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SUSTAINABILITY

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## **CEO PREFACE**



**Dr. Johann Wieland** President and CEO

BMW Brilliance Automotive Ltd.

2018 was a remarkable year for China and for BMW Brilliance. 40 years of successful economic reforms have transformed China's economy and society. The government's commitment to transform from highspeed growth to high quality, innovative and green development means that industrial advancement and environmental protection are a shared priority. As a sustainable premium product and service provider, we contribute to the government's agenda of tackling air pollution, water protection and land contamination. In 2018, we have been the leading premium Joint Venture in E-Mobility. We also have been ranked No.1 in Corporate Average Fuel Consumption (CAFC) amongst all Joint Ventures.

Our two shareholders, BMW Group and Brilliance Group, extended their Joint Venture contract until 2040, creating a new horizon for investment in new and existing plant structures in Shenyang over the coming years. We maintain the vision for the continuation of our success story with sustainability as a cornerstone of our corporate strategy.

"Our brand-new sustainability strategy is our manifesto for the future — it embodies our corporate values and defines our commitment to innovation and continued excellence as a provider of premium vehicles and mobility services."

At BMW Brilliance, we have a proven track record of delivering on our sustainability commitments. Our brand-new sustainability strategy is our manifesto for the future—it embodies our corporate values and defines our commitment to innovation and continued excellence as a provider of premium vehicles and mobility services. It will ensure clarity and improve coordination within BMW Brilliance and throughout our entire value chain and is fully aligned with BMW Group.

Our aspiration to be the leading sustainable provider of premium individual mobility across the entire value chain of China's automotive industry is in full stride with our latest products and innovations. We are producing technology-leading BMW vehicles, engines, and highvoltage batteries, and pioneering E-Mobility in China. We do all this not only from our production base in Shenyang, which is state-of-the-art, sustainable, and a showcase for Industry 4.0, but also with our growing local partners.

We provide responsible and sustainable products and services which reduce emissions and keep our customers safer and healthier. In 2018, we launched the all-new BMW X3, which is tailor-made for our Chinese customers, and further electrified our product portfolio with the addition of the new BMW 5 series Plug-in Hybrid. This means we have launched 5 electric vehicle models in the past 5 years. In building a second,

much larger High Voltage Battery Centre in Shenyang, we will soon have the capabilities to produce the next generation BMW batteries and electric drive-train. This technology will be applied in the all-electric BMW iX3, which will be produced exclusively in Shenyang and exported globally from 2020. Our vision is transiting to "In China, For China and the World".

We have built a complete E-Mobility ecosystem in China, from research and development to charging infrastructure and electromobility services, to render our customers optimised access to our vehicles and supporting services. We are also leading efforts to give batteries a second life by recycling valuable raw materials, and by developing compact, more efficient batteries that reduce the total volume of waste.

In production, we are a role model for green and sustainable manufacturing. We believe in always trying to find new and innovative ways to reduce our environmental impact. All of our vehicles are manufactured using Industry 4.0 technologies and eco-efficient production processes, an achievement which was recognised when we received the National Green Plant Award. We adhere to BMW Group's goal of having our own production plants consume CO<sub>2</sub> free electricity. In 2018, we increased our renewable energy procurement to support this, with wind power purchased from wind farm. This progress increased our CO<sub>2</sub> emission free electricity consumption to 43% and we have set a target to achieve 90% by 2019.

Ensuring we provide our customers with the highest quality products and services requires the best partners, both locally and around the world. Our suppliers use state-of-the-art technology to enhance both quality and productivity, and we work with them on an ongoing basis to ensure that production and sustainability practices are meeting BMW standards. We are capturing the advantages of a more localised supplier base in terms of supplier asset development, cost-efficiency and logistics.

Our 18,925 employees are the lifeblood of this company, and we do our best to help them maximise their potential, at work and in life. Our accomplishments would not be possible without their passion and skills, and we are dedicated to talent development and a safe and healthy workplace. Our many employer awards, including being named "Best Employer in China", are testament to our efforts.

A successful and responsible brand also incorporates the value we deliver to society. We aspire to create shared value for our business and our society, to enable and empower partners and communities, and to foster broader engagement for everyone for the creation of long-lasting positive impacts. In 2018, our flagship BMW CSR programmes were well recognised by our stakeholders and 10 different CSR awards, which motivates us to continue these important efforts.

At BMW Brilliance, our actions prove our commitment to support China's ambitious social and environmental goals. We also remain committed to the principles of the United Nations Global Compact, which we joined in 2014 to systematically pursue sustainable development in China and contribute to the local economy, environment and society. And now, as we begin a new chapter, we are deepening our commitment with a brand-new sustainability strategy that will be integrated across our business units. It will be our guide as we contribute to a Beautiful China, and to a shared prosperous future for all. 2019 will be an exciting year, and we at BMW Brilliance look forward to sharing the results with you.

Dr. Johann Wieland

President and CEO BMW Brilliance Automotive Ltd.

## **OUR POINT OF VIEW**



**Daniel Schaefer**Senior Vice President
Technology and Manufacturing



Wang Jun
Senior Vice President
Finance

BMW Brilliance's production base is now the largest within the entire BMW Group global production network. Our production flexibility enabled us to produce nearly 500,000 vehicles in 2018, adapting to fast-changing market demands and the needs of our customers in China. With our increased capacity, we have also remained committed to leading the way in smart and green manufacturing and Industry 4.0 production. We are a role model for Made in China and received recognition for this with our National Green Plant Award. We are further localising our R&D capabilities and production, with the start of the Phase 2 extension of our High Voltage Battery Centre that prepare us for the production of the all-electric BMW iX3 in 2020.

At BMW Brilliance, we strongly invest in our people, our partners, and our community. In addition to our contribution of 31 billion RMB in tax in 2018, we create jobs, invest in vocational programmes, and foster opportunities for local people to develop their skills and confidence to succeed. Our investment in the new and existing plant structures will create more jobs until the early 2020s. We continue to innovate in green and smart manufacturing, with the roll out of our digital transformation to a dynamic and interconnected system, achieving shared benefits with local partners.

In 2018, we sold 465,192 vehicles and continue to deliver a steady and strong sales growth of 20.3%. At BMW Brilliance we increased our electric vehicles sales volume by nine times compared to 2017, indicating our prompt response to the growing and transforming market demand. Paired with the expansion of our charging network to 80,000 in 150 cities and empowering our dealers to provide digitalised service, we have created a complete E-Mobility ecosystem, that fulfill the needs of our customers while contributing to the target reductions we strive for in our fleet fuel consumption.





Sean Green
Senior Vice President
Sales and Marketing



**David Shangguan**Senior Vice President
Human Resources

## **HIGHLIGHTS IN 2018**

#### **January**

- Launch of the BMW 1 Series Export
- BMW Brilliance's 2 Millionth car rolled off the production
- BMW 5 Series won the J.D. Power VDS Award

#### March

- First EUROPE-CHINA direct train to BMW Brilliance, Tiexi
- Launch of the All-New 5 Series PHEV

#### May

- ISO9001:2015 Audit achieved
- Kicked off Aftersales parts railway importation in Chengdu as part of the "Belt and Road Initiative"
- Laid the foundation for High Voltage Battery Centre Phase II





2000000

## **February**

• Dr. Johann Wieland participated in top level meeting with Premier Li and Consultation Symposium on Government Work Report

## **April**

- BMW joined hands with JD.com to provide customers with digital Aftersales Service
- Opened new DDA in Ningbo
- BMW Concept iX3 launched, production by BMW Brilliance to begin in 2020

#### June

BMW 京东官方旗舰店正式上线 BMW JD FLAGSHIP STORE I

- DIGITAL.me 2018 @ Dadong
- Launch of the New BMW 2 Series Active Tourer

#### July

- Launch of the All-New BMW
- BMW Group expanded footprint in China with BMW Brilliance Automotive Joint Venture
- Extended long-term strategic partnership with CATL

## September

- Dr. Johann Wieland honored with the Chinese Auto Industry Outstanding People Award for the 40th Anniversary of Reform and Opening-up
- BMW Children's Traffic Safety Education wrapped up for 2018
- BBA models won "2018 China Automobile Customer Satisfaction Index Study" from CAQ

#### November

- Launched Sustainability Report for the fifth consecutive year
- 2018 BMW & MINI National Aftersales Service Competition for Excellence





• Tech Day @ BMW Brilliance 2018

#### October

- 15 years BMW Brilliance Automotive: BMW Group strengthens commitment to China
- BMW Brilliance 15th Anniversary Associates Celebration Ceremony

#### **December**

- 2018 BMW Group China Culture Journey Intangible Cultural Heritage Exhibition grand opening
- 2018 BMW Brilliance New Model Supplier Workshop
- Senior Vice President Wang Jun selected as a member of the fourth Presidium of the **UNGC China Network**

## AN OVERVIEW OF BMW BRILLIANCE

BMW Brilliance was founded in 2003 as a Joint Venture of the parent companies Bayerische Motoren Werke Aktiengesellschaft (BMW) and Brilliance China Automotive Holdings Limited.

Our business operations include production, research and development, sales, after-sales services and purchasing of BMW automobiles in China. BMW Brilliance has a state-of-the-art production base in Shenyang, Liaoning Province - an industrial heartland of China.

We are inspired by the potential of doing business in a sustainable manner and guided by our aspiration to be the leading sustainable provider of premium individual mobility across the entire value chain of China's automotive industry.

#### Our Operations: As of December 31st, 2018

Complete vehicle plants in Dadong and Tiexi	1 Powertrain plant	625 Authorised dealer outlets nationwide
BMW Brilliance finished vehicle distribution centres	5  BMW Brilliance spare parts distribution centres	<b>4*</b> BMW Brilliance training centres
15**  BMW Brilliance training bases	15***  BMW Brilliance training spots	

- \*Training Centres: Are BMW managed and deliver trainings for dealers.
- \*\*Training Bases: Are cooperatively managed for vocational training. Open to dealers based on proximity. Provide BMW Certificate Courses and Body/Paint Courses for dealers.
- \*\*\*Training Spots: Provide technical and non-technical training on topics such as HVBs and dealer aftersales.



## **OUR PRODUCTS**



BMW 1 Series I Sedan



BMW 2 Series I Tourer



BMW 3 Series I Long Wheelbase and standard version



BMW 5 Series I Long Wheelbase \*Including plug-in hybrid model



BMW X1 I Long Wheelbase \*Including plug-in hybrid model



BMW X3



**ZINORO 60H** \*Plug-in hybrid model



**BMW 3 Cylinder Engine** 



**BMW 4 Cylinder Engine** 



**High Voltage Battery** 

**VEHICLES PRODUCED** 

2018 490,151

396,888



139 g/km

2018

2017

146.9 g/km

2018 5.84 I/100 km

2018 🗷

2017

18,925

16,686

6.17 I/100 km

**CORPORATE AVERAGE FUEL CONSUMPTION** 

**EMPLOYEES** 

**ELECTRIC VEHICLES SALES** 



2018 🗷 21,438

1,983

2014	2015	2016	2017	2018	Change from previous year %
287,780	288,055	305,845	396,888	490,151	23.5%
278,637	287,448	310,041	386,566	465,192	20.3%
460	515	558	598	625	4.5%
oility					
168.0	165.4	159.2	146.9	139	-5.4%
7.06	6.95	6.69	6.17	5.84	-5.3%
1.67	1.66	2.05	1.83	1.65	-9.8%
0.97	0.88	1.13	0.70	0.63	-10.0%
2.18	2.18	2.58	2.68	2.47	-7.8%
0.47	0.46	0.46	0.39	0.42	7.7%
5.67	9.17	6.42	7.43	8.05	8.3%
0.48	0.45	0.40	0.54	0.56	3.7%
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	. 2014 .	2015	2016	2017	2018	Change from previous year %		
Sustainable Supplier Manag		2010	2010	2017	2010	, , , , , , , , , , , , , , , , , , ,		
Purchasing volume in China (in billion CNY)	23.9	23.5	23.9	26.7	43.1	61.4%		
Employee Development								
Workforce at year-end (number)	15,257	16,573	16,286	16,686	18,925	9.6%		
Attrition rate (% of workforce)	6.8%	3.8%	3.3%	4.5%	4.8%	6.7%		
Percentage of women in total workforce (in %)	12.3%	11.8%	12.9%	12.8%	12.0%	-6.3%		
Average days of further training per employee	3.4	2.2	1.7	2.1	1.79	-14.8%		
Accident frequency rate (per one million hours worked)	0.82	1.06	0.54	0.43	0.28	-34.8%		
Corporate Social Responsibility								
Accumulative beneficiaries of BMW CSR activities	91,000	100,400	136,600	157,600	<b>237,892</b> (80,292 in 2018)	50.9%		

## **OUR VALUE CHAIN**





















## **RESEARCH** AND DEVELOPMENT

#### of products and services

#### **MAIN ACTIVITIES**

Development of technologyleading premium cars and services through:

- Concept
- Series development
- Production planning

## **SUPPLY CHAIN**

Global cooperation with suppliers to create:

- Modules/Systems
- Components
- Parts
- Raw materials

Manufacturing of cars by a

highly qualified and diverse

**PRODUCTION** 

• Engine construction

workforce, including:

- Battery
- Metal pressing
- Bodywork
- Paintwork
- Assembly
- Quality control

#### **LOGISTICS AND TRANSPORT**

Securing customer-oriented logistics in China through the seamless combination of various mode of transport:

- Suppliers
- Plants
- Dealerships

## SALES **AND UTILISATION**

#### of vehicles and services

Offering a range of premium products and services for individual mobility through:

- Coordination of a nationwide dealership/repair shop network
- Implementation of a coordinate and target grouporiented marketing mix
- Provision of financial services

**AND RECYCLING** 

**DISPOSAL** 

Reuse

vehicles for:

• Recycling and disposal of vehicle components and materials

Recovery and dismantling of





## SUSTAINABILITY DRIVER

"Digitalisation is an essential part of BMW Brilliance's strategy, which we use to create smart solutions, optimise business processes and ensure our long-term competitiveness across the value chain."

#### How does digitalisation affect BMW Brilliance's operations and strategy?

Digitalisation is an essential part of BMW Brilliance's strategy, which we use to create smart solutions, optimise business processes and ensure our long-term competitiveness across the value chain. Supported by four focus areas - Visual Recognition, Smart Data & Analytics, Innovative Automation and Virtual Planning & Commissioning, our digitalisation strategy is also an enabler of a more sustainable business approach, as we use information technology (IT) throughout the business to become more efficient, more productive and to reduce all kinds of waste.

Information technology and digitalisation touch all aspects of our business. On the production line, the Internet of Things and Industry 4.0 are increasingly part of the way we work.

And in the management of our operations, we are shifting tasks from paper to online as we develop and use our own specialised digital apps. Using the BBA-innovated DILO app for forklift drivers reduces paper usage and reduces energy consumption by optimising route planning.

IT tools are also shaping our interactions with customers, with more digital and online tools for relationship management and aftersales service. Ultimately, BMW Brilliance is creating a driving experience that takes advantage of a more connected world.



Thorsten Achenbach

Vice President IT



BMW Brilliance JoyChat.



Production assembly line.

#### What progress did you see in BMW Brilliance's digital transformation in 2018?

In 2018, we had several milestones marking our progress in digital transformation. We deployed a huge amount of digital tools and applications that supported our associates and processes as a company, to reach new levels of efficiency. These tools and applications are being applied to all of our business activities from sales, logistic, human resources till finance that support our systems internally and externally.

In support of the integration of these new solutions, we launched the DIGITAL.me programme, designed to bring digital technology to our associates, business partner and customer and guide our digital transformation. Through DIGITAL.me programme, we are educating and empowering our people to harness the capabilities of digital innovation and cultivating our talent for the future.

While there are benefits to our employees, we have also developed tools that support our efforts towards environmental protection. With our Environment Online Monitoring System, we use real-time monitoring of environmental conditions within our paint shop, using highly sensitive sensors that detect changes in air quality, temperature, humidity and pressure and trigger actions by the production team to create a healthier working environment. At the same time these sensors have low energy consumption by themselves.

Our new JOY Learning platform combines online courses with inperson training evaluations, supporting online learning for 56,000 dealership employees, as well as generating data for analysis on where we can help our dealers improve.

We also launched the New Training Platform (NTAP) for the BMW Training Academy, which is a comprehensive tool for retail talent development with micro-services such as learning resources, design thinking to connect IT and the business team, and facial recognition for training and exams.

Overall, we are seeing new digital applications come into reality in many parts of the business, with the effect of improving our production quality and efficiency, our relationship with dealers, and our ability to provide high-quality training through online platforms. Digital technology is changing the way how we do our business in the future. We are well prepared, and on the way, already.

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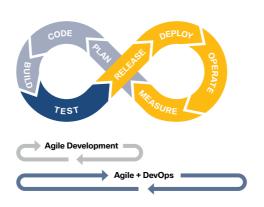
## SUSTAINABILITY DRIVER

# What have you learned about how best to implement digital transformation, and where will this path lead in 2019?

The world around us and the business requirements are changing rapidly. An agile approach is critical in digital transformation, which is why we are fostering a cultural mindset of "Fail Fast, Learn Fast, Fix Fast". We then enable our IT teams by supporting digital concept development, a culture of innovation and process organisation, which we refer to as AGILE, MAKE, DEVOPS.

AGILE refers to our Agile Development Methodology that guides the development process for new digital ideas and innovations. This enables us to develop high-quality customised tools even though all the pieces of a new large-scale IT solution can be difficult to imagine from the outset. We then rely on the IT knowledge base (MAKE) that has been cultivated internally, to ensure integration of new tools and solutions. DEVOPS, referring to the integration of AGILE and operations, is the seamless and continuous deployment of new features into our existing portfolio of digital tools.

In 2019, we will continue to enhance our digital processes for our own employees and for our customers. Our ongoing success will be due to the guidance of our IT digitalisation team and our methodology of AGILE, MAKE and DEVOPS. In the future, we will enlarge the IT knowledge base internally to empower all of our employees. With that, we are setting up the infrastructure to be the first global automotive location with a 5G production site.



The AGILE, MAKE and DEVOPS methodology

## 1.1 STRATEGY AND MANAGEMENT



BMW China Strategic Agreement Signing Ceremony.

At BMW Brilliance, we believe that to be a successful business is about to make a positive impact on the world. Our stakeholders expect and trust us to operate responsibly and transparently. Guided by our Board of Management, our divisional thought leaders, and our BMW Group colleagues, we have developed a sustainability vision that will guide us into the future.

To be the leading sustainable provider of premium individual mobility across the entire value chain of China's automotive industry requires the right behaviour and mindset that enables business units to understand the strategic value. Our mission is to secure our economic success on a long-term basis and our innovations are developed not only to provide benefits for our customers, but also to have a positive impact on society and the environment.

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

We are inspired to invest in the future, to localise production, and to enhance our research and development capabilities, as these have set us on a path towards robust and sustainable growth and demonstrate our commitment to our country's development. We enhance the quality of life of our Chinese customers and stakeholders through sustainable mobility solutions, we align our business to help address social and environmental issues, and we spur innovation through the utilisation of digital technologies, advanced manufacturing systems such as Industry 4.0, and the cultivation of local R&D.

To create added value for the company, the environment, and society, BMW Brilliance integrates sustainability along the entire value chain and into all basic processes. This covers everything from sustainability requirements for the procurement process and production of our vehicles through the development of new lines and facilities.

#### **OUR SUSTAINABILITY STRATEGY**

Our sustainability strategy takes into consideration the impacts of the rapidly changing world around us. We recognise that lifestyles, aspirations, and global trends are shifting, and that together we face major challenges which emerging technologies such as electromobility can help to address.

Our strategy is framed by three core sustainability principles (3Ps) that incorporate our current and desired contribution to society - People, Planet, and Prosperity. These are aligned with international and national frameworks such as the UN Sustainable Development Goals, China's National Plan on Implementation of the 2030 Agenda for Sustainable Development, and China's 13th Five-Year Plan.

#### Our sustainability principles

F. 01



#### People are at the heart of everything we do

- We develop innovative products and services that meet the evolving needs of our customers and society as a whole.
- We care for and enable our customers, partners, and employees to become respected and thriving members of the BMW Brilliance ecosystem.

#### **Environmental stewardship is key to long-term** success

- We embrace innovation in the pursuit of minimising the environmental impacts of our business processes, products, and services.
- We commit to making a substantial contribution to a smarter and greener automotive industry in China.

#### Value derived from sustainable mobility

- We pursue strong and long-term business growth through activities that are scalable and deliver significant value.
- We seek to achieve mutual benefit for ourselves and our stakeholders as we work towards a more sustainable future.

The 3P principles underlie the framework which guides our management, enriches our initiatives, and aligns our efforts for better scalability and long-term performance. Our "sustainability framework" is made up of eight focus areas that cover the three pillars of

our value chain: Products and Services, Production and Value Creation, and Employees and Society. At its foundation are four enablers that have the ability to influence, shift, disrupt or empower our business.

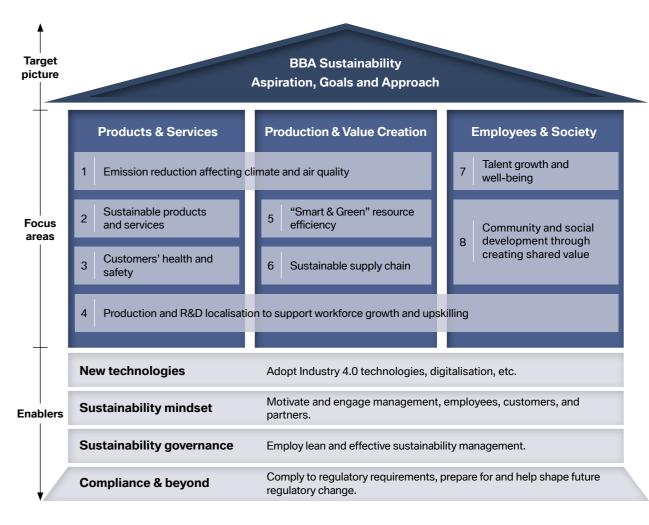
With our updated aspiration, principles and framework approved by the Board of Management, the next phase of work is for our core business functions to integrate their activities within the eight sustainability focus areas.

The UN Sustainable Development Goals (SDGs) are part of a global action plan to shape economic progress in an environmentally compatible manner and in accordance with social equity, and at BMW Brilliance, we are convinced that companies can make a positive contribution to achieving these goals. We prioritise the SDGs that directly relate to our business and where we see that we can add the most value and helping to meet these goals is part of our sustainability strategy.

Strategy and Management • SUSTAINABILITY MANAGEMENT

Strategy framework

F. 02







































In 2018, BMW Brilliance began integrating the sustainability strategy into our business activities with an internal engagement process, senior leadership alignment, and events for employees to foster a sustainability mindset. Our Lighthouse Initiatives are another focal point for sustainability integration.

## **SUSTAINABILITY STRATEGY** INTEGRATION

Effective integration of our sustainability strategy into business operations is essential for our success and requires mobilising internal teams by demonstrating the value that sustainability brings to their own part of the business. In 2018, we conducted a materiality assessment refresh and an integration process that targeted specific internal stakeholders for participation. Workshops were held with top and mid-level management, and employees were also engaged with events to foster sustainability mindsets. The multi-tiered approach creates synergy and a holistic perspective through broad engagement with different groups.

#### **MATERIALITY REFRESH**

Materiality assessment is a tool for gathering information but is also important for engaging various stakeholders through in-depth discussion to better understand trends and expectations, as well as risks and opportunities. In 2018, we completed a refresh of the previous materiality analysis conducted in 2015, enabling an update of BMW Brilliance's sustainability strategy and management approach based on the key sustainability issues that are material to our business and our stakeholders.

The materiality assessment enables us to take a strategic approach to the reduction or mitigation of our impacts on society and the environment. The materiality refresh was based on 48 indepth interviews with 20 external and 28 internal stakeholders who helped to prioritise 24 sustainability issues, Internally, interviews were held with Senior Executives, Department Heads, Business Managers and Senior Advisors from our core strategic business units. Externally, we spoke with representatives of government institutions, shareholders, business partners, local communities, customers, industry associations, and non-governmental organisations. The collection and intersection of these interview results enabled our team to prioritise the sustainability issues to address and identify the three pillars of our sustainability framework to be further integrated into our business operations.

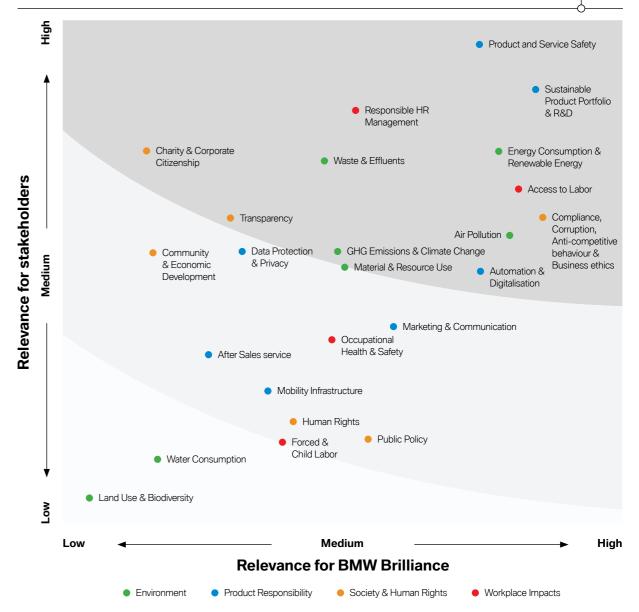
Based on extensive stakeholder interviews, the materiality analysis findings reinforced our strategic direction to address climate change and air pollution, build an efficient and transparent value chain, and enhance corporate citizenship and local community development.

We use these results to develop a clear path for our business units, to concentrate and focus our efforts and resources. In 2019, our Board of Management will validate the materiality analysis and confirm this direction for the future, supporting through the development of corporate-wide goals and target setting.

#### **BMW Brilliance materiality matrix**



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#### STRATEGY WORKSHOP, DEEP DIVE, AND **ALIGNMENT**

Engagement with senior leadership was conducted as part of the materiality refresh, and analysis was shared during several rounds of alignment to identify risk, opportunities and future directions. Initiatives driving sustainability across our entire value chain have been constantly on the agenda for senior leadership meetings. The Board of Management was directly involved in consultations to provide input and direction on sustainability integration.

A sustainability strategy workshop was held in June 2018 with representatives from key business functions such as New Electric Vehicles, Research

& Development, Logistics, Procurement, Facility Management, Legal, and CSR. The workshop included sharing about the BMW Group sustainability strategy, and discussion and validation of the materiality refresh findings. Workshop participants also kicked off the Strategy Deep Dive process by selecting working groups for the Sustainability Focus Areas, which then began discussions in September 2018. Through the workshop, key business functions were mobilised with a better understanding of the sustainability strategy and its relevance and value for the business. With the Deep Dive process, collaborative workforces across business functions have formed for each strategic focus area, and the synergy will continue to grow in 2019.

SUSTAINABILITY MANAGEMENT • Strategy and Management

## PLASTIC POLLUTION. 塑料污染。



Plastics are forgotten as soon as they are thrown away and out of sight. However like shadows and ghosts, they are never truly gone.

塑料倒进大海容易,它们很快会消 失在人们视野,但它们又像幽灵, 会以各种方式,与人类捆绑在一起。





200 kg (小下) 0

## FOSTERING SUSTAINABILITY MINDSETS

#### Importance of mindset change

- Advocate understanding of BMW Brilliance sustainability strategy one concept to all.
- Share information of business initiatives on various sustainability topics.
- Link sustainability to personal behaviour, foster change and make impact.
- Foster employee's understanding of sustainability and promote mindset change in their daily jobs.

The Sustainability Exhibition was a 3-day event introducing BMW Brilliance's sustainability strategy and Lighthouse Initiatives to associates, in order to foster behaviour change and raise awareness on specific topics such as reducing plastic and food waste and living a healthy lifestyle. The programme was held for employees at Dadong, Tiexi, and Powertrain plants in October 2018, and was effective in increasing their knowledge about the sustainability strategy. Representatives from different teams were present to explain BMW Brilliance's sustainability initiatives, with interactive games to increase awareness. This event has led to positive change with the push from senior leadership, for instance, stop providing single-use plastic bottles of water in the canteens of our Powertrain plant and wooden stir sticks in the coffee shops.

## 1.2 STAKEHOLDER ENGAGEMENT

BMW Brilliance creates economic and social value by engaging with multiple stakeholders in the process of building sustainable and lasting growth. Ensuring sustainable performance as a leading automotive company requires continuous engagement with stakeholders to understand expectations, analyse risks and opportunities, and collaborate to address issues. Interacting with stakeholders helps us to establish mutual trust, contribute to understanding and awareness about sustainability issues, and promote collaboration and innovation.

Our main stakeholder groups are our shareholders, customers, employees, suppliers, and dealers, as well as policymakers and authorities, media, academic institutions, future talents, and local communities. We engage with the relevant stakeholders along our value chain in a variety of ways, including dialogues, presentations, surveys, and training initiatives. The topic and engagement format are customised for specific stakeholder groups and we do our best to address any concerns and questions in a timely and transparent way.

Stakeholder engagement can be used to address specific sustainability issues. For instance, BMW Brilliance holds regular dialogue with the local mayor

and city government to address local development needs, collaborates with railway companies to innovate on green logistic solutions, enable our dealers, suppliers and together with local communities to reduce our environmental footprints.

As part of the stakeholder engagement process, we deliberately address critical issues and debates. This helps us to analyse more effectively what next steps are required or are expected of us in different aspects of sustainability management. By engaging in dialogue, we can also show in a transparent manner what scope we see for action with regards to current challenges. We will continue to engage with our stakeholders, both locally in Shenyang and across China.



BMW Brilliance received special award from the Mayor of Shenyang.

#### **Academic Institutions** •

Fostering research in the Chinese automotive industry and collaborating with academic institutions is integral to the long-term sustainability of BMW Brilliance's business.

#### Future Talent •

As part of the BMW Group's global strategy to develop young people and attract the talent of tomorrow, BMW Brilliance has developed a series of specialised and localised programmes, traineeships, and vocational education opportunities to build the skillsets needed for the future.

#### **Communist Party of China** •

Integral to our growth, we host events between the CPC and BMW Brilliance to bring together Chinese and German management and Party member representatives.

#### **Policy Decision-Makers** •

Regular and open communication with policymakers provides us with the opportunity to contribute to government initiatives and advocate for industry sustainability. Important topics of discussion include emission standards, the advancement of E-Mobility and supporting infrastructure, and the promotion of innovation.

#### Regulatory Authorities •

We work with local authorities to stay informed and remain current in an evolving regulatory environment.

#### Media •

Dialogue in the context of press trips, press releases, informational events on new products, test drives, and trade fairs builds transparency and understanding with the media.

#### Shareholders

Close collaboration with our shareholders enables us to seamlessly integrate sustainability into our corporate strategy, activities, and operations. Representatives of our shareholders (BMW Group and Brilliance Group) form our Board of Directors and are in regular contact with our Board of Management.

#### Employees

Our employees are our greatest asset. Our goal is to maximise individual potential and reinforce the company's culture through open communication, creating a work environment that positively contributes to self-growth and career progression.

#### Suppliers

We are in continuous dialogue with our suppliers. In addition to project-based communication, we host a series of BMW Brilliance Supplier Events that provide a platform to build relationships that contribute to economic development, growth, and sustainable innovation along the supply chain.

#### Dealers

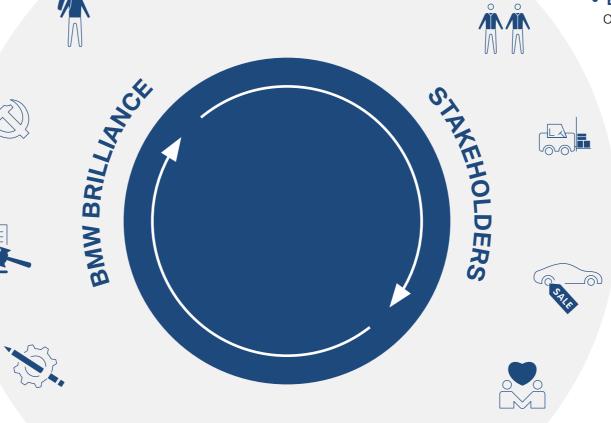
Our dealers bring our brand, our message, and our world-class products to the automotive market in China. We work closely with our dealers to better understand their needs and the needs of our customers.

#### Local Communities

We invest into our local communities as part of our long-term commitment to Corporate Social Responsibility and building a prosperous China.

#### Customers

We are building connections between our brand and customers to guide our efforts towards a sustainable future for the Chinese automotive industry.



SUSTAINABILITY MANAGEMENT • Digitalisation and Innovation

## 1.3 DIGITALISATION AND INNOVATION

BMW Brilliance has a leading role in the fundamental transformation that is taking place for the entire automotive industry, in terms of the innovation, application and integration of technology. Automobiles used to be simply hardware products but are now becoming part of an interconnected mobility world.

BMW Brilliance uses technology and digitalisation to create business value, and to enable a more sustainable business approach. Digitalisation is a key driver in the creation of smart solutions that optimise business processes and efficiency, reduce waste, and ensure our long-term competitiveness across the value chain. Our digital tools and applications cover a wide range of business activities and processes both internally and externally.

Under BMW's strategic focuses of digitalisation, including Connected Driving, Digital Customer Experiences, Industry 4.0 and Made in China, and Digital Operations, we are creating a mobility experience of driving in a more connected world.

#### WE WANT TO LEAD THE DIGITAL TRANSFORMATION OF THE AUTOMOTIVE INDUSTRY.



CONNECTED / AUTONOMOUS DRIVING



DIGITAL CUSTOMER EXPERIENCES / SERVICES



INDUSTY 4.0 / MADE IN CHINA



DIGITAL OPERATION



DIGITAL.me
CULTURAL CHANGE "fail fast, learn fast, fix fast"



For customers and dealers, we utilise online platforms to monitor and enhance our customer interactions, train dealership employees, and provide dealers with feedback and support. In the production process, we utilise Industry 4.0 and Made in China tools for quality management on the shop floor, with real-time monitoring using environmental sensors and Internet of Things (IoT) platforms, and Production Control Digital Cockpit to track production status and trend analytics. And in Digital Operations, we are adopting technology applications that enable sustainability improvements such as reduction of paper-based processes and improved efficiency of transportation.



Industry 4.0 application in our production process.

In addition to developing new technologies, we are also cultivating the cultural change that is needed for the digitalisation transformation. We are investing in IT talent and our employees through the DIGITAL.me programme, and we encourage all of our employees to share their ideas through our IT Innovation Lab.

We are building up the core competency of our IT digitalisation team to ensure we have the critical talent we need and enlarge the internal knowledge base. We are also proactively introducing new technology from outside and participating in technology exchange with external stakeholders, including exchange of ideas and experience with major technology companies which contributes to the overall transformation of the industry.



Industry 4.0 live sharing in Liaoning Province.

Our 2018 "Tech Day" was held in Tiexi plant to share and transmit the direction and prospect of digitalisation and Industry 4.0 with BMW Brilliance staff, BMW Group and media group visitors. We have adopted an agile approach to advance the development of IT solutions, to improve both process and outcomes. Close collaboration with business units in a solution-oriented working style has enabled more effective inputs into the fast and lean innovation process as well as optimising the integration of new digital tools.



BMW Brilliance 2018 Tech Day

## 1.4 BEING A RESPONSIBLE BUSINESS

We aim to build a strong culture of compliance that acts as the foundation for putting our values into practice, prioritising ethical behaviour, protecting human rights, and increasing transparency in an ever evolving and complex regulatory environment.

At BMW Brilliance, our compliance efforts are wideranging to enable us to meet requirements on fair competition, anti-monopoly, corruption, data privacy, product quality, trade compliance and environmental standards among others. We have developed policies and mechanisms based on all applicable laws and regulations and have reinforced this with a comprehensive compliance management system and structure. We implement and monitor initiatives systematically, using multiple communication channels, training, risk identification, and remediation efforts to ensure that compliance issues are understood, and policies are enforced across BMW Brilliance.

#### MANAGING COMPLIANCE

Through our compliance management system, we actively address anti-monopoly and fair competition requirements, implement anti-corruption and antifraud policies, and take measures to prevent bribery, data theft, and any anti-competitive practices in our company.

Our compliance system is constantly responding to emerging issues, such as cybersecurity and data privacy, where our priority is monitoring newly released government policies and regulations. We then build up the necessary teams to address potential risks such as cybersecurity and work to ensure close analysis of and compliance with relevant laws such as the Cyber Security Law.

Our system is reinforced by our compliance management structure, chaired by our CEO who monitors the overall effectiveness of the compliance management system. The BMW Brilliance Compliance Committee includes representatives from Human Resources, Legal Affairs and Compliance, Controlling and Risk Management, Corporate Audit, Business Development and Government Affairs, and the BMW Brilliance Compliance Committee Office (BCCO) is responsible for managing daily compliance matters across the organisation, with local compliance teams in Shenyang and Beijing. The BCCO's work is strengthened by the Compliance Operations Network, which includes department heads, plant directors, heads of the regional sales offices, and compliance interfaces from each department. Each department head has compliance targets, but compliance is also the responsibility of each associate and function.

In 2018, we expanded our compliance management structure and system to include our indirect purchasing suppliers, with an integrated due diligence process that covers governance from anti-monopoly and cybersecurity to environmental, health, and safety laws and regulations. The supplier on-board evaluation system is being developed by indirect purchasing teams with the aim to go live in early 2019.

#### **BMW Brilliance compliance management system**

F. 05



- The BMW Brilliance Compliance Committee reports to the Board of Management and the Audit and Compliance Committee/the Board of Directors based on the Articles of Association of BMW Brilliance and the BMW Brilliance Compliance Committee Working Procedures.
- The "Compliance Operations Network" consists of the Compliance Responsibles, who are the department heads reporting to the CEO or SVPs, the heads at regional offices of BMW Brilliance and the CEO of its subsidiary company.

#### PREPARATION FOR THE SOCIAL CREDIT SYSTEM

By 2020, all citizens and businesses in China will be evaluated according to their economic and social reputation and assigned a Social Credit score. The aim is to create more transparency on compliance with official obligations and to incentivise behaviour, with the overall goal of improving governance. The Social Credit scores for companies will be available to the public and could affect qualifications for certain loans or government programmes.

At BMW Brilliance, we have started preparations for the 2020 Social Credit System by completing a self-assessment that identifies potential risks and gaps existing within operations and for our business partners. We established cross-department coordination and responsibility, and for all gaps identified, relevant departments must submit a feedback and mitigation plan to the centralised BMW Brilliance compliance team. We will also provide training for employees to understand the details and implications and details of the system.

#### **COMPLIANCE TRAININGS AND COMMUNICATIONS**

All employees at BMW Brilliance are required to follow the Legal Compliance Code on employee behaviour pertaining to anti-monopoly law, anti-fraud, and anti-corruption. In support of this requirement, we conduct compliance risk assessments, initiate mitigation processes, implement comprehensive training programmes, and provide a whistle-blowing mechanism to alert BMW Brilliance management in instances of non-compliant behaviour.

To maintain a high level of compliance, we provide awareness-building, open communication, and guidance from Management. Our Compliance Committee Chairman and General Counsel regularly send letters on important policies and announcements with information on how to actively mitigate specific compliance scenarios.

We continue our training efforts to ensure that our employees are fully aware of our compliance requirements. Our mandatory online training modules on the Legal Compliance Code, focusing on anti-corruption policies, information security, and data privacy, were updated in 2018 and will be launched for all non-production employees in 2019. The online trainings are based on our e-learning platform and will be more user-friendly and interactive and include new features that track the completion of online trainings.



Compliance training on anti-monopoly legal requirements.

Specialised trainings are given to managers who are newly promoted into a leadership function, and certain departments are provided with additional trainings based on their exposure to potential non-compliance

Our sales divisions in Beijing and regional offices as well as the related purchasing and R&D teams receive regular legal and compliance team trainings on anti-monopoly legal requirements specific to the automotive industry. Externally, we include compliance clauses in purchase contracts, and dealer agreements.

#### **RESPONDING TO INQUIRIES**

We have mechanisms in place to address compliance inquiries. Employees, suppliers, and business partners can raise concerns through line managers or personnel of the Compliance Committee Office, Legal Affairs, Corporate Audit, or Human Resources. Processes for the community to raise concerns are available at the plant level. Concerns can also be raised through our confidential compliance advisory and notification hotline, SpeakUP. The SpeakUP Line is managed by the BMW Brilliance Compliance team and concerns can be raised anonymously. We acknowledge, investigate as appropriate, and document all concerns. Where concerns are investigated and substantiated, we report them, take appropriate remedial actions, and document the outcomes. BMW Brilliance does not tolerate any form of retaliation against anyone who raises a concern or participates in an investigation.

Data privacy has become a significant concern across all industries as technological innovation and digitalisation create new risks for companies and for customers. At BMW Brilliance, we are making significant investments in protecting customer, partner, and employee data. In 2018, we developed initiatives to raise awareness and to strengthen our privacy data protection systems and culture. This includes optimising process controls in projects and assessing privacy risks of the legacy information technology (IT) system. We held a workshop with our Compliance Committee Office and Data Privacy Protection Officer network (DPPOs) to strengthen communication and cooperation between DPPOs and Legal and Compliance functions at BMW Brilliance and across BMW Group entities in China.

To enhance cybersecurity, BMW Brilliance, collaborating with other BMW Group legal entities in China, has jointly developed a specialised steering committee involving the heads of IT, Strategy, Compliance, Legal Affairs, Information Security, and other related departments of each legal entity, to navigate Cyber Security Law compliance topics such as Network Operator, Personal Identity Information, Data Cross Border Transfers and Critical Information Infrastructure.

Mitigation procedures were also developed in collaboration with the IT department and an external party which will support the implementation and training of all related departments.

#### **RESPECTING HUMAN RIGHTS**

We are committed to respecting the human rights of all individuals impacted by our operations. The BMW Brilliance Joint Venture Equity Contract includes a requirement to establish policies and procedures at BMW Brilliance to avoid human rights infringements and to address adverse human rights impacts that might involve our company. We expect all employees and business partners to respect human rights in their daily actions.

Employees can submit information about possible human rights violations within the company via the BMW Brilliance SpeakUP Line, anonymously and confidentially. As part of our efforts to prevent human rights violations, we provide information and training to employees, particularly on the SpeakUP programmes. We also conduct risk analyses and human rights impact assessments, and we maintain internal monitoring and reporting structures. Our cooperation with business partners and our dialogue with stakeholders also allow us to identify and address risks quickly.

Being a Responsible Business • SUSTAINABILITY MANAGEMENT

#### **HUMAN RIGHTS GOVERNANCE**

Human rights issues are managed by the relevant business functions of BMW Brilliance. The Human Resources Department is responsible for assuring human rights within our operations. The Purchasing and Supplier Quality Management Department takes the necessary steps to ensure that suppliers respect human rights.

We base our respect for human rights on internationally agreed principles, including the principles set out in the International Bill of Human Rights and the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work. The following important governance documents and policies embed human rights into our business practices:



Compliance awareness-building through communication.



#### **BMW Brilliance Joint Venture Contract**

Objective: This is a founding document of BMW Brilliance as a Joint Venture between BMW Group and Brilliance Automotive, setting out the key principles of business conduct.

Issues addressed: Our commitment to the United Nations Global Compact and respect for the International Labour Organisation's labour guidelines is explicitly stated therein.



#### **Associate Handbook**

Objective: The objective of the Associate Handbook, which includes our Ethics and Code of Conduct as well as our Business Principles, is to detail and communicate to all employees their rights and responsibilities, as well as our corporate values.

Issues addressed: All human rights issues relevant to human resources, such as nondiscrimination, remuneration, working hours, and other terms of employment are reviewed in the handbook.



#### **Legal Compliance Code**

Objective: The Legal Compliance Code explains the central importance of lawful conduct to BMW Brilliance and provides an overview of the legal areas relevant to our business.

Issues addressed: Issues covered which are relevant to human rights include data protection, health and safety, and non-discrimination.



General Terms and Conditions for the Purchase of Goods and Services and the BMW Group's International Terms and Conditions for the Purchase of **Production Materials and Automotive Components** 

Objective: Our terms and conditions of procurement govern the rights and obligations of the parties involved.

Issues addressed: Environmental criteria as well as recognised human rights and labour standards are included.

#### **HUMAN RIGHTS IN THE VALUE CHAIN**

Risks of human rights infringement are particularly high in complex supply chains with extensive division of labour, as is the case in the automotive industry. We require our direct suppliers to meet the same social and environmental standards that are applied at BMW Brilliance. Compliance with internationally recognised human rights standards, as well as with labour and social standards, is part of our General Terms and Conditions for all purchases and is included in all supplier contracts.

We continuously review our corporate policies and initiatives regarding their effectiveness in avoiding human rights infringements in our supply chain. Additionally, the supplier risk management process that is applied throughout the BMW Group network enables us to identify and analyse potential sustainability and human rights risks throughout our supply chain. In our regular supplier review, we consider issues such as occupational health and safety, child labour risks, and environmental impacts.

## **FORECAST 2019**

In 2019, our sustainability management efforts will include alignment with the BMW Group newly upgraded strategy, and with China policy and market trends. As the external environment evolves, we will continue to define what sustainability means and how best to integrate it into each department to address key issues. We will evaluate our sustainability goals and optimise key performance indicators, and invest in sustainability initiatives. We will also bring in outside perspectives and strengthen dialogue and cooperation with external experts and peers from sustainability organisations, for instance the United Nations Global Compact and China Business Council of Sustainable Development.

The rollout of our digital transformation will continue leveraging our Agile Development Methodology, to create innovative digital applications and process enhancements for associates. We want to make the life and work for our employees, business partner and customer better and more convenient in the future. To support this, we aim to expand a 5G network at production facilities to create a more fluid smart manufacturing environment for all of our teams.

We will continue to implement our department classroom training programme on anti-monopoly law. A pre-review and approval process for external activities and information exchange will be introduced to evaluate and prevent monopoly related risks. Anti-bribery policies will be further communicated alongside with in-depth trainings on conflict of interests and the legal consequences in case of violation. Our communication campaigns will include interactive formats.

To raise our employees' compliance awareness on a daily basis, WeCompliance is a training programme that will be developed and rolled out in 2019. WeCompliance will pop up on BMW Brilliance intranet pages twice a week for employees to learn about any compliance related topics. The contents over a five-year transitional phase. 

will include case studies, new and updated laws and regulations, communication on violations, and alerts from both the compliance team and the partner functions.

At Tiexi, Dadong and Powertrain plants, the plant directors emphasise the importance of compliance. communication, and the accessibility of grievance mechanisms at BMW Brilliance during day-to-day communication. A group-wise event of "Compliance Day" will be organised in Beijing office and Shenyang plants in early 2019.

Communication of compliance messages to third parties including dealers and suppliers will be increased. To enhance due diligence procedures before on-boarding new indirect purchasing suppliers and to improve ongoing performance monitoring, the Compliance Function has joined the Indirect Purchasing Teams in redefining and optimising process and approval flows.

We want to strengthen our supplier network while improving our environmental monitoring process. We will continue to create awareness and deliver trainings and enable feedback through digital platforms.

In 2019, we will enhance daily communication and cooperation with compliance core teams that cover tax, trade, business development, cyber security and data protection, human resources, and environmental protection. The environmental protection compliance team will be responsible for water, air, and control and management of hazardous waste disposal.

Under the new foreign investment law released by the National People's Congress, a new governance structure is to be determined as our Board of Directors will transition to a Board of Shareholders,



## SUSTAINABILITY DRIVER

"The E-Mobility (R)EVOLUTION has significantly changed the way we deliver products and services, contributing to sustainable development and the protection of environment and society."

#### What does the E-Mobility (R)EVOLUTION mean to BMW Brilliance and how does it benefit our stakeholders?

People tend to think E-Mobility is far away, when actually it's already happening. The "E" in E-Mobility not stands for "electrified", but also means "emission-free" mobility, which will enable us to make our cities better and cleaner places to live, both now and for the future.

BMW Brilliance's E-Mobility (R)EVOLUTION benefits individuals and society along with our business. Each of us has the responsibility to leave a better planet for the next generation. For the business, the revolution is already happening, and we are on top of this new wave. China's proactive policies on emissions reduction and new energy vehicle strategy mean that BMW Brilliance is in a good position, with a competitive advantage.

#### What is the strategic plan to ensure that the (R)Evolution is realised? How can we collaborate with our partners to achieve this?

By 2023, the BMW Group plans to have 25 electrified vehicles, including several localised models produced by BMW Brilliance. E-Mobility also has an important role in BMW ACES (Autonomous, Connected, Electrified, Shared) strategy. We are building up an entire E-Mobility ecosystem to support efficient and convenient use of our new energy vehicles. We will continue to develop and scale out battery R&D programme in China with localised core competency. Providing different charging options for customers means that there will be smarter and easier ways to use cars, enhancing accessibility and convenience. We will also continue to develop the capacity of our dealer network to sell and repair new energy vehicles.



**KARL-HEINZ GASSNER** Head of E-Mobility China



The BMW Concept iX3.

To achieve our goals will take detailed planning, and local partners have an essential role to play, for example in battery production, as part of the E-Mobility ecosystem, and in our value chain. Right now, we are in the final stage of starting production of the BMW iX3, which will be manufactured and offered in China but exported to the world. The BMW iX3 was derived from the existing BMW X3 world model. Such adaption was fully researched, developed and engineered in China as a local concept by relying and building on both BMW Brilliance's local R&D and production capacities.

#### What has been achieved in 2018? And, what is the outlook for 2019?

At BMW Brilliance, our electric vehicles sales volume reached 21,438, which was increased by nine times compared to 2017. This achievement is due not only to the hard work of our E-Mobility team, but also to the excellent new energy vehicle ecosystem we have in place of dealers, sales consultants, aftersales service, and charging pillars. We will have over 100,000 public charging pillars in place by the end of 2019, including pillars in airports and dedicated parking lots, and digital platforms that enable customers to find the service and location they need.

Other 2018 achievements include the development of our next High Voltage Battery Research Centre, and innovation with our dealership network on E-Mobility. In Chengdu, we are using wireless inductive charging with EVCARD to create a wireless charging fleet.

In 2019, our strategy is to have the right products for the E-Mobility (R)EVOLUTION. E-Mobility is evolving, and BMW Brilliance is a big part of it, as the concept becomes more mainstream and customers accept E-Mobility as normal, convenient, and cost-effective. Safety is a constant guarantee— building on BMW's 47 years of research on E-Mobility and never compromises on customer safety. Meanwhile, the technology continues to improve, with better batteries and charging options. Our E-Mobility services will continue to expand, with a holistic Charge Now approach that includes public charging, home charging, BMW connected charging, and integrated charging. Innovation on the production side and development of local partners means that we now have more options for reusing batteries as well. We are proactively exploring circular use of batteries retired from new energy vehicle, leveraging the circular economy philosophy to build up new business models in cooperation with dealers, OEMs, raw material providers and disposal service providers.

# RESPONSE TO THE SUSTAINABLE DEVELOPMENT GOALS

















We are committed to maximise the health and well-being of our customers and the public, through creating safe and high-quality products and services, providing driver safety trainings and promoting traffic safety awareness (SDG 3). We prioritise the use of non-hazardous materials, continuously improve the fuel efficiency of our vehicles, and create innovative new electric vehicles as part of our contribution to advanced manufacturing as well as responsible consumption and production (SDG 9,12). In China, these efforts align with national policies to reduce pollution and take ambitious action to reduce the emissions causing climate change (SDG 13).

5.84L/100km

Corporate average fuel consumption (top-ranked Joint Venture in China)

490,151

Total vehicles produced for the Chinese market

9x

Increase in electric vehicles sales

## 2.1 STRATEGY AND MANAGEMENT

Changing individual mobility behaviours and an acceleration of new technologies are changing the landscape of the automotive industry in China, where the market is sophisticated and dynamic. For BMW Brilliance to meet the needs of Chinese consumers, we must strike a balance of cutting-edge technology, customer-centric services, and outstanding product performance in the provision of green products and green services. Our portfolio is expanding, along with the production capabilities required to deliver a growing fleet of electric vehicles.

At BMW Brilliance, we respond to market demands by offering a wide range of models, from traditional internal combustion engines to electric vehicles. In 2018, we further extended our product line-up and brought to the Chinese market new vehicle models designed to meet our customers' increasingly individualised and diversified needs. Our engineers work closely with the BMW Group's R&D team to refine products and components specifically for the needs of Chinese customers and in line with Chinese regulations, which is essential for our long-term business strategy.

As the E-Mobility market expands and becomes increasingly competitive, BMW Brilliance continues

to increase our contribution to E-Mobility by providing premium electric vehicles, advanced E-Mobility charging infrastructure, and complementary services to create a customer-oriented new energy ecosystem in China.

In our production process, we conduct rigorous material and product safety checks, and we incorporate advanced safety features in our vehicles. We support our customers with training and are responsible to their feedback, and work with our dealer network to upgrade their customer interaction platforms and ensure their sustainable performance and Environmental Health and Safety (EHS) management.



High Voltage Battery Centre Phase II groundbreaking event.



Two-millionth car roll off ceremony.

#### **EXPANDING OUR BUSINESS IN CHINA**

Since BMW Brilliance's inception in 2003, our expansion has been rapid as we established local research and development, procurement, and production. We are committed to introducing the latest products and technologies to the Chinese market. BMW Brilliance has created a distinct competitive advantage in China, by building a complete E-Mobility ecosystem that covers local R&D capabilities, battery & vehicle production, technology leadership, brand & products, charging & infrastructure and E-Mobility services.

In 2018, we celebrated the roll off of our 2 millionth car from the production line in Dadong plant. Since the 1 millionth locally produced BMW car rolled off in 2015, BMW Brilliance's production has soared to 2 million cars in just three years. This rapid increase

reflects the brand's success in the premium market in China. The 2 millionth car was BMW Brilliance's latest electric vehicle, the all-new BMW 530 Le, and is solid proof of the Joint Venture's strength in future mobility.

As market demand grows for E-Mobility, we are investing in technologies and infrastructure that will meet the needs of our customers. With our High Voltage Battery (HVB) Centre at Powertrain plant, we produce more powerful and longer-lasting electric batteries with greater durability and maximum driving range to suit the diverse lifestyles of our customers. The HVB Centre makes BMW Brilliance the first Chinese premium automobile manufacturer to launch its own battery assembly line. The all-new BMW 530 Le plug-in electric hybrid is the first vehicle in our product fleet to incorporate this new battery technology, marking a new era for our electric vehicles.

## 2.2 PRODUCT SAFETY AND QUALITY

Road safety and the use of hazard-free materials are crucial from both social and environmental perspectives. BMW Brilliance has adopted an integrated approach to product safety in line with the global safety standards of the BMW Group. This includes advanced safety systems, the avoidance of potentially harmful materials and emissions inside our vehicles, adequate product information, and safety training for drivers. Keeping our customers and other road users safe is an integral part of our product responsibility.



Smart Testing and Product Integration.

During the product development phase, we develop and invest in the most advanced safety features, materials, and technologies that guarantee product safety. At production, we use optical checking enabled by 3D cameras that detect abnormal trends in welding and foil application, verify and optimise welding quality, and flag potential quality defects during production.

During utilisation, we inform our customers about any potential risks and hazards related to our products, as well as the environmental performance and proper use of our products and services. We report on the fuel consumption of our vehicles in accordance with China's vehicle fuel consumption regulations, and this information is available on the Ministry of Industry and Information Technology website.

We monitor customer feedback on our products and pay close attention to any feedback on the topic of safety. If necessary, the responsible authorities are informed without delay, and measures to secure customer safety are initiated. We have established implementation processes and organisations for this purpose.

Product Safety and Quality • PRODUCT AND SERVICE RESPONSIBILITY



Torsion & Bending Test Bench.

#### SAFETY SYSTEMS AND **TRAINING**

Our vehicles are designed to keep passengers and other road users safe. They include active safety systems that help prevent accidents, as well as passive safety systems that mitigate the effects of a potential accident. Active safety includes perfect chassis tuning, optimal traction, and effective brakes. Electronic chassis-control systems, as well as a range of driver assistance systems, also contribute to accident prevention.

Should an accident occur, all BMW vehicles have energy-absorbing crumple zones, safe passenger cells, restraint systems, airbags, and many other passive safety features that protect the lives and health of drivers. Moreover, the vehicle front has various devices installed to protect pedestrians.

Beyond our vehicle safety features, we provide BMW customers with complete road safety training designed for a range of different skill levels and driving abilities. Led by our expert team of instructors, who are certified in Germany and BMW-qualified, more than 11,750 participants took part in our training courses and events across ten cities in 2018. These localised and tailored training courses test drivers under a variety of conditions and offer a safe, superior, and complete BMW driving experience.



Driver training

# >11,750

Number of participants that took part in our training courses and events across ten cities in 2018, led by our expert team of instructors, who are certified in Germany and BMW-qualified.

#### **USING SAFE MATERIALS**

In the early development phase, we evaluate the potential materials to be used in a product in order to determine the risk potential and eliminate any problematic materials from the outset. This ensures that all policies and regulations, in terms of product safety and protection of human health and the environment, are met in each phase of the vehicle life cycle, from development to utilisation to recycling and disposal. As part of our production process, we fully document all chemical substances used. These substances first undergo a safety inspection and are then approved for a specific application through our central recording system, which provides detailed specifications and tips on handling these products as well as on storage, transport, and first aid.

#### MANAGING HAZARDOUS **MATERIALS**

To ensure a comprehensive and consistent approach towards prohibited and restricted substances and materials, we have defined clear business procedures that secure the safe control of hazardous substances.

We monitor our vehicles and their components to ensure compliance with EU end-of-life vehicles (ELV) directives and we include this in international purchase contracts to ensure supply chain cooperation. We comply with the Management Requirements for Automotive Hazardous Substances and Recyclability and Recoverability Rate issued by MIIT (2015-38), which recommends limits for recyclability and recoverability of parts. This has become compulsory for all new and existing vehicles as of the beginning of 2018. We expect the same level of compliance across our supply chain.

#### Non-hazardous material analysis for seat belt retractor

F. 06



**Assembly Part:** Seat belt retractor



#### Disassembly: The seat belt retractor is dissembled into subparts



#### Testing: Dissembled parts are tested for

hazardous materials content to ensure compliance with the management requirements

With customer demand for E-Mobility growing in China and globally, further research will identify any effects of hazardous materials associated with the parts that make up high voltage batteries. Our current efforts are to provide optimal battery usage and to explore opportunities to increase the recyclability of used batteries by working with the government to support the policymaking process and working with our suppliers to identify where continuous improvements can be made. We have set up a Battery Coding and Tracing (BCT) Platform to ensure traceability of our high voltage batteries from production through sales, maintenance and repair, and collection for recycling, ensuring that we track and recycle the batteries we produce.

## PROTECTING INTERIOR AIR QUALITY

We identify potential health effects caused by substances found in our external environment. In response to the growing challenge of air pollution in urban areas, all BMW vehicles are equipped with a passenger compartment filter as standard. This highly efficient air filter almost completely removes particles such as dust, pollen, and pollutants from incoming air.

## **ACHIEVING PRODUCT AND** MANAGEMENT SYSTEM **CERTIFICATION**

In 2018, external auditors from China Quality Certification Centre (CQC) conducted an ISO 9001:2015 audit at Dadong, Tiexi, and Powertrain plants on our operations, quality, purchasing, and research and development. With our advanced quality management system, we successfully achieved the certification, demonstrating that the BMW Brilliance quality management system is working effectively.

In the same year, we also passed the 2018 China Compulsory Certification external audit with zero findings. The audit includes an inspection of production processes, materials, and equipment, as well as a conformity check of all series products. Generally, BMW Brilliance's product standard requirements are higher than China's mandatory requirements for product emissions, fuel consumption, the use of environmentally sound materials, and recyclability and reusability throughout a product's life cycle.

At our High Voltage Battery Centre, we obtained ISO/ TS16949 Letter of Conformance (LOC) issued by the IATF (International Automobile Task Force). This certification provides confidence in the application of new high voltage battery technology and recognises our management process and approach, quality management system knowledge, working environment, and target setting. In the future, BMW Brilliance plans to expand the audit to cover the entire Powertrain plant and has already started to prepare.

## 2.3 RESPONSIBLE MOBILITY

Climate change and the effects of air quality in our communities and cities present an ongoing challenge for the automotive industry. To address these challenges, we are continuously reducing the CO<sub>2</sub> emissions from our vehicle fleet, and we aim to be the leader in taking a holistic approach to premium electromobility.

We are committed through the innovation and development of our product portfolio to increase the efficiency of our traditional combustion engines and expand our range of electric vehicles, with the goal of continuing to reduce corporate average fuel consumption and emissions across our product portfolio.

BMW Brilliance is creating an E-Mobility ecosystem, complete with new products and services supported by our technology leadership and R&D capabilities, and supports for the infrastructure and service providers that enable electric vehicle mobility.

#### REDUCING FUEL CONSUMPTION

Fuel efficiency and environmental impacts are important factors that we consider from the design stage. We closely analyse and test the materials, production, technologies and drivetrain types on performance, efficiency and reuse.

With BMW Group's Efficient Dynamics Strategy and our significant electric vehicle production volume increase, our Corporate Average Fuel Consumption reached 5.84L/100km in 2018 (6.17L/100km in 2017), decreased by 5.3% compared to 2017, and remains the top-ranked Joint Venture in China for corporate average fuel consumption achievement rate.



Following the release of "Management Regulations for Corporate Average Fuel Consumption (CAFC) and New Energy Vehicle (NEV) credits" (also known as "dual-credit scheme") in September 2017, designed to motivate vehicle manufacturers to accelerate deployment in the new energy vehicle market, the credit trading platform officially went online in July 2018 for OEMs to conduct CAFC credit transfer and NEV credit trading. With credits surplus for 2016 and 2017, we actively participated in the credit transfer practice to support our shareholder for credit year 2016 and 2017. In 2018, 426,431 CAFC credits and 43,144 NEV credits were generated and outperformed government's requirement.

We take active measures in establishing the dual credit forecast mechanism, closely monitor and report the credit status in order to ensure the long-term fulfilment of regulatory requirements and continuously make contribution to China's commitments on fuel efficiency and emissions targets.

## LOWERING CO<sub>2</sub> EMISSIONS

In 2018, our overall CO2 emissions increased, but proportionally less than our increase in vehicle production which rose by 19%. We achieved significant improvements in fuel economy through efficient dynamics and an increased share of production of electric vehicle models, so that our CO<sub>2</sub> emission from use increased by only 17%. Our CO<sub>2</sub> emissions from production increased by 14%, with usage of electricity generated from renewable sources only slightly higher in 2018, after a significant increase in 2017 when we shifted 178 MWh of electricity usage to our own renewable sources.

#### CO<sub>2</sub> emissions of BMW Brilliance automobiles (in t)

F. 07

	2015	2016	2017	2018	Change from previous year %
Total emissions	9,538,536	9,901,541	11,884,985	14,190,033	19%
Upstream chain <sup>1</sup>	1,989,117	2,099,198	2,675,910	3,408,077	27%
Production <sup>2</sup>	253,183	342,724	278,195	317,486	14%
Utilisation phase <sup>3</sup>	7,138,095	7,292,407	8,735,582	10,219,060	17%
Disposal <sup>4</sup>	158,141	167,212	195,298	245,409	26%

- 1 Emissions from the upstream chain are calculated based on the carbon footprint of representative vehicles from the product lines.
- 2 Include total emissions from production at Tiexi, Dadong and Powertrain plants in Shenyang.
- 3 The fleet emissions are extrapolated from the average fleet emissions of BMW Brilliance products sold in a given year. The calculation was based on an average milage of 150,000 kilometres.
- 4. Emissions from disposal processes are calculated based on the carbon footrpint of representative vehicles from the product lines.

In order to decrease the indirect CO2 emissions of our vehicles in the future, we will reinforce our efforts to promote electric vehicles and to further increase the efficiency of fuel consumption and of our transport logistics > Chapter 3.4 and we will continue to collaborate with our suppliers to reduce CO<sub>2</sub> emissions along the value chain > Chapter 4.

Reduction of CO<sub>2</sub> emissions is also contributed by our work to increase the recyclability and remanufacturing of parts. In 2018, we recycled more than 217,500 parts weighing a total of more than 800,000 kg, and we are steadily increasing our capacity in remanufacturing and establishing a complete reverse logistics system for core recycling.

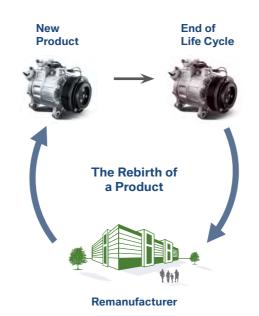
We began remanufacturing transmissions in China as a pilot project, and in 2018, BMW Brilliance remanufactured automatic transmissions (6HP and 8HP) and we plan to include three more vehicle part categories in 2019. Remanufacturing not only offers economic solutions to our customers for out-of-warranty repair, but also improves customer satisfaction.

Although still an emerging industry in China, remanufacturing is a promising option as it can create 50% cost savings, 60% energy savings, and 70% material savings compared with manufacturing new materials, and significantly reduce emissions of air pollutants and CO<sub>2</sub>.

#### **BMW Parts Remanufacturing Service**

F. 08





**50**% **Cost Savings** 

**60**% **Energy Savings** 

**70**% **Materials Savings** 

E-Mobility is an essential element and strategic pillar of the BMW Strategy NUMBER ONE > NEXT and BMW Brilliance will contribute to the commitment set by the BMW Group, to offer 25 electrified models to our customers by 2023.

As BMW Brilliance's BMW 530 Le and BMW X1 xDrive 25 Le ranked in the top 10 plug-in hybrid electric vehicles in China, our growth and progress in the new energy vehicle category aligns with ambitious sales targets set by the Chinese government.

To support the growth of our electric vehicle products, we are expanding our electric vehicle dealer network to provide and ensure high quality service capabilities that are convenient to all of our customers. The electric vehicle dealer network has increased to 336 in 2018 and will grow to over 400 in 2019.





## BMW 530 Le BMW X1 xDrive 25 Le

Top 10 Plug-in hybrid electric vehicles in China

336 in 2018

Number of electric vehicle dealer network in China.

## **OFFERING SUSTAINABLE MOBILITY SERVICES**

By the end of 2018, BMW's public charging network had expanded to more than 150 cities in China, with more than 80,000 charging pillars available. For our customers, the ChargeNow™ card provides access to the charging pillars, and BMW Connected Drive gives drivers updated information about charging stations in their immediate vicinity. Our BMW Connected mobile app enables mobile payment for charging services, and our ChargeNow™ WeChat platform gives customers real-time information about charging pillar locations and charging services.

To reinforce our public charging network, our ChargeNow™ programme includes strategic partnerships with local providers to extend public access to charging pillars and intelligent charging systems. All public ChargeNow™ charging pillars can be used by customers of other brands with vehicles that conform to the China GB standard by downloading an app or purchasing a charging card from our local partners.



ChargeNow charging pillar.

Our customers with private parking spaces can also get free charging wall boxes, including installation services. Our certified installers provide high quality standard installation in over 150 cities across the country. For customers who do not have their own parking space in Beijing, Shanghai, Guangzhou, Shenzhen, Hangzhou, or Chengdu, a free charging card package provides access to semi-public charging stations in their residential compounds. In 2018, BMW Brilliance also supported premium dealer charging stations, and established charging services at our plants and across our cities.



#### THE GROWTH OF E-MOBILITY

## 2.4 CUSTOMERS AND DEALERS ENGAGEMENT

Customer demand is constantly evolving. In this technological age, customers can see, interact with, and experience products and brands in many new ways. We aim to maintain high customer satisfaction with high-performance vehicles, sustainable designs, and premium customer services and training.

We strengthen our customer engagement by communicating openly, collecting feedback, protecting customer data, and investing in our aftersales teams to deliver the best possible services that reflect BMW Brilliance's core values.



## **IMPROVING CUSTOMER INTERACTION**

To optimise our customer interaction and support, we integrate our multiple communication channels to provide increasingly individualised information to our customers and offer benefits through our local commercial partnerships.

The BMW Customer Interaction Centre is at the core of our communication with customers. Our agents call current and prospective customers to gather information about their satisfaction with our dealers' sales and aftersales services. We also receive more than 71,000 inbound calls per month, mostly customer inquiries. A self-service function allows customers to receive information efficiently and provides the option

to receive information via text messaging. Our Online Genius is a new web-based customer contact platform with 2-way video chat that can address customer inquiries and present the BMW product portfolio of vehicles.



BMW Customer Interaction Centre



RMW chat service

Our Direct Communication Circle defines which content and campaigns are of interest to each customer group. The relevant information is then included in individualised online newsletters that are sent to 8 million customers, users, and prospects each month.

We use a 360-degree customer view tool to make proactive, needs-based suggestions to our customers and to harmonise customer communication across different departments and communication channels. The tool analyses customer data and informs our dealers regularly about the current situation and needs of each customer. In response, we send all of our customers the information they require, such as a service reminder, information about insurance renewal or end of warranty, sales promotions, even a birthday greeting. We also use the 360-degree customer view tool in our Customer Interaction Centre, increasing the efficiency of our communication and resulting in higher customer satisfaction.

#### **COLLECTING CUSTOMER FEEDBACK**

We solicit customer feedback via text message after each interaction with one of our dealers so we can proactively respond to any negative feedback with a call to the customer to get more detailed information. Customer inquiries, suggestions, and comments are then sent to the relevant departments or dealers for follow-up. We assess customer feedback and resolution rates on a monthly basis, so we can act on common issues and improve our response quality.

To date, 185 BMW dealers are involved in this new process, and the results show a positive impact on customer satisfaction.

Customer data security is a top priority, and our Data Privacy Protection Office provides technical security to protect customer data and its usage. BMW Brilliance implemented a standardised process to protect customer data privacy. Our dealers apply the same processes to ensure our customers' personal information is kept safe. We continuously improve our systems and processes in line with developments in customer data protection requirements, and we offer various channels for customers to change their opt-in status, based on their preferences.

#### SUPPORTING DEALER **IMPROVEMENT**

We monitor our dealers' performance in sales and aftersales services with our Joy Index. We conduct surveys to collect information about customer satisfaction and feedback, which we analyse monthly and then share with our dealers. The information serves as a basis to better align services with customer needs and expectations and allows us to jointly track improvements over time. Meanwhile in order to help our dealers offer premium customer service, we encourage ongoing exchanges among dealers, and the best dealer action plans or service tips are shared also on an online platform which is Customer Board, it consolidates cross-functional sources of customer feedback in an integrated approach. To date, 136 dealers use the Customer Board, with the intention to expand by 70 more in 2019.

Customer satisfaction is directly related to providing the right products and services in a personalised manner at every touchpoint. Digitalised Customer Relationship Management (CRM) services support personalisation and customer convenience, which is why BMW Brilliance works with dealers to implement these. The Dealer Mobile Office solution, for example replaces paper-based customer registration, test drive and CRM processes by utilising the customer's smartphone. Additionally, the related CRM Portal provides leads and individual customer information to sales agents for a proper 1:1 communication.



We prepare our dealers to better serve their customers with an on-site coaching programme aimed at creating a consistent premium experience for all customers and prospects who visit our dealerships. The goal is to make the customer experience more personal, emotional, and inspiring. We provide on-site training for all our new dealerships, and we carry out individualised coaching for dealerships with low customer feedback scores. Dealers identified for improvement will receive training from the BMW Group China Training Academy. For the electrification of our product fleet, we have expanded our E-Mobility dealership network to 336 locations in 75 cities. To ensure these dealers can provide the best possible service to customers and prospects, we conduct on-site training. We also train sales advisors, area managers, and call centre agents to complement the service at our dealerships. To stimulate demand and further expand the share of electric vehicles in our fleet, we are implementing a strong marketing and public relations campaign. Through experiential events, potential customers get the opportunity to experience first-hand the outstanding performance and driving dynamics of our electric vehicles.

### **FOSTERING SUSTAINABILITY** IN OUR DEALERSHIPS

We apply the 5S dealer certification programme to promote sustainability among our dealers. The 5S programme incorporates the concept of sustainability, along with the traditional 4S (sales, services, survey, and spare parts) concept, and requires dealers to reach a relevant sustainability standard that includes the validity of their measures for resource use and carbon emission reduction at their operations. As of 2018, we had 42 5S dealerships in the BMW Group China network. Moreover, 26 dealers were successfully recertified according to the 5S certification model, which requires renewal every two years.

Sustainable EHS management is a joint topic between BMW Brilliance and our network of dealers. The EHS guideline had been provided to dealers to support compliance and optimal environmental, health, and safety performance including wastewater management, exhaust management, noise control, waste storage and disposal, and occupational health.



Energy saving architecture, utilising natural light.



expand our range of driver assistance systems, and continue driver safety training. In 2018, we extended our training to include additional locations so that our tailor-made courses can be more readily



## SUSTAINABILITY DRIVER

"I joined BMW Brilliance in 2003, and I believe diversity and integration make our company strong."

#### How has Dadong plant evolved and utilised new technologies to enhance performance?

BMW Brilliance maintains its competitiveness and production performance with smarter and greener production, enabled by a transparent, integrated, and open culture. We achieve a clear competitive advantage by using efficient and resource-friendly production processes and state-of-the-art solutions, which often go hand in hand, and building up the soft competencies of our workforce.

We realise that our production and our products have an impact on the environment that is important to our diverse stakeholders. That is why we have worked hard to achieve the National Green Plant Award in 2017 and are holding it since then.

We emphasise resource efficiency as well as creating vehicle platforms and production processes which are agile and flexible. At our Dadong plant, we have continued to expand our production line using the most advanced technology in the BMW network. Leveraging this modern production system that can produce up to four BMW models, including both traditional combustion vehicles and new energy vehicles, we are able to to quickly adapt to market demands.



**Zhang Tao** Plant Director Dadong



Our technologies incorporate Industry 4.0 solutions and contribute to the local initiative of Made in China. We were awarded the Sino-German Intelligent Manufacturing Award in recognition of our Industry 4.0 applications and have received multiple awards for smart building and smart manufacturing. In the future, we plan to use even more renewable energy on-site at our plants and emphasise a more conscious practice with natural resources. Already we use advanced recycling infrastructure to repurpose our industrial water. It is these changes and the overall shift in thinking that gives Dadong and all our production facilities an advantage within the industry.

#### How are associates involved in BMW Brilliance's success in green and smart production at the **Dadong Plant?**

A great deal of our success has come from the enthusiasm of our staff to participate in the "Green Plant, Green Future" initiative, which encourages all our associates to contribute creative ideas for innovation in the plant.

To support this, we developed an online improvement platform, used at all our plants, which enables associates to submit their ideas. A total of 22,000 improvement suggestions were realised in 2018, that overall created significant changes in process, well-being, and environmental management. Ideas from associates are reviewed each week by a management team, engineers and mechanics to conduct a fair and transparent evaluation. The selected most valuable and impactful concepts are awarded for their outstanding improvements.

We choose a "Sound Suggestion Award" every week, every month and every year on departmental level and on plant level, for suggestions that have significant benefit for environmental protection or operational efficiency. The feedback we receive from employees is, that they feel more ownership and encouragement, and that their opinions are listened to and taken seriously by the management.

## **SUSTAINABILITY DRIVER**

How does Dadong plant's workforce composition and career development approach support the shift to green and smart production?

I joined BMW Brilliance in 2003, and I believe diversity and integration make our company strong. In our production and throughout our workforce we excel at blending multiple cultures and integrating different opinions, which contributes to our success in transforming our production to become greener and smarter.

We encourage internal promotion and personal career development, and there are many opportunities for that with the expansion and the new plant. Production associates can follow a career path becoming Section Leader and Specialist and even develop into Process Area Manager and, with the right qualification, enter the senior management. 70% of our Management Team are internally promoted as opposed to externally hired. This type of career development is supported by our comprehensive Learning & Development training system, including online courses, leadership, technical and language training. At BMW Brilliance, an employee's talents won't go unrecognised and there are always opportunities for those who are willing to learn and try.

We leverage our cultural diversity as an international Joint Venture to build trust between teams, embrace open discussion with common goals, and enocurage transparency and taking over ownership. Fostering a good cultural diversity is one of the key factors to succeed and an element that we seek to share with all of our partners along the value chain.



# RESPONSE TO THE SUSTAINABLE DEVELOPMENT GOALS

1.65

Energy consumption per vehicle produced (in MWh/vehicle)

0.63

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

7.8%

Reduction in water consumption per vehicle produced (in m³/vehicle)





















BMW Brilliance's activities on green production directly address several of the UN SDGs. Our efforts contribute to more sustainable industrialisation (SDG 9) and more sustainable production patterns (SDG 12) by reducing the environmental impacts of our manufacturing processes. We are also taking action to combat climate change (SDG 13) by reducing CO<sub>2</sub> emissions in our production, transport, and other aspects of our operations. These efforts align specifically with Chinese government commitments on the SDGs, in particular the prevention and treatment of pollution, safe disposal of waste, and environmental monitoring (SDGs 3, 12). China also has national strategies for climate change mitigation (SDG 13).

GREEN AND SMART PRODUCTION • Strategy and Management Strategy and Management • GREEN AND SMART PRODUCTION

The three strategic goals of the production system

identified through the strategy process are: Local

Strengths, Flexible Response, and Good Neighbour. We develop and utilise local strengths in Shenyang

and China, through our skillful and passionate

people with unique problem-solving mindset, precise

process adherence and strong execution capability.

## 3.1 STRATEGY AND MANAGEMENT

Global environmental challenges such as climate change and the depletion of natural resources present significant challenges for business and society. Guided by the BMW Group target for 2020 to reduce Group-wide resource consumption per vehicle produced by 45% compared to 2006, BMW Brilliance has made significant contributions to these goals by reducing our own consumption of energy and water at production.

DO

Our strategy integrates sustainability at production, utilising EFQM as a philosophy and methodology to drive improvement throughout our production and environmental management. The EFQM model integrates stakeholder expectations and supports and tracks our achievements based on key performance indicators and targets.

We conducted a stakeholder mapping and engage directly with stakeholders to collect and understand their expectations. This information feeds into

**PLAN** 

a comprehensive SWOT analysis and into our management systems, which then enables us to adapt our business processes accordingly. The effectiveness and efficiency of these actions are measured against the defined stakeholders' expectations via the Target Steering Process. Sustainability is fully integrated into daily operations management and the regular review of progress and success. Specific quantitative targets are in place for environmental performance such as emissions and waste management.

CHECK

Additionally, we are localising vehicle models for the Chinese customer. Flexible Response involves reacting to the regulatory and market's needs and building up a flexible production system. This allows for optimal preparation for scenarios that arise as a result of our challenging environment including our Zero Defect activities, raw material management, and regulation requirement. To be a Good Neighbour, we must be a good corporate citizen in the local and national context. This theme is demonstrated through our contributions to local employment and economic development, environmental sustainability and CSR activities. In 2018, we introduced five new strategic initiatives to eliminate inefficiencies. With the help of structured problem detection, prevention and solving, overarching cost transparency and process optimisation, we are able to further enhance the

efficiency of our overall production by eliminating nonvalue adding waste.

We set targets at the earliest phase of product development and define concrete measures to achieve them. Using life-cycle engineering to achieve specific environmental targets, we develop products to be environmentally friendly over their total life span, and we work to reduce environmental impacts during both the production and utilisation phases of our vehicles, investing in and developing infrastructure and technology that enables us to meet our goals.

Industry 4.0 technology is a cutting-edge advantage to advance transformation and make our production greener and smarter, such as the use of automated methods for real-time quality measurements that improve accuracy and efficiency. Automatic Defect Detection in the Paint Shop replaces conventional manual checks with four inspection robots incorporating multiple cameras to increase efficiency and quality and improved the defect detection rate by 40%.



GREEN AND SMART PRODUCTION • Strategy and Management

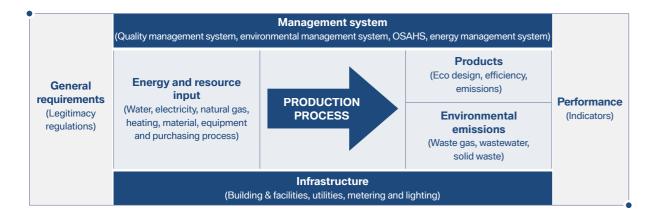
Our Board of Management appoints a representative to ensure the effective implementation of our overall environmental management system. At the plant level, each plant director is responsible for environmental management of our operations. In addition, the Environmental Sustainability Circle has the mandate to continuously improve the environmental performance of BMW Brilliance, and meets quarterly to review performance on environmental targets.

Through the BMW Group's international environmental protection network, our experts exchange ideas with environmental specialists from other BMW Group plants, to build the competence of local teams and employees and share best practices globally. We conduct annual audits of our environmental management system and always strive for improvement.

We invite auditors from BMW Group on an annual basis to ensure our compliance. We use this as an opportunity to learn and understand best practice so that we can maintain BMW Group standards and exchange with our business partners. External auditors certified each of our operating plant locations in 2018, in accordance with the newest standard of ISO 14001: 2015.

BMW Brilliance also achieved successful certification of the ISO 50001 standard on energy management systems in 2018, using a systematic approach to manage energy consumption through a defined energy policy, identification of key energy users, and energy audits. An energy management network was set up to identify clear roles and responsibilities, creating synergy between departments, creating a common methodology and goal. More than 30 internal energy auditors were trained and qualified, and an energy consumption baseline was established for all BMW Brilliance facilities in Shenyang. Completing the ISO 50001 certification aligns with the Chinese government's Green Plant programme and energy conservation regulations, which require key energyusing enterprises such as BMW Brilliance to implement an energy management system.

The Green Plant Certificate for all plants was renewed in May 2018, meeting national requirements that have become even more stringent. A new Green Plant Standard for the automotive sector will be released in 2020, and BMW Brilliance is contributing technical expertise through participation in the Green Factory Promotion Alliance in China.



## EVOLVING CORPORATE CULTURE

Our corporate culture is evolving, and we are constantly monitoring environmental megatrends that have an impact on business, society and our people.

Over the past several years, we have conducted annual environmental campaigns on specific topics, in 2018 was relate to plastic pollution. In response, we aligned with the theme for United Nation's Environment Programmes' World Environment Day and the theme

for 2018; "beating plastic pollution." To contribute as a company, we have actively looked for ways to decrease consumption and increase recyclability as well as the use of more sustainable materials. We stopped providing bottled water during canteen meals at the Powertrain Plant, Research and Development Centre in Tiexi Plant. Through this, we saved on average of 31,000 plastic bottles per month. This work with our BBA associates was designed to support a change of behaviour and mindset related to recycling of plastics and food waste.

## 3.2 BUILDING INFRASTRUCTURE

At BMW Brilliance we are developing world-class, low-carbon facilities by design, with retrofitting of renewable energy generation capabilities. We conduct assessments during new production site development and strive to achieve the Green Plant Award for all of our facilities. We work with the community to establish good relationships and leverage these partnerships to achieve environmental and social targets and ambitions.

BMW Brilliance has adopted the BMW Group global standard for site selection, which evaluates potential sites based on criteria which include sustainability, social responsibility, and environmental requirements. Suppliers involved in building green plants have purchasing contracts that require waste and emissions control at standards higher than the minimum regulatory requirements.

BMW Brilliance used electricity generated from wind and solar power for our own production in 2018, contributing to our achievement of 43%  $\rm CO_2$  free electricity consumption at production. Our goal is to increase the proportion of  $\rm CO_2$  free electricity consumption at production to 90% in 2019, in part due to our increased capacity to harness renewable energy. Our solar power project at the plants Tiexi and Powertrain became operational in 2018 with an expected contribution of approximately 17,000 MWh in 2019.

BMW Brilliance plants are designed to enhance

the social and community aspects of the work environment as well, with a more flexible working environment and office set up, plans for a training centre which will also become a local social amenity, and plans for a new convention centre in collaboration with local government that will be available for use by local companies. A public park along the river will also provide community access.

Transportation in and around the plant is oriented towards E-Mobility, including the provision of electric shuttle buses for employees traveling across different working areas and plants.

One metro line will be established to connect the BMW Brilliance plants with the city centre, organised based on high-volume travel times, and with production shift times aligned to avoid peak travel times. These measures will reduce the need for shuttle buses and reduce the overall commuting footprint of BMW Brilliance employees.



Solar panels at Tiexi plant

GREEN AND SMART PRODUCTION • Green and Smart Manufacturing

## 3.3 GREEN AND SMART MANUFACTURING



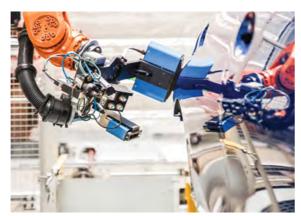
Smart and automated manufacturing in our Tiexi Plant.

The Tiexi plant is a role model for sustainable automobile manufacturing. The plant's construction maximises natural ventilation and utilises underground water for temperature adjustments to conserve energy, and the building has an intelligent management system with extensive monitoring to automatically analyse and adjust energy use.

At both Dadong and Tiexi plants, we have developed production lines that are highly flexible and capable of producing traditional combustion engine vehicles and electric vehicles on the same assembly line. This avoids redundant investment in plants and production equipment and makes our production system extremely flexible, so that BMW Brilliance can react quickly and appropriately to customer demand.

At BMW Brilliance, we create an environment for innovation, where digitalisation in production, the use of smart data analytics, smart logistics, and innovative

automation are enhancing the flexibility and quality of production processes. We use digital technology to provide more convenient and efficient services for our non-production employees in their day-to-day work, increasing the efficiency of employee interaction and building a friendly, proactive and innovative corporate culture.



Offline measurement cell for quality check.

At our HVB Centre, innovative production processes and state-of-the-art robotics are applied to our double-module battery production. The application of advanced and Industry 4.0 technologies means the HVB Centre sets new standards to produce high voltage batteries in China. We use an Integrated Process Management (IPM) system for quality management that leverages big data to trace the progress of battery cells and processes, including information as detailed as tightening torque. Automatic laser welding gives high accuracy and stable weld quality, adding strength and reliability, which enhances battery function and safety.

Furthermore, we are collaborating with local network providers and the local government to explore 5G technologies. The emergence of a 5G network creates new opportunities for BMW Brilliance to utilise real-time connections and big data analysis. This can be translated into smarter buildings to optimise energy, emissions, and material use; to enhance the accessibility and reach of our mobility services; to enable machine-to-machine communication; to connect our employees; and to improve our logistics monitoring and traceability.



Application of Industry 4.0 technologies.

We spur the imaginations of everyone at BMW Brilliance by encouraging our employees to submit their ideas on our innovation platform, with the most promising suggestions selected and developed in our IT Innovation Lab. At BMW Brilliance, our employees are the key element in our digitalisation strategy, and we leverage the opportunities of digital programmes to empower, enable, and connect our employees for the future.



NEP assembly line.

### 3.4 RESOURCE EFFICIENCY

BMW Brilliance aims to be the most resourceefficient premium mobility provider in China. We are committed to increasing the energy and resource efficiency of our production processes and reducing our emissions and waste. Through these measures, we incorporate industry best practices and minimise our impacts on the environment, contribute to China's ambitious environmental goals, and reduce our costs.

per vehicle compared to 0.70 t in 2017. In 2018, we increased our own renewable electricity generation capacities, along with wind power purchased from wind farm. CO2 free electricity accounted for 43% of our consumption at production, by 2019 our target is to increase this to 90%.

In the coming years, we plan to reduce this further by expanding our energy-efficiency measures and using cleaner energy sources.

### **ENERGY AND EMISSIONS**

Our energy consumption and carbon footprint for production decreased in 2018, to 0.63t of CO<sub>2</sub>

### **Energy consumption at all plant locations (in MWh)**

F. 10

	2014	2015	2016	2017	2018	Change from previous year
Total fuel consumption from non- renewable resources	109,895	132,325	183,422	184,408	196,553	20.7%
Total electricity consumption	216,674	202,558	295,867	393,565	475,702	22.5%
Total heating consumption	153,660	143,539	144,130	156,295	169,263	23.1%
Total energy consumption	480,229	478,424	623,419	734,268	841,518	23.7%

### CO<sub>2</sub> emissions per vehicle produced at all plant locations (in t/vehicle)

F. 11

1	2014	2015	2016	2017	2018	Change from previous year
CO <sub>2</sub> emissions per vehicle produced	0.97	0.88	1.13	0.70	0.63	-10.0%

### **REDUCING VOC EMISSIONS**

We are committed to reducing the VOC (volatile organic compounds) emissions from our production processes to mitigate any risks and impacts on society. Our VOC emissions increased from 0.54 kg of VOCs produced per vehicle in 2017 to 0.56 kg of VOCs per vehicle in 2018. To improve our overall performance, we have switched to water-based paints which tend to produce far lower VOC emissions than solvent-based paints due to their low VOC content, although the impacts in the future will be reduced, production increases and an optimisation period for the technology are required before yielding drastic improvements. We are committed to finding solutions that reduce our VOC emissions and create better results for our performance and for our customers.

### **ENSURING RESPONSIBLE WASTE MANAGEMENT**

Managing waste is a priority at BMW Brilliance, and we address it through waste-management procedures designed to appropriately handle waste generation from both production and non-production sources.



**7 45%** 

BMW Group's 2020 goal of reducing waste per vehicle, compared to 2006 levels.

We use an adapted version of the BMW Group's wasteinformation system to record the waste we produce. The system allows us to optimise the handling of waste, especially in terms of reuse and recycling and to assure compliance with Chinese legislation. We document individual waste flows and categorise waste as hazardous or non-hazardous, in accordance with the Waste Pollution Prevention and Control Law and the Hazardous Waste Catalogue of China.

Our environment management department works closely with logistics to standardise the waste management process and avoid risks. From 2018, all types of waste are centrally managed by our logistics department. We have also implemented a process for weighing all the waste, which improved data accuracy and working efficiency.



Newly installed waste weighing system.

In our production processes, we use recycled packaging to reduce waste and minimise our impact on the environment. The use of returnable packaging for local parts whenever possible has drastically reduced our packaging waste.

We select our waste-management service providers carefully, to ensure that our waste is processed correctly and that legal requirements are satisfied. As a result of our increased production volume and the implementation of new projects, our waste for disposal increased by 34.4% while our waste for disposal per vehicle produced increased by 8.3%.

In 2018, we carried out on-site audits for four suppliers, which included two potential suppliers and two general waste suppliers. Only suppliers that satisfy the audit criteria are permitted to perform waste-management activities. Service providers that handle hazardous waste are audited on-site every two years. For non-hazardous waste, we conduct a document check every second year and on-site audits every four years for all service providers with physical operations.

7

F. 12

	2015	2016	2017	2018	Change from previous year
Hazardous waste for recycling	3,999	5,024	6,799	9,124	34.2%
Hazardous waste for disposal	2,000	723	1,365	2,040	49.5%
Total hazardous waste	5,999	5,747	8,164	11,164	36.7%
Non-hazardous waste for recycling	26,659	39,067	62,230	72,152	15.9%
Non-hazardous waste for disposal	641	1,219	1,582	1,921	21.4%
Total non-hazardous waste	27,300	40,286	63,812	74,073	16.1%
Total waste for recycling	30,658	44,091	69,029	81,276	17.7%
Total waste for disposal	2,641	1,942	2,947	3,961	34.4%
Total waste	33,299	46,033	71,976	85,237	18.4%

### Waste for disposal per vehicle produced at all plant locations (in kg/vehicle)

| F. 13

	2015	2016	2017	2018	Change from previous year
Waste for disposal per vehicle produced	9.17	6.42	7.43	8.05	8.3%

## REDUCING WATER CONSUMPTION

Most of our water use is for production processes, cooling, and water consumed by our employees. We work to continuously improve our water efficiency in all three areas. To reduce water consumption in our production processes, we have increased the reuse of water at our plants.

Our location in Shenyang, which faces water scarcity challenges, makes responsible water use fundamentally important for BMW Brilliance. In 2018, we continued to explore new water-saving initiatives for our production plants and offices, such as the integration of treated water from our wastewater recycling system for cooling in the paint shop. The BMW Group is developing a Water Roadmap 2020 to guide water consumption reduction efforts for all its plants, including those under BMW Brilliance.

Activities to increase our water savings include optimisation of cooling water in our engine production, which is expected to reduce water demand by 9.3%. At our Dadong plant, we implemented a wastewater-reclamation system that saves 40,000 m³ of wastewater annually. At Tiexi and Powertrain plants, we recycled in total 121,359 m³ of safe wastewater in 2018, for use at our paint shop and irrigation of our properties.

A management system monitors water consumption levels and targets at each of our plants. Despite our continued efforts to limit consumption, the expansion of our facilities resulted in a 7.8% decrease in water consumed per vehicle in 2018. However, the amount of process wastewater produced per vehicle increased to 0.42 m³ from 0.39 m³, due to the increasing proportion of the BMW X3 production at Dadong plant, in addition to the limited capacity of an older wastewater treatment plant on site.

## Water consumption and process wastewater per vehicle produced at all plant locations (in m³/vehicle)

	2014	2015	2016	2017	2018	Change from previous year
Water consumption per vehicle produced at all plant locations	2.18	2.18	2.58	2.68	2.47	-7.8%
Process wastewater per vehicle produced	0.47	0.46	0.46	0.39	0.42	7.7%



7

## INCREASING TRANSPORT EFFICIENCY

Our logistics operations facilitate the safe and efficient transport of components from our suppliers to our manufacturing plants and of finished vehicles from our plants to our dealerships. We rely on partnerships with our suppliers to reflect best practice and enhance efficiency and transparency.

In 2018, our focus was on increasing the share of low-carbon modes of transport to reduce overall costs and minimise our environmental impact. Our vision is to green our logistics and move beyond regulatory requirements. Our proactive measures to reduce CO<sub>2</sub> emissions for freight transportation, both pre- and post-production, have put us in an advantageous position for the future. With the recent promulgation of GB1589-2016 by the authorities, we are introducing standard-dimension trucks to our fleet and also taking this as an opportunity to boost rail-freight and sea shipments while exploring new technologies to optimise and automate our inbound and outbound processes.

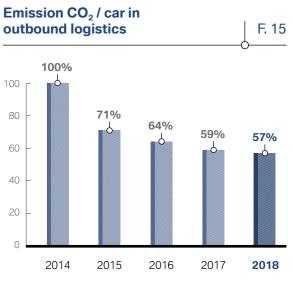
For inbound logistics, we use digitalisation as a tool for enhancing logistics performance, optimising process from loading to transportation. We track CO<sub>2</sub> emissions per car on regular basis to monitor our performance. Supply chain transparency systems provide real-time tracking of inland transportation status and improve the management of our service providers.

We promote carbon-efficient means of transport as much as possible, and encourage our suppliers to use clean energy fuels, e-trucks, and rail freight. During assembly, we are optimising the handling steps at the warehouse while finding ways to reuse equipment and materials through flexible production lines. We apply NB-IoT technology for in-plant traffic control to increase efficiency and add transparency to the last kilometre of inbound logistics. To improve transparency, we enhanced our ability to track logistics  ${\rm CO_2}$  emissions and monitor  ${\rm CO_2}$  emissions for both inbound and outbound logistics.



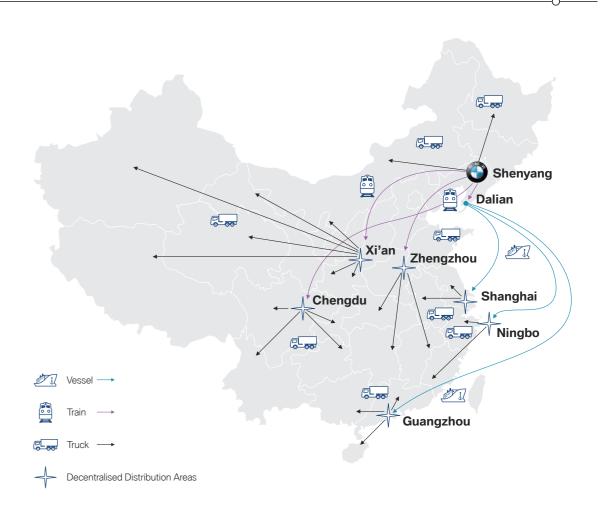
Assembly warehouse for inbound logistics in Tiexi plant.

For outbound logistics, we are using E-Mobility and freight alternatives to overcome disruptions and maximise efficiency. By significantly increasing the use of shipping and railway transportation, we have reduced CO<sub>2</sub> emissions per car by 43% in finished vehicle logistics since 2014. We launched two new Decentralised Distribution Areas (DDA) in Ningbo and Zhengzhou to cut down on shuttling distance and reduce operational risks and implemented further optimisation through the existing DDA distribution network.



Note: 2014 as baseline

## Multimodal distribution network of finished vehicles to Decentralised Distribution Areas



We have held several information sessions with logistics providers and suppliers to discuss BMW Brilliance's logistics strategy and strengthen cooperation throughout the value chain. We also provide training to suppliers on CO<sub>2</sub> emissions monitoring and waste-

disposal regulations. We include "Environmental Protection and Zero Waste" as one of the fundamental principles for suppliers, motivating suppliers to make their own environmentally friendly decisions.



## >16,000

Number of employees using BMW Brilliance's shuttle buses to travel to and from work each day, reducing the number of private vehicles on the roads and the amount of CO<sub>2</sub> emissions generated by employee commutes.



Liquefied natural gas truck for short distance transportation

## **FORECAST 2019**

At BMW Brilliance environmental protection will continue to be a top priority, as we further our waste and energy management through reductions and the incorporation of CO<sub>2</sub> free electricity. We plan to investigate the types of waste created at each step of a product life cycle and test new methods that increase reuse and recyclability of materials while optimising our systems and performance. We have shown this by phasing out lead-acid batteries for lithium-ion batteries for our forklifts used in inbound logistics and in the investment of vehicle packaging that moves away from cardboard. In the future, we will identify additional suppliers to increase our waste for recycling.

Based on the achieved transparency on CO<sub>2</sub> emission in logistics, we plan in 2019 to achieve a further significant step of emission reduction. Leverage emerging opportunities that digitalise and optimise the transportation of inbound materials, and use new transportation means, such as e-trucks at our plants.

We will have an energy management system training programme and continue process optimisation based on energy audit results. We will organise environmental campaigns to increase awareness and legal compliance of our workforce and audit our waste-management service providers to ensure correct handling. We will strengthen our energy management governance across different teams, standardise our energy management approach, and recommend energy-saving equipment to key energy users. Integrate VOC emissions management with new local and state regulations and improve our VOC performance per vehicle produced with the use of water-based paint for our paint shop.

We will take our experiences and best practice for planning, development and environmental management of our plants and plant extensions, for all future projects. To mitigate land, water and air contamination and comply with the new regulations around the pollution permit system.



## SUSTAINABILITY DRIVER

"Tianjin Lizhong Group is a leading wheel manufacturer in China, with an annual capacity of 18.5 million wheels and several global partnerships, including with BMW Group."

### How does Lizhong approach sustainability?

Sustainable development is not only an international trend, China is also paying more and more attention to it, with a series of national initiatives and policies and new requirements for business operations and management.

We have benefited from China's economic growth, but if we reflect back, we can see that we have also created some problems. The introduction of new national policies and international standards is a very good thing for us as individuals and as a society.

As part of this process, Lizhong is implementing more sustainable practices and we have felt the benefits for our business operations, employee wellbeing, and shareholder interests.

### How does Lizhong integrate sustainability into its business areas and influence upstream supply chains?

We have set up a health and environment team, and this team works to quickly adjust company policies and standards in response to regulatory and policy changes, across various parts of the business. Our customers also ask us to communicate these high standards to our suppliers, and we are gradually incorporating requirements for sub-suppliers. Our supplier list is updated every year based on supplier assessment results, that includes environmental and social requirements. With the high standards of our customers and our joint efforts to evolve and improve, we believe that the auto parts supply chain will be at the forefront of sustainability in China.



### Xiaoguang Zhang

Vice President

### **Chuan Zhang**

Department Head, Environment, Health & Safety How is BMW Brilliance working with Lizhong on sustainability challenges, and what are the areas of cooperation in order to promote sustainable development on both sides?

BMW Brilliance has comprehensive and scientific requirements for its suppliers and they have supported us in our installation of two new testing machines (to test fatigue and impact). In a lot of areas, BMW Brilliance has the highest standard among all our customers, for example in product safety. This is a big motivator for us to always do better.

In our interactions, we often discuss sustainability and when various teams visit us, such as quality, purchasing, and engineering, sustainability is a part of our audits and assessments. From this we can see that sustainability is embedded in how they work and collaborate with others. At Lizhong, we can learn from their approach and international best practice. In the future, we hope to work together on promoting



### **RESPONSE TO THE SUSTAINABLE DEVELOPMENT GOALS**





















Our position in the automotive industry means that we have the ability to improve not only our own environmental and social performance, but that of our suppliers as well. Managing our extensive supply chain with a sustainability approach creates a multiplier effect. We are able to promote sustainable economic growth and productive employment (SDG 8) by working closely with suppliers to improve their business operations and management, and reducing their environmental footprint enables a future of responsible consumption and production (SDG 12). BMW Brilliance takes a collaborative approach to strengthen partnerships among government, civil society, and private sector (SDG 17). Working in tandem with the Chinese government on environmental protection and pollution management supports national commitments on pollution prevention and treatment, safe disposal of waste, and environmental monitoring (SDGs 12,13).

378

Local content suppliers in China

43.1 bn (RMB)

Purchasing Volume of local content in China

97%

Nominated suppliers underwent the Supplier Risk Management screening process

### 4.1 STRATEGY AND MANAGEMENT



Supplier Conference for BMW 3 Series.

Our risk management framework emphasises supply chain value creation for win-win results, prioritising long-term collaboration based on shared values around sustainability and the reduction of environmental, health and safety impacts. This is achieved through established processes and communication channels to effectively and transparently collect supplier information.

BMW Brilliance's process of supplier engagement is a major source of value creation and innovation for both ourselves and our suppliers. With environmental and social performance posing a significant risk and opportunity for the automotive industry, we prioritise close long-term partnerships with shared objectives and targets to continuously improve product and production quality and security of supply and enable innovation for long-term sustainability and prosperity. We are encouraging our suppliers to move closer to our production base in Shenyang, which enables quality improvements, reduces costs and CO<sub>2</sub> emissions and contributes to the local economy.

We recognise the complexity of maintaining sustainability standards throughout our supplier network and the challenges that our suppliers experience, locally and nationwide. Therefore, we have established processes and communication channels to effectively and transparently collect data and supplier information to improve our risk management and compliance outcomes. Through these means we leverage our own expertise to help suppliers improve their sustainability performance.

Close collaboration with our supplier base will be the key to achieving our collective long-term goals. That is why frequent and transparent discussions are a priority. We discuss the challenges and opportunities that suppliers face and develop in-depth analyses and solutions in a collaborative manner. Integrating sustainability management into our supply chain helps to minimise risks, maximise opportunities, and achieve our overall sustainability goals.

## 4.2 SUPPLIER PERFORMANCE IMPROVEMENT

We work collaboratively with our suppliers to enhance efficiency and maintain high quality and performance of parts and materials.

BMW Brilliance has a cross-functional team responsible for supplier performance, that combines our purchasing, quality and logistics departments to ensure supplier performance. The departments of Parts Purchasing, Supplier Quality Management, and Delivery Assurance make up a team that continuously reviews our suppliers' sustainability performance and channels support to suppliers when needed. We help suppliers to be prepared and ready to respond as regulations and policies change.

Requirements for how our suppliers must perform on environmental, health and labour issues are part of our BMW Brilliance Environment, Health, and Safety Purchasing Management Procedure. We also ensure that our employees are aware of local environmental, health and safety, and labour laws, as well as legal requirements and international sustainability principles, and are therefore able to support our supply chain sustainability goals.

The BMW Group Supplier Sustainability Policy summarises the BMW Group's core principles and standards for our suppliers in accordance with globally recognised principles. It includes a commitment to environmental and social responsibility, as well as to compliance with all internationally recognised human rights standards and with local labour and environmental laws. All supplier contracts include Supplier Sustainability Clauses, which are harmonised between the BMW Group and BMW Brilliance supplier networks and indicated within BMW Group's International Terms and Conditions.

We also adhere to the UN Global Compact, and the International Labour Organisation standards, with their specific provisions regarding environmental protection, social responsibility, and the protection of human rights, including a ban on child labour and forced labour, as hold the same level of expectation and adherence to our supplier base.





### **SUSTAINABLE RISK** MANAGEMENT FRAMEWORK

To evaluate risk management effectively, we developed the Sustainable Risk Management (SRM) framework, designed in accordance with the ISO

14001 Environment Management System and the ISO 45001 Occupational Health and Safety Management Standards. Our SRM framework includes six areas: Environment, Health, and Safety; Social Responsibility; Sub-Supplier Management; Finance; Delivery; and Maintenance.

#### **Finance**

Monitor supplier financial health, financial compliance risk and corporate operating state.

### **EHS**

Monitor suppliers' EHS regulatory compliance.

### Maintenance

Monitor compliance of equipment operations.

# **Supplier** Risk Management

### **Sub-supplier Management**

Monitor the risk management effectiveness of the suppliers' regulatory system to sub-suppliers.

### Social Responsibility

Monitor suppliers' social responsibility, compliance of human rights and employee stability.

### **Delivery**

Monitor emergency strategy and reacting actions of logistics transport system and risk of supplier IT security status.

These six areas set our foundation for supplier sustainable development and risk mitigation. The protection of environmental, health and safety with our suppliers is a basic element of ensuring business continuity, reinforcing social responsibility through evaluations of new, existing and high-risk suppliers, and deepening sub-supplier management to reverberate expectations beyond Tier 1. We work with suppliers to ensure their financial status is healthy and secure. With a financial risk control approach,

we sustain future supply and improve the capacity of our supplier network to identify potential financial risks, this includes an annual financial health check. Included within our framework is an analysis of the maintenance and delivery of supplier assets and products, to maintain efficiency and reduce potential disruption. This holistic list of SRM areas determine our risk management foundation, that enable close monitoring and enhancement of our supplier network and mitigate risk from the beginning.

### **BUILDING SUPPLIER RISK CAPACITY**

Our approach to minimise supplier risk is on-going, with the use of several tools including risk filters, selfassessment, on-site assessments, a supplier risk database, and supplier training, to support supplier capacity early identification and curb potential risks.

The BMW Group's proprietary sustainability risk filter evaluates the environmental, social, and governance risk potential of all new and existing suppliers. The filter considers location-specific and product-specific risks. In countries where certain social risks are particularly prevalent, such as child labour or forced labour, a dedicated assessment of these risks is carried out. Environmental risks such as potentially harmful emissions and process materials containing substances that can be hazardous to health are also considered.

In 2018, we took a step further to intensify our EHS risk management. Through the integration of the new EHS Protection Agency (EPA) initiative, we conduct an analysis of relevant EHS regulations, risk identification, process optimisation, and EHS audits. Using on-site audits and support with targeted suppliers, we were able to make dramatic improvements in suppliers' EHS management. We also strengthened our relationships with local Environmental Protection Bureaus to enhance transparency regarding government requirements.

BMW Brilliance uses the supplier self-assessment questionnaire method developed by Drive Sustainability (formerly the European Automotive Working Group on Supply Chain Sustainability). We have also introduced modular online assessments for additional requirements. Before we engage with new suppliers, we require that they make a clear commitment to specific social standards, such as compliance with international human rights guidelines. The procurement process also requires information about sustainable use of materials and environmental management systems, which is then evaluated as part of the purchasing decision.

Our own staff are directly involved in on-site supplier visits, and we are extending that engagement approach to higher-risk sub-suppliers. Started in 2017, the Artemis Project has deepened our risk control down the supply chain to our N-tier suppliers. We have now both tier 1 and N-tier suppliers in onsite checks to identify potential environmental, health and safety risks. This strengthens our supplier connections and ability to manage risks more directly, and we also involve tier 1 suppliers in managing EHS management in their own supply chains. For identified "non-conformances" we expect suppliers to develop action plans detailing the root cause and planned remediation.



Supplier EHS On-site Audit.

By the end of 2018, 97% of our nominated suppliers underwent the Supplier Risk Management screening process.

## 4.3 SUPPLIER BASE DEVELOPMENT AND TRAINING

We have various supplier capacity-building initiatives, and our close interaction with suppliers helps to deepen relationships and expedite the integration of new technologies.

By year-end 2018, we worked with 378 suppliers based in mainland China. The number of suppliers located in Liaoning Province, where our plants are located, has steadily increased in recent years to 88 in 2018, and local suppliers are increasingly mature in their operations and approach. We work directly with suppliers to increase their flexibility and agility, which benefits both the suppliers and BMW Brilliance.

### **BMW Brilliance Supplier Network**



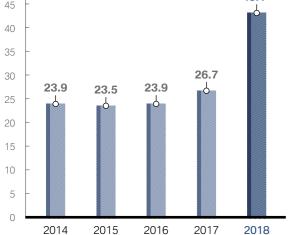
Local sourcing provides numerous benefits for our business and for society, including lowered currency risk, the ability to support the communities and regions in which we operate, and a smaller transport footprint resulting in lower greenhouse gas emissions. We encourage our suppliers to operate closer to our facilities in Shenyang. Our goal is to reduce costs and CO<sub>2</sub> emissions from transportation and logistics, contribute to local employment and the economy, and leverage our suppliers' proximity to enhance production processes. Previously, the majority of our suppliers were located in southeast China, many of them at a distance of more than 2000 km from our plants. In the last five years we have increased our local supplier based by over 30% in Liaoning province, as well as over 50% of our local parts purchasing.

It is important to our business that transition to localise suppliers is cost-effective and provides benefits to the environment and our communities. We are committed to identifying the best possible methods to alleviate any challenges and potential community impacts, while cultivating economic value within supplier networks.

### **Purchasing volume in China** (in billion CNY)

43.1\*

F. 18



<sup>\*</sup> The amount of purchasing volume, including tax, paid by BBA to raw material suppliers and direct suppliers in mainland China of the year.

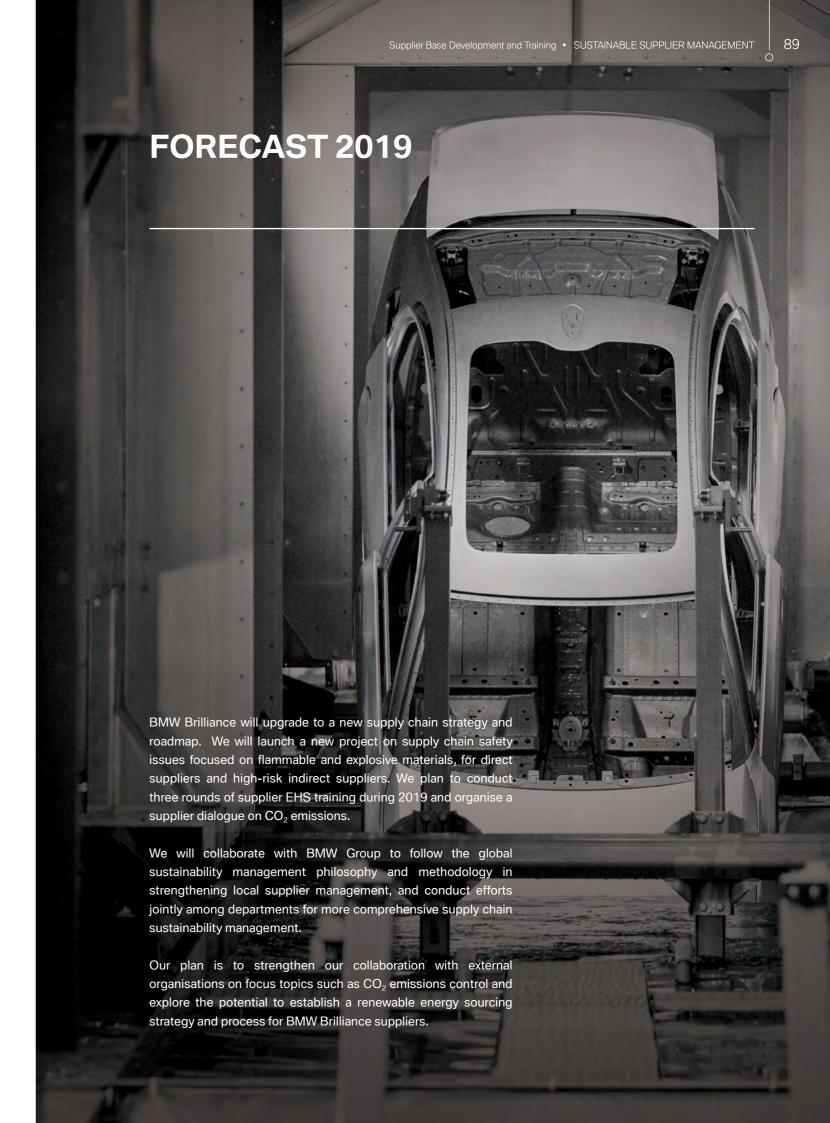
### SUPPLIER DIALOGUES AND SUPPLIER WORKSHOPS

The all new BMW Group 3 Series Supplier workshop was held in December 2018 in Shenyang, enabling interaction between top management and selected suppliers regarding requirements and expectations, as well as sharing of best practices of the BMW Brilliance



Interaction with suppliers at supplier workshop.

Visits to international suppliers operating in China demonstrated how global suppliers are integrating into local economies and raising production standards, and visits to local suppliers showcased examples of those that are improving and reaching internationallevel standards.





## SUSTAINABILITY DRIVER

"Digitalisation is taking place, and each business unit is facing digital transformation. IT talents could bring new mindsets and working approaches to different BBA teams, to integrate with advantages of the business units, and further promote transformation, let it be optimisation, freeing up employee time, covering more work scope, etc."

As an information technology expert at BMW Brilliance for over 15 years, I have been directly involved in it's digital transformation. From the development of the initial IT infrastructure, to the optimisation and application phase, to the ramp-up and full integration of IT across our business units.

BMW Brilliance has always encouraged cross-team, cross department transfers in order to break walls, spur outside the box thinking, innovation, and maximise overall value for the company. I have been able to transition from the IT department to the human resources team, acting as a bridge between the departments while bringing IT logical thinking with fast paced and innovative working style.

This past year, I was appointed to be the Department Lead for the Human Resources Shared Services Centre. I have used my experiences to support our objectives of acting faster, calculating more accurately, and refining our processes.



Zane Liu Human Resources Shared Services Centre Leader



Senior Manager, Logistics Planning

**Emma Xue** 

## SUSTAINABILITY DRIVER

"BMW Brilliance values diversity and embraces innovation. We are encouraged to pursue diversified development at various business functions so we can expand our expertise, learn from others and eventually build holistic understanding of our business. There is good chemistry when great minds meet together."

I have worked with BMW Brilliance since I joined the Logistics team in 2003 as an assistant. My first nine years were spent in vehicle logistics, and then in supporting the Finance department. I supported import parts (via marine transport), then import operations (related to customs), and then the management of trade compliance. In 2018, I moved back to the manufacturing side at the Powertrain plant to support logistics planning.

These functional changes seemed like big leaps, but in reality, there was consistency and continuity, allowing me to continue to grow my expertise, knowledge, and network, while also pushing me to learn more and bring about innovation. I felt that I could mobilise resources more quickly and flexibly to make improvements. In my previous team in the Finance department, we introduced the manufacturing-based Value-added Production System (VPS) to Finance to bring lean management thinking to the team. At BMW Brilliance, employees can have diversified development, which is another way to cultivate diversity and encourage innovation within the company.

### SUSTAINABILITY DRIVER

"I started in BMW Brilliance as a frontline worker more than 10 years ago. Throughout the years, I have received numerous systematic technical training programmes, both local and overseas, and have become a technical expert in the leading High Voltage Battery technology. Now, I can contribute by sharing this knowledge with my colleagues here in China."

I finished my studies in Mechatronics at a technical school in Shenyang in 2007 and joined BMW Brilliance as an intern. After several years of knowledge building in paint technologies and quality control, I had gained the skills needed to support the company during a time where it was beginning to build a deeper foundation for producing electric vehicles with high voltage batteries. After eight years of experience, teaching myself English, an opportunity arrived where I could gain additional professional knowledge through an exchange with my German colleagues in Munich. The exchange was held by BMW Group colleagues, to teach technicians about the innerworkings of high voltage batteries, called the High Voltage Qualification Flash. After completing the courses, the German AUS certification, as well as management and communication trainings, I was offered a position where I could use my technical understanding, my experience and share the theories with my colleagues so that they would be equally prepared. BMW Brilliance has provided me with the opportunities to continue my learning, to gain valuable experience and be proud of my contributions.



Yingyu Wu **HVB Centre Section Leader** 



**Chunying Liu** Project Import & Payment Steering

## SUSTAINABILITY DRIVER

"I believe that if a company does well in social responsibility, if many of its employees can participate in CSR activities, then this must be a responsible company and its products will certainly be good. Customer will trust this company and will also be influenced to do good. It's a win-win situation for us and our customers, and it will be a process of mutual influence."

I joined the Associate Social Responsibility (ASR) programme as an intern almost ten years ago. At that time, I had started to become eager in getting involved and working alongside my BMW Brilliance colleagues to support local initiatives and communities. Since then, I have been able to help cultivate the growth of the ASR programme to reach hundreds, if not, thousands of people, including my family. Originally, I saw that ASR activities were held by volunteers almost exclusively within the assembly workshop of Dadong plant. However, the Head of the Assembly Workshop at the time, Vice President, Dr. Gerald Degen had a clear approach about what he wanted to achieve and the goals he wanted to set. From 2009, he was able to expand the ASR across each of the plants and beyond that into other communities outside of Shenyang and that's when I started to get involved.

Once I got to see and experience the impact on the ground, how families have benefited and what it meant to them and their lives, I wanted to do more and find out what else we could do as a company. Over the last ten years, I have been directly involved in the development of ASR activities, coordinating 30 to 40 volunteers. Although, I moved on to another department, I always think back and thank the ASR programme for what it gave me and what it can do for others.

"Moving from Munich to Shenyang was a big transition for me and for my family, and BMW Brilliance provided so much practical and professional support to help us throughout the whole process."

I moved to BMW Brilliance from BMW Group in 2018, and I am very appreciative of the opportunity that the Group has given me and for all of the support that BMW Brilliance has provided. Over a nine-month consultation period, we discussed all the challenges and benefits for myself and my family, and colleagues in both Munich and Shenyang were involved in the relocation effort. There was support for my partner to continue her professional growth, in securing a good school for my daughter to attend, in finding a place to live, and in the many details of moving and getting settled in a new country. BMW Brilliance has been incredibly supportive throughout this major transition in our lives and we are happy for the opportunity to have an international work and family experience.



**Andreas Laemmerhofer** Manager Module Leader KE

## **RESPONSE TO THE SUSTAINABLE DEVELOPMENT GOALS**

18,925

Total workforce at year-end

4.8%

Attrition rate

0.28

Accident frequency rate per one million hours worked

1.79

Average days of further training per employee

















As a major employer, our proactive employee development initiatives bring positive effects on our workforce and society. We promote diversity to offer long-term career prospects for our employees, foster innovation and synergy across our organisation to lay the groundwork for future success. Through our Core Values and comprehensive health and safety programmes, we aim to create a workplace that enhances good health and well-being for our employees (SDG 3). The role we play in creating productive jobs, boosting local employment and promoting vocational education (SDG 4) contributes to societal progress on decent work and economic growth (SDG 8) for local community.

### 5.1 STRATEGY AND MANAGEMENT



BMW Brilliance 15th Anniversary Associates Celebration Ceremony.

The acceleration of modern technologies is transforming the working environment for employees in the automotive industry. Even as the workplace changes, BMW Brilliance continuously applies our core values and implements our programmes to attract talent, maximise employee safety and well-being, and foster employee development and learning, which improves employee engagement and ultimately productivity and performance.

This year marked our 15th anniversary as a Joint Venture of BMW Group and Brilliance Group. Our collective vision blended within our distinctive management cultures have cultivated a workforce of 18,925 employees set for the future. Led by our core values, human resources management and the integration of the BMW Group Strategy NUMBER ONE > NEXT, we reached significant milestones in operational efficiency over the last 15 years.

We continue to promote an environment for learning with systematic and innovative development programmes while upgrading our human resources expertise, practices, systems, and service quality. It is our goal to promote responsible behaviour and a work environment that fosters the long-term health and performance of our employees. As a responsible

employer, BMW Brilliance regards occupational health and safety as a matter of key importance, and we want to protect our employees from any potential negative health and safety impacts in their work environment. We implement an integrated health and safety management system to address potential risks and maximise the long-term health and performance of our workforce.

To contribute to our employees' well-being, we also implement various programmes and initiatives following the motto "Stay active - We support you." Activities include health and safety training, improving workplace safety and ergonomics, thematic health and safety initiatives, and our Health Management 2020 programme.

The hard work of our human resources teams over the last 15 years has led to increased recognition year after year; as we were selected for the following awards in 2018: Excellent Employer of China (51job. com), Annual Extraordinary Employer (Liepin.com),

Best Employer in Automotive Industry for College Students of China (China HR.com), Annual Ideal Employer for Socialised Recruitment (MAIMAI.com), Most Popular Employer Overseas (Lockin China), Best Environmental Award (SHIXISENG.com).



### **HUMAN RESOURCES MANAGEMENT**

Human resources management at BMW Brilliance is overseen by our executive team. Our Senior Vice President of Human Resources, who is also a member of the Board of Management and reports directly to the CEO, is responsible for the formulation and implementation of BMW Brilliance's Human Resources Strategy and regularly reports on our progress towards strategic goals.

Operationally, the Associate Handbook is one of the cornerstones of managing the employer-employee relationship. It communicates our employees' rights and responsibilities, including the BMW Brilliance Legal Compliance Code, and is binding for all members of staff.

Our human resources approach has four main areas: Core Values > Chapter 5.2 Being an Attractive Employer > Chapter 5.3 Health and Wellbeing > Chapter 5.4 Training and Development > Chapter 5.5.

## 5.2 **CORE VALUES**

We are driven to retain our standing as the most attractive employer in the Chinese automotive industry. As greater digitalisation and Industry 4.0 promise to transform our industry, we remain committed to our set of Core Values and taking a "People First" attitude.

We started our strategic Human Resources transformation in 2017, beginning with awarenessraising. In 2018, our efforts have focused on more precise and comprehensive sharing from senior leaders through associate events, workshops and promotional activities.

An employee recognition programme "Best YOU" was enhanced in 2018 with several award categories, including an award for "Best Team" to promote team spirit and cross-functional collaboration.



### **EMPLOYEE PARTICIPATION** AND FEEDBACK

To ensure employee growth, BMW Brilliance relies on everyone in our employee community. We provide communication platforms for our entire workforce to contribute. Our collective voice is what drives our corporate culture, and our diversity is what enables the company to innovate and recognise areas for workflow improvement and integration of innovative ideas and concepts.

We use platforms at a company level, such as our "Executive Dialogue", and at the division level, such as our division level forums to build rapport between management and our employees. Through these events, all employees at BMW Brilliance have the chance to question and speak directly with management to understand the company's strategic direction and objectives.

Additional opportunities to give feedback are provided during Associate Conferences, when all employees of specific departments or plants come together for a day of dialogue with management. Managers and non-production staff are also encouraged to express their needs and concerns during open-door meetings. We use weekly oneon-one meetings between line managers and their employees to ensure sufficient communication in reporting lines, and there are business groups that hold weekly meetings to promote communication. Finally, the Human Resources Shared Services Centre hotline is available for employees to ask questions and get feedback.

At BMW Brilliance, a Labour Trade Union was established in 2007 as a mechanism for social dialogue. Today, the Labour Trade Union represents all local employees, and its aim is to protect employees' rights and interests through mediation. The Labour Trade Union and the Board of Management meet



2018 Employee Representative election.

annually and decide together which topics to address in areas such as health and safety or compensation, and the results are presented to employees at the annual Employee Representatives Congress and Union Member Representatives Congress.



Our employees at production line.

BMW Brilliance 15th Anniversary Ceremony.

We are focused on providing the right combination of attractive benefits, remuneration, and training so that we attract and develop the right skills, experience, and high level of flexibility to remain agile in an ever-evolving industry.

Our position as an attractive employer is in part due to our competitive benefits and remuneration packages, our commitment to provide open and clear management-to-employee communication, and in the opportunities for cross-cultural experiences that cultivate a diverse set of skills. Through these means we are able to differentiate BMW Brilliance from other employers and attract a high calibre of talented professionals.

In 2018, we celebrated the 15th anniversary of BMW Brilliance as a Joint Venture. Employees have been at the centre of our success and longevity as a company, therefore we celebrated that milestone at a special anniversary associate event. Looking forward, we recognise that it is with our individual talents and teams that lay the groundwork for BMW Brilliance's future.



15th anniversary celebration events.

### **CRITICAL TALENT RECRUITING**

BMW Brilliance has established a strategic process for human resources planning in order to explore new competency that will propel future development of the company and find the right people for the tasks at hand. In addition to critical talent recruiting, we use diverse other methods to connect the new talents with momentum experience, including product and driving experience integrated job events, overseas job fairs, precise talent marketing, campus events, and social media interaction.

### MONITORING WORKFORCE **GROWTH**

To evaluate whether we are reaching our goal of being an attractive employer, we monitor key performance indicators related to our position in the employer market and to our internal employee figures.

We recognise and appreciate the diversity of our workforce and place great value in new and varying perspectives from our employees with different professional and personal backgrounds. We show this through our Global Leadership Development Programme and international vocational training, which are designed to promote employee exchange, international experience, and an intercultural and diverse workforce.

At the end of 2018, our total workforce reached 18,925 (excluding employees who have contracts with a third- party labour-dispatch service provider).

Women make up 12% of our total workforce and 30% of our management team. The total share of female employees remained constant compared to 2017. We hold a female leadership seminar every year to share experiences and encourage female employees to develop as leaders. Our continuous efforts to develop local talent have contributed to a steady increase of Chinese employees in management, who now account for 86% of our management group. All employees hold full-time contracts.

### **ATTRITION RATES**

In line with our business growth, the rate of new hires increased to 17% in 2018, from 8% in 2017. We initiate employee transfers among our different production plants to ensure that each plant has the right workforce balance and skill sets on the ground. These transfers help us attain higher levels of efficiency across our facilities. BMW Brilliance continues to succeed in retaining talent and creating high loyalty within our workforce. To track this, we closely monitor our monthly employee attrition rate. BMW Brilliance's voluntary attrition rate was 3.7% in 2018, a slight increase from 3.2% in 2017. The overall attrition rate (voluntary and non-voluntary) increased from 4.5% in 2017 to 4.8% in 2018. Despite this increase. BMW Brilliance's attrition rate remains well below average in the market.

### Women composition in our workforce



## **PERFORMANCE INDICATORS**

						$-\diamond$ ——
ļ	2014	2015	2016	2017	2018	Change to previous year %
Workforce composition						
Female employees in management positions (percentage)	26.7%	27.0%	28.4%	30.2%	30.0%	-0.7%
Employees in management positions (percentage)	5.9%	6.0%	6.7%	6.9%	6.6%	-4.4%
Chinese employees within the management group (percentage)	76.3%	78.1%	82.0%	86.5%	86.0%	-0.6%
Non-production employees (percentage)	27.3%	29.0%	29.1%	28.3%	26.8%	-5.3%
Production employees (percentage)	72.7%	71.0%	70.9%	71.7%	73.2%	2.1%
New hires						
Total new employee hires (percentage)	23.3%	11.6%	2.2%	8.0%	17.3%	116.3%
By region						
New employees in Shenyang	2,920	1,801	270	1,205	3,096	156.9%
New employees in Shenyang (percentage)	19.1%	10.9%	1.7%	7.2%	16.4%	127.8%
New employees in Beijing	186	128	93	125	170	36%
New employees in Beijing (percentage)	1.2%	0.8%	0.6%	0.8%	0.9%	20%
By gender						
Female new employee hires	407	329	113	182	310	70.3%
Female new employee hires (percentage)	2.7%	2.0%	0.7%	1.1%	1.6%	46.8%
Male new employee hires	2,699	1,600	250	1,148	2,956	157.5%
Male new employee hires (percentage)	17.7%	9.7%	1.5%	6.9%	15.6%	126.1%

2014	2015	2016	2017	2018	Change from previous year %
2,425	1,384	212	1,037	2,534	144.4%
15.9%	8.4%	1.3%	6.2%	13.4%	116.1%
655	523	141	280	722	157.9%
4.3%	3.2%	0.9%	1.7%	3.8%	123.5%
26	22	10	13	10	-23.8%
0.2%	0.1%	0.1%	0.08%	0.05%	-37.5%
46,967	35,205	27,851	34,314	33,804	-1.5%
96.0%	97.0%	97.0%	97.0%	97.0%	0%
1.3	1.1	1.1	1.3	1.0	-23.1%
9.7	4.7	3.2	4.4	4.0	-9.1%
6.7	3.1	3.2	3.4	3.7	8.8%
3.4	2.1	1.6	2.1	1.7	-19.1%
	2,425 15.9% 655 4.3% 26 0.2% 46,967 96.0%  1.3 9.7 6.7	2,425 1,384 15.9% 8.4% 655 523 4.3% 3.2% 26 22 0.2% 0.1% 46,967 35,205 96.0% 97.0%  1.3 1.1 9.7 4.7 6.7 3.1	2,425       1,384       212         15.9%       8.4%       1.3%         655       523       141         4.3%       3.2%       0.9%         26       22       10         0.2%       0.1%       0.1%         46,967       35,205       27,851         96.0%       97.0%       97.0%         1.3       1.1       1.1         9.7       4.7       3.2         6.7       3.1       3.2	2,425       1,384       212       1,037         15.9%       8.4%       1.3%       6.2%         655       523       141       280         4.3%       3.2%       0.9%       1.7%         26       22       10       13         0.2%       0.1%       0.1%       0.08%         46,967       35,205       27,851       34,314         96.0%       97.0%       97.0%       97.0%         1.3       1.1       1.1       1.3         9.7       4.7       3.2       4.4         6.7       3.1       3.2       3.4	2,425       1,384       212       1,037       2,534         15.9%       8.4%       1.3%       6.2%       13.4%         655       523       141       280       722         4.3%       3.2%       0.9%       1.7%       3.8%         26       22       10       13       10         0.2%       0.1%       0.1%       0.08%       0.05%         46,967       35,205       27,851       34,314       33,804         96.0%       97.0%       97.0%       97.0%         1.3       1.1       1.1       1.3       1.0         9.7       4.7       3.2       4.4       4.0         6.7       3.1       3.2       3.4       3.7

We reward our employees with total remuneration that is above average and aligned with the upper third of the respective labour market in China. We conduct an annual benchmark within the automotive industry to ensure our competitiveness as an attractive employer. In addition to fixed base salary and overtime payments,

our employees receive allowances and a variable bonus that links total remuneration to performance.

We provide employees with a competitive flexible benefits programme that can be customised to best suit employees' individual needs. In addition to this, we provide flexible work time models, with three core options:

### MODEL

### Standard work time for non-production employees

These contracts entitle the employee to a 40-hour workweek, which complies with China's labour laws. This work time model applies to approximately 5% of our employees.

### MODEL

### Work time accounts for production employees

Using work time accounts enables us to adapt to our annual production volume fluctuations, while guaranteeing stable payment for our production employees. This work time model applies to approximately 73% of our employees.

### **MODEL**

### Flexible work time for non-production employees

Employees from a certain pay-grade level are entitled to flexible work time. For some specific roles such as drivers, flexible work time is assigned according to job and functional requirements. The flexible work time model applies to approximately 23% of our employees.

To foster work-life balance, we provide statutory annual leave, as legally required, and extensive vacation leave, in addition to the national statutory holidays. Personal leave such as maternity and paternity leave, sick leave, and compassionate leave are also available to meet our employees' needs.

For all local regular contract employees at BMW Brilliance, we have an Associate Car Programme that grants certain discounts and periodic special rates for



### 5.4 **HEALTH AND WELLBEING**

Health and safety at BMW Brilliance includes not only work safety and ergonomics, but also a holistic health management programme, aging-appropriate work systems and serving healthy food in our canteens.

BMW Brilliance manages occupational health and safety in accordance with applicable health and safety laws and regulations, the BMW Group Health and Safety Policy, and in compliance with Chinese labour law, OHSAS 18001, the United Nations Global Compact Principles and the Declaration on Fundamental Principles and Rights at Work by the International Labour Organisation. Any violation of the Legal Compliance Code is filed with the Human Resources Department and the Compliance Committee. Both our internal and shareholder audit teams conduct annual audits to ensure full compliance with internal and external rules and regulations.



34.8%

Accident frequency rate reduced in 2018 from 2017, through a series of improvement measures and strengthening of supervision, training and management.

### Occupational health and safety

	2014	2015	2016	2017	2018	Change from previous year %
Accident frequency rate (per one million hours worked)*	0.82	1.06	0.54	0.43	0.28	-34.8%

<sup>\*</sup> The scope only covers directly contracted employees in the production 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.

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## IMPROVING WORKPLACE SAFETY AND ERGONOMICS

Training is the key to a proactive approach to preventing work-related accidents and illness. We provide health and safety training to all new employees, refresher training to all employees, and special safety training to high-risk groups.

We regularly implement and continuously improve health and safety measures at our plants. Occupational health and safety management has been integrated into Value-added Production System initiatives so that production improvements also take health and safety concerns into account. BMW Brilliance employees are encouraged to raise ideas and suggestions to

promote safe working conditions and ergonomic improvements.

In 2018, BMW Brilliance launched BAPA3.0, an office ergonomics evaluation project, expanding our ergonomics programme to office employees. We provided targeted training to managers and encouraged employee participation through various communication channels. By the end of 2018, nearly 1,400 office employees had completed a self-assessment and data analysis was used to inform planning and improvements of the work environment and office safety in future. In addition, the risk assessment tool for production employees was upgraded from ABA Tech to Safety and Ergonomics Risk Assessment, as a tool that assesses potential risks and the severity of these risks.



Fire drill at BBA Powertrain plant.

## IMPLEMENTING HEALTH AND SAFETY INITIATIVES

In addition to making our working environment safer for our employees, we are implementing various initiatives to contribute to the overall health and wellbeing of employees in both production and nonproduction roles.

In 2018, BMW Brilliance carried out activities to identify unsafe employee behaviours and unsafe conditions

of equipment and facilities, improve employee participation in safety awareness, and communicate management safety commitments.

Each plant organises regular and occasional on-site safety inspections. Employees are encouraged to actively identify and mitigate unsafe behaviours and conditions and make a report to the appropriate person. Employees participated in trainings reached a total of 46,711 times during 2018—the safety management department organised training at all levels, and

the emergency management team organised 15 emergency drills and more than 20 special inspections. During Work Safety Month, each of the three plants selected a "Safety Star" and each workshop carried out safety activities. BMW Brilliance management established a "Safety Commitment" and participated in employee safety training. Safety performance is reported regularly at factory management meetings each month. The safety management department also carried out safety visualisation activities during 2018, with each workshop creating a safety board with specific safety indicators and completion status.

### **HEALTH MANAGEMENT 2020**

Health Management 2020 is an initiative that supports BMW Brilliance employees in making informed decisions about managing their health. In 2018, we provided targeted trainings and activities on healthy habits, mental resilience, and musculoskeletal disorders. We also support groups with chronic diseases through rehabilitation, Traditional Chinese Medicine, and professional consultations on disease management.





Our medical team that provides health consultation to employees

EMPLOYEE DEVELOPMENT • Health and Wellbeing



Health consultation at plant site.

In 2018, we emphasised the protection and preservation of mental health. Associates were provided trainings on demand with time and location flexibility. This year, two topics were covered; nonviolent communication and positive discipline. During 20 sessions, over 349 employees attended, with the

We had 15,054 employees participate in the annual health check programme, which provides a comprehensive health screening. According to the annual health check, the percentage of overweight employees increased from 55% to 61% between

option of inviting family members over the weekend.



"Burn what you eat" campaign in Dadong plant.

2017 and 2018. As a result, we established a healthy eating campaign of "Burn what you eat" that resulted in 956 employees participating in a WeChat group that provided consultation and online training.

Since 2017, International Musculoskeletal Disorder Campaign had been held for reducing risk among office and production areas. Musculoskeletal disorder became the third most diagnosed problem within BMW Brilliance, to address this we held events, pilot projects and promoted methods to reduce the onset of musculoskeletal disorder at work.



Inside our canteen kitchen

### 5.5 TRAINING AND DEVELOPMENT



We recognise that leadership development is a critical factor in our ongoing success. The leadership style we nurture is based on the Core Values of the BMW Brilliance culture: Responsibility, Appreciation, Transparency, Trust, and Openness.

Through leadership and training, we enable our employees to realise their potential. The training and development of our employees is fundamental to the company's sustainable growth. We focus on strengthening our leadership culture and developing the skills of our future talent. As part of our talent management, we regularly review the performance of our employees, based on our business performance targets. We focus on continuous improvement by measuring and evaluating our training and development performance each year. In 2018, we maintained a very high employee training satisfaction rate of 97%.

### **COMPETENCY MODEL**

In 2015, we rolled out our Competency Model to advance the professional development of our employees, with a structured framework of employee competencies and clear appraisal criteria. It helps managers objectively identify and develop both individual and team potential. For employees, the model helps them understand their own competencies, receive clear feedback, and find their individual development path. Overall, using the Competency Model establishes a common corporate language regarding the competencies required to support our business development.

Through the Competency Model, we encourage our employees to develop themselves and find a career path that is suitable and motivating for them. We try to provide challenging and meaningful training and assignments and to promote the rotation of employees between departments, enabling them to experience different work environments.

### STRENGTHENING OUR **LEADERSHIP CULTURE**

Through targeted training, workshops, discussion panels, and communication campaigns, we are developing leaders who can carry this culture forward based on their individual strengths.



Young Leaders College Study Trip to Dunhuang.

An important cornerstone of leadership at our production units is the Standard Work Programme of the Academy, which enhances problem solving and leadership through a culture of coaching and continuous improvement. Applying coaching techniques and BMW Brilliance's Leadership Core Values, our managers seek to improve the individual performances of their team members and encourage continuous improvement throughout the organisation.

The BMW Group strategy is integrated into our training programmes. Leadership Magic Cube is a team-based learning programme that enhances team performance through collective work on innovation, strategy, decision-making, and collaboration. Leadership Platform NEXT Global is a training platform and venue for leadership reflection and team development.

Programme	About	Key Information
Young Leaders College	Young Leaders College is a 1.5-year leadership development programme specially designed for high performing local BMW Brilliance and BM Group leaders of middle level. Programme targets to equip leaders with the cutting-edge perspective and global mindset. The main objective is to form a strong BMW Group local management team.	By the end of 2018, 152 BMW Brilliance and BMW Group leaders have joint the programme. In 2018, 29 BMW Brilliance and BMW Group leaders graduated from programme, while another 29 leaders were enrolled into programme.
Leadership Magic Cube	Launched in 2017, a team-based learning programme that enhances team performance through collective work on innovation, strategy, decision-making, team strengths leveraging and collaboration within or across teams.	In 2018, 58 sessions implemented for teams from different departments.
Section Leader Training Programme	Section Leader Training Programme is a leadership training for new and established section leaders. It provides fundamental and essential leadership knowledge and skills, in order to support and enhance section leader's leading role, which eventually supports production efficiency.	By the end of 2018, 13 sessions were delivered with 300 section leaders.

### **DEVELOPING FUTURE TALENT**

As part of the BMW Group's global strategy to develop young people and attract the talent of tomorrow, BMW Brilliance has developed a series of specialised and localised programmes, traineeships, and vocational education opportunities to build the skill sets needed for the future. Through the following programmes, we are training and cultivating the next generation for the benefit of the BMW Brilliance brand, the growth of our business, and the development of the automotive industry in China.

In 2018, we signed cooperation agreements with Dalian University of Technology and Shenyang University of Technology for the ProMotion China Ph.D. Programme. In cooperation with these two universities and Northeastern University, we will continue to cultivate applied talent in cutting-edge technologies to implement the development strategy of Made in China and Industry 4.0.

Programme	About	Participants
The Global Leader Development Programme (GLDP)	An international graduate initiative offering recent talented graduates an opportunity to jumpstart their career at BMW Brilliance. Through four rotations, these professionals work in multiple departments with two international assignments, one of which is at BMW Group Headquarters in Munich.	By end of 2018, 7 Global Leader Development Programme employees.
ProMotion China Ph.D. Programme	Attracts high-potential Ph.D. students interested in research and development, production planning, and process optimisation with many of these students showing an interest in Industry 4.0 technologies.	Since 2014, we have had 36 students participate in this four-year programme. One Ph.D. trainee graduated in 2018 and integrated into BMW Brilliance
Fastlane China Programme	Provides career growth and rapid promotion opportunities for outstanding master graduates. Fastlane trainees are provided soft skills training and a designated "buddy" who provides project guidance and inspiration so that trainees reach the fullest of their potential.	In 2018, there were 16 graduates from the programme.
SpeedUp China in Production Programme	Recruits bachelor's degree students and develops young professionals into high-quality production technicians and future section leaders.	In 2018, 20 trainees that graduated from the programme.
The New Vocational Education Programme	Programme adapted from the dual education system in Germany, modified to suit the Chinese context.  Designed to build the technical skills of our production employees and to support vocational school and college students to build the capacities they need to secure well-paid jobs in the future.	100% of graduates who passed the evaluation have joined BMW Brilliance. 229 apprentices have graduated from the New Vocational Education Programme, with 51 completing the programme in 2018.

# 华晨宝马与沈阳工业大学联合培养博士生项目合作签约仪式 BMW BRILLIANCE AUTOMOTIVE AND SHENYANG UNIVERSITY OF TECHNOLOGY PROMOTION CHINA PH.D. PROGRAMME COOPERATION AGREEMENT SIGNING CEREMONY.









BMW Brilliance and Shenyang University of Technology ProMotion China PH.D. Programme Cooperation Agreement Signing Ceremony in October 2018.

## NON-TECHNICAL ONLINE TRAINING PROGRAMMES

In 2018, many non-technical online training programmes were launched offering employees more opportunities to learn and further develop themselves. The learners have no time and venue limitation with the online learning, and the topics are quite diverse. There are 30 non-technical online course wares on the learning platform covering 9 different modules, including professional competency, intercultural, orientation, financial, HR, marketing, sales, product and process, etc. The online courses can satisfy different needs from employees upon different dimensions.

## INTERNAL TRAINER DEVELOPMENT PROGRAMMES

The Internal Trainer Development Programme focuses on the development of BMW Brilliance employees.

In 2018, the technical portion of the programme was expanded. Based on the 10%-20%-70% learning principle, Technical Part-Time Internal Trainer programme designed and offered more methods of learning in 2018. The programme empowered technical internal trainer development with the knowledge and skills they need and provided more practicing opportunities. Four of our certified trainers qualified 34 trainees to be "BBA certified trainers", accumulating an average satisfaction rate of 4.9 out of 5.



High Voltage Qualification Flash Training

## **FORECAST 2019**



In 2019, the safety management department will establish safety objectives for various departments and workshops, formulate an annual safety training plan, special inspection plan, emergency drill plan, defined safety production responsibilities, and develop a new safety production responsibility book. We will prepare for the transition of our safety management system from OHSAS 18001 to ISO 45001 in 2020, making sure we follow national regulations and company requirements.

Employee feedback across the organisation will be gathered through a BMW Group-wide employee survey in 2019.

We will continue to extend the health initiatives that benefit our employees even more. Based on results out of risk assessment, annual health check and sick leave, a series of health initiatives will cover topics such as ergonomics, nutrition, addiction, mental, exercise and case management.

The BMW Brilliance Automotive Training Centre will be a state-of-the-art comprehensive training base, able to accommodate up to 500 people for training and activities. It will also help meet the demands of our growing vocational education activities at BMW Brilliance. This custom-built Training Centre will complete construction by the end of 2019 and will be completely operational in early of 2020.



## SUSTAINABILITY DRIVER

CORPORATE SOCIAL RESPONSIBILITY • Sustainability Driver

"What filled our hearts is the feeling of giving back. I, as well as the volunteers involved in this activity, enjoyed every part of the project."

"We started to get in the habit of Doing small good deeds along the way."

### When did you begin participating in BMW CSR activities? And what was it that interested you?

I joined the "Lighting Up Hope" project of CCF-BMW Warm Heart Fund in 2009 as a member of the first group of "big partners". I was impressed by the way it engaged with the community and for its professional management, approach and nationwide platform.

Being a part of the CCF-BMW Warm Heart Fund, I have had the opportunity to meet many car owners and make a lot of strong friendships. In October 2017, some of my friends decided to jointly set up the Hunan BMW Warm Heart Customer Club. At the start, our activities were mainly about the driving experience and for our families to enjoy the travel. We then felt that this kind of activity offered little positive energy for society. As we enjoyed the fine views, we also saw many regions and families suffering from poverty. It was during these experience that we decided we wanted to take along books, toys and school supplies to give the children in need, to teach and play games. We started to get in the habit of "Doing small good deeds along the way".

### Which BMW CSR projects in China have you joined? What kind of support has the BMW CSR team provided to you?

Since the inception of the Hunan BMW Warm Heart Customer Club, we have joined several projects with BMW CSR, such as the BMW Children's Traffic Safety Education.



**Zhao Shixue** 

Hunan BMW Warm Heart Customer Club Representative



"Children's Traffic Safety on Campus" in Changsha.

One of the key activities of the Club took place on "Children's Day", when several key members of our Club participated in the online teaching and training of the "BMW Children's Traffic Safety Ambassador". After being qualified as children's traffic safety educators, we held the first "Children's Traffic Safety on Campus" with BMW dealers in Changsha. The event was held in my child's kindergarten and received a lot of praise from teachers and parents. From that success and word of mouth from parents and teachers and volunteers, the activity was carried out 13 times in the second half of the year, benefiting more than 300 people.

At the end of 2018, a traffic accident that killed a young child in Changsha shocked us. We felt that we needed to do more to raise awareness. Therefore, we began to work together with traffic police and the education sector, recruited volunteer ambassadors from the community and created the "BMW Children's Traffic Safety Ambassador Training Base" to conduct regular training and continuous training of professional volunteers. Further, we engaged campus networks, television stations, live We Media and other platforms for the safety education both in schools and communities.

BMW gave us great support throughout. From contacting and training of volunteers, to the supply of activity materials and teaching plans and materials.



Traffic rules training for children.

## What positive impact does the project have on you

What filled our hearts is the feeling of giving back. I, as well as the volunteers involved in this activity, enjoyed every part of the project. We are able to give back to the community and join something impactful. Because of our enthusiasm, the development of public welfare activities has become more sustainable and scalable.

By participating in this project, both parents and children gained a deeper knowledge about traffic safety. Children have started to urge their parents to follow traffic rules and travel in a civilised manner. Participating schools were given positive affirmation to the professionalism and standardisation of our training.

After more than half year of practice, we have become firmer to our aspiration to help children and society. We hope that there will to be more forms of teaching and greater numbers of participants in the future.

## **RESPONSE TO THE SUSTAINABLE DEVELOPMENT GOALS**













Our flagship CSR programmes are an important part of how we as a company can engage our employees, dealers, customers and the general public in efforts that benefit society beyond our own reach. Through our JOY Home sports education activities for disadvantaged children, we can help to alleviate poverty (SDG 1) and support China's SDG commitment to lift out of poverty the 50 million rural people who currently have incomes below the poverty line. Our traffic safety awareness initiatives promote education amongst children (SDG 4) while our employee volunteering activities contribute to the health and well-being of individuals and communities (SDG3). All of our programmes leverage innovative partnerships to achieve positive and scalable impacts (SDG 17).

80,292

Beneficiaries of the BMW CSR Activities in 2018

337

Items of Intangible Cultural Heritage visited across 22 provinces and 68 cities

7,000

Graduates of dualeducation vocational training reinforcing the talent pool for dealerships in China

## 6.1 STRATEGY AND MANAGEMENT



2018 BMW China Culture Journey Intangible Cultural Heritage Exhibition.

At BMW Brilliance, we are committed to creating shared value that develop opportunities for positive impact and align with local, national and global commitments.

Our goal at BMW Brilliance is to contribute to Chinese society in meaningful and lasting ways that create shared value for our business and our communities. Our CSR programmes are aligned with the BMW Group's Strategy NUMBER ONE > NEXT and the BMW Group's Corporate Social Responsibility strategy, and over the past few years we have shifted from making charitable donations to a more strategic CSR approach.

Our CSR philosophy is one of enabling others, and we build tools and resources to empower others, raise awareness, and foster broader engagement so that everyone can easily contribute to address the issues around them. We integrate our activities with our business operations, for example by facilitating and empowering dealers to engage in CSR initiatives. Creating shared value with society inspires us to create tools and programmes that provide direct

ongoing benefits for participants, such as better traffic safety for children and revenue generation for Intangible Cultural Heritage (ICH) inheritors.

Our strategic CSR attaches importance to evaluating our project impact, and to creating transparency in our results, for both internal and external purposes of understanding our impact. In 2018, we adopted the "Input, Output, Outcome and Impact" (IOOI) method for BMW Brilliance's CSR programmes as a systematic approach for monitoring the quantitative and qualitative impacts of our programmes. The method has been successfully rolled out across our flagship initiatives.

Our management approach is described in > Chapter 6.1. A detailed description of our CSR initiatives is available in > Chapter 6.2.

### **OUR APPROACH**

BMW's strategic CSR approach is to create shared value and develop innovative solutions that empower and enable over the long term. At BMW Brilliance, creating shared value means creating benefits for the society and the company, in particular through local community development.

Our approach to CSR requires thinking and acting in a visionary manner, according to these principles:

Through clear positioning, innovation, and a sustainable operational model, BMW Brilliance effectively promotes long-term, active participation in social issues.

Our BMW flagship CSR programmes have existed for over a decade, building a sense of pride in our employees. Our teams regularly revisit and refine our approach, adapting our BMW CSR activities to increase their reach and impact.

### 1 Long-term commitment:

Our programmes are designed in a way that creates a lasting foundation for ongoing activities that provide sustained impact for our employees, customers, and communities.

### 2 Addressing social issues:

We allocate our funding to priority social issues that affect our society and our stakeholders.

### 3 All-inclusive stakeholder engagement:

Our goal is to involve a wide range of stakeholders in our activities, to broaden participation, and build a proactive community engaged in social issues.

### **Our Flagship BMW CSR Programmes**

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### **BMW Children's Traffic Safety Education**

BMW's traffic safety awareness programme generates public awareness of children's traffic safety, using innovative methods and channels. In 2018, we added an initiative to train BMW Children Traffic Safety Ambassadors. Our Ambassadors conduct learning activities in public schools and communities and expanding the reach of our CTSE programme.

### **BMW China Culture** Journey

BMW's cultural heritage programme acts as a bridge between traditional and modern life in China, connecting our customers to Intangible Cultural Heritage (ICH) and supporting training, exhibitions and sales for ICH artisans. This programme reflects our commitment to preserving local culture as an important part of society. In 2018, our pilot initiative of selling heritage items through BMW's online flagship stores on JD.com and Tmall demonstrated the potential for new avenues of economic benefit for ICH.

### **BMW JOY Home**

BMW's education and sports programme connects volunteers with left-behind and migrant children, enhancing their physical and mental health through football training and sports games at BMW JOY Homes and providing teaching resources. The first Joyful Football Summer Camp was held in 2018, as a new platform to facilitate interaction and learning and promote positive social engagement.

### THE CHINA CHARITY FEDERATION (CCF) -**BMW WARM HEART FUND**

The CCF-BMW Warm Heart Fund was jointly established by BMW Brilliance, BMW China, and the China Charity Federation in 2008. Through the Fund, we streamline how we invest and engage with our employees, dealers, and customer representatives, and have a dedicated channel for CSR contributions.

By the end of 2018, accumulatively 100,000 BMW customers and employees have engaged in a variety of public campaigns to help address social issues in Chinese communities. It is estimated that the BMW Warm Heart Fund has had 237,892 beneficiaries through BMW CSR initiatives.

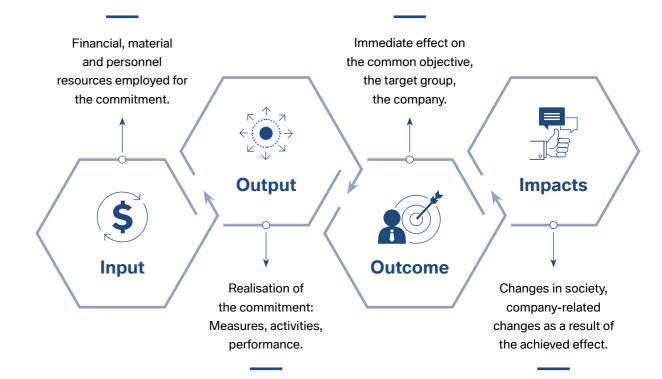
A dedicated and professional team, set up jointly by BMW Brilliance and BMW China, takes full responsibility for BMW CSR projects, covering tasks from internal and external communications to stakeholder engagement.

Social engagement projects are investments in the social environment and are closely linked with corporate goals in order to increase the strength and relevance of the commitment. In order to monitor the effect of our programmes, we use the IOOI matrix and surveys to track different aspects of our project activities, enabling us to share the results with our stakeholders with greater transparency.

### **IOOI Corporate Citizenship Activities Evluation Process**

F. 23

123



In cooperation with Human Resources, the CSR team sets up the "BMW Corporate Volunteer Association" in 2018, and four volunteering activities were launched: BMW Children's Traffic Safety Ambassador, BMW JOY Home Joyful Sports Carnival, volunteering activities initiated by BBA Union, and Shenyang Associate Social Responsibility Project.

Through the Volunteer Association, last year 804 associates participated in CSR activities with more than 4,000 beneficiaries.

### **AWARDS AND HONOURS IN 2018**

### **CORPORATE AWARD**



- Responsible Corporate by China Newsweek
- Best Auto CSR and Top Responsible Corporate among Global 500 Companies Contribution in China by Southern Weekly
- Outstanding Social Responsibility Award by Business Management Review

### FOR BMW CHILDREN'S TRAFFIC SAFETY EDUCATION



- Best CSR Strategy Award and CSR China Top 100 at CSR China Education Awards
- Classic Case Award of First China Automobile Industry Brand and Communication Summit
- Best Traffic Safety Case Award at Yi Xuan Awards

### FOR BMW CULTURE JOURNEY



- First Financial and China Corporate Social Responsibility **List Annual Theme Accurate Poverty Alleviation Award**
- Golden Flag Award Corporate Social Responsibility Gold Award

### **FOR BMW JOY HOME**



- Golden Award in Cause Marketing at SuQin Awards
- Outstanding Social Responsibility Award at China Football Association Football for All Awards

### 6.2 BMW CSR ACTIVITIES

We promote progress on key social issues in China through innovative CSR programmes for increased road safety, the preservation of traditional Chinese

culture, educational opportunities and skill-building for disadvantaged youth, and dual-education vocational traininas.

### BMW CHILDREN'S TRAFFIC SAFETY EDUCATION

In 2005 we launched the BMW Children's Traffic Safety Education (CTSE) programme nationwide, which is the first and longest-running children's safety education programme by the Chinese automotive industry. The CTSE established a brand-new societybased education system, mobilising our customers and employees to volunteer to improve traffic safety education, filling a gap in existing school-based education and introducing innovative teaching methods. Our original focus was on generating public awareness of children's traffic safety through an innovative scenario-based roadshow experience. In 2018, the programme extended to public advocacy and our volunteers went into schools for the first time with the launch of BMW Children's Traffic Safety Ambassador Programme. The programme's reach expanded significantly, with more than 400 volunteers and more than 70,000 beneficiaries by the end of 2018.



Children's traffic safety eduction in Yinchuan.

In 2018, "BMW Children's Traffic Safety Ambassador" has accomplished remarkable achievements. The China Charity Federation BMW Warm Heart Fund donated 900 sets of "BMW Children's Traffic Safety Education - the Magic Suitcase of Safety Education" to nearly 200 schools in 20 cities, and each school organised 10 traffic safety lessons per semester averagely. In addition, "BMW Children's Traffic Safety Ambassador" recruited 427 volunteers (including associates, dealers, customers and media) that went on to deliver 86 children's traffic safety experience



The largest traffic conducting lesson, breaking a new Guiness World

To further promote traffic safety knowledge and safe driving, 2018 BMW Children's Traffic Safety Education programme gathered over 1,300 primary school students along with BMW associates, dealers, and customers in Shenyang to hold the "Largest traffic conducting lesson", a new Guinness World Record. The event drew the attention of schools, parents and the entire society about the importance of children's traffic safety.

### **BMW CHINA CULTURE JOURNEY**

At BMW, we believe that a successful company communicates its value beyond products and services, and that true value is represented by contributions to society and culture. A company uses its own heritage and its people to build bridges with society.

This belief is represented through our iconic CSR programme, the BMW China Culture Journey. The programme uses innovative means to preserve local cultural and societal values, on which our communities and business operations are built. BMW China Culture Journey has evolved from cultural visits into a public platform that integrates ICH into modern life. Our strategy is to make social and economic connections that enable the rejuvenation of ICH in modern society by supporting the success of ICH artisans and preservation of cultural heritage.

Dealers, car owners, and media professionals make exploratory visits to ICH sites to discover heritage and boost local attention to ICH. In 2018, the China Culture Journey visited Yushu in Qinghai. Over the past 12 years, BMW China Culture Journey has made exploratory visits to 337 ICH items across China.

Ten new inheritors were selected to enrol in the Tsinghua-BMW ICH Safeguarding Centre for training. In the past two years, 30 successors were selected and trained at the Academy of Arts and Design of Tsinghua University. The training enables participants to update their design thinking through professional design courses, combining intangible traditions with modern design. The opportunity also increases the profile of participants and potential market access two participants at Tsinghua formed a cooperative and expanded their Qiang embroidery business, increasing their sales and boosting local employment.



Our President and CEO Dr. Wieland, with Professor Ma, Secretary of the Party Committee of the Academy of Arts and Design of Tsinghua University, hosted the 2018 BMW China Culture Journey Intangible Cultural Heritage Exhibition.

We have also begun to explore the creation of sustainable market channels offering technical support and market connectivity for ICH producers, an option which has significant potential for expanding our impact. In 2018, products of the Yushu Impression series created through this project by social enterprise Shokay were successfully sold online through BMW's official stores on Tmall and JD.com, building a bridge between artisans and modern consumers. This enables artisans to develop customer-oriented thinking and connect to the high-end market, and brings ICH to the public through modern designs, attracting more people to experience our cultural heritage.

We apply powerful design, marketing, and communication tools to inspire and promote the consumption of intangible cultural heritage products. BMW China Culture Journey, in collaboration with the travel website Mafengwo, has launched BMW China Culture Journey ICH Tour Guides for Sichuan, Hunan, and Yushu, with more than 2 million downloads. The Yushu Intangible Cultural Heritage Travel Guide was released in 2018 to promote tourism of the Tibetan Culture (Yushu) Ecological Protection Experimental Zone in Qinghai.

The BMW China Culture Journey also hosts interactive workshops at BMW Experience Shanghai, with seven sessions held so far.

We intend to continue our journey (more than 26,500 kilometres in 22 provinces) and keep increasing our reach (visits to more than 337 different heritage items so far).



One of the ICH inheritors.



Products of the Yushu Impression series.

1,500

Number of participants that attended two ICH exhibitions in Beijing, prompting RMB 157,000 worth of sales.

### **BMW JOY HOME**

BMW JOY Home was developed in 2011 to provide disadvantaged children in rural areas with greater opportunities to learn. Through the programme, rural children receive help with their homework, take part in educational activities, and participate in organised sports at BMW JOY Homes around the country. The programme trains principals and teachers and promotes the concept that innovative sports improve the development of talents and capabilities, enhancing the quality of education. BMW JOY Home is supported and sponsored by BMW dealers and customers, many of whom participate as volunteers.

Twelve new JOY Homes were set up in 2018, bringing the total number to 68 schools in 29 provinces. By 2018, 26 football teams were set up by JOY Home, with each team receiving 5 to 10 days of professional training. JOY Home activities have benefited 11,000 children and 500 teachers. Through this programme 92% of teachers changed their teaching concept and methods, and 84% of children significantly improved their interpersonal skills and social abilities. The activities are enhancing teamwork, improving physical fitness, broadening horizons and promoting physical and mental development.



BMW JOY Home Joyful Sports Games in Shenyang.

Building on the success of the new Joyful Football programme, BMW organised a Joyful Football Summer Camp in 2018, the first event of this kind organised for left-behind migrant children. Ten football teams participated in a week of competition and training in Shenyang, facilitating learning and exchange among different regions, schools, and ethnic groups. This innovative programme satisfies a critical demand for left-behind children to have equal development opportunities, by providing services through sports education.



2018 BMW JOY Home Joyful Football Summer Camp.



Our Children's Traffic Safety Ambassadors are BMW associates, BMW dealers and BMW car owners.

### **BMW EDUCATION OF SERVICE TECHNOLOGY (BEST)**

The BEST programme was developed by the BMW China Training Academy in response to a national call for the development of vocational training. It incorporates dual-education vocational training, an approach that was credited with reinforcing and sustaining the rapid development of Germany's economy. The BEST programme runs primary and secondary education accreditation programmes for students, in cooperation with local vocational schools.

BEST focuses on the joint application of theoretical and practical knowledge and has attracted many talented high-level participants with product knowledge and professional skills to China's automotive industry. BEST also cultivates teachers with professional training capacity, international training ideas, and the most advanced automotive technologies. By the end of 2018, we have set up 15 training bases across 13 provinces in cooperation with over 400 dealers nationwide. Of the 7,000 graduates, over 50% have now joined BMW dealerships as a reliable force for high-quality aftersales services. Creating multi-win outcomes for schools, enterprises, students, dealers, and society, BEST has become a model for vocational education in China.

### STAKEHOLDER VOLUNTEERS

In addition to CSR initiatives we implement ourselves, we also engage stakeholders under the umbrella of the BMW Warm Heart Customer Clubs and the Associate Social Responsibility project. In 2018, stakeholder engagement significantly increased in both the scope and depth of participation. Customer and dealer engagement developed even further with the establishment of two new BMW Warm Heart Customer Clubs for a total of 19 customer clubs nationwide.

The new BMW Corporate Volunteer Association organised four types of volunteering activities, with positive results for both the beneficiaries and the more than 4,000 volunteers who participated.

7,000

Graduates of dual-education vocational training reinforcing the talent pool for dealerships in China.

### **BMW WARM HEART CUSTOMER CLUB**

BMW Warm Heart Customer Clubs are memberdriven groups through which customers volunteer their time and resources to contribute to their local communities. The BMW Warm Heart Customer Club represents the largest stakeholder network of its kind, with 19 clubs across China and more than 38,500 members, enabling BMW customers to initiate and organise activities that maximise community benefits and impact. Since its formation in 2006 as the first stakeholder volunteering platform in China's automotive industry, more than 800 public welfare events have been held.

## Established in 2006

19

BMW Warm Heart Customer Clubs

38,500+

BMW Warm Heart Customers

+008

Customer BMW CSR Activities

### SHENYANG ASSOCIATE SOCIAL **RESPONSIBILITY PROJECT**

Launched in 2008, the Shenyang Associate Social Responsibility project is designed to "devote love and care for others". As a long-term programme, the Shenyang Associate Social Responsibility project encourages our associates to choose from a wide range of activities and contribute to the Shenyang community by offering help to the underprivileged.

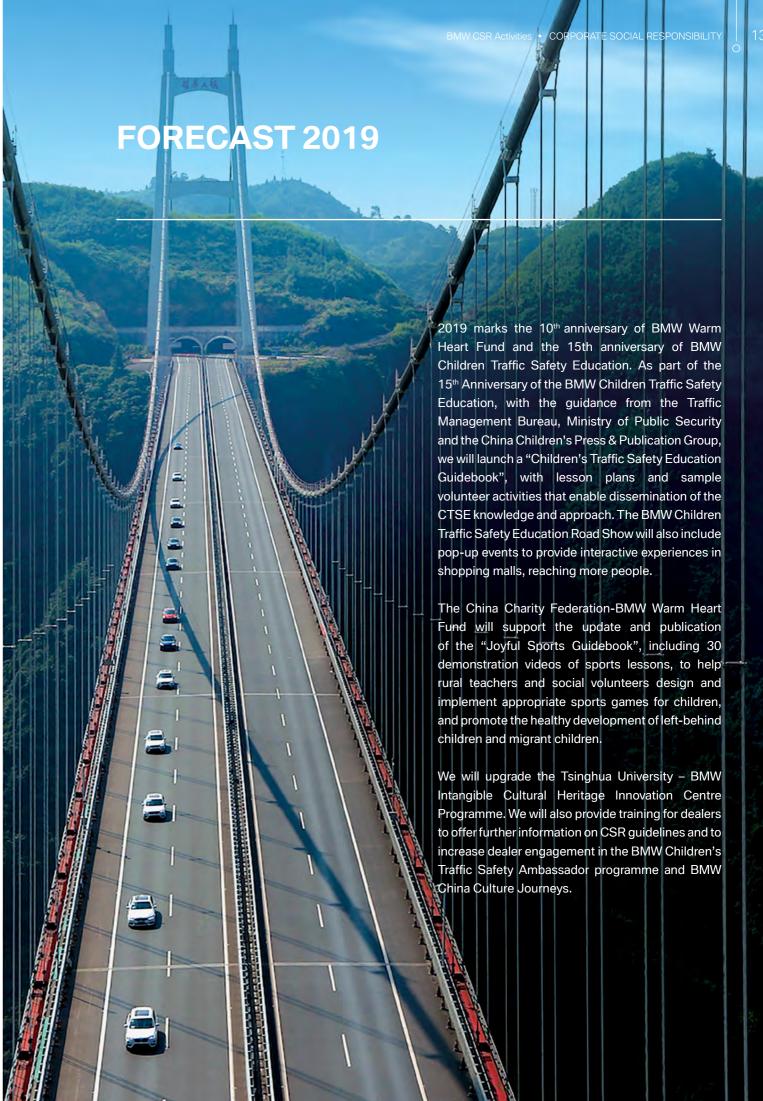
Employees can pay regular visits to homeless elders with disabilities, poor students, disabled children, orphans, and long-term patients. By providing their moral support, sending daily items to those in need, and doing maintenance work, our employees can offer support and care to the underprivileged.

In addition to committing our time, the Shenyang Associate Social Responsibility project also provides financial support and spiritual care to elders, orphans, sick children, and the disabled, as well as to employees in difficult circumstances.

Our Associate Social Responsibility project shows the value of social inclusion and the importance of providing support to those in our communities that need it most. Through the BMW Corporate Volunteering Association set up by the BMW CSR team, we made significant achievements. We had 804 employees participate in BMW CSR activities in 2018. A total of 3,924 volunteer hours that benefitted over 4,000 people in local communities, while 80% of our BMW employee volunteers reported an improvement in work and life happiness after participating.



ASR Members Social Welfare Institute Visit in Shenvana.





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APPENDIX • About This Report

## 7.1 ABOUT THIS REPORT

The BMW Brilliance 2018 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 of the Global Reporting Initiative, applying the "Core" option. Using the Global Reporting Initiative Content Index helps to show how we are implementing the requirements of the UN Global Compact.

### **REPORTING PERIOD**

This is BMW Brilliance's sixth Sustainability Report, covering the calendar year from 1st January to 31st December 2018. The last BMW Brilliance Sustainability Report, covering our 2017 performance and activities, was released in November 2018. The next Sustainability Report will be published in mid-2020. BMW Brilliance reports on an annual basis.

### **REPORTING SCOPE**

The sustainability performance data in the report include the following production and operation sites of BMW Brilliance: our plants in Shenyang, as well as our branch company in Beijing and our five regional offices.

The content and data of the report relate primarily to BMW Brilliance. We have made no changes in the methods used to collect and measure the data on our sustainability performance. There were changes to the list of material topics and topic boundaries of the report during the reporting period as we conducted a materiality assessment refresh. The targets set within the report build on the indicators presented in previous years. Additional targets apply to all entities operating in China under BMW Group. Joint initiatives with BMW China Automotive Trading Ltd. or the BMW Group are included in the areas of customer relationship management, employee training and development, and corporate social responsibility.

### **THIRD-PARTY ASSURANCE**

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

## 7.2 GRI CONTENT INDEX

The following table lists the GRI Standards Disclosures and their location in the BMW Brilliance's Sustainability Report. This report was prepared in accordance with the GRI Standards: Core option. The compliance with the GRI Standards has not been externally assured.

General Disc	closures			
GRI Standard	Disclosure	Page number	Comments or omissions	UN Global Compact
GRI 102: General	Organisational profile			
Disclosures 2016	102-1 Name of the organization	pp. 4-5, 147		
	102-2 Activities, brands, products, and services	pp. 10-17		
	102-3 Location of headquarters	pp. 10-11, 147		
	102-4 Location of operations	pp. 10-11		
	102-5 Ownership and legal form	pp. 10-11		
	102-6 Markets served	pp. 10-11		
	102-7 Scale of the organization	pp. 10-11, 13-15		
	102-8 Information on employees and other workers	pp. 104-105	d: Not included in the total number of employees are interns. They perform administrative work and support in the departments, but not to a significant effect. There are no self-employed workers.	Principle 6
			e: There are no significant variations (such as seasonal variations) in the employment numbers of BMW Brilliance.	
			f: The small number of employees in other regional locations next to Shenyang and Beijing are integrated into the Beijing figures, as those locations legally belong to the Beijing offices.	
	102-9 Supply chain	pp. 83-88		
	102-10 Significant changes to the organization and its supply chain	p. 87		
	102-11 Precautionary Principle or approach	pp. 23-28		Principle 7
	102-12 External initiatives	pp. 23-28		

I Standard	Disclosure	Page number	Comments or omissions	UN Globa Compact			
l 102: neral	Organisational profile (conti	nued)					
closures 16	102-13 Membership of associations	-	CAAM (China Association of Automobile Manufacturers)				
ntinued)			CAEFI (China Association of Enterprises with Foreign Investment)				
			IAC (The Investment Association of China)				
			LNAEFI (Liaoning Association of Enterprises with Foreign Investment)				
			SYAEFI (Shenyang Association of Enterprises with Foreign Investment)				
			BAEFI (Beijing Association of Enterprises with Foreign Investment)				
			ABNEA (Association of Beijing New Energy Automotive)				
			AHK (German Chamber of Commerce in China)				
			EFQM (European Foundation for Quality Management)				
			Road Vehicle Committee of China Intelligent Transportation Systems Association (ITS China)				
			CBCSD (China Business Council for Sustainable Development)				
	Strategy						
	102-14 Statement from senior decision-maker	pp. 4-5					
	102-15 Key impacts, risks, and opportunities	pp. 23-28	Description of key sustainability impacts, risks and opportunities can be found throughout the content of this report and in Strategy.				
	Ethics and integrity						
	102-16 Values, principles, standards, and norms of behavior		The 12 Basic Principles are: Customer Orientation, Peak Performance, Responsibility, Effectiveness, Adaptability, Dissent (Frankness), Respect and Trust and Fairness, Associates, Leading by example, Sustainability, Society, and Independence.	Principles 6, 10			
			Core Values: Responsibility, Appreciation, Transparency, Trust, and Openness.				
			Norms of Behaviour:				
			- Associate Handbook including an Ethics and Code of Conduct section				
			<ul> <li>Legal Compliance Code</li> <li>Corruption and Prevention Guideline</li> </ul>				
			Corporate Hospitality and Gift Instruction     Anti-Fraud Policy and Fraud Response Guideline				
	102-17 Mechanisms for advice and concerns about ethics	pp. 34-38					

GRI Standard	Disclosure	Page number	Comments or omissions	UN Global Compact		
GRI 102: General Disclosures 2016 (continued)	Governance					
	102-18 Governance structure	p. 23	According to the Articles of Association of BMW Brilliance, the highest authority of BMW Brilliance is the Board of Directors (BoD). The BoD has the power to make decisions on all major and important matters of BMW Brilliance as provided in the Articles of Association. A management organisation, the Board of Management (BoM), is established under the BoD, and is responsible for and in charge of the day-to-day operation and management of BMW Brilliance.			
	Stakeholder engagement					
	102-40 List of stakeholder groups	pp. 29-31				
	102-41 Collective bargaining agreements	p. 101	100% of local employees are members of the Labour Trade Union, and all Union members are covered by the Collective Contract on Labour Remuneration. This excludes expatriates, who are not eligible for the Labour Trade Union.	Principle 3		
	102-42 Identifying and selecting stakeholders	p. 29				
	102-43 Approach to stakeholder engagement	pp. 29-31				
	102-44 Key topics and concerns raised	pp. 29-31				
	Reporting practice					
	102-45 Entities included in the consolidated financial statements	p. 134				
	102-46 Defining report content and topic Boundaries	pp. 26-27, 135				
	102-47 List of material topics	pp. 26-27		Principles 7, 8, 9, 10		
	102-48 Restatements of information	-	Where necessary and possible, restatements are explained in footnotes to the respective graphs.			
	102-49 Changes in reporting	p. 134				
	102-50 Reporting period	p. 134				
	102-51 Date of most recent report	p. 134				
	102-52 Reporting cycle	p. 134				
	102-53 Contact point for questions regarding the report	p. 134				
	102-54 Claims of reporting in accordance with the GRI Standards	p. 134				
	102-55 GRI content index	pp. 135-142,				
		147				

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GRI Standard	Disclosure	Page number	Comments or omissions	UN Globa Compact
Product and	services safety			
GRI 103: Management	103-1 Explanation of the material topic and its boundary	pp. 26-27, 47		
Approach 2016	103-2 The management approach and its components	pp. 47-49, 84		
	103-3 Evaluation of the management approach	pp. 47-49, 56, 84-85		
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	pp. 47-49, 56, 84-85		
Safety 2016	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	-	BMW Brilliance has not had significant non- compliance with laws / regulations in 2018 that resulted in a financially material impact.	
Sustainable p	product portfolio & research ar	d develop	ment	
GRI 103: Management	103-1 Explanation of the material topic and its boundary	pp. 26-27. 42-43	ment	Principles 7, 8, 9
GRI 103:	103-1 Explanation of the material	pp. 26-27.	ment	
GRI 103: Management	103-1 Explanation of the material topic and its boundary  103-2 The management approach	pp. 26-27. 42-43 pp. 42-43,	ment	
GRI 103: Management	103-1 Explanation of the material topic and its boundary  103-2 The management approach and its components  103-3 Evaluation of the	pp. 26-27. 42-43 pp. 42-43, 45-46	ment	
GRI 103: Management Approach 2016 GRI 305: Emissions 2016	103-1 Explanation of the material topic and its boundary  103-2 The management approach and its components  103-3 Evaluation of the management approach  305-5 Reduction of GHG	pp. 26-27. 42-43 pp. 42-43, 45-46 pp. 57	ment	
GRI 103: Management Approach 2016 GRI 305: Emissions 2016	<ul> <li>103-1 Explanation of the material topic and its boundary</li> <li>103-2 The management approach and its components</li> <li>103-3 Evaluation of the management approach</li> <li>305-5 Reduction of GHG emissions</li> </ul>	pp. 26-27. 42-43 pp. 42-43, 45-46 pp. 57	ment	
GRI 103: Management Approach 2016  GRI 305: Emissions 2016  Automation 8  GRI 103: Management	103-1 Explanation of the material topic and its boundary  103-2 The management approach and its components  103-3 Evaluation of the management approach  305-5 Reduction of GHG emissions	pp. 26-27. 42-43 pp. 42-43, 45-46 pp. 57 pp. 50-53	ment	7, 8, 9

GRI Standard	Disclosure	Page number	Comments or omissions	UN Global Compact
Compliance,	corruption, anti-competitive b	ehaviour &	business Ethics	
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	pp. 26-27, 34		Principle 10
Арргоаст 2010	103-2 The management approach and its components	pp. 34-35		
	103-3 Evaluation of the management approach	pp. 34-38		-
GRI 205: Anti- corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	pp. 34-37	We define governance bodies as those committees which receive active regular reports by the compliance function. All committee members are informed about BMW Brilliance's anti-corruption policies and procedures. All committee members who are BMW Brilliance employees have also received training on anti-corruption. Committee members representing our shareholders are not covered by the training programme of BMW Brilliance, but are covered by the compliance programmes of BMW Group and Brilliance Group respectively.  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).  c: Information unavailable: The number of business partners that policies and procedures have been	-
GRI 206: Anti- competitive Behaviour 2016	206-1 Legal actions for anti- competitive behavior, anti- trust, and monopoly practices	-	In 2018, there were no legal actions regarding anti- competitive behaviour or violations of anti-trust and monopoly legislation.	
GRI 414: Supplier Social Assessment 2016	414-2 Negative social impacts in the supply chain and actions taken	pp. 83-88		Principles 1, 2, 3, 4, 5, 6, 10
Charity and C	Corporate Citizenship			
GRI 103: Management	103-1 Explanation of the material topic and its boundary	pp. 26-27, 121		
Approach 2016	103-2 The management approach and its components	pp. 121-123		
	103-3 Evaluation of the management approach	pp. 125-130		

GRI Standard	Disclosure	Page number	Comments or omissions	UN Global Compact
Transparency	,			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	pp. 26-27, 34-35, 47, 64-66, 83		
	103-2 The management approach and its components	pp. 34-35, 47-49, 70- 73, 84-86		
	103-3 Evaluation of the management approach	pp. 34-35, 47-49, 70- 73, 84-86		
Energy consu	imption & renewable energy			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	pp. 26-27, 70		Principles 7, 8, 9
дрргоаст 2010	103-2 The management approach and its components	pp. 64-66		_
	103-3 Evaluation of the management approach	pp. 70, 74		_
GRI 302: Energy 2016	302-1 Energy consumption within the organization	pp. 14, 70	Conversion factors: steam consumption measured in GJ*0.277 = MWh, gas consumption in cubic meters*10.82/1000 = MWh.	_
	302-2 Energy consumption outside of the organization	pp. 14, 70	Conversion factors: steam consumption measured in GJ*0.277 = MWh, gas consumption in cubic meters*10.82/1000 = MWh.	
	302-4 Reduction of energy consumption	pp. 14, 70	Year on year data or energy consumption at all plant locations (in MWh)	_
GRI 308: Supplier Environmental Assessment 2016	308-2 Negative environmental impacts in the supply chain and actions taken	pp. 84-86		Principles 7,8
Air pollution				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	pp. 26-27, 50-51, 70- 71		Principles 7, 8, 9
	103-2 The management approach and its components	pp. 50-51, 66-67, 70- 71		_
	103-3 Evaluation of the management approach	pp. 66-67		_
GRI 308: Supplier Environmental Assessment 2016	308-2 Negative environmental impacts in the supply chain and actions taken	pp. 84-86		Principles 7, 8

GRI Standard	Disclosure	Page number	Comments or omissions	UN Global Compact
Greenhouse	gas emissions & climate chang	je		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	pp. 26-27, 51, 67, 74		Principles 7, 8, 9
	103-2 The management approach and its components	pp. 50-53, 64-66		
	103-3 Evaluation of the management approach	pp. 51-52, 66-67, 70, 74-75		_
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	pp. 14, 51		_
	305-2 Energy indirect (Scope 2) GHG emissions	pp. 14, 51		_
	305-3 Other indirect (Scope 3) GHG emissions	p. 51		_
	305-4 GHG emissions intensity	p. 70	Efficiency indicator = $CO_2$ emissions (from vehicle production) from Scope 1 ( $CO_2$ ) and Scope 2 ( $CO_2$ ) divided by the total number of BMW Brilliance vehicles produced.	
	305-5 Reduction of GHG emissions	pp. 51, 70		-
GRI 308: Supplier Environmental Assessment 2016	308-2 Negative environmental impacts in the supply chain and actions taken	pp. 84-88		Principles 7, 8
Waste & efflu	ents			
GRI 103: Management	103-1 Explanation of the material topic and its boundary	pp. 26-27, 70		Principles 7, 8, 9
Approach 2016	103-2 The management approach and its components	pp. 64-66		_
	103-3 Evaluation of the management approach	pp. 68-76		_
GRI 306: Effluents and Waste 2016	306-1 Water discharge by quality and destination	pp. 73		_
	306-2 Waste by type and disposal method	pp. 71-72		_
GRI 308: Supplier Environmental Assessment 2016	308-2 Negative environmental impacts in the supply chain and actions taken	pp. 84-88		Principles 7,8

GRI Standard	Disclosure	Page number	Comments or omissions	UN Global Compact
		i		,

#### Access to labor

GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	pp. 26-27, 98-99	Principle 6
	103-2 The management approach and its components	pp. 98-101	
	103-3 Evaluation of the management approach	pp. 102-106	
GRI 401: Employment	401-1 New employee hires and employee turnover	pp. 103-105 a: Total number of new employees	hires: 2,239.
2016		b: Confidentiality constraints: The temployee turnover, as well as the age group, gender and region (to rates) are not reported.	e breakdown by

#### Responsible human resources management

responsible	ilulian resources managemen		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	pp. 26-27, 98-99	Principle 6
	103-2 The management approach and its components	pp. 98-101, 107, 111	
	103-3 Evaluation of the management approach	p. 100-101, 107-114	
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	p. 97 a: Information unavailable: Average training days by gender are not reported.	
	404-2 Programs for upgrading employee skills and transition assistance programs	pp. 111-114	

## 7.3 LIMITED ASSURANCE REPORT



善华永道

2019/SH-0354 (Page 1/3)

### 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 2018 key data as defined below in the 2018 Sustainability Report of BMW Brilliance Automotive Ltd. (the "Company").

### Selected key data

The selected key data in the Company's 2018 Sustainability Report that is covered by this report is as follows:

- · Automobiles produced (vehicle)
- · Automobiles delivered (vehicle)
- · Number of authorised dealer outlets nationwide
- Average fleet CO<sub>2</sub> emissions (in g/km)
- Corporate average fuel consumption (in l/100 km)
- · Energy consumption per vehicle produced (in MWh/ vehicle)
- CO<sub>2</sub> emissions per vehicle produced (in t/vehicle)
- Water consumption per vehicle produced (in m³/vehicle)
- Process wastewater per vehicle produced (in m³/vehicle)
- Waste for disposal per vehicle produced (in kg/vehicle)
- Volatile organic compounds (VOC) per vehicle produced (in kg/vehicle)
- Purchasing volume in China (in billion CNY)
- Workforce at year-end (number)
- Attrition rate (% of workforce)
- Percentage of women in total workforce (in %)
- · Average days of further training per employee
- Accident frequency rate (per one million hours worked)
- Beneficiaries of BMW CSR activities in 2018

Our assurance was with respect to the year ended 31 December 2018 information only and we have not performed any procedures with respect to earlier periods or any other elements included in the 2018 Sustainability Report.

### Criteria

The criteria used by the Company to prepare the selected key data in the 2018 Sustainability Report is set out in the definitions of the key data on appendix 7.4 of the 2018 Sustainability Report (the "basis of reporting").



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### 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 2018 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 2018 Sustainability Report that is free from material misstatement, whether due to fraud

### Our Independence and Quality Control

We have complied with the independence and other ethical requirement of the Code of Ethics for Professional Accountants 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 Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### Practitioner's Responsibilities

It is our responsibility to express a conclusion on the selected key data in the 2018 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 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 2018 selected key data in the 2018 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 2018 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 and Powertrain Plant of the Company:



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

### Conclusion

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the 2018 selected key data in the 2018 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.

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PricewaterhouseCoopers Zhong Tian LLP

Shanghai, China

August 15, 2019

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## 7.4 BASIS OF REPORTING

Automobiles produced (vehicle): BMW and ZINORO automobiles produced by BBA for mainland China market of the year, excluding export.

Automobiles delivered (vehicle): BMW Brilliance wholesale volume in mainland China of the year, including BMW brand and Zinoro Brand.

Number of authorised dealer outlets nationwide: Number of authorised dealer outlets in operation in mainland China as of the end of the year, excluding MINI and BMW Motorrad dealer outlets.

Average fleet CO<sub>2</sub> emissions (in g/km): Average CO<sub>2</sub> emissions of automobiles produced by BBA for sales in mainland China market of the year.

Corporate average fuel consumption (in I/100 km): Average fuel consumption of automobiles produced by BBA for sales in mainland China market of the year. The calculation is based on the Administrative Rules on Passenger Car Corporate Average Fuel Consumption (CAFC) and New Energy Vehicle (NEV) Credit of the People's Republic of China.

Energy consumption per vehicle produced (in MWh/vehicle): Production-related energy consumption per vehicle produced.

CO<sub>2</sub> emissions per vehicle produced (in t/vehicle): Production-relevant CO<sub>2</sub> emissions per vehicle produced.

Water consumption per vehicle produced (in m³/vehicle): Production-relevant water consumption per vehicle produced.

Process wastewater per vehicle produced (in m³/vehicle): Production-relevant process wastewater per vehicle produced.

Waste for disposal per vehicle produced (in kg/vehicle): Production-relevant waste for disposal per vehicle produced.

Volatile organic compounds (VOC) per vehicle produced (in kg/vehicle): Production-relevant VOC per vehicle produced.

Purchasing volume in China (in billion CNY): The amount of purchasing volume, including tax, paid by BBA to raw material suppliers and direct suppliers in mainland China of the year.

Workforce at year-end (number): Number of permanent employees as of the end of the year, excluding interns and third-party contractors.

Attrition rate (% of workforce): Number of voluntary and involuntary turnover divided by the monthly average employees of the year.

Percentage of women in total workforce (in %): Number of female employees at year-end divided by workforce at year-end.

Average days of further training per employee: Total training days of LRG (Learning Resource Guide) Training, Department Training and Language Training divided by workforce at year-end excluding employees who second abroad.

Accident frequency rate (per one million hours worked): The scope only covers directly contracted employees in the production 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.

Beneficiaries of BMW CSR activities in 2018: Number of times people benefited from BMW CSR activities in 2018. BMW CSR initiatives include activities organised by BMW CSR team in China, as well as social responsibility activities carried out separately by BMW Warm Heart Customer Clubs.

### WE LOOK FORWARD TO HEARING FROM YOU

#### FURTHER INFORMATION AND PUBLICATIONS ARE AVAILABLE AT:

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

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#### RESOURCE CONSERVATION

The paper used for the Sustainability Report was produced in accordance with the FSC international standard: The pulp originate from responsibly managed forest.







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