-Tier suppliers to improve their year-on-year EHS management.

As an extension of the EPA programme, several other initiatives are implemented as we strive to improve our commitment to sustainability. We have refined our EHS Risk Management System (ERMS), to analyse and track supplier compliance status. We added new functions to the ERMS system and enhanced certain important modules to improve performance. Beyond EHS and CSR, a new training module addressing broader areas of sustainability was introduced. This will allow suppliers and BMW associates to increase their technical knowledge and awareness.

Given our needs to address risk thoroughly, the BMW Group China has implemented the IT based Risk Tracking Function to identify and track noncompliance. We incorporated significant findings and risks from the supply chain, which includes all tier-1 and n-Tier suppliers, totalling more than 1,200 participants. We also ensure the application with a full-time compliance methodology that identifies supplier hazards in real time.



**Through the transition towards green steel, our goal is to reduce up to 230,000 t of CO<sub>2</sub> emissions per year from 2026.**

**160,000 t**

Of CO<sub>2</sub> avoided by our partnership with PGM supplier.

**All Tier-1 and n-Tier suppliers**

Was included in supply chain risk tracking.



**We are committed to prioritising responsible supply chains as a crucial element of our business practices, recognising that they not only enable growth but also pave the way for the future of the sustainable value chain.**

### **SOCIAL RESPONSIBILITY INITIATIVES FOR SUPPLIERS**

Responsible and lawful conduct is essential to our supplier management and serves as the foundation for our long-term success. In 2021, we published the Supplier Social Responsibility Code of Conduct (SSCOC) – a guideline for our Chinese suppliers that focuses on four important areas: people-oriented, ethical business, responsible sourcing and management systems.

In 2022, we contracted a third party to conduct on-site CSR audits of 36 local suppliers, using the SSCOC and a risk-based methodology. We aimed to assist suppliers to identify key issues and potential solutions, while bringing suppliers' good experience as a reference, allowing them to gain understanding of our requirements and the areas on which they should focus their attention and prioritise efforts. Following the first round of audits, we monitored suppliers to ensure they grasped the issues and took appropriate corrective action. Overall, our social responsibility activities promote responsible supply chain management and the long-term viability of manufacturing system.

### **SUPPLIER TRAINING**

At BMW Group China, we emphasise the importance of knowledge about sustainability in the supply chain. This is why we promote supplier capacity building to ensure awareness of BMW's standards. We implemented five training rounds to educate our suppliers on EHS and CSR as major deliverables for 2022. The focus was creating awareness about the main challenges and the checklists that we use.

### **RESPONSIBLE SOURCING**

For BMW Group China, conscient sourcing fosters positive business practices throughout our supply chain. We are committed to delivering sustainable outcomes through our procurement, with responsible sourcing in four major areas: responsible material sourcing, forest protection, animal welfare and restricted substances in materials. Based on our audit and management processes, we rigorously assess the origin of 3TG metals – tantalum, tin, tungsten and gold – and request our suppliers do the same. This supports the elimination of illicit mining and fosters compliance throughout our value chain.



### **FORECAST**

In 2023, the BMW Group China will further develop climate-friendly and supply chain EHS management. We look forward to working with our partners on the supply chain to promote green economy transformation of the automotive industry. In terms of raw material recycling, we will enhance the closed-loop management of parts and materials by promoting the use of recycled aluminium, plastics, electric cores and other raw materials. In terms of energy use, we will consolidate energy and carbon emission management standards into our supply chain. Furthermore, the already implemented CO<sub>2</sub> management processes will be supplemented to a holistic approach, which enables us to achieve the CO<sub>2</sub> emission reduction target in a long-term standardized and verifiable solution.

To fulfil both international and local regulatory requirements, we will continuously enlarge our EHS and CSR audit program, thus being ambitious to accelerate our suppliers to build resilience in operations. We will expand the scope of supply chain social risk assessments and optimize our EHS and CSR audit program accordingly. Based on the current initiatives, the number of supplier audits will be increased throughout the year. We believe that with the deployment of these actions we will further empower our suppliers for a better performance regarding EHS and social responsibility.

1. On-site visit at our supplier facility.

At BMW Group China, we respect our employees. Their achievement is our achievement. As a responsible employer, we consider the growth and well-being of our people to be the foundation of our business development. At the same time, we are responsible corporate citizens, addressing urgent challenges facing the environment and society. By uniting our employees, we are able to connect social challenges with innovative solutions, thus creating the potential for a sustainable and prosperous society.

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CHAPTER 5

# EMPLOYEE AND SOCIETY

## 5.1 **FUTURE-PROOF JOB**

The BMW Group China believes that high-quality employment depends on long-term cultivation and support of talent. We integrate BMW's core values and culture throughout employees' journey with us, to create a responsible employer brand. Through future-oriented and comprehensive training, we empower each of our people to grow and contribute to the development of China's automotive industry.

**5,044**

Local new employees.

**> 9,000**

Associates received BestYOU award for their outstanding demonstration of corporate Core Values.

**1.01**

Average days of further training per employee.

**99.4%**

Training attendee satisfaction rate.



↗ SDG 4 and 8



## OUR CORE VALUES

RESPONSIBILITY

APPRECIATION

TRANSPARENCY

TRUST

OPENNESS

## CORE VALUES AND CULTURE

Our core values of Responsibility, Appreciation, Transparency, Trust, and Openness are woven into our daily human resources management and the employee experience. In 2022, we continued to deepen our core values and culture through diverse and engaging activities.

We have organised department-specific activities in our core value space for more than three years. More than 160 teams have experienced team-oriented games and interactive activities in this open venue. In 2022, we launched the Core Value Space Ambassador initiative. The ambassadors initiated their own workshops in the core value space, focusing on discussion about business and core value-themed activities.

Our BestYOU programme is a recognition to foster the culture of appreciation, and recognise the behaviours that demonstrate our corporate Core Values. As we look back on 2022, we are proud to report that 7,119 individuals were nominated for the Best in My Eyes award. Meanwhile, an impressive 6,335 associates have received Best In My Team awards from the management team, as individual or member of a winner team. 16 Best of the Year awards have been rewarded at the company level for their great contribution to our business.

7,119

Associates have received **Best in My Eyes** as the appreciation from peer colleagues.

6,335

Associates have received **Best In My Team** awards from the management team, as individual or member of a winner team.

16

**Best of the Year** awards have been rewarded at the company level for their great contribution to our business.

## TALENT ATTRACTION

There is fierce competition in the labour market to attract top talent. We are committed to establishing a distinctive employer brand to showcase our appealing culture and working environment, and our excellent people. We believe this is crucial, to build lasting connections with talents and foster a culture of lifelong development with growth mindset.

### EMPLOYER BRANDING

At the heart of BMW's employer brand is deep-rooted of joy pursued with passion and future-proof development. Over the years, the BMW Group China has attracted individuals with an unrelenting drive of shaping transformation through their enthusiasm to make impact from their work.

We have embraced fresh approaches that capture the attention and interest of prospective talents. Drawing on authentic insights and stories shared by our people, we deliver our employer brand through social media apps and career sites.

Our aim is to provide an environment that fosters passion and innovation, and to work collaboratively with our talented employees to make a positive impact on society.

### CANDIDATE-CENTRIC RECRUITING STRATEGY

We place great importance on how candidates experience the recruitment process. Our goal is to create sustainable platform that attracts the best talent and provides fulfilling and potential-unleashed careers. By offering high-quality opportunities that



### The BMW Campus Carnival

Our BMW Campus Carnival is a prime example. An all-in-one, immersive experience in a customised BMW metaverse, the digital carnival combines the latest virtual avatar technology, real-time interaction, 3D gamification and conventional campus events. More than 1,000 students experienced this compelling digital carnival.

align with personal growth, we establish long-term partnerships with targeted talents and contribute to their professional success.

Amid the pandemic, digital platforms and tools have become increasingly important for efficient recruitment. At BMW Group China, we have taken this to action and embraced digital innovation to create an immersive and engaging recruitment experience.

We have also introduced a new method of presenting video-based job descriptions to potential candidates. Our video job descriptions set difference from a traditional job description. It invites current employees to share their own experience at BMW, including job responsibilities, perceived culture and the working environment. This innovative approach has resulted in over 220,000 exposures on social media.



### 2022 HACKATHON EVENT

The 2022 Hackathon event @ BMW Shenyang plants was a cutting-edge online programming competition, focusing on industrial digital innovation and featuring real-life scenarios from Shenyang's intelligent manufactory system. Over the past two years, the BMW Group China has attracted nearly 1,000 young enthusiasts from the top universities, bringing fresh inspiration for our industrial digital future.

### ATTRACTING YOUNG TALENTS

Innovative and passionate young talent infuses BMW Group China with fresh energy, driving our digitalisation and sustainable development. To nurture this talent, we have campus campaign that empowers young people for career paths exploration and achieve personal growth in the premium automotive industry.

We remain committed to fostering strong partnerships with universities. In 2022, we hosted online campus talks, in which we engaged with bright young minds on BMW's distinctive culture, dynamic working environment and diverse young talent programmes. Our executives also actively participated in public lectures, to facilitate young talent to realise their potential and pursue meaningful careers.

Through these collaborative efforts, we aim to inspire and motivate the next generation of leaders, while contributing to the long-term success of our organisation and society.

### ENGAGING TECHNICAL TRAINEE

Outstanding technology lays a solid foundation for BMW's success; therefore, we attach great importance to attracting and engaging technical talents, especially young talents. We create a Technical Trainee Campus Hiring Programme to attract top tier technical campus talents via various channels including campus talk, university

cooperation and online promotion. It is a great inspiration for these young technical talents by participating in this programme. They have the opportunity to learn more about BMW's solid technical strengths behind our products, while their dedication to pursue a technical career path has also been forged.

### ENGAGING PROFESSIONAL DIGITAL TALENT

Building connections with professional digital talent is among our top priorities. We offer targeted training to digital talent prior to interviews, empowering them to hone their skills and elevate their competitive edge.

We have set our sights on providing English interview-coaching, to bridge cross-cultural divides and foster greater inclusivity for digital professionals seeking to enhance their English proficiency. We are delighted to report that the first stage of this initiative yielded impressive results, with more than 80 candidates benefiting from our tailored training. This is just the beginning of our ongoing efforts to attract and retain the brightest and best digital talent. We remain committed to empowering our workforce to achieve their full potential.

## EMPLOYER AWARD

**LinkedIn**  
LinkedIn MostIn Award

**Zhaopin**  
China Best Employers with Extraordinary —  
*Achievement Top 2*  
China Best Employers for Female —  
*Employees Top 1*  
2022 Best Employer Award for Campus Recruitment

**Top employer Institute**  
Top Employer 2023

**51job**  
Employer Excellence China Top 100  
Excellence in Employer Branding  
Graduate Employer China 2022

**Zhipin**  
King's Ark—  
Best Employer for Talent Acquisition

**Liepin**  
Extraordinary Employer Award Top 50

**Maimai**  
Annual Outstanding Employer

**Lagou**  
Lagou Top Employer

**Lockin**  
Power Global Recruiting Employer

**Nowcoder**  
Nfuture Awards 2022

**Shixiseng**  
The Most Attractive Employer

**Ciwei**  
Ciwei Best Employer



## ENGAGING LOCAL TALENTS

We actively collaborate with the Shenyang government to promote attraction and employment of local talent. This demonstrates BMW Group China's support of – and contribution to – the local community.

Through new mechanisms and measures, including the Talents-Who-Boost-SY plan, we have established pipeline of local talent with more synchronised policy resources. In 2022, we secured talent-favourable subsidies and resources for more than 600 people, newly acquired or internally developed as high-end, critical, fresh graduates, and essential production talents.

**4,233**

Local new employees in Shenyang.

## EMPOWERING EMPLOYEES

Key to success in a rapidly evolving environment is our people's ability to adapt, innovate and lead. We are dedicated to developing a workforce that is equipped with the skills and knowledge to thrive in this dynamic environment.

## UNLOCKING INNOVATIVE TRAINING

We have advanced online and digital training throughout our organisation. Our online courses have been refined and divided into mandatory and nonmandatory categories. Mandatory courses include compliance, new employee and EHS training, to ensure ethical business conduct. Nonmandatory courses include diverse subjects, thoughtfully packed into different learning paths, such as the Mini MBA, Personal Competency and Leadership Package. This variety provides our people with greater flexibility and mobility in their learning.

Our commitment to innovation has led us to develop ground-breaking models, technologies and resources that transform the way our associates learn:

### INNOVATIVE MODEL

Our innovative training has revolutionised development and engagement. With digital technology and gamification, our employees learn and develop new skills in a fun and interactive way.

### INNOVATIVE TECHNOLOGY

Our innovative technology has been integrated in our training programmes. The VR Battery Training programme offers a simulated working environment. This allows our associates to practise technical skills and gain practical experience in a safe and controlled setting.

### INNOVATIVE RESOURCE

Our innovative expert-competence training includes Udacity digital courses in data analytics and science. These courses have helped to create a pool of highly skilled digital talent in our organisation; as of the end of 2022, more than 100 associates have already completed the programme.

### INNOVATIVE ENGAGEMENT

Our offline flipped classes encourage participants to share their understanding of the course and interact with each other. This has proved highly effective in fostering collaboration and knowledge-sharing among our people.

## ALL-ROUND TRAINING

The BMW Group China is dedicated to providing customised and comprehensive training to employees at all levels and positions.

Our leadership training is thoughtfully crafted to equip our management team with the required knowledge and skills, while ensuring they understand sustainability as a cornerstone of our corporate strategy. To further power on organisational development, we have recently launched Leadership Excellence initiative enhances performance across our organisation. It is based on a refined understanding of leadership that is being incorporated into our human resources development and instruments.

Technical and nontechnical training support our business growth. High Voltage Qualification Training sessions – numbering more than 50 – equip our people with the knowledge to safely handle electrical parts and work with electric vehicles. To prepare our associates for the launch of our battery plant, we continue to develop training based on new requirements, standards and equipment. Systematic qualification programme was tailor made for business and digital associates to equip them for the changing environment. BMW Agile alliance was launched in 2022 for digital talents to encourage best practice sharing, and over 200 associates join the learning community.

In 2022, training helped bolster personal growth through “learning by teaching” and sharing best practice across business functions. A total of 53 technical and 29 non-technical part-time internal trainers have qualified to deliver 14 production technology topics in corporate training since 2020. These trainers successfully completed more than 1,900 person-days of training in 2022, and received a satisfaction rating of 99.4%.



## NURTURING YOUNG TALENTS

To nurture the next generation of talent, we have strengthened and expanded our partnerships with esteemed universities, including Dalian University of Technology, Tongji University, Northeastern University, Shenyang University of Technology, etc. Through these partnerships, we offer internship opportunities for PhD students, particularly in joint initiatives centred on BMW’s cutting-edge research.

Since 2014, 49 PhD trainees have participated. They conducted research into topics including wastewater treatment, automated driving and energy efficiency. Currently, 22 PhD trainees are actively engaged, furthering our mission to drive innovation and sustainability in the automotive industry. Meanwhile, 28 master graduates have joined in BMW Brilliance as senior specialist after 3-6 months meaningful internship.

## DUAL EDUCATION SYSTEM

Adopted from Germany and modified to suit the Chinese context, our dual education system has yielded outstanding results, with an increased number of quality trainees. To provide the best learning experience, we have established four VR welding train stations and four 3D printing training stations.

In 2022, we welcomed 65 trainees, of whom 25 earned first place in the BMW Group standardised exam.

## FORECAST

The BMW Group China will continue to uphold its core values, and upgrade and innovate to attract outstanding talent. We will promote digitalisation and further empower the system, while ensuring the landing of diverse training.

At our non-manufacturing sites, we will focus on promoting specialised digital technology training for new joiners and current employees, while fostering a culture of digital transformation and synergy across business teams.

For potential talents, we will work to provide more opportunities and resources, including Beyond programme for GenZ and Acceleration programme for overseas returnees and future leaders. To support this initiative, we are expanding our training facilities and increasing the training of local interns. Besides, future proofed training programme will be launched for all associates to help them better cope with future work.

By inspiring the innovative vitality of our people, we aim to align their sustainable development with that of our company, and build a digital vanguard ecosystem that drives BMW’s innovation in China.

**99.4%**

Training attendee satisfaction rate.

**1.01**

Average days of further training per employee.

## 5.2 DIVERSITY, EQUITY AND INCLUSION



➤ SDG 5 and 10

At BMW Group China, we are driven by diversity that we recognise and value each individual, regardless of their cultural background, age and experience, gender, physical and mental abilities, sexual orientation and identity. We believe that diversity strengthens our company: it helps us attract and retain the best talent, to meet our customers' expectations, and to foster a culture that is free of prejudice and bias. We strongly advocate for inclusion and equal opportunities, actively creating a diverse and inclusive working environment, where everyone has the opportunity to thrive and contribute to our shared success.

**27,982**

Total workforce at 2022 year-end.

**37.1%**

Female employees in management positions.

**1,528**

Of our people participated in a diversity quiz.



## OUR COMMITMENTS

We are driven by diversity. Diversity as we understand it, is the engine to our collective success. By embracing and celebrating diversity, we aspire to enhance our competitiveness, innovative nature and work environment to ensure that every associate has an equal opportunity for success. In line with the BMW Group, typical dimensions of diversity include cultural background, age/experience, gender, physical and mental abilities, and sexual orientation and identity.

We believe that diverse ingredients make the difference and therefore consistently work on a corporate culture that values every associate's diverse characteristics, which in turn should manifest itself in developing a corporate culture of Diversity, Equity & Inclusion (DEI).

### CREATING AN INCLUSIVE WORK ENVIRONMENT

We have always been concerned with diverse groups. We believe in the power of multiculturalism and aim to create an inclusive and transparent environment, to help diverse groups obtain equal opportunities for development.

#### BMW Group China employee according to age group in 2022 (in %)

<30 years old	28.9%
30-50 years old	70.0%
>50 years old	1.1%

**14.5%**

Female employees in total workforce.

**37.1%**

Female employees in management positions.

To promote gender equality via protecting women's rights and interests, we have updated our Associate Handbook. This strengthens the sexual harassment prevention and labour protection compliance system. Our Special Collective Contract for the Protection of Female Associates' Rights and Interests includes provisions on labour protection, maternity leave, childcare leave and the establishment of lactation rooms.

To embrace the hiring of differently abled people, we focus on creating a welcoming and inclusive workplace. This has involved addressing issues such as attitude, office accessibility and assimilation, to ensure that differently abled people can seamlessly join our teams and contribute their unique skills and perspectives.

## PROMOTING DIVERSITY, EQUITY AND INCLUSION

We have carried out multiple activities to promote DEI, which deepened employees' understanding of the topic while fostering an open atmosphere within the company. In 2022, BMW Group China celebrated Global Diversity Week, offering visual and experiential activities that provided employees with valuable insights into the diversity journey.



### OFFLINE ENGAGEMENT

Our Lunch Roulette initiative provides a distinctive platform and unparalleled opportunity for associates to actively engage with others and experience diversity first-hand. By randomly pairing with a participant from another department, employees can share different experiences and thoughts about diversity in a relaxing atmosphere.

1. Memories in diversity week.

“

“Diversity makes life and work more colourful. I have experienced the way of thinking about life and work around the world in the company. Embrace the world in Shenyang!”

“Leadership is not gender specific. The benefits of diversity and gender parity in leadership and decision-making should not be underestimated. The best gender equality intervention is to focus on equality of talent and potential.”



“This is my department located in Beijing. Members from different countries include China, Germany, France, and Austria. We speak Chinese, English, German, French Korean. It is a big team and powered by diversity culture and spirit.”

“The BMW Brilliance blends well with Chinese and German elements. Our canteen is a good example, you can enjoy both Chinese dumpling and western food here.”



### ONLINE TRAINING

We have arranged a series of insightful online speaker sessions that provided valuable industry knowledge and fresh perspectives. Topics included creating a diverse, equal and inclusive working environment, cross-generational communication and what we can learn from global successful female leaders. Through our internal communication platforms, we also encouraged the sharing of diversity stories between employees. Meanwhile, 1,528 of our people participated in a diversity quiz. Over 93% answered the questions correctly, demonstrating a high level of awareness in our team.

We actively promote the DEI cultural initiative. This has earned the BMW Brilliance the honour of being recognised as a National Model

Harmonious Labour Relations Enterprise by the Ministry of Human Resources and Social Security in 2022.

### FORECAST

We recognise the importance of fostering an inclusive environment and reducing unconscious bias. In 2023, we plan to evolve the concept of diversity into Diversity Days, which will maintain our associates' attention on DEI topics throughout the year. These days will take place – online and offline – on International Women's Day, World Cultural Diversity Day and the UN Day of Tolerance. Our aim is to promote DEI through ongoing engagement and education, and we look forward to continuing our efforts in this regard.

1,528

Of our people participated in a diversity quiz.

5.3

# BENEFITS AND WELL-BEING



SDG 3 and 8

**0.08**

Accident frequency rate  
(per one million hours worked).

**27,664**

Employees enjoyed Flexible Benefits Programme.

**4,163**

Employees who enjoyed child care or parent care leave.

**1,931**

Of our people benefited from the Associate Charity Fund in Shenyang.

**955**

Associates successfully applied for public rental housing project in Shenyang.

As a large company with more than 27,000 staff, we prioritise the health, safety and happiness of every employee. We enforce the strictest health and safety standards while extending our care with diverse benefits and activities. Among the latter, sustainability is always an important theme, as we want our people to experience the joy of contributing to society while improving their own well-being.

## EMPLOYEE HEALTH AND SAFETY

At BMW Group China, we believe that providing a safe environment for employees is a fundamental responsibility. By providing secure and healthy working conditions, and continually addressing risks, we pledge to safeguard our people.

### ROBUST OHS MANAGEMENT

The BMW Group China complies with all applicable Chinese laws and regulations, as well as BMW Group's health and safety policy. Beyond compliance, our occupational health and safety (OHS) management system satisfies international standards and initiatives, such as the United Nations Global Compact, the ISO 45001:2018 standard and the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work.

In 2022, our manufacturing sites – including the new Plant Lydia – retained ISO 45001:2018 accreditation, meeting all OHS standards. We also retained Work Safety Standardisation Level 2 Certification from Liaoning Province's Emergency Management Department. Our 2022 accident frequency was just 0.08 per million hours worked.

The BMW Group China's senior management assumes full responsibility and accountability for preventing work-related accidents and maintaining safe and healthy workplaces for all employees at manufacturing sites. The management team has established OHS policies and objectives that correspond with our strategic goals and ensure both effective functioning and continual improvement.

Our E-Safety platform uses digitalisation to improve and optimise management. Modules provide guidance on safety inspections, special equipment management and the OHS liability letter

e-signature function.

In addition to full-fledged OHS management system, we are improving employees' safety skills and knowledge with online OHS training. We offered safety training to employees on specific matters such as LOTO (Lockout-Tagout), chemicals, work in confined spaces, PPE (Personal Protective Equipment) and Hot Work in addition to mandated training sessions.

### OHS HAZARDS AND RISK MANAGEMENT

The BMW Group China is making solid progress in implementing a dual-prevention mechanism for safety risk classification and the investigation and governance of hidden dangers. This mechanism involves classifying and categorising identified risks, managing risks of different categories through classification, and controlling risks in plants, from organisational, institutional, technical and emergency perspectives.

The Today for Tomorrow > NEXT project – piloted at the assembly shop of Plant Tiexi and launched in 2021 – continued to make significant progress in 2022. This initiative is concerned with ergonomic conditions, behavioural patterns and job rotations, and seeks to prevent employees from developing musculoskeletal illnesses. Our health department created workplace-tailored exercises based on the results of our evaluation of the Safety and Ergonomics Risk Assessment (SERA), plus on-site ergonomic behaviour observations of 454 work spaces in Plant Tiexi and 351 work spaces in logistics in Plant Dadong. Staff are taught exercises



that can alleviate physical stress and that they can do in their spare time.

Optimised working postures were taught to operators to mitigate possible health hazards. This training was attended by 4,161 employees, who learned about ergonomic behaviour and exercises that safeguard their well-being. We addressed working conditions at 18 workplaces and implemented job rotations in 26 locations.



1. Employee safety activity.



## HEALTH INITIATIVES

Based on the results of the annual health check in 2021, we optimised and enhanced our Health Management 2025 programme, which serves as a template for guiding healthier employee behaviours. These includes programmes such as Mental Care, Stop Smoking, Burn What You Eat, Hearing Protection, Healthy Sleep as well as Flu Vaccination.



### MENTAL CARE

We place a high value on employees' mental health. For our 2022 Mental Care programme, 595 associates participated in consultations, 509 participated in training, 240 completed self-evaluation surveys, and 127 participants listened to recordings that guided meditation, relaxation, career-planning and "brain-charge" activities to relieve stress. During the pandemic, we organised online training for our Chinese and foreign associates to support their mental health. A total of 3,755 associates took part in online and offline lectures, with an average satisfaction score of 4.85 out of 5. At our Shenyang plants, we opened seven mental care spaces and trained internal volunteers to lead associates in sand play games, to relax and develop self-awareness.



### STOP SMOKING

For Stop Smoking initiative, in 2022 we have majority of the employees who have a habit of smoking if they are willing to quit smoking during the annual health check, and received 2,812 intentions to quit. We provided ways to help them cut back on the amount they smoke and eventually stop smoking, and eventually there were 17 people succeeded.



### BURN WHAT YOU EAT

468 people undertook our Burn What You Eat programme. 107 significantly reduced their weight and were recognised by the Trade Union.



### HEARING PROTECTION

We trained 357 employees as part of a hearing protection programme, and offered help transferring them if there were possible excessive noise concerns.



### HEALTHY SLEEP

17,074 staff used the Pittsburgh Sleep Quality Index (PSQI) evaluation as part of a Healthy Sleep programme during our 2022 annual health check, to detect issues with sleep patterns. For those who wanted to improve poor sleep quality, we conducted analysis using an apnoea monitor and sent them to specialists or mental health consultants, as appropriate. To continue to help our employees improve their sleep, in 2023, we will conduct on-site training to improve sleep quality.



### HEALTH CHECK

We continued to provide annual health checks in 2022, attended by 94.4% of employees in Shenyang and 63.9% in Beijing.



### FLU VACCINATION

2,120 employees in Shenyang and Beijing were immunised.

1. BMW mascot encourages employee to adopt workout routine.

## COMMERCIAL INSURANCE COVERAGE

(BMW Group China)

> **27,000**

Employees

> **25,000**

Family members (include spouse, children and parents)

## WELL-ROUNDED EMPLOYEE WELFARE

Employees are BMW Group China's most valuable asset. By offering well-rounded and diverse benefits, we aim to support them in achieving growth and success in their personal and professional lives, while contributing to the overall success of our business.

### COMPETITIVE BENEFITS

At BMW Group China, we are fully dedicated to supporting our employees during their tenure with us and beyond. By prioritising their health, contentment and professional advancement, we cultivate a more sustainable business model and maintain our drive for innovation and success.

Our compensation and benefits policy is designed to attract and retain the best talent, and inspire our people to achieve their full potential. A competitive salary and benefits package is reviewed regularly, and additional leave options such as the newly added child care leave and parent care leave to encourage a work-life balance.

We also offered our employees a range of supplementary insurance options, enabling them to select and personalise health and medical insurance plans for themselves and their families. During the pandemic, we prioritised the health and safety of our people by offering flexible working arrangements.

To help our employees grow and develop professionally, we provide career development opportunities through job rotation and an online training platform. And we provide benefits for retired employees that include preferential channels and discounts for personal insurance, annual health checks, and car purchase assistance.

### WELL-ROUNDED WELFARE

Our Associate Charity Fund in Shenyang provides targeted and effective support. 1,931 of our people benefited from the Fund, including 579 with financial difficulties. Gifts and benefits were distributed for 700 new-born babies and 500 newly marrieds. We also extended care to 21 associates who suffered major illnesses and to 74 who had family members pass away. We visited 46 associates in hospital, cared for two whose property suffered a fire, rewarded one for righteousness and bravery, and celebrated eight colleagues' retirements.

In 2022, the Dadong Associate Home was inaugurated at Plant Dadong, providing amenities and services that enhance our staff's quality of life and work. This innovative facility includes an IT Genius Bar, Reimbursement Service Centre, Mental Care Space, Platform Production, Communication Area, Recreational Area, and Mini Cinema. Since its opening, nearly 10,000 visitors have enjoyed the convenience and benefits of this innovative space.

Our Digital Union platform achieved significant

milestones in providing online self-service for our people in 2022. This included streamlined processes for joining the union, e-signatures for welfare benefits, access to an e-library, group purchasing, and applications for new-born and wedding gifts. The platform also expanded to include an events calendar and public rental housing applications. These efforts resulted in an impressive 404,792 clicks on Digital Union over the course of the year.

We are committed to addressing the housing needs of our employees. Our public rental housing project in Shenyang has been highly praised by our associates since its launch. 955 associates successfully applied for this programme in 2022, bringing the total beneficiaries to 3,623.

We also promote a healthy work-life balance by organising cultural and sports events, which attracted more than 13,000 participants in 2022.

## EMPLOYEE ENGAGEMENT

At BMW Group China, we prioritise trust, transparency and openness in our human resource policymaking and decision-making process. We value the opinions of our employees as an important inspiration for our operations and management. To facilitate direct and convenient communication, we have platforms and channels for feedback and engagement.

### CREATING DIVERSE COMMUNICATION CHANNELS

Communication channels facilitate an attentive and receptive approach to our employees' invaluable opinions and suggestions. Through our WeChat official accounts, internal webpage, JoyChat, Digital Union app and bimonthly U-journal newsletter, we share best practices, festival greetings, union activity notices, and rights protection and care information with our associates and their families. By utilising digital tools, we stay connected with our associates, listen to their voices, and understand their needs. And our Union regularly holds "catch up" sessions with company management to continuously improve working conditions and support the company's development. We respect our people's requirements and strive to help them reach their full potential.



### CONDUCTING EMPLOYEE SURVEY

Regular employee surveys track engagement and identify areas for improvement. In 2022, we conducted an employee experience pilot survey to measure the satisfaction rate throughout the employees' journey (from job application to include but not limited to departure). The survey yielded positive results of 78%, from the participants' feedbacks received from the pilot department. Through these surveys, we collect feedback to understand unmet expectations, to identify opportunities for greater engagement, and to improve our overall human resources management.

### ENHANCING THE CONNECTION THROUGH PRODUCT & BRAND EXPERIENCE

It is important to build up and enhance connections between our employees and our products. We offer them various product and brand experience opportunities under the concept of "My Family x i Family" to foster their understanding to the BMW brand and their emotional connection to our products. The impact and happiness have also been extended to our associates' family members as they are also invited to these exciting activities.

## SUSTAINABILITY ACTIVITIES

The BMW Group China is dedicated to embedding social responsibility into the daily lives of all employees. To achieve this, we have introduced the concept of Associate Social Responsibility (ASR) since years ago and integrated social responsibility into various employee activities, empowering our people to become partners in our sustainable development initiatives.



Social Week is a BMW Group-wide initiative that encourages employees to engage in social responsibility activities. In 2022, the BMW Group China deepened and localised the initiative, launching Social Drive activities. One of these activities was to encourage associates to pay attention to the needs of the elderly. Our people contributed 283 solutions to 48 problems that elderly people face in their daily lives, and created an easy-to-understand guidebook with 19 illustrated tips.

The BMW Group China hosted Speaker Sessions to share the concept of Environmental, Social and Governance (ESG) and its ongoing impacts. These sessions – featuring external experts who provided professional knowledge on self-initiated social responsibility, and shared information on challenges that China faces – earned 211



### ONE RECEIPT - Social Drive

At our Shenyang manufacturing base, we launched the **ONE RECEIPT – Social Drive On-Site Campaign** to raise awareness of ASR and to promote the Social Drive by encouraging associates to reduce carbon footprint, usage of plastic bags and disposable goods. This activity prompted 1,723 participants to bring receipts or e-tickets as evidence of their low-carbon lifestyle. All the materials used for the campaign were made from recycled cardboard, demonstrating sustainability in action.

registrations and helped to raise awareness.

We encouraged our associates to spread the sustainability mindset to their families, especially to children. On Children's Day, our associates and their kids created 1,550 environment-themed cartoons and 1,216 handcrafted works using recycled materials. They also produced 240 T-shirts from natural materials. This entertaining approach helped us promote recycling and reusing to our people and their families.



### Social Drive Conference Kick-off

This is a kick-off conference with internal and external experts, associates together, via both online and on-site channels, to share concepts and actions, get deeper insights on associate self-initiated social responsibility, and tell warm-hearted stories which have done by our employees. Additionally, 70 associates share their own Social Responsibility experience and stories to encourage and inspire other associates to start their Social Responsibility journey.

### FORECAST

In 2023, we will continue to carry out employee activities related to sustainable development, focusing on social and circular, and continuously cultivating associates' awareness of sustainability mindset and lifestyles. We believe that by working together, small behaviours will have a meaningful impact on our planet.

1. An easy-to-understand guidebook.  
2. Tips for elderly people.  
3. ONE RECEIPT-Social Drive on-site campaign at our Shenyang manufacturing base.  
4. BMW Social Drive kick-off conference.



5.4

# CORPORATE CITIZENSHIP



↗ SDG 4, 10, 11, 14, 15 and 17

In 2022, faced with the impact of the pandemic, we believe CSR plays an ever more crucial role in bringing together stakeholders, building stronger bonds, and working collectively and innovatively to support the revitalisation and long-term growth of our society. We became more resilient and flexible, enhancing our contribution to addressing social issues and the creation of value through innovative approaches. Through the online communications on education of popular science and Chinese traditional culture, the annual number of beneficiaries of BMW CSR activities have reached a new height of 31,885,474, an increase of 178% compared to 2021. Our commitment remains unswerving to go beyond mere profit generation; we strive to create shared values for all.



**31,885,474**

Beneficiaries of BMW CSR activities.

**57,779,898**

Accumulative beneficiaries of BMW CSR activities.

**1,960**

Total hours of volunteer service.

**24,210,755** RMB

Expenditure on social commitment activities.

## OUR CSR APPROACH AND FLAGSHIP PROGRAMMES

At BMW Group China, we are guided by the principle of “At Home in China” to develop and curate our CSR programmes and activities. This means aligning our actions with emerging social agendas and national priorities. In 2022, the Chinese government emphasised the need for high-quality development and identified technology, talents, and innovation as the lynchpins to achieve long-term and sustainable growth of China. This has signalled a new norm of development which underscored the importance of CSR as a catalyst for delivering quality development and enabling businesses to address societal challenges.

In response to the rapidly transforming social trends, we subscribe to the concept of social innovation and collaboration to create meaningful and long-lasting impacts to high-quality development. An excellent example of this is the “Government-industry-academy-research” collaboration model, which we have implemented across our CSR strategic pillars – Culture Protection, Environmental and Ecological Conservation, and Social Development. By engaging multiple stakeholders throughout the process of issue analysis, solution building, programme implementation, as well as impact evaluation, we are able to leverage a wider pool of social resources and maximise our positive social footprints with the participation of more stakeholders who share a common vision with us.

### BMW BEAUTIFUL HOMELAND INITIATIVE

The UN Secretary-General António Guterres pointed out in 2020, human is facing a triple environmental emergency – biodiversity loss, climate disruption and escalating pollution. We need to rethink the relationship between our business and society, and follow the 3P-principle of “people”, “planet” and “prosperity” for a sustainable development.

As an essential measurement of species and ecosystem diversity, a healthy biodiversity helps to ensure a comfortable habitat for all animals on earth. In China, the government has elevated biodiversity conservation to a national strategy and established a biodiversity conservation mechanism led by the government and participated by enterprises and citizens.

As a fundamental element of biodiversity conservation, changing the mindset and behaviour of the public, enterprises and social organisations is of great essence. Hence, the “BMW Beautiful Homeland Initiative” (BBHI) takes public education on biodiversity as the core objective and means. Since the programme’s launch in 2021, BBHI has been committed to contributing to China’s biodiversity conservation and ecological civilisation, which is now a strong response to the call of the 20th CPC National Congress for “maintaining harmony between humanity and nature in the path towards modernisation” and “pushing forward Beautiful China Initiative”.



#### A Natural Bird Hide

Designed to blend into surrounding natural environment in a stylish manner, bringing people closer to nature while providing an ideal medium for the engagement of biodiversity popularisation.



#### Souvenirs of Native Species

Introduced with remarkable design to promote the publicity of Liaohekou's conservation and raise the public awareness of biodiversity protection.



#### Natural Education Courses

First-ever biodiversity-themed courses were developed and launched through the partnership with the China Green Foundation, delivering a wide coverage of theme promotions.

### Innovative Approach on Biodiversity Education

Education is an essential part of action for the sustainable and equitable use of biodiversity and its conservation. In order to promote local and indigenous knowledge of biodiversity, we have embraced a range of innovative approaches to promote biodiversity education, with the aim of boosting public awareness and laying the groundwork for transformative shifts in behaviour.

In August, we already provided three patrol cars and donated two animal rescue vehicles to Liaohekou to facilitate the reserve’s management and contribute to a more accurate understanding of the local biodiversity. Based on the three pillars of improving management ability, raising

awareness of biodiversity conservation, and promoting publicity and education, we strive to engage more stakeholders to jointly to make a positive impact to the world and bring a brighter future for generations to come.

On August 5th, BBHI “Green Summer Camp” live streaming was successfully carried out at Liaoning Liaohekou National Nature Reserve, creating a real buzz online.

The live streaming was conducted on China Newsweek Weibo and BMW Group WeChat Channels synchronously, and total views on China Newsweek Weibo reached 3.4 mio. The public are crazily interested in nature education.

> **1 Million**

Views of Children Traffic Safety Education online live streaming.

**392**

Children Traffic Safety Education activities were conducted by dealers nationwide in 2022.

> **10,000**

Children were benefited from the traffic safety experience courses.

## BMW CHILDREN'S TRAFFIC SAFETY EDUCATION

In 2022, BMW reaffirms its responsibility towards promoting traffic safety by continuing the BMW Children's Traffic Safety Education (CTSE) programme, which aims to raise public awareness and enhance traffic safety capacity in a creative way.

### Travel with Propriety

Since 2020, CTSE programme has integrated the Chinese traditional culture of "propriety" into the traffic scenarios, aiming to spread the idea of "Travel with Propriety" through innovative approaches. Under the guidance of the Traffic Management Bureau of the Ministry of Public Security, we explored the connections between traditional cultures and the modern contexts by experimenting with accessible media and communication channels to realise the true meaning of "Travel with Propriety".

Recognising the scarcity of traffic safety education and social resources, the CTSE programme left its trails in western China. We co-developed the "Travel with Propriety" traffic safety propriety package with the China Education Development Foundation and the China Children's Press & Publication Group to provide sufficient educational resources. In addition, we hosted CTSE in the West Public Welfare Workshop, attracting 74 representatives from the media, government departments, social partners and BMW warm heart customer. Moreover, the 2022 CTSE training workshop in Qinghai Province engaged 95 participants from different groups, including volunteers, media, government departments, social partners, etc.

1. Volunteers are trained with themed knowledge.
2. Children Traffic Safety Education instructor introduced the "Travel with Propriety" traffic safety propriety package to volunteers.
3. "Travel with Propriety" Children's Traffic Safety Propriety Package.



### Call for More Engagement

The BMW Group China continues to engage with the public via social media platforms. In 2022, online live streaming received more than 1 million views, and a total of 392 CSR activities related to the CTSE were conducted by dealerships nationwide.

The CTSE programme also cooperates with dealers, car owners, and partners to promote the safety project and maximise the influence of traffic safety education. With the support of 100 exemplary volunteer teams from the volunteering service project of the Youth Volunteer Action Tutorial Center of the Communist Youth League of China Central Committee, over 10,000 children from the local community were benefited from the traffic safety experience courses during the summer vacation.



## BMW CHINA CULTURE JOURNEY

According to the United Nations Educational, Scientific and Cultural Organisation (UNESCO), the Social Development Goals (SDGs) are grouped around the economic, social, and environmental objectives as the three pillars of sustainable development, with culture and creativity contributing to each of these pillars transversally. Placing culture at the heart of development policies is the only way to ensure a human-centred, inclusive and equitable development. In line with this concept, the BMW Group China is committed to cultural conservation by promoting the harmonious development and integration of culture, art and science. Therefore, BMW China Culture Journey was introduced since 2007 to safeguard intangible cultural assets while empowering the social innovation deliverables.

In 2016, BMW co-founded the Tsinghua BMW Innovation Centre for Intangible Cultural Heritage Safeguarding with Tsinghua University's Academy of Arts and Design. Through innovative thinking, BMW enables cultural heritage inheritors to design and develop cultural creations. Over the past six years, seven social innovation deliverables exhibitions and more than 20 seminars have been organised together with Tsinghua University's Academy of Arts and Design, benefiting nearly 500 intangible cultural heritage inheritors from all over

the country. At the innovation centre, inheritors from Sichuan, Hunan, Qinghai Yushu, Hainan, Liaoning, Hubei, and Yunnan, receive tailored training and "one-on-one" innovation empowerment.

In 2022, BMW China Culture Journey officially launched Beautiful China: Collection of Creative Cases of Intangible Cultural Heritage, which showcases the social innovation deliverables produced by the faculty and students from the Innovation Centre and intangible cultural heritage inheritors. The collection features 29 intangible cultural heritage inheritors and their thinking processes, exploration, and innovative practices, shortening the distance between the tradition and the innovation.

### Comprehensive Social Communication

The BMW Group China also organised culture-related activities, culture salon live streams, and other online media channels which covered over 17 million audiences to expand its influence on preserving tangible heritage. Besides, we initiated the Weibo hashtag topic #Protect intangible cultural heritage through Culture Journey#, reaching over 140,000,000 page views and 27,000 engagements.



### BMW China Culture Journey Intangible Cultural Heritage Protection Innovation Deliverables Exhibition

In February 2023, the BMW China Culture Journey Intangible Cultural Heritage Protection Innovation Deliverables Exhibition was launched, which demonstrated BMW's continuous efforts in protecting intangible cultural heritage and celebrated the 20th anniversary of UNESCO's "Convention for the Safeguarding of Intangible Cultural Heritage" with practical actions. The exhibition also reflected BMW's sustainability philosophy of "circular", with a total of 75% exhibition materials made out of recyclable materials, and 30% sourced from recyclable paper materials.

At the exhibition, many remarkable intangible cultural artworks were displayed, such as the Bai Tie-dyeing technique that draws the materials from nature, as well as the first ever "Scented Intangible Cultural Heritage" created by olfactory design installations, providing an immersive experience for visitors to fully appreciate the beauty of the harmonious coexistence among mankind, culture and nature.

1. Launch of the Beautiful China: Collection of Creative Cases of Intangible Cultural Heritage.  
2. BMW China Culture Journey Intangible Cultural Heritage Protection Innovation Deliverables Exhibition.  
3. BMW China Culture Journey Intangible Cultural Heritage Protection Innovation Deliverables Exhibition.  
4. Intangible Cultural Heritage nurtured under the Tsinghua BMW Innovation Centre for Intangible Cultural Heritage Safeguarding - Heqing silveries.

## BMW JOY HOME

BMW JOY Home has been constantly addressing the social needs of rural revitalisation and rural education with stakeholders and caring members through an innovative enabling approach. Since initiation in 2011, a total of 114 BMW JOY Home schools have been established in 29 provinces, benefiting over 150,000 left-behind and migrant children and involving over 10,000 BMW stakeholders in volunteer activities.

Upon a great victory scored in China's fight against poverty, rural revitalisation has become an important topic in China's new development stage. In 2021, BMW JOY Home pooled its strength and jointly launched the future-oriented "Self-Strengthening Movement" in partnership with the China Education Development Foundation in response to the call of "Improving School Physical Education" raised by the Ministry of Education.



1

## The Self-strengthening Movement

The Movement aims to provide diverse physical education programmes in the schools that located in China's last 52 counties in where achieved poverty alleviation in 2020. In 2022, we arranged 84 physical education teachers from 19 rural schools in Guangxi, Guizhou, and Yunnan with online training to enhance their physical education curriculum.

As one of the highlights for the movement, the "Amazing Kids" BMW JOY Home Summer Camp for 2022 was held at the Siyuan Experimental School in Xide County, Liangshan Yi Autonomous Prefecture in Sichuan Province. The Summer Camp included events involving sports, art, music lessons, starlight parties and a highlight activity of "My Hometown" gouache painted altogether by 100 children and 23 teachers from 10 BMW JOY Home schools. By rolling out the Summer Camp this year, BMW JOY Home and China Education Development Foundation jointly called attention to social concerns over the physical and aesthetic education in rural schools, in the hope of channelling advantageous education resources in eastern areas into the mid-and-west to promote rural education.



2

## OUR CSR AWARDS AND HONOURS IN 2022

-  **2022 Responsible Corporate**  
*China Newsweek*
-  **Annual Public Welfare Innovation Award**  
*8th Top Auto Brand Festival*
-  **CSR Annual Case**  
*People.cn*
-  **China Automotive CSR Golden Key Award**  
*Auto-First*
-  **China Automotive CSR Golden Key Award**  
*Auto-First*
-  **CSR Gold Award**  
*2022 Golden Flag Award*
-  **Social Responsibility of the Year**  
*QCTT Lanling Awards*
-  BMW China Automotive Trading Ltd. / BMW Brilliance Automotive Ltd.
-  BMW Beautiful Homeland Initiative
-  BMW Children Traffic Safety Education
-  BMW China Cultural Journey

1. BMW JOY Home 2022 Summer Camp.  
2. Volunteer from Tsinghua University's Academy of Arts and Design teaching creative art lessons.

## EMPLOYEE VOLUNTEERING

As part of our "At Home in China" philosophy, the BMW Group China prioritises to serving our customers and communities and adding value to the automotive industry in China. In 2022, the uncertainty of external environment did not dampen the enthusiasm of BMW associates to take social responsibility. Sustainability has become a major topic and each function and every associate of BMW has contributed their effort to participate the volunteer activities, with a total of 916 participants in seven CSR activities and contributed 1,960 hours to the local community this year.

**916**

Total participants of CSR activities in 2022.

**1,960**

Total hours of volunteer service in 2022.

### VOLUNTEERING ACTIVITIES

Our BMW Corporate Volunteer Association represents our corporate values by encouraging associates to actively participate in volunteer activities. We are proud of our BMW associate volunteers, who have always worked together to contribute to the sustainable development of the community. In 2022, the volunteer programmes were expanded with more flexibility to provide deeper engagement opportunities for associates, ranging from environmental protection efforts to improving children's awareness of traffic safety and supporting migrant and left-behind children with a focus on their physical and mental well-being.

### SOCIAL DONATIONS

In the event of crisis, the BMW Group China responds to the urgent matters and gives back to the society in meaningful ways. In 2022, BMW China and BMW Brilliance jointly donated RMB 2 million to support the re-establishment work results from the earthquake in Luding County, Garze Tibetan Autonomous Prefecture in Sichuan Province through the China Education Development Foundation-BMW Warm Heart Fund, demonstrating our commitment to contributing to society beyond profit.

#### Deeper and more flexible engagement forms

In 2022, as an integral part of corporate social responsibility, BMW corporate volunteer activities were featured by "deeper engagement and more flexible forms" to encourage more associates to participate online and offline.



#### Online Engagement

The first-ever online course on children's traffic safety, which virtually brought together BMW Children's Traffic Safety Ambassador and children from remote areas to educate them on traffic safety.



#### Forest Management

Encouraged volunteers to cultivate trees and build ecological trails, bringing associates closer to nature and enhancing their cohesion and recognition of corporate social responsibility values.



#### Volunteering with Chinese Traditional Culture Museum

The first volunteer activity partnered with the Chinese Traditional Culture Museum for associates to learn more about intangible cultural heritage.



#### "Voice for Kids"

"Voice for Kids" programme, which successfully invited associates and their families to use voice recording to send encouraging messages to left-behind children.



#### 2 Plogging Activities

Attracted hundreds of associates and children to participate. Under the guidance of professional environmentalists, associates and their children joined in the trash sorting quiz and picking up trash while jogging.

## LOCAL COMMUNITY ENGAGEMENT

Establishing deep connections with stakeholders, and focusing on local community development, have always been integral to our development. Adhering to the "At Home in China" philosophy, the BMW Group China has launched cultural projects to achieve mutual benefits and common development in Shenyang—the birthplace of BMW in China.

### SPREAD THE CHARM, APPRECIATE THE JOY

To create an enriched sense of community for our local area, we have published the Enjoy Shenyang Newsletter since 2020. This initiative has inspired our people to develop a deeper understanding and appreciation for the city, while promoting cross-cultural exchange and prosperity. We have also produced three episodes on expats' genuine moments in Shenyang, to demonstrate the diverse aspects of their lifestyles and the city's exciting combination of history and culture.



#### Enjoy Shenyang Oktoberfest

Oktoberfest was a major Enjoy Shenyang intercultural event in 2022. Diverse indoor and outdoor celebrations, over two days, gave our people a deeper understanding of this city. Talented singers, dancers and musicians from BMW Group China showcased a rich diversity of music and culture, giving our expats a unique and memorable experience of local culture.

1



2

In 2022, we hosted diverse and high-quality Enjoy Shenyang events and activities, to enrich the experience of the expat community in Shenyang and foster a more inclusive culture.

The collaboration between BMW Brilliance and the HuZ-German School in Shenyang has been instrumental in promoting Sino-German cultural and educational exchange. Since its establishment in 2018, with special support from BMW Group China, the school has experienced steady growth, serving now more than 70 students from primary school to high school.

The school follows the German education system, with transcripts recognised by German schools. It offers qualifications in different collaboration formats and preparation phases.

The school is expected to move into new premises designed according to international standards. This effort by BMW Group China will continue to support Shenyang's reputation as a diverse and international city.

### ENHANCING COMMUNICATION WITH LOCAL STAKEHOLDERS

The BMW Group China has always been dedicated to fostering a strong relationship with the local

community, integrating corporate culture with local culture, and seeking opportunities to support the advancement of local electrification.

We actively search for opportunities to advance local culture and arts. In 2022, we have celebrated a cooperation anniversary with the Lu Xun Academy of Fine Arts in Shenyang for the 11th year.

With our strong R&D and innovative technologies, we promote the local electrification process in Shenyang, demonstrating our commitment to an electric, digital and circular future of mobility. In 2022, at the Second China (Shenyang) Intelligent Connected Vehicle International Conference, we shared our progress with local partners on electrification by showcasing our global research and development for BMW Intelligent Connected Vehicles and the new, pure electric BMW i3.

### FORECAST

Social innovation and collaboration are our core strategies for high-quality development. These efforts will be ongoing. We are committed to sustainable development, maximising our effectiveness, proactively identifying and addressing the needs of our stakeholders, meeting real social demands and aligning with the 20th CPC National Congress Strategy. Most importantly, we aim to integrate our business goals with the government's agenda and leverage new policies and initiatives to drive growth and development. For example, BMW China Culture Journey looks into the future and will integrate the circular economy into intangible cultural heritage protection, effectively promoting sustainable development through culture.

1. Shenyang Oktoberfest event.  
2. "Relaxing with Shenyang Aroma" activity.

CHAPTER 6

# OTHER INFORMATION

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## SUSTAINABILITY DATA SUMMARY

### BUSINESS ACTIVITIES

	BMW BRILLIANCE						BMW GROUP CHINA <sup>1</sup>
	2018	2019	2020	2021	2022	% Change	2022
Revenues from operations (in RMB million)	141,918	172,692	189,006	214,787	-	-	334,312 <sup>2</sup>
Tax (in RMB billion)	31	35	38	43	49	14.0	80
Vehicles produced (in unit)	491,888	536,537	602,936	700,787	674,663	-3.7	674,663
Retail vehicle deliveries <sup>3</sup> (in unit)	-	-	-	-	-	-	791,985
Engines produced (number)	491,488	478,588	598,316	656,956	668,336	1.7	668,336
Authorised dealer outlets nationwide (number)	625	647	666	683	707	3.5	893

### PRODUCTS AND MOBILITY SOLUTIONS

	BMW BRILLIANCE						BMW GROUP CHINA <sup>1</sup>
	2018	2019	2020	2021	2022	% Change	2022
Average fleet CO <sub>2</sub> emissions (domestic) (in g/km)	139	137.8	142.1	152.8	144.1	-5.7	144.1
Average fleet CO <sub>2</sub> emissions (imported) <sup>4</sup> (in g/km)	-	-	-	-	-	-	171.6
Corporate average fuel consumption (domestic) (in l/100 km)	5.84	5.79	5.97	6.42	6.08 <sup>5</sup>	-5.3	6.08 <sup>5</sup>
Corporate average fuel consumption (imported) <sup>4</sup> (in l/100 km)	-	-	-	-	-	-	7.24 <sup>5</sup>
Retail New Energy Vehicles deliveries <sup>3</sup> (in unit)	-	-	-	-	-	-	59,118
High-voltage batteries recycled (in pieces)	-	3,262	4,347	6,173	10,153	64.5	10,318
High-voltage batteries recycled (in kg)	-	78,875	98,261	123,111	579,231	370.5	589,384
Spare parts recycled (number)	217,500	124,600	108,070	278,000	275,421	-0.9	275,421
Spare parts recycled (in t)	800	563	669	867	595	-31.4	595
Public charging pillars provided in China (number)	81,585	130,405	306,891	365,713	470,534	28.7	470,534

**Note:**

1. Selected key figures for BMW Group China are audited on the basis of a limited assurance engagement. See LIMITED ASSURANCE REPORT on [p.106](#) for details.
2. Revenues from operations of BMW Group China. Additional information on Revenues from operations of BMW Brilliance is not disclosed for reasons of confidentiality.
3. Include BMW brand and MINI brand vehicles delivered to customers.
4. Newly added indicator since 2022.
5. This figure is publicised on the *Notice on Passenger Car Corporate Average Fuel Consumption and New Energy Vehicle Credits in 2022* by MIIT on April 10th, 2023.

## PRODUCTION AND OPERATION

	BMW BRILLIANCE						BMW GROUP CHINA <sup>1</sup>
	2018	2019	2020	2021	2022	% Change	2022
Total Greenhouse gas emissions (in t)	14,190,033	15,417,955	17,741,047	21,392,395	24,767,228	15.8	31,406,640
Scope 1 Greenhouse gas emissions (in t)	35,733	42,141	43,614	50,937	54,306	6.6	54,306
Natural Gas (in t)	35,733	42,141	43,614	50,937	54,306	6.6	54,306
Scope 2 Greenhouse gas emissions (in t)	281,753	68,602	71,275	71,604	76,121	6.3	76,121
Electricity / heat purchased by BMW Brilliance (in t)	281,753	68,602	71,275	71,604	76,121	6.3	76,121
Scope 3 Greenhouse gas emissions (in t)	13,872,546	15,307,212	17,626,158	21,269,854	24,636,801	15.8	31,276,213
Upstream chain <sup>2</sup> (in t)	3,408,077	3,981,487	4,339,177	5,071,706	5,179,693	2.1	6,410,297
Logistics <sup>3</sup> (in t)	-	173,102	175,113	310,772	519,304	67.1	711,850
Utilisation phase <sup>4</sup> (in t)	10,219,060	11,058,404	12,799,547	15,521,957	18,562,014	19.6	23,693,045
Disposal <sup>2</sup> (in t)	245,409	267,321	300,866	352,059	361,245	2.6	444,234
Business trips <sup>5</sup> (in t)	2,933	8,815	2,105	2,606	2,560	-1.8	4,802
Employees commuting <sup>6</sup> (in t)	-	9,065	9,351	10,754	11,985	11.4	11,985
CO <sub>2</sub> emissions per vehicle produced (in t/vehicle)	0.63	0.20	0.18	0.17	0.19	11.8	0.19
Share of renewable electricity (in %)	43	100	100	100	100	0	100
Total energy consumption (in MWh)	841,518	974,642	1,026,890	1,106,295	1,169,425	5.7	1,189,231
Total fuel consumption from non-renewable resources (in MWh)	196,553	233,127	238,834	295,209	297,727	0.9	297,727
Total electricity consumption (in MWh)	475,702	557,572	590,214	590,662	625,039	5.8	644,845
Total heating consumption (in MWh)	169,263	183,943	197,842	220,424	246,659	11.9	246,659
Energy consumption per vehicle produced (in MWh/vehicle)	1.65	1.63	1.51	1.40	1.60	14.3	1.60
Volatile organic compounds (VOCs) per vehicle produced (in kg/vehicle)	0.56	0.52	0.50	0.12	0.12	0	0.12
Total water consumption <sup>7</sup> (in m <sup>3</sup> )	1,214,892	1,332,876	1,188,228	1,275,998	1,191,954	-6.6	1,191,954
Water consumption per vehicle produced (in m <sup>3</sup> /vehicle)	2.47	2.40	1.97	1.82	1.77	-2.7	1.77
Process wastewater per vehicle produced (in m <sup>3</sup> /vehicle)	0.42	0.44	0.44	0.47	0.50	6.4	0.50

**Note:**

1. Selected key figures for BMW Group China are audited on the basis of a limited assurance engagement. See LIMITED ASSURANCE REPORT on [p.106](#) for details.
2. Emissions from the upstream chain and disposal processes are based on the carbon footprint of representative vehicles from the BMW Group's product lines, calculated by using the LCA tool GaBi provided by Sphera which took into account Chinese market factors in the calculation.
3. From 2022, application of the international GLEC Framework V 2.0 directive, along with CleanCargo and DIN EN 16258 still being in force. The increase in this figure is mainly due to the adjustments to emissions factors and reporting scope expansion. Leveraged on improved data traceability, we managed to track and report CO<sub>2</sub> emissions from local aftersales logistics (Spare Parts Distribution Centres to local dealerships) and from international outbound logistics of exported vehicles (China ports-global dealers) in 2022. As a result, the prior-year figures are not directly comparable. Due to the systems in place, the retroactive adjustment of prior-year figures is not possible.
4. The fleet emissions are extrapolated from the average fleet CO<sub>2</sub> emissions and an assumed average mileage of 200,000 km.
5. Include employees' air travel for business purposes.
6. Include employees' commuting trips by shuttle bus between Shenyang downtown and BMW Brilliance manufacturing sites.
7. Water consumed by vehicle production (BMW Brilliance plants).

## PRODUCTION AND OPERATION

	BMW BRILLIANCE						BMW GROUP CHINA <sup>1</sup>
	2018	2019	2020	2021	2022	% Change	2022
Total waste <sup>2</sup> (in t)	85,237	87,013	181,791	210,691	208,564	-1.0	208,564
Total waste for recycling <sup>2</sup> (in t)	81,276	83,004	179,987	208,940	207,214	-0.8	207,214
Total waste for disposal <sup>2</sup> (in t)	3,961	4,009	1,804	1,751	1,350	-22.9	1,350
Waste for disposal per vehicle produced <sup>3</sup> (in kg/vehicle)	8.05	7.47	2.99	2.50	2.00	-20.0	2.00
Total non-hazardous waste <sup>2</sup> (in t)	74,073	76,814	172,349	200,283	198,662	-0.8	198,662
Total non-hazardous waste for recycling <sup>2</sup> (in t)	72,152	74,891	172,007	200,068	198,474	-0.8	198,474
Total non-hazardous waste for disposal <sup>2</sup> (in t)	1,921	1,923	342	215	188	-12.6	188
Total hazardous waste <sup>2</sup> (in t)	11,164	10,199	9,442	10,408	9,902	-4.9	9,902
Total hazardous waste for recycling <sup>2</sup> (in t)	9,124	8,113	7,980	8,872	8,740	-1.5	8,740
Total hazardous waste for disposal <sup>2</sup> (in t)	2,040	2,086	1,462	1,536	1,162	-24.3	1,162

## DEALER AND SUPPLY CHAIN

	BMW BRILLIANCE						BMW GROUP CHINA <sup>1</sup>
	2018	2019	2020	2021	2022	% Change	2022
Local content suppliers in China <sup>4</sup> (number)	378	394	400	436	429	-1.6	429
Purchasing volume in China <sup>4</sup> (in RMB billion)	43.10	49.68	54.89	71.39	73.47	2.9	73.47

**Note:**

1. Selected key figures for BMW Group China are audited on the basis of a limited assurance engagement. See LIMITED ASSURANCE REPORT on [p.106](#) for details.
2. Waste generated by vehicle production (BMW Brilliance plants).
3. The year-on-year reduction for this figure was mainly due to the implementation of the sludge drying project in Plant Dadong in which the water content of sludge has been reduced and leading to a reduction in waste for disposal per vehicle.
4. Include parts and raw material's suppliers and purchasing volume of BMW Brilliance only.

## EMPLOYEE AND SOCIETY

	BMW BRILLIANCE						BMW GROUP CHINA <sup>1</sup>
	2018	2019	2020	2021	2022	% Change	2022
Total workforce at year-end (number)	18,925	19,824	20,739	22,829	25,802	13.0	27,982
Female employees in total workforce (number)	2,268	2,389	2,465	2,725	2,931	7.6	4,066
Female employees in total workforce (in %)	12.0	12.1	11.9	11.9	11.4	-4.8	14.5
Male employees in total workforce (number)	16,657	17,435	18,274	20,104	22,871	13.8	23,916
Male employees in total workforce (in %)	88.0	87.9	88.1	88.1	88.6	0.7	85.5
Employees, age<30 (number)	8,276	7,486	6,893	7,099	7,881	11.0	8,089
Employees, age<30 (in %)	43.7	37.8	33.2	31.1	30.5	-1.8	28.9
Employees, age 30-50 (number)	10,526	12,192	13,675	15,515	17,670	13.9	19,582
Employees, age 30-50 (in %)	55.6	61.5	65.9	68.0	68.5	0.8	70.0
Employees, age>50 (number)	123	146	171	215	251	16.7	311
Employees, age>50 (in %)	0.7	0.7	0.8	0.9	1.0	3.3	1.1
Production employees (number)	13,844	14,311	15,029	16,312	18,698	14.6	18,698
Production employees (in %)	73.2	72.2	72.5	71.5	72.5	1.4	66.8
Non-production employees (number)	5,081	5,513	5,710	6,517	7,104	9.0	9,284
Non-production employees (in %)	26.9	27.8	27.5	28.5	27.5	-3.6	33.2
Employees in Shenyang (number)	18,175	19,068	19,963	21,563	24,174	12.1	24,260
Employees in Shenyang (in %)	96.0	96.2	96.3	94.5	93.7	-0.8	86.7
Employees in Beijing (number)	750	756	776	1,266	990	-21.8	2,709
Employees in Beijing (in %)	4.0	3.8	3.7	5.5	3.8	-30.8	9.7
Employees in Shanghai <sup>2</sup> (number)	-	-	-	-	103	-	377
Employees in Shanghai <sup>2</sup> (in %)	-	-	-	-	0.4	-	1.3
Employees in other cities <sup>2</sup> (number)	-	-	-	-	535	-	636
Employees in other cities <sup>2</sup> (in %)	-	-	-	-	2.1	-	2.3

**Note:**

1. Selected key figures for BMW Group China are audited on the basis of a limited assurance engagement. See **LIMITED ASSURANCE REPORT** on [p.106](#) for details.
2. Figures for Employees in Shanghai and other cities of BMW Brilliance in 2018-2021 were disclosed in the Employees in Beijing category. Starting in 2022, we break down Employees by location into a more detailed category.

## EMPLOYEE AND SOCIETY

	BMW BRILLIANCE						BMW GROUP CHINA <sup>1</sup>
	2018	2019	2020	2021	2022	% Change	2022
Female employees in management positions <sup>2</sup> (in %)	30.0	30.6	30.2	31.4	31.8	1.3	37.1
Local employees in management positions <sup>2</sup> (in %)	87.2	86.7	87.2	90.0	91.7	1.9	91.3
Share of employees with fixed-term contract (in %)	49.7	48.1	41.0	41.4	48.8	17.8	47.8
Total local new employee hires <sup>3</sup> (number)	3,148	1,628	1,691	3,510	4,716	34.4	5,044
Total local new employee hires <sup>3</sup> (in %)	16.6	8.2	8.2	15.4	18.3	18.9	18.0
Female local new employee hires <sup>3</sup> (number)	284	240	155	371	366	-1.3	515
Female local new employee hires <sup>3</sup> (in %)	1.5	1.2	0.7	1.6	1.4	-12.7	1.8
Male local new employee hires <sup>3</sup> (number)	2,864	1,388	1,536	3,139	4,350	38.6	4,529
Male local new employee hires <sup>3</sup> (in %)	15.1	7.0	7.4	13.8	16.9	22.6	16.2
Local new employees in Shenyang <sup>3</sup> (number)	3,010	1,538	1,619	3,089	4,228	36.9	4,233
Local new employees in Shenyang <sup>3</sup> (in %)	15.9	7.8	7.8	13.5	16.4	21.1	15.1
Local new employees in Beijing <sup>3</sup> (number)	112	78	53	177	241	36.2	500
Local new employees in Beijing <sup>3</sup> (in %)	0.6	0.4	0.3	0.8	0.9	20.5	1.8
Local new employees in Shanghai <sup>3</sup> (number)	8	4	6	8	8	0	65
Local new employees in Shanghai <sup>3</sup> (in %)	0	0	0	0	0	0	0.2
Local new employees in other cities <sup>3</sup> (number)	18	8	13	236	239	1.3	246
Local new employees in other cities <sup>3</sup> (in %)	0.1	0	0.1	1.0	0.9	-10.4	0.9
Local new employees, age<30 <sup>3</sup> (number)	2,520	1,208	1,333	2,213	2,916	31.8	2,989
Local new employees, age<30 <sup>3</sup> (in %)	13.3	6.1	6.4	9.7	11.3	16.6	10.7
Local new employees, age 30-50 <sup>3</sup> (number)	628	418	358	1,297	1,800	38.8	2,055
Local new employees, age 30-50 <sup>3</sup> (in %)	3.3	2.1	1.7	5.7	7.0	22.8	7.3
Local new employees, age>50 <sup>3</sup> (number)	0	2	0	0	0	0	0

**Note:**

1. Selected key figures for BMW Group China are audited on the basis of a limited assurance engagement. See **LIMITED ASSURANCE REPORT** on [p.106](#) for details.
2. Management positions refer to employees with function levels from I to V.
3. New data input to reflect the newly hired local employees since 2022. This figure does not include expatriate associates and employees transferring within the BMW Group China entities. The previous years' figures have been adjusted for comparison purposes.

## EMPLOYEE AND SOCIETY

	BMW BRILLIANCE						BMW GROUP CHINA <sup>1</sup>
	2018	2019	2020	2021	2022	% Change	2022
Local new employees, age>50 <sup>2</sup> (in %)	0	0	0	0	0	0	0
Local attrition rate <sup>3</sup> (in %)	4.9	3.7	3.8	7.4	6.9	-7.6	7.1
Local voluntary attrition rate <sup>3</sup> (in %)	3.7	2.6	2.9	6.6	6.0	-8.0	6.2
Local involuntary attrition rate <sup>3</sup> (in %)	1.2	1.1	0.8	0.9	0.8	-4.5	0.9
Accident frequency rate (per one million hours worked)	0.28	0.17	0.09	0.13	0.08 <sup>4</sup>	-38.5	0.08
Training days of training organised by the Human Resources Department <sup>5</sup> (in day)	33,804	24,311	15,491	19,524	25,844	32.4	28,241
Average days of further training per employee (in day/person)	1.79	1.23	0.75	0.86	1.00	16.5	1.01
Training attendee satisfaction rate (in %)	97.0	98.2	98.4	99.0	99.8	0.8	99.4
Beneficiaries of BMW CSR activities (number)	80,292	2,628,710	11,568,364	11,459,458	-	-	31,885,474 <sup>6</sup>
Accumulated beneficiaries of BMW CSR activities (number)	237,892	2,866,602	14,434,966	25,894,424	-	-	57,779,898
Expenditure on social commitment activities (in RMB)	15,575,085	16,513,831	36,619,722	23,439,759	-	-	24,210,755
Total participants of CSR activities <sup>7</sup> (number)	-	212	85	300	-	-	916 <sup>8</sup>
Total hours of volunteer service <sup>7</sup> (in hour)	-	1,915	923	1,914	-	-	1,960

- Note:**
- Selected key figures for BMW Group China are audited on the basis of a limited assurance engagement. See LIMITED ASSURANCE REPORT on [p.106](#) for details.
  - New data input to reflect the newly hired local employees since 2022. This figure does not include expatriate associates and employees transferring within the BMW Group China entities. The previous years' figures have been adjusted for comparison purposes.
  - New data input to reflect local attrition rate since 2022. This figure does not include employees transferring within the BMW Group China entities and employees leaving due to retirement or death. The previous years' figures have been adjusted for comparison purposes.
  - Compared to 2021, there were fewer accident cases that happened in 2022.
  - This figure includes offline training only. In 2022, the overall offline training was less affected by the epidemic, the number of offline training organised has increased and the number of course participants has increased, which was the main reason for the increase in the number of days of the overall trainees compared with that in 2021.
  - The increase in this figure is mainly due to the increase in online video and live-streaming activities in which the number of beneficiaries is counted by visiting times. In 2022, we enhanced the online communications on the education of popular science and Chinese traditional culture to penetrate the broad public and expand the social beneficiaries by introducing more online videos and live-streaming activities.
  - Volunteers include employees, their children, and other public.
  - The increase in this figure is mainly due to the scope expansion by including employees' children and other public into the scope and the launch of online program for the first time to attracted associate volunteers to participate.

## GRI CONTENT INDEX

The BMW Group China has reported the information cited in this GRI content index for the period from January 1st, 2022 to December 31st, 2022 with reference to the GRI Standards.

### GRI 1: FOUNDATION

GRI 1 applied	GRI 1: Foundation 2021
Applicable GRI Sector Standard (s)	None

### GRI 2: GENERAL DISCLOSURES 2021

GRI Standard	Page index	Further information	UNGC
GRI 2-1: Organisation details	09	--	--
GRI 2-2: Entities included in the organisation's sustainability reporting	02	--	--
GRI 2-3: Reporting period, frequency and contact point	02	--	--
GRI 2-4: Restatements of information	--	Where necessary and possible, restatements are explained in footnotes to the respective groups.	--
GRI 2-5: External assurance	106	--	--
GRI 2-6: Activities, value chain and other business relationships	10, 56-65	--	--
GRI 2-7: Employees	92-94, 67-80	--	6

<b>GRI Standard</b>	<b>Page index</b>	<b>Further information</b>	<b>UNGC</b>
GRI 2-8: Workers who are not employees	--	This information is not reported because it is not applicable.	--
GRI 2-9: Governance structure and composition	22	--	--
GRI 2-10: Nomination and selection of the highest governance body	22	--	--
GRI 2-11: Chair of the highest governance body	04-06	--	--
GRI 2-12: Role of the highest governance body in overseeing the management of impacts	22	--	--
GRI 2-13: Delegation of responsibility for managing impacts	22	--	--
GRI 2-14: Role of the highest governance body in sustainability reporting	22	--	--
GRI 2-15: Conflicts of interest	--	This information is not reported because it is not applicable.	--
GRI 2-16: Communication of critical concerns	18-21	--	--
GRI 2-17: Collective knowledge of the highest governance body	22	--	--
GRI 2-18: Evaluation of the performance of the highest governance body	--	This information is subject to internal confidentiality regulations and is not reported.	--
GRI 2-19: Remuneration policies	--	This information is subject to internal confidentiality regulations and is not reported.	--
GRI 2-20: Process to determine remuneration	--	This information is subject to internal confidentiality regulations and is not reported.	--
GRI 2-21: Annual total compensation ratio	--	This information is subject to internal confidentiality regulations and is not reported.	--
GRI 2-22: Statement on sustainable development strategy	04-06	--	--
GRI 2-23: Policy commitments	--	This information is not reported because it is not applicable.	--
GRI 2-24: Embedding policy commitments	--	This information is not reported because it is not applicable.	--
GRI 2-25: Processes to remediate negative impacts	24-25	--	--
GRI 2-26: Mechanisms for seeking advice and raising concerns	24-25	--	--
GRI 2-27: Compliance with laws and regulations	24-25	--	--



GRI Standard	Page index	Further information	UNGC
GRI 2-28: Membership associations	--	<ul style="list-style-type: none"> <li>• CAAM (China Association of Automobile Manufacturers)</li> <li>• CAEFI (China Association of Enterprises with Foreign Investment)</li> <li>• IAC (The Investment Association of China)</li> <li>• LNAEFI (Liaoning Association of Enterprises with Foreign Investment)</li> <li>• SYAEFI (Shenyang Association of Enterprises with Foreign Investment)</li> <li>• BAEFI (Beijing Association of Enterprises with Foreign Investment)</li> <li>• ABNEA (Association of Beijing New Energy Automotive)</li> <li>• AHK (German Chamber of Commerce in China)</li> <li>• EFQM (European Foundation for Quality Management)</li> <li>• Road Vehicle Committee of China Intelligent Transportation Systems Association (ITS China)</li> <li>• CBCSD (China Business Council for Sustainable Development)</li> <li>• Global Compact Network China</li> </ul>	--
GRI 2-29: Approach to stakeholder engagement	18-21	--	--
GRI 2-30: Collective bargaining agreements	72-74	100% of local employees are members of the BMW Brilliance Trade Union, and all Union members are covered by the Collective Contract on Labour Remuneration. This excludes expatriates, who are not eligible for the Trade Union.	3

## SPECIFIC DISCLOSURES FOR MATERIAL TOPICS

We report all relevant information on our material topics in accordance with our management approaches. For reasons of confidentiality, we do not disclose on the personnel and financial resources that are used for the management of these topics.

GRI Standard	Page index	Further Information
GRI 3-1: Process to determine material topics	19	--
GRI 3-2: List of material topics	19	--

### Sustainable Product Portfolio

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	7, 8, 9
GRI 302-5: Reductions in energy requirements of products and services	11, 48-49	--	--

### Product Quality and Safety

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	--
GRI 416-1: Assessment of the health and safety impacts of product and service categories	30-31	--	--
GRI 416-2: Incidents of non-compliance concerning the health and safety impacts of products and services	--	BMW Group China did not have significant non-compliance with laws / regulations in 2022 that resulted in a financially material impact.	--

## Decarbonisation across the Value Chain

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	7, 8, 9
GRI 302-1: Energy consumption within the organisation	90	--	--
GRI 302-2: Energy consumption outside of the organisation	--	This information is not reported because it is not applicable.	--
GRI 302-3: Energy intensity	90	--	--
GRI 302-4: Reduction of energy consumption	11, 48-49	--	--
GRI 201-2: Financial implications and other risks and opportunities due to climate change	22, 47-49	--	--

## Circular Economy

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	7, 8, 9
GRI 301-1: Materials used by weight or volume	34	--	--
GRI 301-2 Recycled input materials used	34	--	--
GRI 301-3 Reclaimed products and their packaging materials	34	--	--

## Air Pollution

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	7, 8, 9
GRI 305-1: Direct (Scope 1) GHG emissions	90	--	--

## Air Pollution (CONT'D)

GRI Standard	Page index	Further Information	UNGC
GRI 305-2: Energy indirect (Scope 2) GHG emissions	90	--	--
GRI 305-3: Other indirect (Scope 3) GHG emissions	90	--	--
GRI 305-4: GHG emissions intensity	90	--	--
GRI 305-5: Reduction of GHG emissions	11, 47-48	--	--

## Environment, Ecology, and Resource Management

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	7, 8, 9
GRI 306-1: Waste generation and significant waste-related impacts	45, 49-51	--	--
GRI 306-2: Management of significant waste-related impacts	45, 49-51	--	--
GRI 306-3: Waste generated	91	--	--
GRI 306-4: Waste diverted from disposal	12	This information is not reported because it is not applicable.	--
GRI 306-5: Waste directed to disposal	49-51	--	--
GRI 303-1: Interactions with water as a shared resource	49-51	--	--
GRI 303-2: Management of water discharge-related impacts	49-51	--	--
GRI 303-3: Water withdrawal	--	This information is not reported because it is not applicable.	--
GRI 303-4: Water discharge	49-51	--	--
GRI 303-5: Water consumption	49-51, 90	--	--

## Environment, Ecology, and Resource Management (CONT'D)

GRI Standard	Page index	Further Information	UNGC
GRI 304-2: Significant impacts of activities, products and services on biodiversity	50	--	--
GRI 304-3: Habitats protected or restored	82	--	--

## Responsible Sourcing

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	1-10
GRI 308-1: New suppliers that were screened using environmental criteria	--	Due to the complexity and in some cases the lack of transparency across entire supply chains, it is not possible to give a percentage of the new suppliers screened.	--
GRI 308-2: Negative environmental impacts in the supply chain and actions taken	63-64	--	--
GRI 414-1: New suppliers that were screened using social criteria	--	Due to the complexity and in some cases the lack of transparency across entire supply chains, it is not possible to give a percentage of the new suppliers screened.	--
GRI 414-2: Negative social impacts in the supply chain and actions taken	63-65	--	--
GRI 204-1: Proportion of spending on local suppliers	91	--	--

## Diversity, Equity and Inclusion

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	4, 5, 6
GRI 405-1: Diversity of governance bodies and employees	72-74	--	--

## Diversity, Equity and Inclusion (CONT'D)

GRI Standard	Page index	Further Information	UNGC
GRI 405-2: Ratio of basic salary and remuneration of women to men	--	This information is subject to internal confidentiality regulations and is not reported.	--
GRI 406-1: Incidents of discrimination and corrective actions taken	--	This information is subject to internal confidentiality regulations and is not reported.	--

## Occupational Health and Safety

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21, 76	--	--
GRI 403-1: Occupational health and safety management system	76	--	--
GRI 403-2: Hazard identification, risk assessment, and incident investigation	75-76	--	--
GRI 403-3: Occupational health services	77-78	--	--
GRI 403-4: Worker participation, consultation, and communication on occupational health and safety	79	--	--
GRI 403-5: Worker training on occupational health and safety	76-78	--	--
GRI 403-6: Promotion of worker health	76-78	--	--
GRI 403-7: Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	76-78	--	--
GRI 403-8: Workers covered by an occupational health and safety management system	76-78	--	--
GRI 403-9: Work-related injuries	75-76	--	--
GRI 403-10: Work-related ill health	--	This information is subject to internal confidentiality regulations and is not reported.	--

## Employee Development and Talent Retention

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	--
GRI 404-1: Average hours of training per year per employee	69-71	--	--
GRI 404-2: Programmes for upgrading employee skills and transition assistance programmes	69-71	--	--
GRI 404-3: Percentage of employees receiving regular performance and career development reviews	--	Some of BMW Group China's entity carries out a company-wide portfolio process on an annual basis to assess associates' performance and career development. The percentage information is not currently available due to the complexity of the portfolio process and variations among different job functions.	--

## Attractive Workplace

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	--
GRI 201-3: Defined benefit plan obligations and other retirement plans	78	--	--

## Compliance

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	1, 2, 3, 4, 5, 6, 10

## Compliance (CONT'D)

GRI Standard	Page index	Further Information	UNGC
GRI 205-2: Communication and training about anti-corruption policies and procedures	24-25	<p>We define governance bodies as those committees which receive active regular reports by the compliance function. All committee members are informed about each entities' anti-corruption policies and procedures. All committee members who are BMW Group China employees have also received training on anti-corruption. Committee members representing our shareholders are covered by the compliance programmes of BMW Group respectively.</p> <p>Our compliance training includes mandatory online training for all non-production employees, additional classroom training for new employees and managers, and special workshops and training for specific target groups (e.g. Sales, Purchasing, and Finance).</p> <p>Information unavailable: The number of business partners that policies and procedures have been communicated to is not reported.</p>	--
GRI 206-1: Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	24-25	In 2022, there were no legal actions regarding anti-competitive behaviour or violations of anti-trust and monopoly legislation.	--

## Information Security and Privacy Protection

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	--
GRI 418-1: Substantiated complaints concerning breaches of customer privacy and losses of customer data	--	BMW Group China did not encounter substantiated complaints in 2022 concerning breaches of customer privacy and losses of customer data.	--



## Sustainable Governance

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	--

## Public Policy Participation

GRI Standard	Page index	Further Information	UNGC
GRI 3-3: Management of material topics	19-21	--	--

## LIMITED ASSURANCE REPORT

# INDEPENDENT PRACTITIONER'S ASSURANCE REPORT

To the Board of Management of BMW Brilliance Automotive Ltd.



We have been engaged to perform a limited assurance engagement on the selected 2022 key data of BMW Group China as defined below in the BMW Group China 2022 Sustainability Report of BMW Brilliance Automotive Ltd. (the "Company").

### SELECTED KEY DATA

The selected key data of BMW Group China in the Company's BMW Group China 2022 Sustainability Report that is covered by this report is as follows:

- Vehicles produced (in unit)
- Authorised dealer outlets nationwide (number)
- Average fleet CO<sub>2</sub> emissions (domestic) (in g/km)
- Corporate average fuel consumption (domestic) (in l/100km)
- Average fleet CO<sub>2</sub> emissions (imported) (in g/km)
- Corporate average fuel consumption (imported) (in l/100km)
- Scope 1 Greenhouse gas emissions (in t)
- Scope 2 Greenhouse gas emissions (in t)
- Scope 3 Greenhouse gas emissions (in t)
- Share of renewable electricity (in %)
- CO<sub>2</sub> emissions per vehicle produced (in t/vehicle)
- Total energy consumption (in MWh)
- Energy consumption per vehicle produced (in MWh/vehicle)
- Volatile organic compounds (VOCs) per vehicle produced (in kg/vehicle)
- Total water consumption (in m<sup>3</sup>)
- Water consumption per vehicle produced (in m<sup>3</sup>/vehicle)
- Process wastewater per vehicle produced (in m<sup>3</sup>/vehicle)
- Total waste (in t)
- Waste for disposal per vehicle produced (in kg/vehicle)
- Total non-hazardous waste (in t)
- Total hazardous waste (in t)
- Local content suppliers in China (number)
- Purchasing volume in China (in RMB billion)
- Total workforce at year-end (number)
- Female employees in total workforce (in %)
- Female employees in management positions (in %)
- Local employees in management positions (in %)
- Total local new employee hires (in %)
- Local attrition rate (in %)
- Training days of training organised by the Human Resources Department (in day)
- Average days of further training per employee (in day/person)
- Training attendee satisfaction rate (in %)
- Accident frequency rate (per one million hours worked)
- Beneficiaries of BMW CSR activities (number)
- Expenditure on social commitment activities (in RMB)
- Total participants of CSR activities (number)
- Total hours of volunteer service (in hour)

Our assurance was with respect to the year ended 31 December 2022 information only and we have not performed any procedures with respect to earlier periods or any other elements included in the BMW Group China 2022 Sustainability Report.

## CRITERIA

The criteria used by the Company to prepare the selected key data in the BMW Group China 2022 Sustainability Report is set out in the basis of reporting in Chapter 6 of the BMW Group China 2022 Sustainability Report (the "basis of reporting").

## THE BOARD OF MANAGEMENT'S RESPONSIBILITIES

The Board of Management of the Company is responsible for the preparation of the selected key data in the BMW Group China 2022 Sustainability Report in accordance with the basis of reporting. This responsibility includes designing, implementing and maintaining internal control relevant to the preparation of the selected key data in the BMW Group China 2022 Sustainability Report that is free from material misstatement, whether due to fraud or error.

## OUR INDEPENDENCE AND QUALITY MANAGEMENT

We have complied with the independence and other ethical requirement of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Our firm applies International Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

## PRACTITIONER'S RESPONSIBILITIES

It is our responsibility to express a conclusion on the selected key data in the BMW Group China 2022 Sustainability Report based on our work.

We conducted our work in accordance with the International Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information". This standard requires that we plan and perform our work to form the conclusion.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Accordingly, we do not express a reasonable assurance opinion about whether the Company's 2022 selected key data in the BMW Group China 2022 Sustainability Report has been prepared, in all material respects, in accordance with the basis of reporting. Our work involves assessing the risks of material misstatement of the selected key data in the BMW Group China 2022 Sustainability Report whether due to fraud or error, and responding to the assessed risks. The extent of procedures selected depends on our judgment and assessment of the engagement risk. Within the scope of our work, we have performed the following procedures in Beijing Office, Tiexi Plant, Dadong Plant, Powertrain Plant and Lydia Plant of the Company:

1. Interviews with relevant departments of the Company involved in providing information for the selected key data within the Sustainability Report;
2. Analytical procedures;
3. Examination, on a test basis, of documentary evidence relating to the selected key data on which we report;
4. Recalculation; and
5. Other procedures deemed necessary.



## INHERENT LIMITATION

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities.

## CONCLUSION

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the 2022 selected key data in the BMW Group China 2022 Sustainability Report is not prepared, in all material respects, in accordance with the basis of reporting.

## RESTRICTION ON USE

Our report has been prepared for and only for the Board of Management of the Company and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the content of this report.

  
**PricewaterhouseCoopers Zhong Tian LLP**  
Shanghai, China  
June 5, 2023

## BASIS OF REPORTING

<b>Vehicles produced (in unit)</b>	BMW vehicles produced by BMW Brilliance of the year.	<b>Scope 2 Greenhouse gas emissions (in t)</b>	Indirect CO <sub>2</sub> emissions generated by the consumption of purchased electricity and purchased heating of vehicle production (BMW Brilliance plants) and of other BMW Group China locations not directly related to production (non-manufacturing sites, e.g. Research and Development Centres, Training Centres, Office Buildings), excluding the purchased electricity and purchased heating consumption of construction and on-site third-party suppliers. Scope 2 CO <sub>2</sub> emissions calculated using the market-based method in accordance with the GHG Protocol Scope 2 Guidance issued by the World Resources Institute. The coefficients used for calculation are from Emission Factors for Electricity, District Heating and Fuels issued by Application of German Association of the Automotive Industry (VDA).
<b>Authorised dealer outlets nationwide (number)</b>	Number of authorised dealer outlets in operation in Chinese mainland at year-end, including BMW brand, MINI brand and Rolls-Royce brand dealer outlets. The figure does not include BMW Motorrad dealer outlets.	<b>Scope 3 Greenhouse gas emissions (in t)</b>	Indirect CO <sub>2</sub> emissions generated in the upstream supply chain, the utilisation phase, and the disposal of automobiles produced and imported by BMW Group China for sales in Chinese mainland market, and those generated by transport logistics, employee commuting, and business trips of the year. Emission factors of the supply chain and the disposal are based on the carbon footprints of representative vehicles from the product lines, calculated by using the LCA tool GaBi provided by Sphera. Logistics emissions are based on the transaction mode and region. Emissions factors of logistics applied the international GLEC Framework V2.0 directive, CleanCargo and DIN EN 16258. Emissions from the utilisation phase are calculated based on the average fleet CO <sub>2</sub> emissions of automobiles produced and imported by BMW Group China and an assumed average mileage of 200,000 km (as per VDA 900-100). Employee commuting emissions include trips by shuttle bus between Shenyang downtown and BMW Brilliance production sites. Business trips emissions include employees' air travel of BMW Group China entities for business purposes.
<b>Corporate average fuel consumption (domestic) (in l/100 km)</b>	Average fuel consumption of automobiles produced by BMW Group China for sales in Chinese mainland market of the year. The calculation is based on the GB 27999-2019 <i>Fuel Consumption Evaluation Methods and Targets for Passenger Cars</i> of the People's Republic of China. The data is publicised on the <i>Notice on Passenger Car Corporate Average Fuel Consumption and New Energy Vehicle Credits in 2022</i> of the MIIT of the People's Republic of China on April 10th, 2023.	<b>CO<sub>2</sub> emissions per vehicle produced (in t/vehicle)</b>	Production-relevant CO <sub>2</sub> emissions per vehicle produced in BMW Brilliance plants, excluding CO <sub>2</sub> emissions from energy consumption of R&D, Vehicle Distribution Centre (VDC), construction, on-site third-party suppliers and other non-production relevant energy consumption of the plants.
<b>Corporate average fuel consumption (imported) (in l/100 km)</b>	Average fuel consumption of automobiles imported by BMW Group China for sales in Chinese mainland market of the year. The calculation is based on the GB 27999-2019 <i>Fuel Consumption Evaluation Methods and Targets for Passenger Cars</i> of the People's Republic of China. The data is publicised on the <i>Notice on Passenger Car Corporate Average Fuel Consumption and New Energy Vehicle Credits in 2022</i> of the MIIT of the People's Republic of China on April 10th, 2023.	<b>Share of renewable electricity (in %)</b>	The ratio of renewable electricity consumed to the total electricity consumption of vehicle production (BMW Brilliance plants) and of other BMW Group China locations not directly related to production (non-manufacturing sites, e.g. Research and Development Centres, Training Centres, Office Buildings). Renewable electricity includes the generation of solar power electricity, Power Purchase Agreements (PPAs), and the International Renewable Energy Certificates (I-RECs).
<b>Average fleet CO<sub>2</sub> emissions (domestic) (in g/km)</b>	Average CO <sub>2</sub> emissions of automobiles produced by BMW Group China for sales in Chinese mainland market of the year.	<b>Total energy consumption (in MWh)</b>	Total energy consumption generated by vehicle production (BMW Brilliance plants) and by other BMW Group China locations not directly related to production (non-manufacturing sites, e.g. Research and Development Centres, Training Centres, Office Buildings) of the year, including purchased electricity, purchased heating, and natural gas.
<b>Average fleet CO<sub>2</sub> emissions (imported) (in g/km)</b>	Average CO <sub>2</sub> emissions of automobiles imported by BMW Group China for sales in Chinese mainland market of the year.		
<b>Scope 1 Greenhouse gas emissions (in t)</b>	Direct CO <sub>2</sub> emissions generated by fossil fuel consumption of vehicle production (BMW Brilliance plants) and of other BMW Group China locations not directly related to production (non-manufacturing sites, e.g. Research and Development Centres, Training Centres, Office Buildings), excluding the fossil fuel consumption of construction and on-site suppliers. The coefficients used for calculation are from Emission Factors for Electricity, District Heating and Fuels issued by Application of German Association of the Automotive Industry (VDA).		

<b>Energy consumption per vehicle produced (in MWh/vehicle)</b>	Production-relevant energy consumption per vehicle produced in BMW Brilliance plants, excluding the energy consumption of R&D, VDC, construction, on-site third-party suppliers, and other non-production relevant energy consumption of the plants.
<b>Volatile organic compounds (VOCs) per vehicle produced (in kg/vehicle)</b>	Production-relevant VOCs solvent emissions per vehicle produced in BMW Brilliance plants. VOCs solvent emissions are mainly generated during the painting process.
<b>Total water consumption (in m<sup>3</sup>)</b>	Production-relevant water consumption of the year in BMW Brilliance plants.
<b>Water consumption per vehicle produced (in m<sup>3</sup>/vehicle)</b>	Production-relevant water consumption per vehicle produced in BMW Brilliance plants, excluding the water consumption of R&D, VDC, construction, on-site third-party suppliers and other non-production relevant water consumption of the plants.
<b>Process wastewater per vehicle produced (in m<sup>3</sup>/vehicle)</b>	Production-relevant process wastewater per vehicle produced in BMW Brilliance plants.
<b>Total waste (in t)</b>	Production-relevant non-hazardous and hazardous waste for recycling and disposal of the year in BMW Brilliance plants. Recycling includes both recycling and thermal utilisation.
<b>Waste for disposal per vehicle produced (in kg/vehicle)</b>	Production-relevant waste for disposal per vehicle produced in BMW Brilliance plants.
<b>Total non-hazardous waste (in t)</b>	Production-relevant non-hazardous waste for recycling and for disposal of the year in BMW Brilliance plants. Recycling includes both recycling and thermal utilisation.
<b>Total hazardous waste (in t)</b>	Production-relevant hazardous waste for recycling and for disposal of the year in BMW Brilliance plants. Recycling includes both recycling and thermal utilisation.
<b>Local content suppliers in China (number)</b>	Total number of parts suppliers and raw material suppliers of BMW Brilliance of the year including the run-out suppliers of the year.
<b>Purchasing volume in China (in RMB billion)</b>	The amount of purchasing volume, including tax, paid by BMW Brilliance to parts suppliers and raw material suppliers in Chinese mainland of the year.
<b>Total workforce at year-end (number)</b>	The number of employees of BMW Group China entities (BMW Brilliance Automotive Ltd. (BMW Brilliance) and its wholly-owned subsidiary LingYue Digital Information Technology Co., Ltd. (LingYue), BMW China Investment Ltd. (BMW China Investment), BMW China Automotive Trading Ltd. (BMW China), BMW China Automotive Finance (China) Co., Ltd. (BMW Automotive Finance), BMW China Services Ltd. (BMW China Services) and Herald International Financial Leasing Co., Ltd. (Herald Leasing) at year-end. The figure does not include interns, while it includes dispatched employees.
<b>Female employees in total workforce (in %)</b>	The ratio of female employees at year-end to the total workforce at year-end.
<b>Female employees in management positions (in %)</b>	The ratio of female employees in management positions at year-end to total employees in management positions at year-end. Management positions refer to employees with function levels from I to V.

<b>Local employees in management positions (in %)</b>	The ratio of local employees in management positions at year-end to total employees in management positions at year-end. "Local" refers to managers with local contracts. People deployed to work at the location who do not have a local employment contract are not included. Management positions refer to employees with function levels from I to V.
<b>Total local new employee hires (in %)</b>	The ratio of newly hired local employees of the year to the total workforce at year-end. The figure does not include expatriate associates and employees transferring within the BMW Group China entities.
<b>Local attrition rate (in %)</b>	Departures of local employees divided by the number of monthly average local employees of the year. Employees transferring within the BMW Group China entities and employees leaving due to retirement or death are not included.
<b>Training days of training organised by the Human Resources Department (in day)</b>	Total training days of LRG (Learning Resources Guide) training and department training organised by the Human Resources Department of the year.
<b>Average days of further training per employee (in day/person)</b>	Average training days for employees participating in the training organised by the Human Resources Department.
<b>Training attendee satisfaction rate (in %)</b>	Average training satisfaction evaluated by employees who have attended training organised by the Human Resources Department.
<b>Accident frequency rate (per one million hours worked)</b>	The scope only covers directly contracted employees in BMW Brilliance plants. It is calculated by the number of accidents with one day lost time or more divided by the total working hours (in million) of the year.
<b>Beneficiaries of BMW CSR activities (number)</b>	Number of times people benefited from CSR activities organised by the BMW CSR team, BMW Brilliance Trade Union in Chinese mainland and BMW Brilliance Shenyang Associate Social Responsibility Programme. Beneficiaries of online video and live stream activities is counted by visiting times.
<b>Expenditure on social commitment activities (in RMB)</b>	Expenditure on the social commitment by BMW Brilliance, BMW China, and China Education Development Foundation-BMW Warm Heart Fund.
<b>Total participants of CSR activities (number)</b>	Total number of times volunteers attended voluntary activities held by BMW Corporate Volunteer Association in Chinese mainland. Volunteers include employees, their children, and other public.
<b>Total hours of volunteer service (in hour)</b>	Total hours that volunteers spend on voluntary activities held by BMW Corporate Volunteer Association in Chinese mainland, including direct service hours and indirect service hours. Volunteers include employees, their children, and other public. Direct service hours refer to activity hours, and indirect service hours refer to the hours that volunteers spend on transportation, on-site preparation, and lunch hours during the activities.

**BMW  
GROUP**



**ROLLS-ROYCE**  
MOTOR CARS LTD



Contact for questions regarding this report:

**BMW Group China Corporate Sustainability**

28th Floor, Tower B, Gateway Plaza, 18 Xiaguangli, North Road East Third Ring,  
Chaoyang District, Beijing 100027, P.R. China  
Tel: +86(0)10 8455 7000

Further information and publications are available at:

<http://www.bmw-brilliance.cn/cn/en/csr/download.html>

