

# SUSTAINABILITY REPORT 2018

(IN-DEPTH VERSION)



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Disclaimer: This report includes future projections for Mazda Motor Corporation and its Group companies' performance based on plans, forecasts, management plans, and strategies at the time of publication, in addition to actual past and resent facts. Such forward-looking statements are predictions based on information or assumptions available at the time of edit, and may differ from future operational results due to changes in circumstances.

#### Highlights of the Mazda Sustainability Report 2018

#### Top Message:

- Akira Marumoto, Representative Director, President and CEO of Mazda, discusses his views on CSR and the progress of initiatives to improve Mazda's brand value
- Details specific measures that will help achieve Mazda's new long-term vision for technology development "Sustainable Zoom-Zoom 2030."

#### Special Feature:

An interview with Kiyoshi Fujiwara, Mazda's Representative Director and Executive Vice President, regarding the "Direction of Future Frameworks," which sets a compass bearing for fundamental initiatives aimed at sustainable growth, and Mazda's "Electrification and Connectivity Strategies" for cars that invigorate the mind and body.

#### **Editorial Policy**

- This report presents Mazda's CSR initiatives in the six areas—Customer Satisfaction, Quality, Safety, Environment, Respect for People, and Social Contributions—primarily regarding the targets and results of these initiatives.
- Aiming to satisfy the needs of readers, Mazda studied the editorial policy and content of this report in reference to the third party opinion and stakeholders' ideas and views obtained through the questionnaire survey and engagements with stakeholders.

#### **Report Coverage**

**Organizations Covered:** The entire Mazda Group, including Mazda Motor Corporation and its Group companies, is covered in this report. (Where the reporting item is not applicable to the entire Mazda Group, the organizations covered are specified.)

**Period Covered:** The report primarily covers the period from April 2017 through March 2018, although some activities after April 2018 are included.

Scope of the Report: Social, environmental, and economic data are included in this report. \* For more details about economic data, see Mazda's website Investor Relations & Annual Report.

#### **Referenced Guidelines**

Sustainability Reporting Standards of Global Reporting Initiative (GRI) Ministry of the Environment's Environmental Reporting Guidelines (2012 Edition) Ministry of the Environment's Environmental Accounting Guidelines (2005 Edition) ISO26000

#### Date of Publication (In-depth version)

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\* The 2018 digest version (PDF / Booklet) was published in November 2018.

English version: November 2018 (The previous report was published in November 2017; the next report will be published in the autumn of 2019).

\* The 2018 digest version (PDF / Booklet) was published in November 2018.

#### **Approach to Reporting Information**

Mazda discloses information in the following formats.\*

\* If any content errors are found after publication, a list of errata will be posted on Mazda's official website.



\* Available on our website at http://www.mazda.com/en/csr/report/download/

# **Corporate Vision\***

We love cars and want people to enjoy fulfilling lives through cars. We envision cars existing sustainably with the earth and society, and we will continue to tackle challenges with creative ideas.

1. Brighten people's lives through car ownership.

- 2. Offer cars that are sustainable with the earth and society to more people.
- 3. Embrace challenges and seek to master the Doh ("Way" or "Path") of creativity.

\* Mazda revised its Corporate Vision in April 2015, with the following objectives, aiming to be recognized as a corporate group gaining sincere trust of its stakeholders.

•Clarify the attributes of the Mazda brand, and make concerted efforts across the Mazda Group to realize the Corporate Vision.

• Promote the Group-wide dialogue process to share, understand and agree the goal of the Corporate Vision through the continuous thorough discussions. • Closely link the Corporate Vision to our daily business activities.

#### The Origin and Meaning of "Mazda"

The Company's name, "Mazda," derives from Ahura Mazda, a god of the earliest civilizations in western Asia. The Company has interpreted Ahura Mazda, the god of wisdom, intelligence, and harmony, as a symbol of the origin of both Eastern and Western civilizations, and also as a symbol of automotive culture. It incorporates a desire to achieve world peace and the development of the automobile manufacturing industry. It also derives from the name of the Company's founder, Jujiro Matsuda.

#### Mazda Brand Slogan, "Zoom-Zoom"

Mazda's creativity and innovation continuously delivers fun and exhilarating driving experiences to customers who remember the emotion of motion first felt as a child (Announced in April 2002).

#### Mazda Brand Symbol

The brand symbol expresses Mazda's dedication to continuous growth and improvement. It is a symbolic development of the Mazda "M," and shows the Company stretching its wings as it soars into the future (Established in June 1997).

#### Mazda Corporate Mark

Mazda developed its corporate mark as a symbol for Mazda's communications in 1975. It was later positioned as an easy-to-read corporate mark, in line with the establishment of the brand symbol in 1997.







# Inspiring People through Cars Sustainable with the Earth and Society

# Akira Marumoto

Representative Director, President and CEO Mazda Motor Corporation

D. manmats

My name is Akira Marumoto, and I was appointed Representative Director, President and CEO of Mazda Motor Corporation in June 2018. I would like to thank all of the Mazda Group's stakeholders for their ongoing understanding and support. I would like to extend our deepest sympathy to all who were affected by a series of natural disasters that hit different parts of Japan this summer. Hiroshima was no exception. Mazda's hometown was severely affected by the record rainfalls in July 2018. As a car company founded and based in Hiroshima, we've taken actions to help those in need and speed up recovery. We've dispatched employees as volunteers, provided vehicles, and supplied goods and materials to affected suppliers. We will continue supporting the reconstruction and recovery effort in partnership with local communities and suppliers (see p. 7).

To our stakeholders, I would like to apologize again for the concern we caused with the improper handling of test data in final vehicle inspections, an issue uncovered by our investigation into sample testing of fuel economy and emissions during final vehicle inspections. We have reported the results to Japan's Ministry of Land, Infrastructure, Transport and Tourism and are committed to taking all necessary actions and measures to ensure it never happens again (see p.43).

# Laying a solid foundation for qualitative growth and higher brand value

In the March 2018 fiscal year, under the Structural Reform Stage 2 medium-term business plan, Mazda worked to offer appealing products that provide both driving pleasure and outstanding environmental and safety performance, to achieve qualitative growth in all areas of its business, and to further enhance its brand value. Looking at product initiatives, in the Japanese market we launched the CX-8, a new three-row crossover SUV. Since its launch in December 2017, the model has continually exceeded sales volume targets. We also expanded and improved our lineup of advanced safety technologies in an effort to provide safety and peace of mind to a wider range of customers. In production, we worked to create a flexible production system in order to respond rapidly to the growing demand for crossovers around the world. In August 2017, for example, we expanded the crossover vehicle production capacity at our Hiroshima Plant, and in October we commenced production of the CX-5 crossover at the Hofu Plant.

In April 2018, we announced the "Direction of Future

Frameworks" as the basic direction of our future initiatives for sustainable growth (see pp. 8-13). Mazda regards the next three years as a time to secure a solid foundation for strong growth from the March 2022 fiscal year. On that basis, we will work to enhance product competitiveness through the development and introduction of next-generation technologies and products, and will accelerate the reform of our sales network, particularly in the United States. In addition, we will advance our alliances with Toyota and other companies and leverage the start of operations at the new plant in the United States.

# About the agreement of the business alliance with Toyota Motor Corporation(August 2017)

- Establishment of a joint venture to produce finished cars in the U.S.
- Joint development of technologies for electric vehicles
- Collaboration in the next-generation areas, including connected technologies and advanced safety technologies
- Further complement each other's product lineups
- For details: http://www2.mazda.com/en/publicity/release/2017/201708/170804e.pdf

# Steady action toward Sustainable Zoom-Zoom 2030

At Mazda, we see it as our mission to bring about a beautiful earth and to enrich people's lives as well as society. We will continue to seek ways to inspire people through the value found in cars.



Enhance customers' mental well-being with the satisfaction that comes from protecting the earth and contributing to society with a car that offers true driving pleasure

arth



Society

Realize cars and a society that offer safety and peace of mind, and create a system that enriches lives by offering unrestricted mobility to people everywhere

In August 2018 Mazda announced "Sustainable Zoom-Zoom 2030," our long-term vision for technology development leading up to the year 2030. Mazda believes in a simple yet powerful idea of the car as a source of excitement and inspiration. We are firmly committed to the joy of driving and will continue to deliver the brilliance of life through our products and services. It is this spirit that drives us to make our emotional connection with customers stronger and deeper. It is this driving joy that runs at the base of our challenges to solving issues faced by the earth, society and people. "Sustainable Zoom-Zoom 2030" is the roadmap and vision that lays out those challenges. As the concrete steps demonstrating our commitment to delivering on this vision, we announced the Skyactiv-X next-generation gasoline engine along with our next-generation vehicle architecture, which we call Skyactiv-Vehicle Architecture and our next-generation design vision model, Mazda Vision Coupe, was unveiled at the Tokyo Motor Show in 2017. While keeping an eye on the changes that are occurring almost daily in the automotive industry, Mazda will continue to push forward with our strategy. We are witnessing an emergence of new auto technologies such as CASE -- Connected, Autonomous, Shared and Electric. To us, the spread of these new technologies and services will enable more efficient, safe and unrestricted mobility, potentially bringing new value to automobiles and to society.

First, for the earth, our greatest challenge lies in reducing carbon dioxide emissions to curb global warming. To that end, Mazda is embracing a well-to-wheel approach and working to reduce carbon dioxide emissions throughout the car's life cycle. We are aiming to reduce our corporate average carbon dioxide emissions to 50 percent of 2010 levels by 2030, with a view to achieving a 90 percent reduction by 2050. Our approach and our targets align perfectly with the Paris Agreement and the Strategic Commission for the New Era of Automobiles set up by Japan's Ministry of Economy, Trade and Industry. We are committed to further accelerating our efforts to achieve these targets. As automotive power source fitness, energy situations and energy mixes vary from country to country, a multi-solution approach is needed to implement the right solution for the right region.



### Conceptual diagram of Well-to-Wheel\*

Mazda plans to introduce electrification technologies to all the cars we make by 2030. Meanwhile, we will continue to perfect the internal combustion engine, which is expected to remain the predominant power plant for many years yet, through heat insulation and other improvements. Other, tandem efforts toward carbon-neutrality will be essential to realize the reduction in carbon dioxide emissions we hope to achieve by 2050. The automotive industry is expecting a wider penetration of recyclable liquid fuels, such as biofuels made from microalgae. To help spread these alternative fuels and solve relevant technical issues, Mazda is taking part in a collaboration between industry, academia and government (see pp. 129-133). For regions that generate a high ratio of electricity from clean energy sources or restrict certain vehicle types to reduce air pollution, EVs and other electric drive technologies are the optimal solution. We will exploit the advantages of electric drive systems and combine them with Mazda's proprietary technologies to produce EVs that fully deliver the joy of driving.

Secondly, for society, Mazda will deliver safety and peace of mind based on its human-centered approach to vehicle development. We are witnessing the emergence of new causes of car accidents, mainly in developed countries. In our effort to create a safer car society, Mazda is, of course, committed to improving our advanced safety technologies and making more of these features standard in all cars. On top of that, we are aiming to make the Mazda Co-pilot Concept, which uses autonomous driving technologies, standard by 2025. We will also be examining the potential of new business models that leverage connectivity technologies to help fulfill the mobility needs of those who have difficulty driving or live in sparsely populated areas, issues compounded in countries with population aging or decline.

Last but not least, people. We want more people to experience

the joy of driving a Mazda, as well as the sense of delight, accomplishment, and fulfillment that comes from contributing to the planet and society through driving. When we talk about driving joy, we don't mean the adrenalin rush or feeling of acceleration you might experience on a roller coaster ride. It is a product of the car's fundamental abilities to accelerate, turn and stop in common driving situations - on your daily commute, going to the store and on longer trips with your family. A Mazda feels like a tool you've been using for years. You relish the interaction and the pleasure it brings which makes you want to keep on driving. And because it's engineered to match people's sensitivities, the car's movements feel natural to passengers, who can enjoy the ride in comfort and peace of mind. The same car should captivate people the moment they see it, and the way its expression changes in different environments and lighting means you never tire of looking at it. Owning such a car gives drivers a deep sense of fulfillment and a desire to keep on driving whenever and wherever. That's how we define the joy of driving. Many of us today enjoy the benefits of economic affluence brought by industrialization and automation. Yet, an increasingly sedentary lifestyle and fewer opportunities for faceto-face interaction seem to be adding to the stress of daily life. To help remedy this situation, we will continue to hone the Jinba-ittai feeling of being one with the car that unlocks people's potential and energizes them physically and mentally, as well as our designs that enrich the lives of all who see our cars.

Another crucial task is to balance these wide-ranging R&D activities with business efficiency. Fully utilizing the model-based development techniques (see p. 127), which are our strength, will allow us to improve quality and enhance development efficiency. We will also be working with alliance partners in areas in which we can cooperate and outsourcing when it makes strategic sense to do so.

We are confident that, despite our relatively small size, initiatives such as these will help us respond to the need for multiple powertrain solutions while maintaining good business efficiency.

## Growing responsibly with society

Mazda aims to grow with society through fulfilling our corporate vision. Every Mazda employee strives to meet the needs and expectations of our diverse stakeholders while also integrating CSR initiatives into our daily operations. As a result, in September 2017 Mazda was selected for the first time as a component of the Dow Jones Sustainability Index (DJSI). \*<sup>1</sup> Our inclusion in this global ESG investment index serves as recognition of Mazda's corporate sustainability and validation that our efforts are moving in the right direction. In January 2018, Mazda signed the United Nations Global

Compact.\*2 Mazda, which incorporates corporate social

responsibility into its day-to-day operations, will work to uphold the 10 principles of the UN Global Compact, and is committed to contributing to the development of a sustainable society through these activities.

\*1. Investment indices based on performance in the areas of ESG (environment, social and governance). Developed and launched jointly by S&P Dow Jones Indices LLC of the U.S. and RobecoSAM AG of Switzerland in 1999, the DJSI is globally recognized by investors as the oldest ESG investment index.

<sup>\*2.</sup> The UN Global Compact is a voluntary effort by corporations and organizations to be good corporate citizens by exercising responsible, creative leadership and to build a global framework for sustainable growth. More than 12,000 corporations and organizations in approximately 160 countries worldwide are participants or signatories to the compact.

## Wholehearted commitment to growing as a trusted company

We want to be a brand that inspires deep loyalty, so customers will choose to stay with Mazda for life. We call this "Mazda Premium." While the word premium may call to mind expensive brands, for us Mazda Premium means making the best cars in the world, brightening people's lives through the power of driving pleasure, and creating an emotional connection with our customers. It's an aspiration we have had since the days Mazda began building three-wheeled trucks, and one we will continue to pursue with unrelenting passion.

With vehicles sold in more than 130 countries and regions

worldwide and manufacturing operations in seven, Mazda has a social responsibility to many stakeholders. Since becoming president in June 2018, I have been very aware of the gravity of this responsibility and the enormity of my mission. I pledge to value dialogue with our stakeholders as we strive to realize our corporate vision and achieve sustainable growth for both Mazda and society. We will continue to work wholeheartedly to grow as a company that is truly trusted by our global stakeholders, and inspire people through cars that are sustainable with the earth and society.

#### Recovery support efforts following heavy rains<sup>\*1</sup> in July 2018

As a company based in an area heavily affected by the disaster, Mazda is placing its highest priority on the region's recovery and moving swiftly to provide personnel and material support. For example, we revised our "Heartful Holidays"<sup>\*2</sup> program to encourage more employees to volunteer in the recovery effort.

To ensure the earliest possible recovery, we will continue working with local communities and suppliers to minimize the impact of our operations on safety and transportation conditions and ensure that government and community-led relief efforts are unimpeded.

#### Mazda's basic approach

1. Our highest priority is to support victims and aid the recovery of affected areas.

- Deal with our own issues in cooperation with local communities and business partners to ensure that recovery efforts are not hindered.
- 3. Without waiting, expand the scope of our thinking as to what we can do right now and proactively propose support measures.

#### Summary of relief efforts to date (as of August 31)

Personnel support

•Mazda employees have engaged in volunteer work (medical assistance,\*<sup>3</sup> field work, \*<sup>4</sup> and administrative support\*<sup>5</sup>) for a total of 1,729 man-days. \*<sup>6</sup>

Material support

- •A total of 2,950 sandbags, 25,617 liters of drinking water, 1,764 pairs of work gloves, 1,688 dust masks, 4,840 towels and 436 dust cloths have been provided to affected areas or used during volunteer work.
- •Company cars have been loaned in response to requests from affected areas on 12 separate occasions.
- •Ten trucks for use in recovery efforts were donated to affected areas during August.

Facilities

•Mazda's Taibi Training Center in Saka, Aki-gun, was opened as an accommodations facility for volunteers from August 1 through 30.

Donations

- •Mazda has donated 100 million yen to relief efforts. (80 million yen to Hiroshima prefecture, 20 million yen to the Japanese Red Cross Society). \*7
- •Donations were collected in the lobby of the headquarters building in Fuchu-cho, Hiroshima, from July 26 through August 31 (total collected: 127, 988 yen).

- \* 2. Revised to increase holiday pay from 70% to 100% and the number of days that can be taken from 10 to no limit.
  \* 3. Doctors, nurses and public health nurses from Mazda Hospital have provided medical assistance for a total of 165 man-days.
- \* 3. Doctors, hurses and public reach hurses from Mazda hospital have provided medical assistance for a total of 165 man-days. \* 4. Employees have engaged in field work, including clearing earth and debris, cleaning and tidying up both inside and outside houses, for a total of 489 man-days.
- \* 5. Others have engaged in administrative support at volunteer centers and conducted hearings to ascertain what supplies and assistance are required for a total 57 mandays.
  \* 6. Including 863 man-days of people taking "Heartful Holidays" to engage in volunteer work and 155 man-days and unpaid volunteer work by members of the

\*6. Including 863 man-days of people taking "Heartful Holidays" to engage in volunteer work and 155 man-days and unpaid volunteer work by members of the Mazda Shinwa-kai sports teams.

\*7. Announced on July 12: http://www2.mazda.com/en/publicity/release/2018/201807/180712a.pdf)

<sup>\*1.</sup> A series of heavy downpours that caused flooding and landslides across a large area of Japan, particularly in the west, in July 2018.

# **Feature Story**

# Mazda's "Direction of Future Frameworks" and Technologies that Enhance the Value of the Automobile

-A compass bearing on sustainable growth and a technology strategy for making car ownership a joyful and life-enriching experience-

In April 2018, Mazda announced the Direction of Future Frameworks as a compass bearing for fundamental initiatives aimed at sustainable growth.

Designating the next three years as the time to lay a solid foundation for strong growth from FY March 2022 onward, the document outlines Mazda's ambitions to develop and introduce next-generation products and new technologies; accelerate sales network reforms, especially in the U.S.; and forge alliances with Toyota Motor Corporation and other partners. Here we present an interview with Representative Director and Executive Vice President Kiyoshi Fujiwara, who talks about the Direction of Future Frameworks and the electrification and connectivity strategies woven into it.

	FY March 2013-2016	FY March 2017-2019
	Structural Reform Plan Change of business structure by structural reforms	Structural Reform Stage 2 Qualitative growth & Brand value improvement
	Launched 6 new Skyactiv (1st Generation) models	<ul> <li>Launch 6 new models and updated models</li> <li>Skyactiv (2nd Generation) / next-generation design</li> </ul>
Product and R&D		
	CX-5: First model in new-generation lineup featuring Skyactiv Technology	CX-5: First model in the new-generation lineup to undergo a major redesign.
	"Right-price" sales and volume growth     "Brand value enhancement	<ul> <li>Right-price sales / frontline innovation</li> <li>New-generation showroom / dealer network restructuring</li> <li>Customer retention</li> </ul>
Brand and Sales	Mazda Business Leader Development (MBLD)         training focused on brand value management	New-generation dealer (Brand Space Osaka)
	•Cost improvement through <i>Monotsukuri</i> Innovation •Enhanced global production capacity (ASEAN / Mexico / Russia)	<ul> <li>CX model production flexibility</li> <li>Global swing production</li> <li>Overseas plants production efficiency</li> </ul>
Global production	New Mexico plant (MMVO)       New Thailand plant (MPMT)	Hofu Plant (started crossover production to meet increasing global demand)
Strengthen financial structure	<ul> <li>Profitable structure even in strong yen environment</li> <li>Reinforced financial structure and returned dividend payment</li> </ul>	•Equity ratio: 45% or more •Payout ratio: 20% or more

### -FY March 2025

**Direction of Future Framework** 

# Development and Introduction of Next-Generation Products & New Technologies

- Accelerate development of next-generation product technologies, including advanced internal combustion engines; electric, connectivity, and autonomous technologies; and next-generation KODO design
- Optimize product strategies in terms of customer needs, segment characteristics, profit, costs, etc., by dividing next-generation products into small and large architectures
- New product strategy will strengthen the business in the U.S. market, expand sales of CX models globally and improve net venue by strengthening high value-added products

#### Accelerate Sales Network Reforms

(Example of the United States)

- Promote qualitative/quantitative growth through higher brand engagement
- Increase investment in network reestablishment. ¥10 billion level in the first year (roughly ¥40 billion over the next four years)

Increase next-generation branded dealers to 300, mainly in 35 priority markets Each next-generation branded dealer to sell an average of 1,000 units per year Aim for repurchase rate of 55% in 35 priority markets

- $\boldsymbol{\cdot}$  Overhaul marketing strategy to enhance brand value
- · Increase dealership investment in local marketing
- Improve customer experience through enhanced training and trade cycle management initiatives

#### **Successful Alliances**

- Business and capital alliance with Toyota Motor Corporation: Joint manufacturing in the U.S., joint development of EV technologies, connectivity, complementary products, etc.
- Strategic collaboration with suppliers: Batteries, connectivity, advanced safety technologies, etc.



Skyactiv-X next-generation gasoline engine



Next-generation design vision



Next-generation branded dealer in the U.S.



At a joint press conference, Mazda and Toyota announced plans for the construction of a new \$1.6 billion plant in Alabama, U.S., that will begin production in 2021 and employ some 4,000 people

# Interview with the Executive Vice President

We're taking steady, concrete steps toward sustainable growth while also following our insatiable passion to enrich people's lives and society and bring about a more beautiful earth through the value found in cars.

### Kiyoshi Fujiwara

Representative Director and Executive Vice President

# Q: Would you provide an overview of future initiatives in product and technology development?

A: Mazda developed Skyactiv Technology, thoroughly improving the fundamental vehicle technologies that decide a car's basic performance, and began introducing new-generation models that feature the full range of these technologies, starting with the CX-5 in 2012. Skyactiv Technology and new-generation products delivered outstanding driving and fuel economy performance. In addition, through initiatives in Monotsukuri Innovation, such as common architecture and bundled product planning, under which optimized structures for each function are shared across models in different vehicle classes and deployed to all car lines, Skyactiv Technology and newgeneration products have also supported increased efficiency in development and production and cost improvements, and driven growth in unit sales and structural reforms. Targeting the realization of "Sustainable Zoom-Zoom 2030," the long-term vision for technology development that we announced in August 2017, Mazda is moving forward with the development of next-generation technologies and design. Including the Skyactiv-X next-generation gasoline engine, these were unveiled at the 45th Tokyo Motor Show in October 2017. Products featuring next-generation design and technologies, including Skyactiv-X, will be introduced to global markets starting from 2019.

New product lineup	SKYACTIV (1st Generation)	SKYACTIV (2nd Generation)
Architecture	Bundled product planning	Small product group (centered on CX-3 / upcoming crossover) Large product group (centered on CX-5)
Combustion engine	SKYACTIV-G/D	SKYACTIV-X, SKYACTIV-D GEN2 SKYACTIV-G/D Upgrade
Electrification	HEV (with technology provided by Toyota)	EV, Plug-in HEV, Mild HEV Range Extender
Other	i-ACTIVSENSE MAZDA CONNECT	Mazda Co-Pilot Concept Next-Gen Mazda Connect

In regard to the Direction of Future Frameworks, we will aim to establish a highly competitive new lineup with the second generation of Skyactiv technologies. Specifically, to achieve further progress from the first generation, we will move on from the single architecture that we developed under the bundled product planning concept. We will divide our architecture into two product lineup categories — small products and large products. This will allow us to optimize our product strategy and the value our products deliver from such perspectives as customer needs, segment characteristics, profit, and costs.

Furthermore, looking at our production capacity, which supports sales, we will strive to make better use of existing capacity, and will add the new U.S. plant, which is scheduled to start operations in 2021.

Architecture of SKYA	CTIV (2nd Generation)
Small products	Large products
(CX-3/new crossover, etc.)	(CX-5, CX-8, CX-9, etc.)
Further improve cost	Enhance product
competitiveness & production	competitiveness and
flexibility	brand value
Quickly respond to changes in	Improve net revenue by offering
demand for CX vehicles at each	a wider variety of powertrains,
global production site	including electrification

With these new product strategies, Mazda will expand global production of crossover models, improve net revenue by strengthening high-value-added products, and strengthen its business in the U.S. market. We will announce more details about these initiatives at an appropriate time.

# Q. Please discuss the sales network reforms in the United States.

A. Looking back at our initiatives to date, over the two-year period from 2016 we worked to reestablish our sales network based on Mazda brand value management. The objective of these initiatives was to increase the quality of dealerships, so that our locations and staff create exciting venues that draw customers who look forward to engaging with products that they truly want. In the U.S. market, we implemented a conversion to strong dealers who endorse Mazda's brand value management, and began to establish next-generation branded dealers. In addition, we prioritized the establishment of the optimal sales network in 35 key markets. We will implement these initiatives and accelerate the construction of a U.S. sales network that can sell 400,000 units per year by 2021, when the U.S. plant will start operations. In these ways, we will advance quantitative growth over the medium to long term.

# Q. What is Mazda's approach to alliances?

A. Mazda is promoting alliance strategies that foster optimal complementarity in the areas of product, technology, and regions, based on equal partnerships. In particular, in the development of next-generation technologies, in addition to strengthening our competitiveness through next-generation Skyactiv engines and other advances in the internal combustion engine, we also need to address a wide range of fields, such as electrification, autonomous driving, and connectivity. Our basic approach is to discuss with each potential partner whether we can forge a win-win relationship based on our relative strengths. We then pursue co-creation based on equal effort as equal partners, applying our own strengths in technology, development, and production processes, such as bundled product planning and computer modeling-based development. In a number of fields, we will aim to further deepen strategic alliances with Toyota and suppliers and realize win-win alliances. Of course, we will also advance collaboration with

other partners.

# Q. In the "Direction of Future Frameworks", what is your approach to Connected, Autonomous, Shared, and Electric (CASE) technologies, which are expected to transform the automotive industry?

A. The auto industry is said to be going through a once-in-acentury seismic shift. Mazda views this shift as an opportunity to create a new car culture. The trend toward CASE offers not only potential solutions to issues facing the earth and society but also a chance to make the automobile even more attractive to customers. This perspective is woven into the "Direction of Future Frameworks." We are taking a unique, human-centered approach to CASE to create and deliver a new lifestyle with cars and a new car culture that will truly enrich the lives of our customers.

In August 2017, we announced plans to begin testing in 2020 autonomous driving technologies currently being developed in line with our human-centered Mazda Co-Pilot Concept (see p.49), aiming to make the system standard on all models by 2025. And in October 2018, we announced our unique approach to battery-powered electric vehicles (EVs) and connectivity.



# Q. What is Mazda's strategy for EVs?

A. Mazda is not about to change the way we make cars, just because we are dealing with battery-powered EVs. Regardless of the era or the type of car, the philosophy behind all Mazda cars is to stay true to our higher cause. In other words, our cars and technologies must contribute to the earth and society, and they must be human-centered. We are committed to making cars that invigorate the mind and body and offering customers an enriching experience of car ownership. And our battery-powered EVs will be no exception. There are three concepts that lie at the heart of our EVs.

Firstly, the joy of driving. We define driving joy as the feeling of driving a car that accelerates, turns and brakes in a way that feels just right, like a tool you've been using for years. The interaction and the pleasure it brings makes you want to keep on driving forever. The car should be engineered to move in a way that conforms to the natural movements of the human body, so its motion feels natural to drivers and passengers, and the comfort and security they feel mean they want to keep going too. The design captivates you from the moment you lay eyes on it, and you never tire of looking at the car because its expression changes with the light and the surrounding environment. Owning, driving and spending time with the car offers a truly satisfying experience. That is what Mazda means by driving joy. One way we deliver driving joy with our battery EVs is through our unique G-Vectoring Control technologies (see p.125). These advanced technologies can control vehicle behavior whether the driver is pressing the accelerator or not, providing seamless and precise control even when the EV drives down a hill, for example. They will ensure even smoother linkage of the vehicle's lateral and longitudinal motion, making possible the kind of motion I spoke about earlier, which conforms to the natural movements of the human body. We believe this will allow us to achieve the Jinba-ittai driving feel that makes people feel one with the car.

Secondly, earth-and people-friendly technologies. When driving a battery EV, there is always the fear of running out of battery life. It would be great if charging stations were as common as gasoline stations today and charging took no longer than filling up the tank, but at this point in time, that is simply not realistic. We see a range extender that uses an engine to generate electricity as a people-friendly technology that removes much of the anxiety of driving an EV. Mazda is developing a range extender with a rotary engine design. Because a rotary engine generates low vibration and noise, it won't encroach on the quiet and comfortable atmosphere for which battery EVs are known. A rotary engine also generates power through the revolving motion of the rotor, so it can be integrated with an electric motor, which has a similar rotational structure, to create a very compact unit. Using the rotary-powered range extender as a base together with different combinations of generators, batteries and fuel tanks enables us to offer plug-in, series and other kinds of hybrids. Such vehicles will have larger fuel tanks and use the engine more, but still help to reduce well-to-wheel carbon dioxide emissions in countries that rely heavily on thermal plants for power generation.

Resolving the issue of driving range



And thirdly, technologies that contribute to society. In recent times, numerous natural disasters have disrupted our energy infrastructure and seriously affected people's lives. Mazda is proposing a new way of helping people and contributing to society that uses the range extender's ability to generate electricity. The rotary engine's flexibility in accommodating a variety of fuel types means we can adapt it for use with CNG, LPG, hydrogen and other fuels. Electric vehicles with LPG-compatible range extenders could be used in disaster areas as mobile electricity supply vehicles. If, for example, a disaster causes power outages and a shortage of gasoline and diesel, the rotary-powered range extender could still supply electricity using widely-available and easy-totransport LPG gas cylinders. Mazda hopes to create a new form of social contribution by sending such cars to disasteraffected areas and providing electricity to those in need. Mazda is developing its own EVs, entirely in-house, targeting market introduction around 2020.

A power source in times of emergency

# Q. What is Mazda's strategy for connectivity?

A. Mazda is proposing two value concepts through our connectivity technologies.

The first, which all car companies want to offer, is simply the ability to enjoy digital convenience, safely, while in your car. The second is based on our human-centered development philosophy and is all about applying connectivity to provide an enriching lifestyle and experience of car ownership that energizes people physically and mentally. In today's world, we are connected and empowered by having access to the Internet. Convenience has its drawbacks, however, and people are starting to want, at least temporarily, to be freed from their excessive dependence on digital tools. Again, Mazda wants to apply its human-centered approach to develop connectivity technologies that balance the convenience of a connected, digital society with real-world human interaction and connection. At Mazda, we want to connect the benefits of digital tools with the power of the automobile to expand the scope of people's activities and make the journey itself something to be enjoyed. We think this fusion of the automobile and digital tools could help people reclaim and re-empower aspects of their humanity that were lost to digital overload by leading them back to real-world interactions with people and nature.



For example, people can drive their cars to depopulated areas and help others with limited options for getting around. While there, they may be inspired to take part in a depopulated community renewal project. Connectivity technologies thus enable users to encounter new places and new people. They can sign up for a volunteer project while driving and then participate and meet other volunteers when they get there. The benefits of their actions taken within the context of real human relationships can be broadcast through digital tools, with the vast digital society offering endless possibilities for making new connections. This is how we envision real-world activities that offer a digital detox combining with the power of the digital world to expand connections in a way that balances both. We would very much like to make such a world possible. We hope that creating such experiences will allow people to fully celebrate the joy of life.

Recent years have witnessed the dilapidation of public transportation systems in depopulated areas, and this has made it harder for the elderly and disabled to get around. We feel that the car and connectivity technologies can support activities that each of us can take part in to make a difference. Mobility by car is not only a way for people within a community to help one another; it can also help make local communities more open to diversity. More interaction between cities and depopulated areas may lead to human resource development and the creation of new industries. Mazda will start testing a mobility service in Miyoshi, Hiroshima in October 2018 with an eye to ride-sharing services in the future. The initiative aims to improve the operational efficiency of a local mobility service operated by a non-profit organization, encourage participation and create added value to energize the local community.

We are also working on technologies that connect customers to their car and technologies that connect customers to Mazda. To build a stronger customer relationship and connection for our business in the future, we'll be using connectivity technologies to drive business innovation. The connected car system that will form the basis of our connectivity will be a part of our upcoming nextgeneration product lineup. To ensure access to a broad range of accurate information, Mazda sees the development of the majority of onboard devices, communication platforms and IT systems as areas of cooperation, and we plan to make full use of our alliance with Toyota Motor Corporation.



# Q. You mentioned your desire to contribute to the creation of a new "car culture." Can you tell us more about that?

A. Everything Mazda makes -- EVs, connectivity technologies, even autonomous driving and car sharing -- everything we make must be true to our development philosophy, which puts the human being at the center of everything we do. We will adapt to this new world and deliver the joy, not only of driving but -- through our efforts to create a new car culture -- the joy of life itself. We envision people enjoying better health and well-being physically and mentally as the ability to share experiences and feelings enhances their overall level of emotional fulfillment.

Combining connectivity technologies with the range-extender's ability to act as a power source provides the basic necessities of life -- off-grid access to electricity and 24/7 communication capability -- and combines them with the power of a car to expand the range of your activities. Mazda believes that this combination can encourage people to get offline, enjoy new experiences in nature and the pleasure of using a car, and truly feel the joy of life. That's the kind of new car culture we hope to create. And it's one we will pursue as part of our insatiable passion to enrich people's lives and society and bring about a more beautiful earth through the value found in cars.

# FY March 2018 Highlights

Number of sales countries/regions 13() More than countries Number of primary-tier suppliers 1.081 Global sales volume Up **4.6**% YoY thousand units Global sales share North America\*1 Europ 16 Japan China Other 27 % 20% 13% 24% Number of employees 19,/55 Overseas local employment rate for management 72.5%Rate of employees by region (consolidated) Japan **78** % 15 Europe Other 3% 4%

Net sales 3,474.0 billion yen Up 8.1% YoY Operating income 146.4 billion yen Up16.5% YoY Domestic production volume 987 thousand units Overseas production volume 633 thousand units CO2 emissions per unit of sales revenue from production (Four principal domestic sites\*2) 18.9 t-CO<sub>2</sub>/100 million yen Reduced by 47% compared with FY March1991 levels Total amount of landfill waste (Four principal domestic sites<sup>\*2</sup>) () Maintained since FY March 2009 Rate of reinstatement after childrearing leave (Non-consolidated) 98%

Percentage of employees with special needs (Non-consolidated)  $2.11\,\%$ 

\*1 Including Mexico.

\*2 Head Office (Hiroshima); Miyoshi Plant; Hofu Plant, Nishinoura District; and Hofu Plant, Nakanoseki District (including R&D and other indirect areas)

# **Financial Information**









Operating Income / Operating Income Ratio (Billions of yen / %) Operating Income --- Operating Income Ratio



(Years ended 2016 2017 2018 March 31)

Capital Expenditures / Ratio of Net Sales (Billions of yen / %) Capital Expenditures • Ratio of Net Sales



Net Income Attributable to Owners of the Parent Company (Billions of yen) Net income





# **Major Product Lineup**



\* Presented models are those produced by Mazda as of the end of March 2018. \* Includes old and new models. Not all body types are shown. \* Global sales volume/ Sales markets / Production sites for FY March 2018. \* Includes sites with knockdown production only (Production volume unannounced). \* OEM vehicles sold in Japan are as follows: Carol, Flair, Flair Wagon, Flair Crossover, Scrum, Familia (van), Titan. \* ( ): Japanese name

# Top 10 Markets in Global Sales for FY March 2018

*)	322,420	China				
	304,394	United States				_
	210,385	Japan				
*	115,636	Australia	 1			
÷	74,647	Canada				
	68,167	Germany				
	56,379	Thailand			Other	Japan 13%
۲	54,744	Mexico	Global sales volume		24%	
	38,091	United Kingdom	1631	Up <b>4.6</b> % YoY	China	27% Europe
*	28,170	Vietnam	1,001	thousand units	20%	16% *1 Including Mexico.

# Corporate Profile (as of March 31, 2018)

Company name:	Mazda Motor Corporation	Research and	Head Office, Mazda R&D Center (Yokohama), Mazda North
Founded:	January 30, 1920	sites:	China Engineering Support Center (China)
Head Office:	3-1 Shinchi, Fuchu-cho,Aki-gun, Hiroshima 730-8670, Japan	Production sites:	Japan: Hiroshima Plant (Head Office, Ujina), Hofu Plant (Nishinoura,
Main business lines:	Manufacture and sales of passenger cars and commercial vehicles		Nakanoseki), Miyoshi Plant Overseas: China, Thailand, Mexico, Vietnam <sup>*1</sup> , Malaysia <sup>*2</sup> , Russia <sup>*2</sup>
Stock information:	1,200,000,000 total shares issuable 631,803,979 total outstanding shares	Sales companies:	Japan: 220, Overseas: 140
	162,708 shareholders	Principal	Four-wheeled vehicles, gasoline reciprocating engines, diesel
Capital:	¥283,957,112,262	products:	engines, automatic and manual transmissions for vehicles
Employees:	Non-consolidated Total: 21,927 (excludes Mazda employees dispatched to other companies and includes employees dispatched to Mazda from other companies) (excludes 1,996 temporary employees) Consolidated		

# Global Network (as of March 31, 2018)

Total: 49,755



For more details about major facilities, see Annual Report 2018 (see pp. 4-5). http://www.mazda.com/en/investors/library/annual/



01. Head Office 02. Hiroshima Plant 03. Hofu Plant 04. Miyoshi Plant 05. Tokyo Office 06. Mazda R&D Center Yokohama 07. Mexico 08. Russia 09. China 10.11. Thailand 12. Malaysia

# MAZDA CSR

Mazda will grow and develop together with society through the realization of its corporate vision.

While striving to meet the requests and expectations of all of Mazda's stakeholders, each employee pursues corporate social responsibility (CSR) initiatives in the course of their daily business activities.

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- 18 CSR Management
- 27 Stakeholder Engagement

# CSR Targets for FY March 2019

(Self-assessment key  $\bigcirc$ : Accomplished,  $\triangle$ : Nearly accomplished,  $\times$ : Not accomplished)

Items	FY March 2018 targets	FY March 2018 results	Self- assessment	FY March 2019 targets	ISO 26000 core subjects
CSR management	<ol> <li>Continue to implement the PDCA (plan-do- check-act) process in addressing key CSR issues (materiality).</li> <li>Continue to secure coordination between related divisions to reinforce CSR initiatives on a global basis.</li> <li>Continue raising CSR awareness, based on the results of the Global Employee Engagement Survey items regarding the employees' CSR awareness level.</li> </ol>	<ol> <li>Discussed and undertook the methods of linking the key CSR issues, Sustainable Development Goals (SDGs) and business (the medium-term plan).</li> <li>Implemented CSR initiatives based on international CSR norms, and discussed how to utilize knowledge obtained by having signed the UN Global Compact.</li> <li>Continued CSR awareness-raising activities as planned (continued monitoring employees' CSR awareness through the Global Employee Engagement Survey).</li> </ol>	0	<ol> <li>Continue to implement the PDCA (plan-do- check-act) process in addressing key CSR issues (materiality).</li> <li>Continue to secure coordination between related divisions to reinforce CSR initiatives on a global basis, in line with international CSR norms.</li> <li>Enhance the contents of activities to raise CSR awareness among employees, and develop a system to further expand opportunities for such activities.</li> </ol>	6.2 Organizational governance
Stakeholder engagement	Continue and strengthen stakeholder engagement.	Executed stakeholder engagement initiatives in various forms, as planned.	0	Continue and strengthen stakeholder engagement.	6.2 Organizational governance

Social

Contributions

# **CSR MANAGEMENT**

Customer

# **Basic Approach**

Mazda aims to achieve its Corporate Vision through the actions of each individual, based on the Mazda Way (see p. 88). While striving to meet the requests and expectations of all of Mazda's stakeholders, each employee pursues CSR initiatives in the course of their daily business activities, in order to achieve the sustainable development of both society and the Company itself.

# Sustainable Development of Society and the Company

# **Corporate Vision**<sup>\*1</sup>

We love cars and want people to enjoy fulfilling lives through cars. We envision cars existing sustainably with the earth and society, and we will continue to tackle challenges with creative ideas.

- 1. Brighten people's lives through car ownership.
- 2. Offer cars that are sustainable with the earth and society to more people.
- 3. Embrace challenges and seek to master the Doh ("Way" or "Path") of creativity.



# Areas of CSR Initiatives

Referencing the Charter of Corporate Behavior issued by the Japan Business Federation (Nippon Keidanren)\*2, etc., Mazda classifies and evaluates its CSR initiatives. The areas of CSR initiatives are periodically reviewed and revised in the light of issues in the business activities of the automotive industry and Mazda, as well as social issues to which stakeholders attach particular importance. The most recent review was made in July 2016, by which the Company defined the following as the key areas of its CSR initiatives: Customer Satisfaction, Quality, Safety, Environment, Respect for People, and Social Contributions.

Customer Satisfaction	Providing a Mazda brand experience that exceeds customer expectations • Commitment to customers • Sales and customer service, etc
Quality	Offering products and services that please our customers • Establishing stable product quality • Achieving quality that exceedscustomer expectations • Cultivating human resources capable of thinking and acting for the happiness of customers
Safety	Promoting safety initiatives to achieve a safe and accident-free automotive society • Safety initiatives based on the three viewpoints; vehicles, people, and roads and infrastructure
Environment	Reducing environmental impact throughout the entire vehicle life cycle • Environmental management, efforts regarding product and technology development, efforts regarding manufacturin and logistics, recycling, biodiversity, communication, etc.
Respect for People	Developing human resources, who are the foundations of the Company and society, and respecting for human rights
Social Contributions	Contributing to local communities as a good corporate citizen • Activities based on the three pillars (environment and safety performance, human resources development, and community contributions), etc.

- \*1 Mazda revised its Corporate Vision in April 2015, with the following objectives, aiming to be recognized as a
- corporate group gaining sincere trust of its stakeholders. Clarify the attributes of the Mazda brand, and make concerted efforts across the Mazda Group to realize the
- Corporate Vision. Promote the Group-wide dialogue process to share. understand and agree the goal of the Corporate Vision
- through the continuous thorough discussions · Closely link the Corporate Vision to our daily business activities.
- \*2 Mazda actively supports the Charter of Corporate Behavior issued by the Japan Business Federation (Nippon Keidanren).

Safety

Environment

a b

# **CSR** Promotion Organization

Each department carries out its operations based on goals and plans formulated with an understanding of the policies and guidelines determined by the CSR Management Strategy Committee, which the president chairs, and in cooperation with other Group companies. From FY 2016, the Board of Directors holds discussions on issues concerning sustainability.

### **CSR Management Strategy Committee**

Deliberate the CSR activities that are expected of Mazda from a global perspective, in consideration of changes in social environment.

- Establishment of CSR targets and follow-up of the progress in CSR efforts (see pp. 22–24)
- Performance evaluation of the mid-term environmental plan (Mazda Green Plan) (see pp. 57–60)
- Reviewing and identifying key CSR issues (materiality) (see p. 20)
- The present status of social needs and trends regarding CSR and the results of external evaluations of CSR initiatives

#### b History of the CSR Structure

FY March 2005	<ul><li>Began company-wide CSR initiatives</li><li>CSR Committee established</li></ul>
FY March 2008	<ul> <li>Mazda evaluates its CSR initiatives in the six areas referencing the Charter of Corporate Behavior issued by the Japan Business Federation (Nippon Keidanren), etc.</li> <li>CSR Promotion Department established as a permanent structure</li> </ul>
FY March 2009	<ul> <li>Integrated CSR initiatives and management</li> <li>Reinforced global perspective</li> <li>CSR Committee reorganized as the CSR Management Strategy Committee</li> </ul>
FY March 2010	<ul> <li>Promoted initiatives both globally and across departments</li> <li>CSR &amp; Environment Department established as a permanent structure</li> <li>Former CSR Promotion Department reorganized as a supervising compliance body and renamed as the Compliance Administration Department</li> </ul>
FY March 2013	<ul> <li>CSR Targets established</li> <li>Started to implement the PDCA cycle to promote CSR initiatives based on ISO 26000</li> <li>Compliance supervision functions transferred to the Office of General &amp; Legal Affairs</li> </ul>
FY March 2014	Started study to review and identify key CSR issues (materiality)
FY March 2015 - FY March 2016	<ul> <li>Disclosed the process of reviewing and identifying materiality</li> <li>Continued to conduct interviews with interested parties in the Company and with external experts and specialists</li> </ul>
FY March 2017	<ul> <li>Disclosed the results of the materiality review, and the items that were identified</li> <li>Reviewed the areas of CSR initiatives</li> </ul>
FY March 2018	Continued the process of reviewing and identifying materiality

#### a CSR Promotion Organization



### TOPICS Mazda Signs United Nations Global Compact

In January 2018, Mazda signed the United Nations Global Compact, thereby becoming a member of the Global Compact Network Japan (GCNJ) comprising signatory organizations in Japan. The UN Global Compact is a voluntary effort by corporations and organizations to be good corporate citizens by exercising responsible, creative leadership and to build a global framework for sustainable growth. More than 12,000 corporations and organizations in approximately 160 countries worldwide are participants or signatories to the compact. Mazda will continue working to uphold the ten principles of the UN Global Compact.

Mazda website: http://www2.mazda.com/en/publicity/release/2018/201801/180131a.pdf UN Global Compact Network Japan website (Japanese only): http://www.ungcjn.org/ UN Global Compact website: https://www.unglobalcompact.org/



C

# Review of Key CSR Issues (Materiality)

Mazda has been implementing a four-phase process (Step 1-Step 4) to extract the social issues that the Company should address, so as to identify the key CSR issues (materiality). In identifying materiality, Mazda reflects the external opinions of experts and various other stakeholders, while taking into account opinions both from management and the relevant divisions. During the materiality identifying process, Mazda has also referenced the Sustainable Development Goals (SDGs)\*1 adopted by the United Nations. In the future, Mazda will continue to review materiality, while further clarifying the relationship between SDG-related issues and key CSR issues.

\*1 Announced in September 2015. SDGs call on United Nations member nations to mobilize efforts to achieve sustainable development, by accomplishing such targets as ending poverty and hunger, ensuring access to affordable and clear energy, combating climate change, and promoting peaceful and inclusive societies between 2015 and 2030. SDGs comprise 17 goals with 169 targets.

#### Mazda Group's Key CSR Issues (Materiality) (as of August 2018)



\*1 Expectation to Mazda group and automotive industry \*2 Risk and opportunity for Mazda group

#### Materiality Review Process C

#### [Step 1] Extraction of social issues

- Extract aspects of greatest importance from the following perspectives, and clarify the scope of expected impact (boundary) of each aspect. Social issues in the business activities of the automotive industry and Mazda
- Social issues to which stakeholders attach particular
- importance or that have substantive influence when stakeholders evaluate Mazda

#### [Step 2] Prioritization

Evaluate the importance of the social issues extracted in Step 1, grade them and show the graded scores by mapping according to the following two axes, so as to identify the aspects with greatest importance (the status was reported to CSR Management Strategy Committee.)

- Horizontal axis: Significance of Mazda group impacts (graded by Mazda's relevant divisions, from such viewpoints as the possibilities for existing risks and opportunities at Mazda, and the significance of their impact)
   Vertical axis: Influence on stakeholders (graded by external
- experts and institutional investors, from such viewpoints as the relationship with the business activities of the automotive industry and Mazda, and of the possibilities for having impact)

#### [Step 3] Validation

Reconfirm the validation of the boundaries of aspects identified in Step 2 based on the business plan, etc. The CSR Management Strategy Committee approved the validation

#### [Step 4] Disclosure of identification results and development of the PDCA cycle

Disclose the materiality aspects identified in Steps 1-3 and the substantiate in the Mazda Sustainability Report 2016. Continuously collect the opinions of stakeholders inside and outside the Company and carry out periodic reviews, so as to develop the PDCA (plan-do-check-act) process.

Category	Items*3		Outline	Related item(s) in Mazda Sustainability Report 2018[In-Depth Version]	Target	Scope of Impact
	Economic	Indirect Economic Impacts	Indirect economic impact and the degree of contribution in the country/region where Mazda conducts business	• Top Message*3	See Securities Report <sup>*4</sup>	Inside and outside the organization
	Environmental	Energy	Impact of energy use throughout the value chain on the entire society	• Environment (energy / global warming)	See Mazda Green Plan 2020 (p. 59)	Inside and outside the organization
	Environmental	Water Source in Community	Impact of water use on the entire society by water source	<ul> <li>Environment (cleaner emissions, resource recycling, biodiversity)</li> </ul>	See Mazda Green Plan 2020 (p. 59)	Inside and outside the organization
	Environmental	Emissions	$\bullet$ Impact of greenhouse gases (such as $\text{CO}_2$ ) and NOx on the atmosphere	Environment (energy / global warming, cleaner emissions)	See Mazda Green Plan 2020 (pp. P59–60)	Inside and outside the organization
I	Environmental	Effluents and Waste	Impact of factory waste/wastewater on ecosystems and on the entire society	• Environment (cleaner emissions)	See Mazda Green Plan 2020 (pp. P59–60)	Inside and outside the organization
	Environmental	Products and Services from Environmental Aspect	Environmental impact when a product is in use, and impact of waste from end-of- life vehicles	Environment (efforts regarding product and technology development)	See Mazda Green Plan 2020 (pp. P59–60)	Inside and outside the organization
	Labor practices	Occupational Health and Safety	Health and safety of employees, etc., and impact on their health	Respect for People (initiatives with employees)	See CSR Targets (p.23)	Inside the organization
	Labor practices	Diversity and Equal Opportunity	Providing an opportunity and working environment where a diverse range of employees can succeed, regardless of race, gender, age, religion, etc.	Respect for People (initiatives with employees)	See CSR Targets (p.22)	Inside the organization
	Consumer issues	Customer Health and Safety	Providing vehicles that customers can use safely	Quality (in general)     Safety (in general)	See CSR Targets (p.22)	Inside and outside the organization
	Economic	Economic Performance	Stable distribution of generated profits • Risks and opportunities brought by climate change and changes in external environments, such as social conditions	Respect for People / Social Contributions     / Management*3		
	Environmental	Transport	Significant environmental impacts of transporting products and purchased materials, and of transporting members of the workforce	Environment (efforts regarding manufacturing and logistics)		
II	Labor practices	Employment	Providing employment opportunities (stably securing human resources with diverse qualities, and promoting a life-work balance)	Respect for People (initiatives with employees)	-	
	Labor practices	Training and Education	Human resources development by improving training programs and establishing career development programs	Respect for People (initiatives with employees)		
	Economic	Market Presence	Appointing personnel coming from countries/regions where the Company's business sites are located, as managers and above	Respect for People (initiatives with employees)		
	Environmental	Materials	Promoting effective use of raw materials and recycling (reducing the level of dependence on natural resources)	Environment (resource recycling)		
	Environmental	Supplier Environmental Assessment	Environmental impact assessment in the supply chain	Environment (environmental management)     Management (supply chain)	-	
Ш	Labor practices	Supplier Assessment for Labor Practices	Working environment assessment in the supply chain	Management (supply chain)		
	Social	Social Community	Understanding the impact of conducting business on the country/region, and taking relevant measures	Top Message     Social Contributions (in general)		
	Social	Supplier Assessment for Impacts on Society	Compliance evaluation in the supply chain	Management (Supply chain)		
	Consumer issues	Product and Service Labeling	Product labeling that enables customers to select a vehicle to purchase based on correct information	Customer Satisfaction (in general)	-	
	Consumer issues	Compliance of Product Area	$\bullet$ Compliance with regulations and rules in vehicle development / manufacturing / sales / after-sales service	Management (compliance)		
	Economic	Purchasing practices	Transactions with suppliers in countries/regions where production sites are located	Management (supply chain)		
	Environmental	Compliance of environmental area	Compliance with environment-related regulations and rules	Environment (environmental management)     Management (compliance)	-	
	Labor practices	Labor/Management Relations	Labor-management dialogue held in a timely and appropriate manner	Respect for People (initiatives with employees)	-	
	Labor practices	Equal Remuneration for Women and Men	Closing wage disparity between men and women	Respect for People (in general)		
IV.	Human rights	Forced or Compulsory Labor	Preventing and eliminating all forms of forced or compulsory labor	Respect for People (human rights)		
ĨV	Human rights	Assessment	Evaluation of human rights protection	Respect for People (human rights)		
	Social	Anti-corruption	Preventing bribery, money laundering, abuse of power, etc.	Management (compliance)		
	Social	Compliance of social area	Compliance with regulations and rules in areas other than those related to the environment and products	Management (compliance)		
	Consumer issues	Marketing Communications	Publicity and advertisement that enable customers to select a vehicle to purchase, based on correct information	Customer Satisfaction (in general)	-	
	Consumer issues	Customer Privacy	Protection of customer privacy (personal information, etc.)	Management (risk management)		

\*3 The item in each category is listed in G4 guidelines order.

\*4 Financial materials (described in the Security Report and other documents)

# Promoting Initiatives Based on the SDGs

The Mazda Group pushes forward with various initiatives to contribute to the achievement of the Sustainable Development Goals (SDGs),<sup>\*1</sup> adopted by the United Nations. In FY March 2018, the CSR Management Strategy Committee enhanced SDG-related information available to the Company's management, and employees' awareness of SDGs was raised through training by level. Mazda's activities that are instrumental in realizing the 17 goals of the SDGs are presented in each section of this Sustainability Report 2018 [In-Depth Version] (see the following table).

Quality

17 Goals of the S	DGs	Related Items in Mazda Sustainability Report 2018 [In-Depth Version]			
Goal 1. <sup>1 ਲ</sup> ₀₅न	End poverty in all its forms everywhere	<ul> <li>Respect for People (initiatives with employees)</li> <li>Management (supply chain)</li> </ul>			
Goal 2.	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture	Social Contributions (in general)			
Goal 3. <sup>3 semicirs</sup> -₩	Ensure healthy lives and promote well-being for all at all ages	Quality (in general)     Safety (in general)     Environment (cleaner emissions)			
Goal 4.	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Respect for People (initiatives with employees)			
Goal 5.	Achieve gender equality and empower all women and girls	<ul> <li>Respect for People (initiatives with employees)</li> <li>Management (supply chain)</li> </ul>			
Goal 6.	Ensure availability and sustainable management of water and sanitation for all	Environment (cleaner emissions, resource recycling)			
Goal 7.	Ensure access to affordable, reliable, sustainable and modern energy for all	<ul> <li>Environment (energy / global warming)</li> <li>Innovation (in general)</li> </ul>			
Goal 8.	Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all	<ul> <li>Environment (in general)</li> <li>Respect for People (initiatives with employees)</li> <li>Management (supply chain)</li> </ul>			
Goal 9.	Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation	Innovation (in general)			
Goal 10.	Reduce inequality within and among countries	Respect for People (initiatives with employees)			
Goal 11.	Make cities and human settlements inclusive, safe, resilient and sustainable	Customer Satisfaction (products)			
Goal 12.	Ensure sustainable consumption and production patterns	<ul> <li>Customer Satisfaction (products)</li> <li>Quality (in general)</li> <li>Environment (in general)</li> </ul>			
Goal 13.	Take urgent action to combat climate change and its impacts	• Environment (energy / measures against global warming, environmental communication)			
Goal 14.	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Environment (cleaner emissions, resource recycling, biodiversity)			
Goal 15.	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	• Environment (biodiversity)			
Goal 16.	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	<ul> <li>Mazda CSR (stakeholder engagement)</li> <li>Management (compliance)</li> </ul>			
Goal 17.	Strengthen the means of implementation and revitalize the global partnership for sustainable development	Mazda CSR (CSR management)			

# Development of PDCA Cycle in Line with CSR Targets

Mazda has established its CSR targets for each year starting in FY March 2014. In establishing these targets, CSR initiatives are reaffirmed in reference to the seven core subjects of the ISO 26000 social responsibility guidelines, and each division envisions the ideals that Mazda aims to achieve in the future, and summarizes them in these targets.

The results for FY March 2018 as well as the targets for FY March 2019, which were established taking into account the process of identifying materiality, were approved by the CSR Management Strategy Committee. Mazda will continue to implement the PDCA (plan-do-check-act) process, so as to carry out CSR management in line with global standards.

\*1 Announced in September 2015. SDGs call on United Nations member nations to mobilize efforts to achieve sustainable development, by accomplishing such targets as ending poverty and hunger, ensuring access to affordable and clean energy, combating climate change, and promoting peaceful and inclusive societies between 2015 and 2030. SDGs comprise 17 goals with 169 targets. Customer Satisfaction

Quality

Safety

Environment

Respect for People Social Contributions

Management

# CSR Targets for FY March 2019

(Self-assessment key  $\bigcirc$ : Accomplished,  $\triangle$ : Nearly accomplished,  $\times$ : Not accomplished)

Susta Co	ainability Report ontents/Items	FY March 2018 targets	FY March 2018 results	Self- assessment	FY March 2019 targets	ISO 26000 core subjects
azda CSR (see pp. 17-28)	CSR management	<ol> <li>Continue to implement the PDCA (plan- do-check-act) process in addressing key CSR issues (materiality).</li> <li>Continue to secure coordination between related divisions to reinforce CSR initiatives on a global basis.</li> <li>Continue raising CSR awareness, based on the results of the Global Employee Engagement Survey items regarding the employees' CSR awareness level.</li> </ol>	<ol> <li>Discussed and undertook the methods of linking the key CSR issues, Sustainable Development Goals (SDGs) and business (the medium-term plan).</li> <li>Implemented CSR initiatives based on international CSR norms, and discussed how to utilize knowledge obtained by having signed the UN Global Compact.</li> <li>Continued CSR awareness-raising activities as planned (continued monitoring employees' CSR awareness through the Global Employee Engagement Survey).</li> </ol>	0	<ol> <li>Continue to implement the PDCA (plan- do-check-act) process in addressing key CSR issues (materiality).</li> <li>Continue to secure coordination between related divisions to reinforce CSR initiatives on a global basis, in line with international CSR norms.</li> <li>Enhance the contents of activities to raise CSR awareness among employees, and develop a system to further expand opportunities for such activities.</li> </ol>	6.2 Organizational governance
W	Stakeholder engagement	Continue and strengthen stakeholder engagement.	Executed stakeholder engagement initiatives in various forms, as planned.	0	Continue and strengthen stakeholder engagement.	6.2 Organizational governance
9-36)	Sales and services	Sell products and offer services to provide a value realizing a circle of smiles for keeping on growing through a life with Mazda, which makes you feel you always "want to continue choosing" Mazda.	Strengthened efforts to increase awareness of customer value among staff on the sales floor, through activities to communicate the value that Mazda offers to society, to enable the staff to offer their smiles to customers. Reinforced measures to impart the value offered by Mazda directly to customers (e.g., by holding a fan event at the Okayama International Circuit).	0	Sell products and offer services to provide a value realizing a circle of smiles for keeping on growing through a life with Mazda, which makes you feel you always "want to continue choosing" Mazda.	6.7 Consumer issues
43) Customer Satisfaction (see p	Products	Develop next-generation products that further evolve the following attributes of the Mazda brand, in line with the principles of "Sustainable Zoom-Zoom." • Driving pleasure as well as outstanding environmental and safety performance. • Jinba-Ittai (oneness between car and driver) driving performance that appeals to all five senses and increases the driving pleasure each time the driver gets behind the wheel. • Insightful, thoroughly thought-out functionality. • An unrivaled design direction full of raw energy, honed by the precision of Japanese aesthetics.	Evolved the attributes of the Mazda brand in line with the principles of "Sustainable Zoom-Zoom" in CX-8, and introduced the model into the market.	0	Develop products incorporating specific technologies that make "Sustainable Zoom- Zoom 2030" a reality.	6.7 Consumer issues
Quality (see pp. 37-43)	Quality	Establish a quality assurance system that covers production sites in Japan and overseas, ports and dealerships, to globally enable delivery of products of equal quality.	Introduced a vehicle evaluation (MQIC) system, in which quality comparison and improvement can be made using the same standards on a global basis. Completed the introduction of the system at all the production sites (9 sites), thereby making an improvement in quality at factory shipment. The system is being integrated into the logistics processes, which encompass overseas ports in Europe, North America, etc.	0	Establish a quality assurance system that covers production sites in Japan and overseas, ports and dealerships, to globally enable delivery of products of equal quality.	6.7 Consumer issues
Safety (see pp. 44-53)	Safety	<ol> <li>Further evolve, and expand the introduction of, i-ACTIVSENSE, which is a series of advanced safety technologies developed in line with Mazda Proactive Safety, the Company's safety philosophy.</li> <li>Obtain high ratings in the new car assessment programs (NCAPs) of respective countries.</li> </ol>	<ul> <li>① Expanded the introduction of i-ACTIVSENSE in the Japanese market. For all the vehicle types and models, excluding the Roadster (MX-5 overseas), the technologies that qualify for the "Wide" Suppocar S (Safety Support Car S) category were applied as standard equipment.</li> <li>Specifically, six technologies qualifying for the "Wide" Suppocar S category were made standard equipment for all the vehicle types and models other than the Roadster (MX-5 overseas). Other i-ACTIVSENSE features that have become standard are Blind Spot Monitoring (BSM), which supports drivers in confirming safety when changing lanes, and Rear Cross Traffic Alert (RCTA), which helps drivers confirm safety when backing out of a parking space or garage.</li> <li>② Obtained the highest ratings in the new car assessment programs (NCAPs) of each country as follows:         <ul> <li>J-NCAP collision safety performance evaluations: CX-5 and CX-8 obtained "54x," the highest rating.</li> <li>Luro-NCAP safety performance evaluations: CX-5 obtained "54x," the highest rating.</li> <li>Us-NCAP collision safety performance evaluations: CX-5 obtained "54x," the highest rating.</li> </ul> </li> </ul>	0	<ol> <li>Further evolve, and expand the introduction of, i-ACTIVSENSE, which is a series of advanced safety technologies developed in line with Mazda Proactive Safety, the Company's safety philosophy.</li> <li>Obtain high ratings in the new car assessment programs (NCAPs) of respective countries.</li> </ol>	6.7 Consumer issues
Environment (see pp. 54-86)	Energy-and- global- warming- related issues Promoting resource recycling Cleaner emissions Environmental management		(See Mazda Green Plan 2020) (see pp. 57-60)			6.5 The environment
Respect for People (see pp. 87-102)	Achieving of diversity	Continue to respect the diversity of employees. ① Continue and evolve training and effective development of top management in each region. ② Steadily implement plans for training female managers, toward achieving the target number of female managers. <sup>+1</sup> ③ Continue to achieve the legally required percentage of employees with special needs (2.0%) and promote employment of intellectually challenged people. <sup>+1</sup>	① Held meetings (twice a year) aimed to formulate a plan for developing successors of top management of Group companies, and implemented collective training and project work for successor candidates. ② Specified highly promising female candidates at the assistant manager level for management positions in the future, and drew up individual development plans for them. Progress is continuously followed up by each division and the Personal Development Committee 2 (PDC2). (Number of female middle managers: 42; percentage of female managers [middle management and above]: 2.9%) <sup>11</sup> ③ Increased the percentage of employees with special needs to 2.1%, and employed 13 intellectually challenged people. <sup>*1</sup>	0	Continue to respect the diversity of employees. ① Continue and evolve training and effective development of top management in each region. ② Steadily implement plans for training female managers, toward achieving the target number of female managers. <sup>11</sup> ③ Promote employment of people with special needs, encourage employment of intellectually challenged people and expand their opportunities, toward achieving the legally required percentage of employees with special needs (which was raised to 2.2%). <sup>11</sup>	6.3 Human rights

\*1 Initiatives at Mazda Motor Corporation (FY March 2018 results, and FY March 2019 targets).

Quality

Environment

#### (Self-assessment key $\bigcirc$ : Accomplished, $\triangle$ : Nearly accomplished, $\times$ : Not accomplished)

Social

Contributions

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Susta Co	ainability Report ontents/Items	FY March 2018 targets	FY March 2018 results	Self- assessment	FY March 2019 targets	ISO 26000 core subjects
7-102)	Human resource development	Strengthen initiatives to promote understanding of brand value management and its practice, and check the progress of these initiatives.	<ul> <li>Held the 1st session of MBLD#14 themed on the implementation of brand value management practices in December, and subsequently held the 2nd and 3rd sessions.</li> <li>Established the Hiroshima Cross-Industrial Co-creation Seminar, bringing together people from diverse industries working at Hiroshima-based companies and organizations (industry, academia and government). Participating employees were given opportunities to understand the importance of strengthening bonds with customers and to conduct practical activities. They were also given chances to improve their loyalty to the Company.<sup>*1</sup></li> </ul>	0	Strengthen initiatives to promote understanding of brand value management and its practice, and check the progress of these initiatives. ① Hold the MBLD#15 session themed on the implementation of brand value management practices. ② Start training for managers themed on what they should implement, to achieve dual goals—jobs (tasks) that lead to providing value to customers, and the improvement in the level of members' job satisfaction.*!	6.4 Labor practices
	Work-life balance	Improve the quality of various measures for further implementation of work-life balance."	<ul> <li>To increase business competitiveness, worked to realize flexible working styles, and improve the environment/measures to enable individual employees to work enjoyably (e.g., by making revisions to the vacation regulations, the flextime working system, business travel regulations, the work-at-home system).<sup>11</sup></li> <li>The minimum number of paid vacation days taken a year (11 or more days) was achieved by almost all employees.<sup>21</sup></li> <li>Increased both the rate and the average number of paid vacations: to 88%, up 2% from the previous year, to 16.9, up 0.4 days from the previous year.<sup>21</sup></li> </ul>	0	Improve the quality of various measures for further implementation of work-life balance*1	6.4 Labor practices
	Occupational safety and health	Promote activities based on the Safety and Health Management System. <sup>(1)</sup> Continue risk assessment and improvement activities based on the assessment results. <sup>11</sup> <sup>(2)</sup> Continue system auditing and share best practices with the related divisions. <sup>11</sup> <sup>(3)</sup> Achieve Japan's lowest-level workplace accident occurrence ratio, and consolidate the results of workplace accident occurrence surveys of Group companies on a global basis.	<ol> <li>Surveyed/identified dangerous or hazardous factors and then conducted activities to remove/reduce these factors, resulting in a 62% reduction in high-risk factors.<sup>+1</sup></li> <li>Conducted system auditing in all the targeted divisions, and shared the auditing results (improvements and best practices) with related divisions.</li> <li>Total injury frequency rate<sup>12</sup>: 0.42 (in creased by 0.09 points from 2016, and ranked 7th among 14 JAMA companies).</li> <li>Consolidated the results of workplace accident occurrence surveys of Group companies (production sites).</li> </ol>	10 20 3∆	Promote activities based on the Safety and Health Management System. (1) Continue to conduct risk assessment and improvement activities based on the assessment results. <sup>+1</sup> (2) Continue system auditing and share best practices with the related divisions. <sup>+1</sup> (3) Achieve Japan's lowest-level workplace accident occurrence ratio, and consolidate the results of workplace accident occurrence surveys of Group companies on a global basis.	6.4 Labor practices
eople (see pp.	Industrial relations	Maintain sound labor relations in each region on a global basis, based on the legislation, culture, and labor practices in respective countries.	Maintained and improved sound labor relations through mutual communication between labor and management in Mazda Motor Corporation and in each region (resulting in no collective labor disputes).	0	Maintain and improve sound labor relations through mutual respect and communication between labor and management at Mazda Motor Corporation and in each region.	6.4 Labor practices
s (see pp. 103-107) Respect for Peop	Respect for human rights	<ol> <li>Continue to support international initiatives, including the Universal Declaration of Human Rights and the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work.</li> <li>Encourage all divisions across the Company, Group companies and suppliers to use materials and manuals of Mazda's human rights awareness raising activities, for human rights meetings and training by level,<sup>+3</sup> including the programs to understand LGBT issues.</li> </ol>	<ul> <li>① Continued to clarify support for both declarations, in the Mazda Sustainability Report 2017.</li> <li>Continued efforts to realize the principles of the UN Global Compact, such as human rights protection.</li> <li>② Executed the following activities as scheduled, to raise awareness of human rights":</li> <li>Held human rights lectures using an external program, for management twice (themes: "Discrimination Cases That Occurred in Succession and Their Background" and "Social Rehabilitation from Intractable Diseases.")</li> <li>Held on-site training lectures at a greater number of venues, including the entire Hiroshima Plant and Group companies.</li> <li>Augmented and held a training program for managers aimed at improving their interpersonal skills.</li> <li>As part of LGBT-related initiatives, held a human rights lecture at the Company (for middle management, in July), held training by level and human rights awareness raising activities.</li> </ul>	0	<ol> <li>Continue to support international initiatives, including the Universal Declaration of Human Rights, the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work, and the UN Global Compact.</li> <li>Encourage all divisions across the Company, Group companies and suppliers to use materials and manuals of Mazda's human rights awareness raising activities, for human rights meetings and training by level,<sup>13</sup> including programs to understand LGBT issues.</li> </ol>	6.3 Human rights
	Due diligence	Continue surveys and follow-up of the status of human rights initiatives throughout the value chain.	Promoted human rights initiatives throughout the value chain, recognized the status of these initiatives, and conducted surveys of these initiatives, as planned. • Applied Mazda materials for human rights meetings to Group companies, dealerships, and parts sales companies in Japan. • Provided advance guidance to employees dispatched to overseas Group companies on local cultures and customs. • Checked the expressions used to disseminate information inside and outside the Company for human rights infringements. • Responded to consultation requests from collaborating companies submitted to the Human Rights Counseling Desk. • Conducted a questionnaire survey and hearing of local suppliers, regarding the way the Human Rights Counseling Desk was being managed. Also, presented the management method of the Mazda Global Hotline to local suppliers.	0	Continue surveys and follow-up of the status of human rights initiatives throughout the value chain.	6.3 Human rights
	Corporate citizenship activities	<ol> <li>Implement programs based on Mazda's basic policy on initiatives and each region's local community contribution policy.</li> <li>Continue to implement the PDCA cycle (to make efforts to resolve social issues) based on the program effect evaluation index (the Mazda Social Contribution Prize).</li> </ol>	<ol> <li>Continued or newly launched more than 500 activities.</li> <li>Continued to implement the PDCA (plan-do-check-act) cycle.</li> </ol>	0	<ol> <li>Implement programs based on Mazda's basic policy on initiatives and each region's local community contribution policy.</li> <li>Continue to implement the PDCA cycle (to make efforts to resolve social issues) based on the program effect evaluation index (the Mazda Social Contribution Prize).</li> </ol>	6.8 Community involvement and development
Social Contribution	Disclosure of results regarding community involvement and development	Continue active disclosure of social contribution activities.	Presented around 100 activities in the Sustainability Report and 26 items in the Social Contribution Report, and posted relevant information on SNS sites, etc.	0	Further promote active disclosure of social contribution activities.	6.8 Community involvement and development

\*1 Initiatives at Mazda Motor Corporation (FY March 2018 results, and FY March 2019 targets).
\*2 Results between January and December 2017. Accident frequency, measured as the number of casualties per million person-hours worked.
\*3 Training programs for new recruits, mid-career hires, new band 5 (assistant manager level) and newly appointed managers.

Quality

Environment

#### (Self-assessment key $\bigcirc$ : Accomplished, $\triangle$ : Nearly accomplished, $\times$ : Not accomplished)

Social

Contributions

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Sustainability Report Contents/Items		FY March 2018 targets	FY March 2018 results	Self- assessment	FY March 2019 targets	ISO 26000 core subjects
	Corporate governance	Continuously improve and strengthen corporate governance measures, in light of the purport and spirit of the Corporate Governance Code. <sup>11</sup>	<ul> <li>Held advisory committee member meetings chaired by an outside director, to discuss the remuneration system for directors and executive officers, as well as the process for their appointment in this fiscal year.</li> <li>Evaluated the board's effectiveness to confirm that the improvement measures taken based on the previous year's evaluation results were working effectively. Also, disclosed the outline of the evaluation results via the Corporate Governance Report.</li> <li>In light of the matters pointed out in the evaluation on important matters, such as the medium-and long-term business strategies, to outside directors in advance of the board meetings.</li> <li>Improved the ways of information disclosure regarding notices of the general meetings of shareholders, by using visual media and enhancing explanations.</li> </ul>	0	Continuously improve and strengthen corporate governance measures, in light of the purport and spirit of the Corporate Governance Code.*1	6.2 Organizational governance
Management (see pp. 108-119)	Risk management	Identify various internal and external risks and continue activities to minimize such risks. (1) Improve the level of development of the risk management systems of Mazda and its Group companies, and have these systems checked and evaluated by the Risk Compliance Committee. (2) Continue risk management activities based on the action plans in preparation for earthquakes and tsunami. (3) Update and enrich data for the supply chain management system.	<ul> <li>① Further visualized the risks at Mazda and its Group companies, and strengthened risk management activities there, based on the mid-term action plan (for FY March 2018–2020) that was formulated at the Risk Compliance Committee meeting in FY March 2017.</li> <li>Based on the results of measures to cope with risks identified by each division, established common priority issues to be addressed by the Mazda Group and took countermeasures.</li> <li>Revised the Risk Management Regulations so as to clearly state the necessary matters to promote continuous activities through cooperation among Mazda and its Group companies, and made the revision known to all parties.</li> <li>② Conducted risk management activities based on the action plans in preparation for earthquakes and tsunami.</li> <li>Created the procedures for stockpile management and distributed the procedures to self-disaster-defense teams.</li> <li>Introduced a safety confirmation system on a trial basis.</li> <li>③ Continued to operate the SCR keeper, a supply chain risk management system.</li> <li>Updated supplier information, so as to help understand the possible impact in the event of disaster.</li> </ul>	0	Identify various internal and external risks and continue activities to minimize such risks. (1) Improve the level of development of the risk management systems of Mazda and its Group companies, and have these systems checked and evaluated by the Risk Compliance Committee. (2) Continue risk management activities based on the action plans in preparation for earthquakes and tsunami. (3) Update and enrich data for the supply chain system, and expand its application	6.2 Organizational governance
	Information management	<ol> <li>Ensure information management through continuous awareness-raising activities.</li> <li>Promote and strengthen information security measures.<sup>*2</sup></li> </ol>	<ul> <li>① Implemented an e-learning program entitled "Basic Rules for Handling Personal Information."</li> <li>② - Revised the relevant regulations and procedures, in accordance with the revision to the Act on the Protection of Personal Information.<sup>2</sup></li> <li>- Disseminated information on the important points of the revisions and response, and provided guidance and support to all divisions of Mazda and Group companies in Japan in establishing work procedures.<sup>2</sup></li> </ul>	n ① Ensure information management of through continuous awareness-rais activities. @ ? Promote and strengthen information the security measures.**2		6.6 Fair operating practices
	Protection of intellectual property	Promote activities to protect and make effective use of intellectual properties. <sup>(1)</sup> For the protection of Mazda' intellectual properties: <sup>(2)</sup> Continue strengthening the management system, and promote rights acquisition activities on a global basis. <sup>(2)</sup> For the protection of the intellectual properties of other parties: <sup>(2)</sup> Continue to strengthen awareness- raising activities aimed at protecting the intellectual properties of Mazda and other parties. <sup>(2)</sup> Promote the appropriate use of works belonging to other parties.	<ol> <li>For the protection of Mazda' intellectual properties:         <ul> <li>In Japan: Completed around 980 patent applications.</li> <li>Overseas: Completed around 810 patent applications, aiming at promoting rights acquisition activities in the United States, Germany, China and other countries.</li> <li>For the protection of the intellectual properties of other parties:</li> <li>Patent training: Held patent training as scheduled, with around 140 participants in the basic patent seminars, around 30 participants in the seminar on effective use of patent information, and around 30 participants in the intellectual property risk seminar.</li> <li>Promotion of the appropriate use of trademarks: Added about 561 new images to the Mazda-Shared-Image-Collection.</li> </ul> </li> </ol>	0	Promote activities to protect and make effective use of intellectual properties. (1) For protection of Mazda' intellectual properties: Promote rights acquisition activities on a global basis. • Maintain the number of patent applications at the same level as the previous year in Japan • File 30% or more overseas patent applications than those in Japan. The primal targets for the rights acquisition activities are the United States, Germany and China, which are Mazda's major sales markets. (2) For the protection of the intellectual properties of other parties: • Continue to strengthen awareness-raising activities aimed at protecting the intellectual properties of Mazda and other parties. • Promote the appropriate use of works belonging to other parties, in conducting communication activities.	6.6 Fair operating practices
	Compliance	<ol> <li>Ensure compliance and improve the level of compliance awareness through continuous awareness-raising activities, etc.<sup>22</sup></li> <li>Continue and strengthen support for Group companies through the provision of timely information, etc.</li> </ol>	<ul> <li>① Ensured the implementation of the existing awareness-raising activities."<sup>2</sup></li> <li>Around 1,000 employees participated in the compliance seminar organized by the Human Resources Office as part of management skill training.</li> <li>Released an e-learning program entitled "Security Export Control (Basics and Case Studies)" for Group companies.</li> <li>Held a compliance seminar for senior executives and general managers.</li> <li>Conducted inspections, including reconfirmation of work procedures, at the Company and Group companies, in view of examples of problems at other companies.</li> <li>② Support for Group companies</li> <li>Continued to hold negular meetings among departments concerned, in order to share information on the administration of overseas affiliates and to secure the consistency thereof.</li> <li>Started to hold meetings equivalent to the above, also regarding the administration of domestic affiliates.</li> </ul>	0	<ul> <li>① Ensure compliance and improve the level of compliance awareness through continuous awareness-raising activities, etc.<sup>22</sup></li> <li>② Continue and strengthen support for Group companies through the provision of timely information, etc.</li> </ul>	6.6 Fair operating practices
	Fair transactions	<ol> <li>Continue and strengthen activities to request that suppliers comply with the Mazda Supplier CSR Guidelines and to conduct surveys on their operation status of CSR initiatives.</li> <li>Gradually promote the establishment of the supply chain management system at individual overseas production sites.</li> </ol>	<ol> <li>Discussion is under way as to a revision to the Mazda Supplier CSR Guidelines, by adding "promotion of appropriate transactions," which goes beyond compliance with laws and regulations, as a compliance item.</li> <li>Reached an agreement with the person in charge of purchasing at MPMT, the production site in Thailand, regarding the application of the revised Guidelines to its suppliers.</li> </ol>	0	<ul> <li>Based on the revised Mazda Supplier</li> <li>CSR Guidelines, hold discussions about conducting a questionnaire survey to understand suppliers' operation status of CSR initiatives, and about follow-up of the survey results (e.g., through study meetings, and announcement of outstanding companies).</li> <li>Complete the activities to apply the Mazda Supplier Guidelines to MPMT, the production site in Thailand, and announce the guidelines to all MPMT suppliers.</li> </ul>	6.6 Fair operating practices

\*1 Corporate governance guidelines for listed companies announced by the Tokyo Stock Exchange in June 2015. \*2 Initiatives at Mazda Motor Corporation (FY March 2018 results, and FY March 2019 targets).

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# External Evaluations of CSR (as of September 13, 2018)

Mazda identifies key external ratings and evaluations both from within Japan and overseas. By analyzing the results, Mazda evaluates its own initiatives. Mazda continuously makes active efforts to disclose information by responding to both domestic and global surveys and evaluations, such as those by socially responsible investment (SRI) and environmental, social and governance (ESG) rating organizations.

- Inclusion in the Dow Jones Sustainability Index (DJSI) World Index and Asia Pacific Index (Selected since September 2017).
   ESG index developed by the S&P Dow Jones Indices and RobecoSAM's cooperation.
- Inclusion in the FTSE4Good Index series since March 2011.
- Inclusion in the FTSE Blossom Japan Index<sup>\*1</sup> (Selected since the index was established in July 2017).
  ESC indices developed by the ETSE Purcelly a fully owned subsidiary of
- ESG indices developed by the FTSE Russell, a fully-owned subsidiary of the London Stock Exchange.
- Inclusion in the MSCI ESG Leaders Indexes<sup>\*2</sup> since June 2015.
- Inclusion in the MSCI Japan ESG Select Leaders Index<sup>\*1, 2</sup> (Selected since the index was established in July 2017).
   ESG indices developed by Morgan Stanley Capital International (MSCI) in the United States.
- Inclusion in the Ethibel EXCELLENCE Investment Register since October 2013.
   Forum ETHIBEL is a Belgium-based non-profit organization that promotes socially responsible investment (SRI) and CSR in Europe.
- Inclusion in the Morningstar Socially Responsible Investment Index (MS-SRI) since January 2008.

The first SRI index developed in Japan.

 In the CDP (formerly Carbon Disclosure Project) 2017 Climate Change Report and Water Report, Mazda's scores were both A- (2nd level score).
 Mazda's scores were



Social

Contributions

- \*1 A new ESG index published by the Government Pension Investment Fund (GPIF) in July 2017.
   \*2 Disclaimer
  - THE INCLUSION OF Mazda Motor Corporation IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF Mazda Motor Corporation BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.
- \*3 As of January 2018

#### TOPICS RobecoSAM Sustainability Award 2018

Mazda won a Silver Class award in the 2018 RobecoSAM Sustainability Awards as an outstanding company in the automotive industry. It was the first time for the Company to receive this award.

RobecoSAM, the organization that evaluates companies for inclusion in DJSI, one of the global ESG (Environment, Social, Governance) indexes, annually awards outstanding candidates in each industry with Gold, Silver and Bronze Class awards. Mazda received the Silver Class award since its initiatives in CSR and information disclosure were highly evaluated.



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# **Raising Executive and Employee Awareness**

Mazda endeavors to deepen awareness and understanding of CSR among all its executive officers and employees, and to promote the undertaking of CSR initiatives in the course of their daily business activities. The level of employees' CSR awareness is confirmed through Global Employee Survey.

To ensure constant improvement of the CSR awareness level, Mazda will continue a range of initiatives.

## **Examples of Awareness-Raising Activities**

- Implementation of a lecture delivered by an external expert on the theme of "Strengthening sustainability management," for executive officers and divisional general managers (including general managers of independent departments)
- Distribution of the Mazda Sustainability Report to Group companies in Japan and overseas
- Particular training and enlightenment for specific issues including quality, environment, human rights and compliance
- Publication of CSR-related feature articles in Gijutsu Tsushin (technical notification), a monthly journal for service staff at dealerships in Japan
- Implementation of CSR training programs by level (lecture type training and group discussions for a total of around 1,057 participants, including new recruits, mid-career hires, new band 5 (assistant manager level) and newly appointed managers)\*1
- Communication about CSR efforts via the Company's Intranet and the in-house newsletter My Mazda, on an as needed basis\*1

# CSR Promotion throughout the Entire Value Chain

In cooperation with suppliers and dealerships, Mazda has established a CSR initiative promotion system throughout the entire value chain. The Company places emphasis on dialogues with stakeholders, to ensure that its CSR initiatives not only comply with international rules as well as the laws and regulations of each country/region, but also respect local history, culture, and customs.

#### Research and Development



Research and development in Japan, North America, Europe and China for providing innovative products tailored to the markets





Implementation of a broad range of initiatives, in tandem with 1,081 major suppliers in Japan and overseas, aiming for harmonious coexistence and co-prosperity

#### Manufacturing



Pursuit of high-level manufacturing in a total of 7 countries, including Japan, Thailand, China and Mexico



Pursuit of high-quality, safe and environmentally conscious transportation

on a global basis

Sales and services



Provision of vehicles and services to customers in more than 130 countries and regions

Recycling end-of-life vehicles



Pursuit of end-of-life vehicle recycling and waste reduction

	2015	2016	2017
Being socially responsible (a good "corporate citizen")	59%	58%	59%

\* In FY March 2018, Mazda revised the survey items. The revised survey was commenced in May 2018

m Results of Group Discussion Surveys in FY March 2018 (around 800 participants)

(Non-consolidated) 1. Interest in, knowledge about, and understanding of CSR activities





\*1 Unconsolidated activities of Mazda

Logistics

# STAKEHOLDER ENGAGEMENT

Quality

# **Basic Approach**

Mazda clarifies key responsibilities and issues that the Mazda Group should accomplish, through dialogue with stakeholders which are important for a company's sustainable development<sup>\*1</sup>, and carries out daily business activities while making efforts for improvement.

To ensure effective communications with customers and other respective stakeholders, Mazda has defined its key stakeholders, and determined the frequencies of providing opportunities for dialogue and information disclosure. The information obtained is reported to the relevant departments or committee meetings attended by the Company's management, and used for planning and improving Mazda's daily business activities.

In the brand value management which the Company has been promoting in earnest since 2013, Mazda is pushing ahead with various initiatives, aiming to continue to grow as a corporate group that earns the trust of all its stakeholders. By establishing indicators for its relationships with its stakeholders, Mazda implements the PDCA (plan-do-check-act) cycle.

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#### a Examples of Indicators

Customers	Degree of customer satisfaction, brand likeability, loyalty (retention), net promoter score, (unaided) awareness level, brand recommendation level		
Shareholders and investors	Evaluations by external research organizations		
Business partners	Stakeholder Survey		
Employees	Global Employee Engagement Survey		
Global society and local communities	Stakeholder Survey		
Next- generation people	Evaluations by external research Organizations		

\*1 Parties who are directly or indirectly related to the business of the Mazda Group

Key Stakeholder Relationships and Opportunities for Key Dialogue and Information Disclosure

Key Stakeholder	Mazda Group's Key Responsibilities and Issues	Opportunities for Key Dialogue and Information Disclosure (Frequency)
Customers	<ul> <li>Improving customer satisfaction</li> <li>Providing safe, reliable and attractive products and services</li> <li>Appropriate disclosure and explanation of information regarding products, services and technical terms</li> <li>Providing customer support in a timely and appropriate manner</li> <li>Appropriate management of customer information</li> </ul>	<ul> <li>Establishment of call centers (always)</li> <li>Mazda Official Website and social media (always)</li> <li>Day-to-day sales activities (always)</li> <li>Customer satisfaction surveys (as needed)</li> <li>Holding events (as needed)</li> <li>Interviews with customers (as needed)</li> <li>Meetings with Mazda vehicle owners (as needed)</li> </ul>
Shareholders and investors (see the website for shareholders and investors*)	<ul> <li>Timely and appropriate information disclosure</li> <li>Maximizing corporate value</li> <li>Strict exercise of voting rights (at the general meeting of shareholders)</li> <li>Active investor relations activities</li> </ul>	<ul> <li>Website for shareholders and investors (always)</li> <li>Publication of the asset securities report and the quarterly financial reports (four times a year)</li> <li>Publication of the summary of financial results (four times a year)</li> <li>Quarterly presentation of financial results (four times a year)</li> <li>Publication of shareholder reports (twice a year, Japanese only)</li> <li>Holding ordinary general meetings of shareholders (once a year)</li> <li>Publication of the Annual Report (once a year)</li> <li>Publication of corporate governance reports (as needed)</li> <li>Presentations and plant tours for investors (as needed)</li> </ul>
Business partners • Suppliers • Domestic dealerships • Overseas distributors	<ul> <li>Fair and equitable trading</li> <li>Open and transparent business opportunities</li> <li>Support for requests for collaboration on CSR implementation</li> <li>Appropriate disclosure and sharing of information</li> </ul>	<ul> <li>Hotlines linking Mazda with dealerships (always)</li> <li>Day-to-day purchasing activities (always)</li> <li>Supplier communication meetings (once a month)</li> <li>Conferences with representatives of dealerships (once a year)</li> <li>Conferences with supplier executives (once a year)</li> <li>Commendation of outstanding suppliers and dealerships (once a year, respectively)</li> </ul>
Employees	<ul> <li>Respect for human rights</li> <li>Choice and self-accomplishment</li> <li>Promoting a healthy work-life balance</li> <li>Optimum matching of people, work and placement</li> <li>Promotion and improvement of employee health and safety</li> <li>Promotion of diversity</li> <li>Mutual understanding and trust between labor and management</li> </ul>	<ul> <li>Labor-Management Council (as needed)</li> <li>Direct communication with senior management (MBLD) (as needed)</li> <li>Global Employee Engagement Survey (as needed)</li> <li>Career meetings (four times a year)</li> <li>Career Challenge System (in-house recruitment and "Free Agent") (as needed)</li> <li>Group and optional training (as needed)</li> <li>Lectures (as needed)</li> </ul>
Global society and local communities • Community people • Government and administrative agencies • NGOs/NPOs • Experts and specialists • Educational institutions	<ul> <li>Respect for local cultures and customers</li> <li>Prevention of workplace accidents and disasters</li> <li>Activities contributing to local communities (including cooperative work)</li> <li>Disaster-relief activities in regions in which Mazda does business</li> <li>Compliance with laws and regulations</li> <li>Payment of taxes</li> <li>Cooperation with government policies</li> <li>Cooperative work and support in search of solutions to global social issues</li> <li>Foundation activities</li> </ul>	<ul> <li>Opening to the public of the Mazda Museum and plant tours (always)</li> <li>Execution of social contribution activities and participation in and promotion of volunteer activities (as needed)</li> <li>Dialogue through economic and industry organizations (as needed)</li> <li>Interaction/exchange of views with the local community (as needed)</li> <li>Response to hearings, information disclosure, etc. (as needed)</li> <li>Dialogue, cooperation and support through collaboration of industry, academia and government (as needed)</li> </ul>
Next generation people (environment)	Consideration for the environment     Energy-/ global-warming-related issues     Promoting resource recycling     Cleaner emissions     Environmental management	<ul> <li>Holding and participating in environmental events (as needed)</li> <li>Setting targets and reporting the results under Mazda Green Plan 2020, midterm environmental plan (once a year)</li> </ul>

\*http://www.mazda.com/en/investors

Safe

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## Conducting the Stakeholder Survey

Since FY March 2014, Mazda has conducted a Stakeholder Survey (once a year), inviting opinions from stakeholders outside the Company regarding employee conduct and attitudes toward the promotion of brand value management. The submitted opinions and their analysis results are shared with top management. After clarifying the actual situations and issues to be addressed, the results are announced to Mazda employees and employees of the entire Group in Japan and abroad through MBLD (see p. 91).

This provides these employees with opportunities to review their own actions and practices, from the perspective of implementing the corporate vision and strengthening connections with stakeholders.

To generate frank opinions and guarantee objectivity of the analysis, Mazda has commissioned a third party organization (research firm) to conduct the survey.

#### Communication through Publication of the Mazda Sustainability Report

The Mazda Sustainability Report has been published with the aim of informing stakeholders of Mazda's CSR initiatives, in accordance with GRI Reporting Principles for Defining Report Content. To obtain the opinions and evaluations regarding the report's content and editorial method, Mazda has conducted a questionnaire survey and applied for CSR-related awards. The submitted opinions and evaluations are fed back to executive officers, external directors, and each division's employees in charge of producing the Mazda Sustainability Report, and are utilized for designing the next year's initiatives and for considering the information to be disclosed in the report. The questionnaire survey results are published on the Mazda official website. The Mazda Sustainability Report 2017 won the Award of Merit of the 21st Environmental Communication Awards, presented by the Japanese Ministry of the Environment, etc.

#### b Those Covered by Stakeholder Survey (Only in Japan)

Suppliers, local autonomous entities, academic societies, industrial associations, etc.

Social

Contributions



#### **EMPLOYEE'S VOICE**

# Aiming to Prepare a Reader-Friendly and Informative Report through Various Ideas

I am in charge of preparing the Sustainability Report. CSR involves many technical terms, and its content tends to be difficult to understand. However, I strive to ensure that the Report can convey Mazda's initiatives to stakeholders in an easy-to-understand manner. The Mazda Sustainability Report 2018 includes a section regarding the Company's signing the United Nations Global Compact. For readers who wish to obtain further details about the topic, we have created a webpage where more in-depth information is available. Aiming to prepare a Sustainability Report that is more reader-friendly and informative, I will continue to work on compiling a Report while devising various ideas.

Minako Doi

CSR & Environment Department, Corporate Services Division

# **CUSTOMER SATISFACTION**

Mazda is striving to improve customer satisfaction through providing a Mazda brand experience that exceeds customer expectations.

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30 Providing the Mazda Brand Experience to Customers

# CSR Targets for FY March 2019

		(Self-assessment ke	ey 🔿 : Ao	ccomplished, $ riangle$ : Nearly accomplished, $ imes$ : No	t accomplished)
Items	FY March 2018 targets	FY March 2018 results	Self- assessment	FY March 2019 targets	ISO 26000 core subjects
Sales and services	Sell products and offer services to provide a value realizing a circle of smiles for keeping on growing through a life with Mazda, which makes you feel you always "want to continue choosing" Mazda.	<ul> <li>Strengthened efforts to increase awareness of customer value among staff on the sales floor, through activities to communicate the value that Mazda offers to society, to enable the staff to offer their smiles to customers.</li> <li>Reinforced measures to impart the value offered by Mazda directly to customers (e.g., by holding a fan event at the Okayama International Circuit).</li> </ul>	0	Sell products and offer services to provide a value realizing a circle of smiles for keeping on growing through a life with Mazda, which makes you feel you always "want to continue choosing" Mazda.	6.7 Consumer issues
Products	Develop next-generation products that further evolve the following attributes of the Mazda brand, in line with the principles of "Sustainable Zoom-Zoom." • Driving pleasure as well as outstanding environmental and safety performance. • Jinba-Ittai (oneness between car and driver) driving performance that appeals to all five senses and increases the driving pleasure each time the driver gets behind the wheel. • Insightful, thoroughly thought-out functionality. • An unrivaled design direction full of raw energy, honed by the precision of Japanese aesthetics.	Evolved the attributes of the Mazda brand in line with the principles of "Sustainable Zoom-Zoom" in CX-8, and introduced the model into the market.	0	Develop products incorporating specific technologies that make "Sustainable Zoom- Zoom 2030" a reality.	6.7 Consumer issues

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# PROVIDING THE MAZDA BRAND EXPERIENCE TO CUSTOMERS

The Mazda Group promotes brand value management. By enhancing its brand value, the Group aims to increase the number of enthusiastic Mazda fans and attain its business growth, thereby consequently enhancing its corporate value. In the Structural Reform Stage 2, a medium-term business plan (see p. 8), the Group sets forth global sales and network enhancement as one of its main initiatives to improve brand value.

With a view to building special bonds with customers in more than 130 countries and regions where Mazda vehicles are sold, Mazda pushes forward with various initiatives in cooperation with local distributors/dealerships to provide customers with a Mazda brand experience in all stages of their car ownership.

# Three Approaches to Establish an Emotional Connection with Customers

To establish an emotional connection with customers, Mazda considers it necessary to take into account all touch points, i.e., not only the period during which customers are in possession of a Mazda vehicle, but also the periods before they purchase the vehicle and after they let go of it. Under this belief, the Company has determined three approaches that sales, marketing, customer services, and other relevant divisions should jointly pursue, based on which the Group companies of each country/region implement specific measures appropriate for their local cultures and environment.

#### Three approaches

- View customers from a lifelong perspective. In childhood, people ride in their family vehicle, and after growing up, they enjoy owning their own vehicle. Then at an advanced age, they return to riding in someone else's vehicle. It is important to have customers continue to feel close to Mazda and Mazda vehicles over all these years.
- Continuously maintain the relationship. Always provide customers with excitement and stimulation so that customers can feel a stronger connection to Mazda as time proceeds.
- Place particular emphasis on Mazda's uniqueness (ex.: strong attachment to Hiroshima, where Mazda Head Office is located, enthusiasm for offering driving pleasure).

# Approach to Developing Products

Mazda develops products that embody the attributes of its brand slogan "Zoom-Zoom" (see p. 3). In line with the principles of "Sustainable Zoom-Zoom," the Company is developing SKYACTIV TECHNOLOGY (see p. 124), which provides all customers who purchase Mazda vehicles with driving pleasure as well as outstanding environmental and safety performance. SKYACTIV TECHNOLOGY was introduced to the market starting in 2011. In August 2017, a decade after the original and in light of the rapid changes taking place in the automotive industry, Mazda announced "Sustainable Zoom-Zoom 2030." This new vision for technology development takes a longer-term perspective and sets out how Mazda will use driving pleasure, the fundamental appeal of the automobile, to help solve issues facing people, the earth and society (see pp. 5-6). To achieve this, Mazda is engaged in research & development aimed at creating the world's best functions with the maximum efficiency.

- To reflect customer's input about products, obtained in the sales area, in subsequent product development
- To improve quality by swiftly dealing with problems with the help of after-sales service area and sharing information with product development

a Every touch point



## Responding to the Diverse Customer Needs

Mazda has been establishing a system to deliver products and services to customers in the most appropriate way taking into consideration the cultures and trends of each country and region. At its R&D centers in Japan, North America, Europe and China, Mazda gathers information about markets and customers around the globe.

Through local testing, Mazda develops products and provides services to suit its customers' wide-ranging needs. To effectively enhance its brand awareness, Mazda focuses on promoting an understanding of the Mazda brand's common visions and the Company's spirit of product development and manufacturing, rather than on awareness of individual models.

#### **Examples to Meet Specific Customer Needs**

<Research and Planning Conducted from a Female Perspective>

To respond to the increasingly diverse needs of female drivers, a team composed of female members from various departments conducts research on the vehicles which are convenient for themselves to use from the female viewpoint.

<Customizing Business (in Japan)>

Believing that the development of vehicles serving people with specific needs is essential to a more open and accessible automotive society, Mazda produces a wide range of vehicle types, as described below.

Vehicles for people with special needs	In 1995, Mazda became the first Japanese automaker to launch a vehicle for people with special needs. It was developed with top priority placed on "ease of use and comfort for both care givers and receivers." The Company has expanded the lineup to four types.
Instructional vehicles	Mazda offers Axela (Mazda3 overseas) instructional vehicles equipped with various unique features. As the first car that trainees drive in their life, it can help them to feel driving pleasure and to acquire correct driving techniques.
Commercial and specially equipped vehicles	Mazda offers a wide commercial vehicle lineup to respond to various business needs. To satisfy highly specialized needs, the Company has developed the TESMA line, adapting the Bongo Van and Titan Truck for use as dry van trucks, refrigerator and freezer trucks, etc.

## Co-Creation of Product Training by Mazda Motor Corporation and Distributor/Dealership Staff

Mazda offers training for sales staff to enable them to provide customers with correct and detailed information on the attractive features of Mazda vehicles. As part of the initiatives to enhance brand value, the training is aimed at globally communicating the ideas and efforts employed in research & development and manufacturing, as well as stories behind the technology, in addition to basic information on functions and equipment.

# Product Information, Display, and Advertising

For product information and display, Mazda not only complies strictly with each law and regulation of each country and region, but also places strong emphasis on safety, human rights, environmental issues, and ethical standards, giving careful attention to information display and expression appropriate for a company that manufactures and sells automobiles. Moreover, Mazda conducts studies on advertising on a periodic basis to check whether information provided to customers is correct and understandable.

Video and animated computer graphics are used to provide customers with easily understandable explanations of products' features and functions.

# Development/Launch of Value-Added Accessories

Mazda develops and provides various accessory parts that satisfy the diverse needs of customers. Mazda also provides items that address environmental issues to make customers' life more comfortable, considering the requests from society. While ensuring compliance with regulations of each country, the Company promotes voluntary switching of maintenance and other accessories to those containing environmentally conscious elements.

- b Lineup for vehicles for people with special needs (as of August 31, 2018)
  - Vehicles with a swivel passenger seat: Vehicle with a powered passenger seat that rotates (Demio)
- Vehicles with a lift-up passenger seat: Vehicles with a powered lift-up passenger seat that elevates and rotates (CX-5)



- Wheelchair-ramp-equipped vehicle:Vehicle with a ramp that enables people in a wheelchair to get in and out while remaining in a wheelchair (Flair Wagon) • Vehicle with hand-operated controls:
- A welfare model that allows the driver to enjoy driving pleasure by only using both hands. (Roadster [MX-5 overseas])
- С Seminar targeted at training staff of distributor/ dealership



#### d Product example

С

d

· High-performance air conditioning filter capable of filtering PM 2.5

Water-based corrosion inhibitor (below)



Safety

f

# Communicating the Mazda Brand and Providing the Brand Experience

Mazda promotes initiatives to provide customers with opportunities to communicate with the Mazda brand and strengthen bonds with Mazda throughout their car ownership.

To convey globally consistent visual impressions, the VI (Visual Identity) Guidelines have been established and shared within the entire Mazda Group.

# New Concept in Sales Outlets "New-Generation Showrooms" e f

Starting in FY March 2015, Mazda has been developing a new concept in sales outlets both in Japan and overseas, which is called New-Generation Showrooms, to allow customers to experience the attractiveness of Mazda and its vehicles. Under the supervision of Mazda's Design Division, the showrooms are built in accordance with guidelines specifying three values to provide<sup>\*1</sup> and four showroom design concepts<sup>\*2</sup>. Interiors and exteriors are designed using colors of black, white and silver, with black-based facility signs<sup>\*3</sup>, and as accents, wood is used to form a comfortable space where dignity, high quality and warmness are well-balanced. In FY March 2016 in Japan, Mazda Brand Space Osaka, a showroom directly run by Mazda, was opened and has attracted many visitors. Mazda is also developing New-Generation Showrooms overseas in collaboration with local sales-related Group companies.

# Information Service for Customers through Websites

Mazda makes efforts to enhance the usability of its website to enable the website visitors to easily obtain the information they need. The website is designed to communicate to many people, not only the facts, but also the underlying principles and philosophy. The website also provides easily understandable information useful for customers at all stages from considering a purchase to the ownership of their vehicles.

At the same time, Mazda uses Facebook, blogs, and Twitter, to enhance interactive communications with its customers. Many opinions and messages of encouragement have been posted in response to the articles on the Company's official Facebook pages.

# Zoom-Zoom, Mazda Brand Magazine

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g

Mazda launched its brand magazine Zoom-Zoom in October 2007, and is regularly distributing it to customers in about 60 countries. The magazine shares driving pleasure that Mazda vehicles bring and explores the exciting lifestyles of Mazda vehicle users.

The magazine is packed with information based on a variety of themes in order to build stronger emotional bonds between Mazda and its customers.

# Promoting Events for Driving Lessons and Motor Sports

Mazda promotes activities that can provide opportunities for many customers to experience "driving pleasure." Various events for multiple needs are offered. Examples of events are: lectures on basic driving positions for safe driving, lessons to learn advanced techniques useful in daily driving, races in which everyone from beginners to advanced drivers can participate, and professional races for drivers seeking to acquire higher skills.

e [Japan] Mazda Brand Space Osaka



[United States] New-Generation Showroom



g [Japan] CX-8 digital owner's manual



h Zoom-Zoom Magazine (2018 summer issue)



- \*1 Shop designed with sense of exhilaration and Mazda uniqueness, new vehicle showroom that highlights the attractive features of Mazda vehicles, and shop layout that can help strengthen bonds with people.
- \*2 Dignified presence, power to attract people, showing vehicle as attractive and beautiful, with comfortable furniture

furniture \*3 Mazda brand symbol and showroom name that are used at each showroom

Safety

Environment

Respect for People

#### TOPICS Mazda Fan Festa 2017 in OKAYAMA, One of Mazda's Largest International Fan Events

In December 2017, the Mazda Fan Festa 2017 in OKAYAMA, one of Mazda's largest international fan events, was held at the Okayama International Circuit (organizer: Okayama International Circuit, main administrator: B-Sports Corporation). The two-day event attracted around 6,800 people, reaching a record high. The Festa was highlighted by experience-based programs for introducing the Company's activities to customers through dialogue with Mazda engineers. They delivered a lecture on jinba ittai (oneness between car and driver) driving performance and offered customers the chance to test-drive Mazda vehicles. Participants also enjoyed a hands-on manufacturing experience.



Social

Contributions

#### TOPICS [Japan] Mazda Fan Endurance

Customer

Satisfaction

Mazda sponsors the Mazda Fan Endurance, a circuit event held by the Mazda vehicle users. At this race, in which regular vehicles without any special modification for racing can participate, professional driving advisors are stationed to frankly answer to participants' questions regarding safety and driving. The race inhibits gas fueling during the race, and the race hour is set to reflect consideration to fuel economy.

By sponsoring this race, Mazda demonstrates its consideration to safety and the environment, while providing customers with driving pleasure, with the aim of establishing special bonds with customers.





#### **EMPLOYEE'S VOICE**

# Creating the Ultimate Mazda Experience through a collaborative approach in the Mazda Group

I am the Chief Marketing Officer at Mazda North American Operations(MNAO). Mazda is at a very exciting inflection point in the United States and are changing our approach in how we engage with our fans and provide them with the Ultimate Mazda Experience. That means connecting with fans to make them feel appreciated and inspired and creating a unique customer experience at every touch point.

We have learned that many of the challenges we face in the United States are similar to the challenges faced by different regions around the world. I am really focused on bringing a more collaborative approach to how we work. When all the Mazda teams are working together we will all have the best results.

(Left) **Dino Bernacchi** Chief Marketing Officer, Mazda North American Operations. (MNAO)

Social

# Realizing Customer Services Relied on by Customers for Life

To provide a safer, more secure and comfortable ownership experience and to realize customer services that will be relied on by customers for life, Mazda has established a system to promptly and certainly support customers with its high maintenance skills.

The Company, seeing the period between purchase of a new vehicle and the next purchase as an important and valuable time to deepen the special bonds between Mazda and customers, has been promoting reform of operation sites, not only to simply resolve customer complaints but also to provide customers with services that exceed their expectations.

Through developing and providing service/repair tools and service manuals, establishing parts supply networks, and offering training for service trainers and service staff, Mazda supports dealers in Japan and overseas, aiming at building up systems to enable them to provide close and proper support for customers.

# Providing Tools/Service Manuals

Hoping that customers can use Mazda vehicles more safely and with peace of mind that they can make better use of increasingly multifunctional devices, Mazda distributes digital owner's manuals, which enable customers to easily search and obtain the information they need by using their PC or smart phones. Mazda also promotes the initiatives to ensure a constant high service quality at Mazda Group dealers in Japan and overseas.

Providing information on special tools dedicated to Mazda vehicles and their usage

- Deploying unique malfunction diagnostic devices that are compatible with the sophisticated electronic control systems adopted in a wide range of safety and environmental technologies
- Establishing an Internet-based support system, which enables quick and accurate access to the latest service manuals, as well as efficient search and ordering for parts

# **Developing Service Trainers/Staff**

To develop service professionals with a high level of maintenance skills and customer service skills on a global scale, Mazda operates training centers in Japan and major countries overseas. In each of the areas of ASEAN, Middle East, and Latin America, locally employed instructors are stationed to provide training for trainers of the dealers in the countries within the area, thereby enhancing support for human resources development and service quality improvement in each country.

Mazda has also hosted Service Skills Competitions in Japan and overseas for the purpose of boosting the service skills and motivation of service staff. Through this Competition, the Company aims to show what professionals with excellent maintenance skills and customer service skills should be like and realize the highest level of services from the customers' viewpoint. The best service engineers of each country and region are invited to the world competition, contributing to further raising motivation of service staff members.

Customer Service Skills World Competition

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The 4th Mazda Customer Service Skills World Competition, in which participants competed in terms of maintenance skills and customer service skills (May 2017)

# Communication with Customers and Business Partners

# Responding to Expectations and Opinions of Customers

At distributors/dealerships in each country and region, systems have been established to listen to the opinions and requests of customers, to respond to them honestly, accurately and quickly, and to reflect them in sales and services in cooperation with Mazda Head Office.\*1

The contacts of each market area and FAQ (frequently asked questions)<sup>\*2</sup> are available on the Mazda website for the convenience of customers. To strengthen bonds with customers, Mazda conducts global surveys focusing on "Mazda brand experience," "sales and after-sales services," "ownership cost," product attractiveness," and other specific items. Through these surveys, the Company identifies problems in each market and addresses them in cooperation with local distributors/dealerships. With the indicators to measure customer satisfaction (see p. 27) applied, the PDCA (plan-do-check-act) cycle process has been established.

# Sharing and Recognition of Best Practices at Distributors/Dealerships

To boost the level of sales and CS<sup>\*3</sup> efforts throughout the distributors and dealerships, a system of sharing and awarding best practices, selected based on such viewpoints as achievements in CS activities and remarkable contribution to vehicle sales, has been put in place.

#### Examples of initiatives in Japan

Measures	Frequency	Objective/Contents		
Staff Awards/ Shop Awards	Once a year	To encourage staff self-improvement, meetings are held on a periodic basis to award sales and service staff members according to their degrees of achievement of targets, improvement of technical skills, and contribution to improved vehicle quality. Awards are also given to dealerships that have achieved their targets as a result of all staff's customer-oriented activities, demonstrating excellent teamwork. In particular, best practices from the shops producing outstanding results are shared and commended at the presentation meetings hosted by the Mazda Dealership Association in each region across Japan.		
Walk-Around Contest Once a year		The Walk-Around Contest, a competition of customer-service role- playing, is held with the aim of encouraging sales staff to acquire product knowledge and improve their customer service skills. Since FY March 2015, the national competition for used-car sales has been held concurrently with the competition.		

# i

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Social

FY March 2018 Breakdown of Mazda Call Center Customer Responses by Type (In Japan) (April 2017-March 2018)



testdrove Mazda vehicles are presented on the website (in Japanese only).

http://www2.mazda.co.jp/carlife/voice/

<sup>\*1</sup> Distributor List in each country http://www.mazda.com/en/about/d-list/

<sup>\*2</sup> Inquiries from Japan / FAQ (Japanese only) http://www.mazda.co.jp/inquiry/

<sup>\*3</sup> Customer Satisfaction

Social

Contributions

# Communication with Dealerships

Customer

Satisfaction

Mazda works to provide its all dealerships in Japan and overseas with information on mid- and long-term strategies, products, and services in a timely manner, and also makes proactive efforts to collect information from them.

### Communication Opportunities with Distributors/Dealerships in Japan

	Participants	Frequency	Objective/Contents
Conferences for dealership representatives	Representatives of dealerships and Mazda directors	Once a year	To communicate Mazda policies
Mazda Dealership Association in Japan Executive board of directors meeting	Executive board members and others from Mazda Dealership Association in Japan	Twice a year	Opinions are exchanged concerning sales strategies, product development, used car policies, services, quality concerns, and other topics.
Mazda Dealership Association in Japan Specialized committees	Committee members from Mazda Dealership Association in Japan and Mazda representatives	As needed	

# Communication Opportunities with Overseas Group Companies and Distributors

	Participants	Frequency	Objective/Contents
Product Launch Events	Representatives from major overseas bases of operation, such as the United States, Europe, China and Australia	Indetermined	To share information and exchange opinions globally upon the product launch. In FY March 2018, the event was held in August, with around 60 participants.
Global Brand Events	Representatives from major operation bases, such as the United States, Europe, China, Australia and Japan	3 times a year	Representatives of major regions meet to build common understanding and consensus on brand strategies, and share initiatives. In FY March 2018, a total of 150 representatives participated.
Regional Brand Events	Representatives from major operation bases, such as the United States, Europe, China, ASEAN and Japan	3 to 4 times a year	Discussions are held and opinions are exchanged for each region to determine practical actions for implementing the brand strategies. In FY March 2018, a total of 500 representatives participated.
4A*1 Distributor Events	Representatives from Southeast Asia, Central and South America, Middle East, and Africa regions	Once a year	Discussions covering a wide range of topics including business, marketing, product launches, etc. In FY March 2018, the event was held in November, with around 150 participants.

\*1 Areas except North America, Europe, China, Taiwan and Japan
# QUALITY

Mazda enriches the lives of its customers by providing products and services that reflect steady and uncompromising work.

### CONTENTS

38 Commitment to Quality

### CSR Targets for FY March 2019

		(Self-assessment ke	ey 🔿 : Ac	complished, $ riangle$ : Nearly accomplished, $ imes$ : No	accomplished)
Items	FY March 2018 targets	FY March 2018 results	Self- assessment	FY March 2019 targets	ISO 26000 core subjects
Quality	Establish a quality assurance system that covers production sites in Japan and overseas, ports and dealerships, to globally enable delivery of products of equal quality.	Introduced a vehicle evaluation (MQIC) system, in which quality comparison and improvement can be made using the same standards on a global basis. Completed the introduction of the system at all the production sites (9 sites), thereby making an improvement in quality at factory shipment. The system is being integrated into the logistics processes, which encompass overseas ports in Europe, North America, etc.	0	Establish a quality assurance system that covers production sites in Japan and overseas, ports and dealerships, to globally enable delivery of products of equal quality.	6.7 Consumer issues

## **COMMITMENT TO QUALITY**

### Spirit of Quality Policy

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a Mazda Quality Policy

Under its Corporate Vision, Mazda further advances the efforts it has made and promotes united collaboration among all areas, continuing to enhance Mazda's unique value.

### Approach to Quality Improvement

To deliver customers safety, trust and excitement through automotive lifestyles, Mazda makes Group-wide efforts based on the three principles below:

- 1. Establishing quality for new products
- 2. Achieving quality that exceeds customer expectations
- 3. Cultivating human resources capable of considering and acting toward the happiness of customers

### Vision for Quality Assurance

Vehicle production based on the "100-1=0" belief

1. Establishing consistent quality from planning to production:

"100-1=0" expresses Mazda's strong desire to provide good quality to all customers, under the belief that for an individual customer, his/her vehicle is not one out of 100 vehicles but the only one. Mazda pursues a kind of vehicle production that respects each vehicle as a certain customer's "one-and-only," and aims to achieve "zero defects." Standing firmly on the basic principles and mechanisms of manufacturing, all related departments make consistent efforts to establish quality in all processes, from planning to production.

Initiative for the process to change "100-1=0" to "100+1"

2. Early detection and early solution of market problems

If an unpredictable problem arises in the market, it may result in loss of trust from customers ("100-1=0"). To avoid this, Mazda promotes quality assurance activities for the early detection and early solution of any trouble pointed out by customers.

3. Building special bonds with customers

Mazda aims to build special bonds of ever-lasting trust with its customers by keeping contact with customers in good faith and with a sense of commitment to them ("100-1"  $\Rightarrow$  "100+1").







Quality

b

### Mazda Quality Management System (M-QMS)

To make faithful and unceasing efforts and constantly ensure quality in products, sales and after-sales services that can always satisfy the expectations and trust of customers, Mazda has established the Mazda Quality Management System (M-QMS) based on ISO 9001<sup>\*1</sup>, and has applied it to the series of processes from product design and development to production, sales and after-sales services. In January 2018 Mazda acquired ISO 9001:2015 certification, which was revised in September 2016. At overseas production sites, Mazda also promotes the establishment of systems that encourage local employees of new sites to make self-reliant efforts to improve quality, and encourages them to acquire ISO 9001, thereby promoting the quality improvement of Mazda vehicles, which are produced and sold worldwide.

### 1. Establishing Quality for New Products

To satisfy the diverse needs of customers and offer greater trust, joy and excitement, Mazda is engaged in establishing a consistent quality level to be assured at all stages from planning/ development to the delivery of products to customers.

### **Establishing Stable Quality**

Not only to improve the performance and reliability of products but also to improve the quality of new technologies including the initiatives to address environment issues, Mazda is committed to "process assurance." Process assurance is the approach of ensuring a consistent quality level at all stages from engineering (planning, product development) to manufacturing (purchasing, vehicle production, logistics, after-sales services). Based on the correct understanding of customer needs and expectations, the elements necessary to ensure each function/performance are identified. The Company has established a system to maintain and manage them in every stage from engineering to manufacturing.

Furthermore, to allow customers feel driving pleasure through its products, Mazda identifies the functions and performance that embody "driving pleasure" for each stage from before getting in the car to after starting driving, so as to enhance consistency in establishing quality.

### **Global Quality Assurance**

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To ensure equal quality on a global scale, Mazda has adopted the "global common" concept, under which overseas production sites establish equal quality by employing the same indicators, the same operations, and the same structures as those of the Mazda Head Office. With the aim of achieving and maintaining equal quality into the future, the roles and responsibilities of the Mazda Head Office and overseas production sites have been clarified for management. Mazda continuously organizes collective training for persons in charge of quality control of purchased parts or quality evaluation of finished vehicles to help deepen understanding of their roles and to encourage communication and opinion exchange through formulating a human resources development plan and other activities.

#### Acquisition of ISO 9000 series b

- 1994: Acquired ISO 9002\*1 (first Japanese automaker) Apply to: Vehicles produced at Hiroshima Plant and Hofu Plant
- 1996: Acquired ISO 9001 Apply to: Engineering, product development, manufacturing and after-sales service
- 2001: Expanded the ISO 9001 application range Apply to: Accessories, KD, product planning, design, specially equipped vehicles (TESMA), etc. 2001: AAT\*2 acquired ISO 9001
- 2007: CMA\*3 and CFME\*4 acquired TS16949 (ISO 9001 sector certificate)
- 2015: MMVO<sup>\*5</sup> and MPMT<sup>\*6</sup> acquired ISO 9001
- 2016: MSMR\*7 acquired ISO 9001:2015
- 2018: Hiroshima Plant, Hofu Plant, MMVO and AAT acquired ISO 9001:2015
- \*1 International standard for product and after-sales service quality assurance \*2 AutoAlliance (Thailand) Co., Ltd.
- \*3 Changan Mazda Automobile Co., Ltd.
- \*4 Changan Ford Mazda Engine Co., Ltd.
   \*5 Mazda de Mexico Vehicle Operation
   \*6 Mazda Powertrain Manufacturing (Thailand) Co., Ltd.
- \*7 MAZDA SOLLERS Manufacturing R

### Consistent Process Assurance based on Major Characteristics



#### d Initiative for Global Quality Assurance



\*1 International standard for guality maintenance and assurance

Customer Satisfaction

Quality

Safety

Environment

e

Respect for People

### Management

e Initiatives for Global Human Resources Development



### <Initiatives for Developing Human Resources>

To develop human resources who play the key roles in the "global common" concept, the Mazda Head Office provides back-office support for overseas production sites to encourage their autonomous efforts. Mazda gathers leaders of overseas production sites for collective training in Japan, to monitor the growth of the site leaders and raise their sense of responsibility, as well as to promote quality improvement through encouraging mutual learning between sites.

### TOPICS Collective Training for Quality Improvement on a Global Scale

A training program was held at the Mazda Head Office in August 2017 for leaders in charge of quality management and vehicle assessment at overseas sites. The training program, participated by a total of 14 leaders from the four countries of Thailand, Mexico, China, and the United States, was aimed at helping participants understand the ideal to be pursued and the roles of the leaders of each department and learn how to formulate human resources development plans while exchanging opinions among themselves.

Mazda will continue to offer similar training programs for an expanded range of trainees.

### Enhancing Quality Assurance after Shipment

To ensure that the high quality at factory shipment is maintained until delivery to customers around the world, Mazda has introduced the same quality evaluation indicators for production plants, distribution centers in Japan, overseas ports, dealerships in Japan and overseas distributors and dealers, with the aim of delivering products maintaining high quality to customers around the world under a consistent evaluation system.



### f Consistent evaluation system





### **EMPLOYEE'S VOICE**

### Conducting quality assurance activities in unity with suppliers

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I am in charge of quality assurance of China-produced parts for shipment to Japan. In line with the dramatic development of the Chinese auto industry in recent years, the types and number of parts shipped from China have been increasing, and the number of suppliers doing business with Mazda for the first time has been increasing. As a result of our efforts to hold careful dialogue with new suppliers, they have come to understand the vision and approach of Mazda's quality management, enabling us to promote quality assurance activities in unity with the suppliers. We will continue to work together with our suppliers, taking advantage of our location and language ability, so as to be able to continue shipment of high-quality parts from China.

Liu Dengjie

Supplier Quality Department China Engineering Support Center, Mazda Motor (China) Co., Ltd. Safety

### 2. Achieving Quality that Exceeds Customer Expectations

To satisfy customer needs, Mazda makes constant efforts to gather market/quality-related information both in Japan and overseas, while sincerely listening to customer voices, and to take speedy actions to improve the quality of present and future products.

### Speedy and Comprehensive Quality Improvement

g h

Mazda makes Group-wide efforts to ensure stable and speedy quality improvement by comprehensive gathering and management of the voices of customers from around the world.

All relevant divisions at the Head Office, such as those in the customer services, product development, and manufacturing areas, share all items of quality information gathered from customers, dealerships in Japan and distributors overseas, and the management team monitors the daily progress, so as to expedite stable quality improvement.

### Responding to Customer's Complaints and Expectations

To faithfully respond to customers' expectations and complaints, regarding such matters as what additional functions Mazda vehicles should have and in what ways Mazda vehicles are less user-friendly, Mazda proactively gathers voices of expectations and complaints annually from over 220,000 customers worldwide by employing the results of surveys by outside survey institutions and conducting its own market research. Based on the principle of early detection and early solution, all related divisions, including product development, production, quality assurance and customer services, make united efforts to improve or solve quality problems in response to the gathered customer voices. Mazda takes advantage of various opportunities, such as motor shows and fan events, to have its engineers engage in direct talks with customers on new functions and safety performance of Mazda vehicles so as to communicate their passion about Mazda vehicles that cannot be fully expressed in written materials, hoping to help improve the car ownership experience of customers. The customer voices obtained through such communication are also reflected in the development of new model vehicles, with the aim of delivering to customers products that exceed their expectations.

### <Examples of Surveys/Analyses>

- Gathering customer voices through Mazda-unique market survey
- Market surveys conducted by third parties
- Questionnaire surveys Mazda has developed
- Analysis of customer voices on social media
- Centralized management of global quality information
- Enhancing information to support dealerships to ensure repair completion at one time

### Corporate Activities with Highest Priority on Customer Safety and Comfort

Mazda prioritizes safety and comfort of vehicles above all. Under a strict quality assurance system, Mazda conducts inspections on conformity with laws and regulations of each country and on functions to be used by customers, with a view to manufacturing vehicles that customers feel safe using. This quality assurance system is maintained and managed by the development,

production and quality divisions auditing each other from independent standpoints.

### Recall Procedures (Overview)\*1

- Registration with authorities in each jurisdiction, according to the laws and regulations of each country and region
- Disclosure to customers via direct mail, telephone, and other methods, and explanations at dealerships
- Disclosure of information on recalls on the Mazda Official Website

### g Expediting Quality Improvement

Social

Contributions



### h Real-time information gathering



\*1 Recall procedures may vary among countries/regions.

Quality Satisfaction

Safety

i

### 3. Cultivating Human Resources Capable of Thinking and Acting for the Happiness of Customers

To encourage every employee to think about what they should do to please customers and to act accordingly, Mazda places emphasis on cultivating a customeroriented corporate culture/mind. Specifically, the entire Mazda Group is committed to promoting quality awareness-raising activities, quality control education, and QC (Quality Control) circle activities.

### <Major Activities>

### **Quality Awareness-Raising Activities**

Customer

Quality meetings with the consequent aim of enhancing brand value are held on a regular basis. The meetings encourage all employees to obtain new findings through discussions and to improve their quality awareness and quality of action. At the meetings in FY March 2018, practices by employees who seriously addressed the issues that are directly connected with customer's peace of mind and safety, such as improving the quality of customer service at shops, customer troubleshooting by call center, and prevention of occurrence and recurrence of quality problems, were shared. Each employee reviewed the relationship between his/her work and customers, as well as its meaning and value, discussed how they should change their awareness and behavior to achieve their ideal state, and shared the results with the aim of reflecting them in their work. Ì

### **Quality Control Education**

For the purpose of developing human resources capable of proactively finding/solving problems from a customer viewpoint and working for continuous improvement, quality control education is provided for employees. Quality education courses are k offered by internal instructors for each job type or management level.

### Mazda QC (Quality Control) Circle Activities

Mazda promotes QC circle activities to encourage members of each workplace to find and solve problems by themselves. QC circle activities, which have been implemented for over 50 years as key activities for the company, have evolved into global activities, being conducted not only inside Mazda but also at its suppliers and dealerships. The All Mazda QC Circle Competition held every year at the Mazda Head Office is now participated by QC circles of overseas sites, such as those in China, Thailand, and Mexico. The QC circle, which received an award as an excellent circle at this Competition, won the Gold Prize, the highest award, in the All Japan QC Circle Grand Competition for the second consecutive year, demonstrating its high reputation outside the Company.

### **Test-Ride for Employees**

To enable Mazda employees to explain Mazda's products and communicate the concept of Mazda's monotsukuri, or product development and manufacturing, with their own words to Mazda's stakeholders, Mazda offers a training program for employees, designed to help them deepen their understanding of the Mazda brand through actually experiencing the products. Through mainly test-rides, participants of this program are expected to deepen their understanding of not only the characteristics of each product, but also the spirit and philosophy common in all Mazda products. This program is implemented at operation sites in Japan, such as the Head Office (Hiroshima) and Hofu, as well as at overseas sites, such as the site in Mexico.

### 4. Results of Quality Improvement Initiatives

Mazda's initiatives to improve quality have been highly praised worldwide.

### FY March 2018 Results (April 2017 – March 2018)

Country	Name of the Study	Vehicle Type and Rankings	Name of Company
US	2017 Initial Quality Study (IQS)*1	MX-5 (Roadster): 2nd	J.D. Power
US	Reliability/Road Test by Consumer Report	"Recommend" acquired for 4 models Mazda3 (Axela), Mazda6 (Atenza), CX-3, CX-5	Consumer Reports
Japan	2017 Automotive Performance Execution And Layout (APEAL) <sup>*2</sup>	CX-5: 1st, Demio (Mazda2): 1st	J.D. Power
China	2017 Initial Quality Study (IQS)*3	Changan-Mazda: Mass Market Brand 3rd, Mazda Atenza: 3rd	J.D. Power
China	2017 Automotive Performance Execution And Layout (APEAL)*4	FAW-Mazda: Mass Market Brand 1st, Mazda Atenza: 2nd	J.D. Power
Thailand	2017 Initial Quality Study (IQS)*5	CX-3: 2nd, Mazda3 (Axela): 3rd	J.D. Power

\* Details of the studies for other countries by J.D. Power and J.D. Power Asia Pacific are available at the J.D. Power global website (http://www.jdpower.com/)

i. Discussion at workplace



Social

Contributions

### Group-wide Quality Education Courses

	Course	Objective (for FY March 2018)
1	Quality program for freshmen	To understand the basic concepts (customer-oriented attitude, continuous improvement efforts) that are crucial in doing their assigned jobs
2	Problem-solving story course	To understand the concept, processes and basic techniques of problem solving
3	Quality management elementary course	To apply the concepts, processes, and basic techniques of problem- solving to daily operations, thereby obtaining problem-solving abilities.
4	Quality management intermediate course	To become capable of applying and practically implementing specialized quality management techniques
5	Quality Improvement Seminar for Assistant Managers	To understand and implement the approach to realizing the ideal.

All Japan QC Circle Grand Competition k Gold Prize-winning circle



- 1 The J.D Power 2017 US Initial Quality Study (IQS) is based on responses from more than 70,000 purchasers and lessees of new cars.
- The study was fielded between February and May 2017. \*2 The I.D. Power 2017 Japan Automotive Performance Execution And Layout (APEAL) is based on responses from around 23,000 purchasers of new cars
- The study was fielded between May and June 2017. \*3 The J.D Power 2017 China Initial Quality Study (IQS) is based on responses from around 24,000 purchasers of new cars.
- The study was fielded between March and July 2017. 4 The J.D. Power 2017 China Automotive Performance Execution And Layout (APEAL) is based on responses from around 24,000 purchasers of new cars
- The study was fielded between March and July 2017. \*5 The J.D. Power Asia Pacific 2017 Thailand Initial Quality Study (IQS) is based on responses from around 5,000 purchasers of new cars.

, The study was fielded between May and September 2017.

Social

Contributions

# Report to MLIT on the Measurement of Fuel Economy and Emissions in Final Inspections

Quality

In response to a request from Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT), the Mazda Group conducted an investigation into its sample testing of fuel economy and emissions during final vehicle inspections. Although the investigation found no improper alteration or falsification of test data, there were instances in which data was handled inappropriately.

Specifically, test results were judged valid despite vehicle speed having deviated more than the permitted amount from the speed trace pattern prescribed by the JC08 test cycle (a condition known as a speed trace error). Mazda reported the findings of the investigation to MLIT and made the results public at a press conference held on August 9, 2018. There were two causes for the above issue. First, the system was not set up to automatically invalidate the test results when a speed trace error occurred. Second, test procedures left the determination of speed trace errors up to each individual inspector.

To make the inspection system more robust and prevent similar occurrences in the future, Mazda will update the system to automatically treat test results as invalid in the event of a speed trace error. Until those updates can be implemented, the Company has put in place a regime in which multiple employees double-check inspection data. It should be noted that all test data was re-examined and the results show that the inappropriate handling of test data had no effect on specification fuel economy or emission figures. Mazda is taking this matter very seriously and will make every effort to regain the trust of its customers. Reference) News Release dated on August 9, 2018

http://www2.mazda.com/en/publicity/release/2018/201808/180809a.pdf

### Report to MLIT on the Measurement of Fuel Economy and Emissions in Final Inspections

HIROSHIMA, Japan – Mazda Motor Corporation has submitted a report to Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT) on the results of an investigation into its sample testing of fuel economy and emissions during final vehicle inspections. The investigation was conducted in response to a request from MLIT (No. 674) issued to automakers on July 9 after the discovery of fraudulent testing practices at other companies.

### Key findings of the report

The investigation covered JC08 and WLTC testing modes and confirmed the following. (1) No improper alteration or falsification of test data in either mode.

(2) Test data containing speed trace errors\* was handled inappropriately in 72 cases out of 1,472 vehicles tested under the JC08 mode. All test data has been re-examined and the results show there was no effect on specification fuel economy and emission figures. No such cases were found in WLTC mode testing.

There are two causes for (2) above. First, the system was not set up to automatically invalidate results when a speed trace error occurred. Second, test procedures left the determination of speed trace errors up to each individual inspector.

### Measures to prevent reoccurrence

We have decided to take the following steps.

- Update the system to automatically treat test results as invalid in the event of a speed trace error.
- Have multiple employees check inspection data, including speed trace errors.

We would like to offer our sincere apologies for the concern this matter has caused to our customers and to all our stakeholders. We are treating the matter very seriously and will make every effort to prevent similar occurrences in the future.

 $\ast$  A situation in which vehicle speed deviates more than the permitted amount from the speed trace pattern prescribed by the test mode

# **SAFETY**

Mazda is promoting safety initiatives, aiming to achieve a safe and accident-free automotive society from the three viewpoints of vehicles, people, and roads and infrastructure.

### CONTENTS

45 Safety Initiatives

### CSR Targets for FY March 2019

 $(\mathsf{Self}\text{-}\mathsf{assessment}\ \mathsf{key}\ \bigcirc:\mathsf{Accomplished},\bigtriangleup:\mathsf{Nearly}\ \mathsf{accomplished},\times:\mathsf{Not}\ \mathsf{accomplished})$ 

Items	FY March 2018 targets	FY March 2018 results	Self- assessment	FY March 2019 targets	ISO 26000 core subjects
Safety	<ul> <li>① Further evolve, and expand the introduction of, i-ACTIVSENSE, which is a series of advanced safety technologies developed in line with Mazda Proactive Safety, the Company's safety philosophy.</li> <li>②Obtain high ratings in the new car assessment programs (NCAPs) of respective countries.</li> </ul>	<ul> <li>① Expanded the introduction of i-ACTIVSENSE in the Japanese market. For all the vehicle types and models, excluding the Roadster (MX-5 overseas), the technologies that qualify for the "Wide" Suppocar S (Safety Support Car S) category were applied as standard equipment. Specifically, six technologies qualifying for the "Wide" Suppocar S category were made standard equipment for all the vehicle types and models other than the Roadster (MX-5 overseas). Other i-ACTIVSENSE features that have become standard are Blind Spot Monitoring (BSM), which supports drivers in confirming safety when changing lanes, and Rear Cross Traffic Alert (RCTA), which helps drivers confirm safety when backing out of a parking space or garage.</li> <li>② Obtained the highest ratings in the new car assessment programs (NCAPs) of each country as follows: - J-NCAP collision safety performance evaluations: CX-5 and CX-8 obtained "5%," the highest rating.</li> <li>J-NCAP Advanced Safety Vehicle (ASV) Technology Assessment: CX-5 and CX-8 obtained "5%," the highest rating.</li> <li>Euro-NCAP safety performance evaluations: CX-5 obtained "5%," the highest rating.</li> <li>US-NCAP collision safety performance evaluations: CX-5 obtained "5%," the highest rating.</li> </ul>	0	<ul> <li>Further evolve, and expand the introduction of, i-ACTIVSENSE, which is a series of advanced safety technologies developed in line with Mazda Proactive Safety, the Company's safety philosophy.</li> <li>Obtain high ratings in the new car assessment programs (NCAPs) of respective countries.</li> </ul>	6.7 Consumer issues

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# SAFETY INITIATIVES

Customer

Satisfaction

### Mazda's Basic Approach to Safety

Aiming to achieve a safe and accident-free automotive society, Mazda promotes safety initiatives from the three viewpoints of vehicles, people, and roads and infrastructure. In March 2007, Mazda announced its long-term vision for the technology development: "Sustainable Zoom-Zoom." The basic policy of the vision is to "provide all customers who purchase Mazda vehicles with driving pleasure as well as outstanding environmental and safety performance."

In August 2017, a decade after the original and in light of the rapid changes taking place in the automotive industry, Mazda announced "Sustainable Zoom-Zoom 2030." This new vision for technology development takes a longer-term perspective and sets out how Mazda will use driving pleasure, the fundamental appeal of the automobile, to help solve issues facing people, the earth and society (see pp. 5-6). Mazda believes its mission is to bring about a beautiful earth and to enrich people's lives as well as society. The company will continue to seek ways to inspire people through the value found in cars. In the realm of society, which encompasses safety, "Sustainable Zoom-Zoom 2030" demonstrates Mazda's determination to leverage cars and a society that provide safety and peace of mind, to create a system that enriches people's lives by offering unrestricted mobility to people everywhere.

### Initiatives in Vehicles

Mazda will address the issue of traffic safety, which requires a multi-faceted, balanced, and comprehensive approach, by providing all its customers with excellent safety performance, through vehicle engineering, the field in which Mazda can take the initiative. While continuing to keep abreast of the latest safety advancements, Mazda works on technology development with the belief that technologies will demonstrate their true value only when their use becomes widespread.

### Mazda Proactive Safety: Mazda's Safety Philosophy

Mazda's safety philosophy, which guides the research and development of safety technologies, is based on understanding, respecting and trusting the driver.

To drive safely it is essential to recognize potential hazards, exercise good judgment and operate the vehicle in an appropriate fashion. Mazda aims to support these essential functions so that drivers can drive safely and with peace of mind, despite changing driving conditions.

Since drivers are human beings, and human beings are fallible, Mazda offers a range of technologies which help to prevent or reduce the damage resulting from an accident.





Social

Contributions



Customer Satisfaction

Qua

Safety

Management

By providing a good driving environment and excellent handling stability to support the drivers' safer driving, Mazda aims to maximize the range of ordinary driving conditions in which the driver can concentrate on driving without anxiety or stress. If the risk of an accident increases, the sensing functions on the vehicle provide hazard alerts to help the driver avoid danger, thereby supporting safer driving. Moreover, understanding that human nature means that mistakes cannot be totally eliminated, Mazda offers safety functions on its vehicles that help prevent such human errors as much as possible, and if an error occurs, help prevent an accident or reduce the resulting damage.

While implementing measures appropriate for each accident risk so as to reduce the risk as soon as possible, Mazda places the highest focus on improving ordinary driving conditions to remove possible causes of an accident rather than on a "what if"-based approach (preparing for possible results).

Through providing these safety technologies based on a respect and understanding of human nature, Mazda supports safer and secure driving.

# Continuously Evolving Basic Safety Technologies as Standard for All Vehicles

Aiming to achieve a safe and accident-free automotive society, Mazda promotes continuous evolution of basic safety technologies, such as the ideal driving position and pedal layout, excellent visibility, and active driving display, and will install these in all vehicles as standard.

### **Ideal Driving Position**

In the new-generation models<sup>\*1</sup>, the major driving operation devices, including the pedals and the steering wheel, which are interface between man and vehicle, are located in an ideal position for a driver to operate them with ease and without fatigue. Pursuing the Ideal Joint Angle for Comfortable Driving b The driving position is designed based on the theory of the "comfortable joint-link angle," the joint angle at which the driver of any physical type can exert strength quickly and properly. One such example is Demio/Mazda2 equipped with a telescopic steering wheel<sup>\*2</sup> as standard equipment, which is a rare case in the segment of compact car.

### Ideal Pedal Layout

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The front wheels were repositioned farther forward and pedal shapes and spacing were optimized to realize a pedal layout that enables the driver to extend their leg and reach them more naturally. This helps enable finer pedal control and smooth foot transfer to the brake pedal. It is an ideal pedal layout that allows comfortable operation, even on long drives, and contributes to error-free operation, even when braking in an emergency.

### **Organ-Type Accelerator Pedal**

With an organ-type accelerator pedal, the driver's heel is placed on the floor, and the driver's foot and the pedal follows the same trajectory. This makes accelerator pedal control easier because the heel position is stabilized. The accelerator pedal is positioned where the driver's foot naturally rests while sitting in the seat. This reduces both driving fatigue and the chances of the driver stepping on the wrong pedal when reacting quickly. **b** Image of comfortable joint-link angle



Comfortable layout enabling easy operation



d Organ-style accelerator pedal



\*1 The new products that have incorporated Mazda's innovative base technology SKYACTIV TECHNOLOGY and Mazda's new design theme "KODO-Soul of Motion" Applied models (as of March 31, 2018): Demio/Mazda2, Axela/Mazda3, Atenza/Mazda6, CX-3, CX-4, CX-5, CX-8, CX-9, Roadster/ MX-5

<sup>\*2</sup> A mechanism to move the steering wheel back and forth.

Customer Satisfaction

Safety

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### **Excellent Visibility**

In the new-generation models<sup>\*1</sup>, Mazda considers it important to secure good visibility to help the driver prevent accidents by supporting his/her ability to predict and avoid his/her surroundings, such as road environment, other vehicles, obstacles, and pedestrians including children. The A-pillar is positioned about 100 mm rearward from its position in the previous model to expand the visible angle from the front seat by 1.8 degrees to both the right and the left. Moreover, to expand the vision through the door mirror so as to improve the visibility of pedestrians and obstacles, door mirrors are installed on the outer door board in a lower position. Visibility for children is specially cared.

### "HMI Concepts" to Minimize Causes of Careless Driving

Human Machine Interface (HMI) refers to the equipment and mechanisms to facilitate transmission of various information between the driver and the vehicle. Mazda's HMI helps drivers to maintain a stable driving position and concentrate on driving safely, even while dealing with a variety of information. The thoroughly human-centered cockpit design enables the driver to concentrate during driving and minimizes the three factors that cause careless driving: inattentive looking, inattentive thinking, operation in an unstable position. Mazda has adopted this cockpit design in the new-generation models<sup>\*1</sup> since 2013. f

### Concept: Heads-Up Cockpit

In designing the cockpit, Mazda places importance on ensuring that various information communication functions are used safely and comfortably. Aiming at helping the driver concentrate on driving safely in a correct posture while dealing with many kinds of information, this HMI concept has achieved minimum visual distraction and posture change.

1. Reducing cognitive distraction

Driving information is displayed directly in front of the driver to minimize the distance their eyes must travel. To minimize cognitive distraction, the layout separates information essential for driving from other types.

2. Reducing visual distraction

The center display has been moved as high as possible, without blocking the driver's view. The Company has developed an Active Driving Display that projects driving information on the windshield within the driver's effective field of view.

3. Reducing manual distraction

In addition to working as a touchscreen, the center display can be controlled safely by a commander control designed to be operated entirely by feel.

### i-ACTIVSENSE Advanced Safety Technologies<sup>\*2</sup>

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Mazda is committed to continuous evolution of i-ACTIVSENSE advanced safety technologies, to deliver safer, more reliable cars to a greater number of customers, from beginners to elderly drivers. Mazda's i-ACTIVSENSE is an umbrella term covering a series of advanced safety technologies, developed in line with Mazda Proactive Safety. They include active safety technologies that support safer driving by helping the driver to recognize potential hazards, and pre-crash safety technologies which help to avert collisions or reduce their severity in situations where they cannot be avoided. The Company has completed application of six technologies, including the collision damage reduction brake (Advanced Smart City Brake Support), for all the seven major models sold in Japan, as standard equipment. Under the new vehicle safety concept "Safety Support Car S (Suppocar S)" promoted by the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism, these models qualify for the "Wide" Suppocar S category (as of August 2018).





Social

Contributions

Pillar/door mirror with minimum blind spots



Heads-Up Cockpit



Technologies made standard equipment g on the seven major models sold in Japan (For details, see p. 48.)

AT Acceleration Control

- Lane Departure Warning System (LDWS)\*
- · Adaptive LED Headlights (ALH)\* or High Beam Control (HBC)\* (either according to the grade)
- Blind Spot Monitoring (BSM)
- Rear Cross-Traffic Alert (RCTA)
- \* Technologies to be equipped to qualify for the "Wide" Suppocar S category
- \*1 The new products that have incorporated Mazda's innovative base technology SKYACTIV TECHNOLOGY and Mazda's new design theme "KODO-Soul of Motion" Applied models (as of March 31, 2018): Demio/Mazda2 Axela / Mazda3, Atenza/Mazda6, CX-3, CX-4, CX-5, CX-8, CX-9, and Roadster/MX-5 \*2 i-ACTIVSENSE technologies are designed to reduce damage
- and/or injuries resulting from accidents. However each system has its limitations, and no safety system or combination of such systems can prevent all accidents. These systems are not a replacement for safe and attentive driving. Please drive carefully at all times and do not rely on technology to preven an accident.

Advanced Smart City Break Support (A-SCBS)\*

<sup>\*3</sup> Applied models: Demio/Mazda2, Axela/Mazda3, Atenza/ Mazda6, CX-3, CX-5, CX-8, and Roadster/MX-5

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Customer Satisfaction

Quality

Safety

Environment

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Social

Contributions

### i-ACTIVSENSE technologies

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	Abbreviation	Name	Effective when	Function
		360-degree View Monitor	Driving	Projects on the center display images of the vehicle's top view, as well as front, rear, and right/left views, by using the four separate cameras installed on all sides of the vehicle.
	BSM	Blind Spot Monitoring	Driving (changing lanes)	Alerts the driver to the presence of vehicles in the blind spot with an icon in the wing mirror. If the driver indicates to change lanes, the icon flashes and a warning beep sounds.
	RCTA	Rear Cross Traffic Alert	Reversing	Alerts the driver with an icon in the wing mirror and a warning beep if it detects vehicles approaching from either side while backing out of a parking space or garage.
	DAA	Driver Attention Alert	Driving	Monitors the vehicle's behavior and recommends a rest stop if signs of driver fatigue or reduced concentration are detected.
	TSR	Traffic Sign Recognition System	Driving	Automatically detects speed limits and indicates speed limit in the Active Driving Display.
	AFS	Adaptive Front- Lighting	Driving at night	Turns the headlights automatically to illuminate in the direction the driver is steering.
ı Support	НВС	High-Beam Control	Driving at night	Detects oncoming traffic and vehicles in front, automatically switching between high beam and low beam settings.
gnitior	ALH	Adaptive LED Headlights		
izard Reco		Glare-free High Beam	Driving at night	Detects oncoming traffic and vehicles in front, automatically controlling the area illuminated by the high beams to maintain maximum visibility.
На		Wide Light- Distribution Low Beam	Driving at night	Illuminates areas on either side of the vehicle that conventional low-beams cannot reach.
		Highway Mode	Driving at night	Raises the axis of lighting when travelling at highway speeds, making it easier to see road signs and obstacles as early as possible.
	FOW	Forward Obstruction Warning	Driving	Detects vehicles in front and warns the driver with a visual display and alarm if there is a risk of collision.
	LDWS	Lane Departure Warning System k	Driving	Warns the driver with a sound (or vibrating steering wheel) and a visual display if the vehicle starts to stray from its lane.
	LAS	Lane-Keep Assist System		
		Lane Departure- Averting Assist	Driving	Provides steering assistance to return the vehicle toward the center of the lane if the driver starts to stray from the lane.
		Line Trace	Driving	Provides steering assistance to help keep the vehicle centered in the lane.
port	SBS	Smart Brake Support	Driving	With a millimeter-wave radar that detects distant objects, works at a higher speed to automatically apply the brakes when there is a risk of frontal collision. This helps to avoid collisions or reduce the severity if one does occur.
duction Sup	SCBS F	Smart City Brake Support	Driving	Works at lower speeds to automatically apply the brakes when there is a risk of frontal collision. This helps to avoid frontal collisions or reduce the severity if one does occur.
Damage Re	Advanced SCBS	Advanced Smart City Brake Support m	Driving	Works at lower speeds to automatically apply the brakes when there is a risk of frontal collision. This helps to avoid frontal collisions or reduce the severity if one does occur.
oidance /	-	AT Acceleration Control	Driving slowly Accelerating	Warns the driver with an alarm and visual display and curbs engine power if the accelerator pedal is pressed excessively while there is an obstacle in front of the car.
ollision Av	SCBS R	Smart City Brake Support	Reversing	Automatically applies the brake to stop or slow the vehicle when there is a risk of collision with an obstacle behind.
Ŭ	-	AT Acceleration Control	Driving slowly (in reverse) Accelerating (in reverse)	Warns the driver with an alarm and visual display and curbs engine power if the accelerator pedal is pressed excessively while there is an obstacle behind the car.
upport	MRCC	Mazda Radar Cruise Control	Driving	Measures the distance to the car ahead and controls speed to maintain a safer following distance.
Driving 5	MRCC	Mazda Radar Cruise Control with Stop & Go function	Driving	Measures the distance to the car ahead and maintains a safer following distance. Now features stop & go functionality

 $\neg$ Approaching vehicle detection area I approx, 50 m De ion rang Approaching vehicle detection area 0 RCTA DAA of 65 km/h or higher k LDWS (when a ramble strips sound is selected) 1: right speaker ırm: left speaker \* When the lane change is accompanied by turn signal operation or acceleration, the system recognizes the maneuver as intentional and does not sound an unnecessary alarm. SBS Collision damage reduction brake Approaching vehicle in front Camera and millimeter-wave radar biects Alert Œ

Getting closer to vehicle in front Collision damage reduction brake 1

m Advanced SCBS



Advanced safety technology "i-ACTIVSENSE" reference website http://www.mazda.com/en/innovation/technology/safety/i-activsense/ Quali

Safety

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### The Mazda Co-Pilot Concept: Human-Centered Autonomous Driving

The Mazda Co-Pilot Concept is Mazda's development concept for human-centered self-driving technology. Based on this concept, people enjoy driving and are revitalized mentally and physically through the process. Meanwhile, the car knows all the movements of the driver and the car is driving "virtually" in the background at all times. If the unexpected occurs, such as the driver suddenly losing consciousness, the car takes control to help prevent endangering vehicle occupants and passersby. It also automatically contacts emergency services and drives safely to an appropriate location.

The Company aims to make the Mazda Co-Pilot Concept, which uses autonomous driving technologies to allow drivers to enjoy any drive with peace of mind, standard by 2025.

### n Autonomous Driving Technologies as Standard Equipment

Social

Contributions

Mazda Co-Pilot Concept, employing autonomous driving technologies 2020: Start demonstration test

By 2025: Apply as standard equipment





### **EMPLOYEE'S VOICE**

### Forging ahead with research to offer safer and more reliable vehicles that make customers feel driving pleasure

I have been working on research into technologies for the early detection of drivers' abnormal conditions, including a sudden change in their physical condition during driving. I attempt to develop technologies that can be applied to all vehicles, for example, ones for detecting drivers' abnormal conditions without using a special sensor, but based on their driving behaviors. Through collaborative research with doctors, we have developed models of drivers' behaviors in both normal and abnormal conditions, and so we are in the process of embodying these technologies. I remain committed to research activities to realize the Mazda Co-Pilot Concept for human-centered, autonomous driving technologies, thereby providing customers with safer and more reliable cars that make them feel driving pleasure.

Junichiro Kuwahara Technical Research Center Safety

### Technologies to Mitigate Injuries in an Accident

Passive safety technologies help mitigate injuries to the driver and passengers if an accident should occur. Mazda does not simply comply with the laws of each country and region and NCAP test, but also conducts tests\*1 for various types of potential collisions that might occur on the road, and has made steady progress in developing passive technologies to better protect passengers and drivers. Major passive safety technologies are as follows:

### SKYACTIV-BODY :

Mazda has developed SKYACTIV-BODY, a new-generation body structure with lightness and high rigidity, by revisiting the basic principles and reviewing every element of the structure, production method and materials.

### **Multi-Load Path Structure**

Disperses the impact of a crash in multiple directions throughout the framework instead of absorbing it at specific portions.

### **Bumper Beams**

The front and rear bumper beams adopt 1,800 MPa ultra-high tensile steel with the world's highest level of rigidity among mass production vehicles.

### **Cross-Shaped Front Frame**

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Based on the characteristic of the crash energy transferred mainly along the ridge lines of an object, the front tip of the front frame was molded into a cross shape, so as to increase ridge lines to twelve from four in a conventional square section. This helps the shock to disperse more widely, improving the energy absorption efficiency.

### Pedestrian protection:

Mazda uses various methods to reduce injury to pedestrians in the event of a collision.

### **Impact-Absorbing Bonnet**

To mitigate the impact and reduce injury if a pedestrian's head hits the bonnet (hood), an energy-absorbing space is created beneath the bonnet. An energyabsorbing structure is adopted in various parts, including the bonnet hinge.

### **Impact-Absorbing Bumpers**

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Energy absorbing materials are used in the front part of the vehicle which hits pedestrians' knees to mitigate the severity of pedestrian knee injuries, which may seriously affect their ability to walk. Also, stiffening reinforcement is placed at the bottom of the bumper to better prevent a pedestrian's leg from going under the vehicle.

### **Active Bonnet**

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At certain vehicle speeds, when sensors detect an impact exceeding a defined level, the rear end of the bonnet is raised. This creates a space between the bonnet and the engine which acts to absorb the energy of impact and reduces the severity of head injuries in collisions involving pedestrians. This design has been adopted since July 2012, for sport cars, such as Roadster/MX-5, whose bonnet is set in a low position.

Website on Technologies to Mitigate Injuries in an Accident http://www.mazda.com/en/innovation/technology/safety/passive\_safety/

SKYACTIV-BODY (Mazda6)



Social

Cross shape-molded front frame



### **q** Impact-Absorbing Hood and Bumpers







\*1 Collision test and evaluation, rollover test, roof strength test, etc

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### External Evaluations for Mazda's Safety Technologies

Mazda has earned high evaluations for its safety technologies.

### Third Party Safety Evaluations

### . . . . .

Ratin	Rating by vehicle model (As of August 31, 2018)								
		CX-5	Atenza/ Mazda6	Axela/ Mazda3	Demio/ Mazda2	Roadster/ MX-5	CX-3	CX-9	CX-8
	J-NCAP <sup>*1</sup> (Collision Safety Performance Tests)	5-Star (2017- 2018)	5-Star (2013- 2014)	5-Star (2014- 2015)	5-Star (2014- 2015)	*6	5-Star (2015- 2016)	_*5	5-Star (2017- 2018)
Japan	J-NCAP <sup>*1</sup> (Advanced Safety Vehicle (ASV) Technology Assessment)	ASV++ (2017)	ASV+ (2014)	ASV++ (2016)	ASV+ (2014)	*6	ASV+ (2015)	*5	ASV++ (2017)
115	US- NCAP*2	5-Star (2018 MY)	5-Star (2018 MY)	5-Star (2018 MY)	*5	*6	5-Star (2018 MY)	5-Star (2018 MY)	*5
US	IIHS*3	18TSP+	18TSP	18TSP	*5	*6	18TSP	18TSP	*5
Europe	Euro- NCAP*4	5-Star (2017)	5-Star (2013)	5-Star (2013)	4-Star (2015)	4-Star (2015)	4-Star (2015)	_*5	_*5

### Change in rating in the last three years<sup>\*7</sup>

0 0 0			/	
		2016	2017	2018
Japan J-NCAP*1	5-Star	4	5	6
(Collision Safety Performance Tests)	4-Star	0	0	0
US	5-Star	3	3	5
US-NCAP*2	4-Star	0	1	0
Europe	5-Star	3	3	3
Euro-NCAP*4	CAP*4 4-Star 3 3	3		

\*1 Japan New Car Assessment Tests: Vehicle collision safety performance evaluations conducted by the National Agency for Automotive Safety and Victims' Aid. For collision safety performance, 5-Star is the highest possible rating. For Advanced Safety Vehicle (ASV) Technology Assessment, ASV++ is the highest possible rating (From 2016).

\*2 National Highway Traffic Safety Administration's 5-Star Safety Ratings program. 5-Star is the highest possible rating \*3 Insurance Institute for Highway Safety: Safety performance evaluations by an independent, nonprofit organization funded

by auto insurers. Top Safety Pick + (Plus) is the highest possible rating. \*4 European New Car Assessment Programme: An independent agency comprised of the transport authorities of European

countries, etc. 5-Star is the highest possible rating

\*5 Not introduced as of August 31, 2018.

\*6 Not evaluated.

\*7 As of the end of August 2018. New-generation models were the target of evaluation.

### **Initiatives with People**

It is said that most traffic accidents are caused directly or indirectly by human behavior. Mazda endeavors to raise safety awareness among adults and children through various means of communication.

### **Raising Traffic Safety Awareness**

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In cooperation with local municipalities and organizations, Mazda and its Group companies in Japan and overseas conduct various activities to raise safety awareness. The Company hosts safety-related exhibitions at the Mazda Museum in the Hiroshima Head Office, the "Kids' Quiz on Traffic Safety" website for children, and other projects. In April 2018, Mazda held a program for experiencing the collision damage reduction brake as part of the Sustainable "Zoom-Zoom" Forum 2018 at the Mazda R&D Center Yokohama (MRY). The Company also organized other various events to promote understanding of Mazda's safety technologies.\*1

### Safe Driving Demonstration

Starting from FY March 2015, Mazda has held the Mazda Driving Academy, an experience and training program to help customers in Japan learn the theories and techniques to control their cars easily, comfortably and safely. A variety of curriculums tailored to the needs and level of the customers are offered, from basic driver training of drive, turn, and stop, to the exciting experience of driving on a racing circuit, with the aim of improving their driving skills and raising the awareness of safe driving. In FY March 2018, the Mazda Driving Academy was held 11 times.

Vehicle on display at the result announcement session of the Japan New Car Assessment Program (J-NCAP) in FY March 2018

The CX-8 earned the highest ranking in Collision Safety Performance Tests, and Advanced Safety Vehicle (ASV) Technology Assessment among all the vehicles that had undergone the evaluations.



Mazda Kids' Quiz on Traffic Safety website for children (Japanese Only) http://www2.mazda.com/ja/about/ kids/safetyquiz/



u Collision damage reduction brake experience program held at Sustainable "Zoom-Zoom" Forum 2018



\*1 Refer to the following URL for social contribution activities regarding safety communications by the Mazda Group: http://www.mazda.com/en/csr/social/)

Safety

### Initiatives with Roads and Infrastructure

### Initiatives toward Realizing a Safe Automotive Society with ITS\*1

Traffic accidents and congestion are serious social problems in many countries and cities. To solve these problems, worldwide efforts have been taken to introduce advanced technologies for roads and automobiles. As an automobile manufacturer, Mazda has been proactively supporting the ITS project driven by the government and private sector, and working collaboratively with the national and local governments and related companies in order to realize a society where the road traffic is safe and accident-free.

### Technology to Notify the Driver of Unseen Dangers

Mazda is promoting research and development of ITS as a means to monitor the objects in a distant position that cannot be detected by Mazda's advanced technology i-ACTIVSENSE or the areas in an intersection that cannot be seen from the driver.

### ITS Projects Mazda Participates

Project	Description	Organizer
Smart Way	Research and preparation of next-generation road systems using ITS technology, linking people, vehicles, and roads by means of information, mainly for expressways and toll roads	Road Bureau, Ministry of Land, Infrastructure, Transport and Tourism
DSSS (Driving Safety Support Systems)	Research and development of driving safety support systems utilizing road- vehicle communication, in which signals are transmitted between vehicles and the road infrastructure, as well as systems to enable smooth traffic flow	National Police Agence UTMS <sup>*1</sup>
ASV (Advanced Safety Vehicle)	Research and development to realize a system to assist safer driving utilizing cutting-edge technologies, including communication-based driving safety support systems. In 1991, the project's first phase was launched, and currently discussions are under way as to the sixth phase	Road Transport Bureau Ministry of Land, Infrastructure, Transport and Tourism
ITS Connect*2	The ITS Connect Promotion Consortium promotes practical application and widespread use of a driving support system combining automobile-related technology with new ITS communication technology. The consortium aims to achieve a safe anxiety-free transportation society, by studying the fundamental technology for the driving support system (ITS Connect), which utilizes ITS-dedicated frequency band, and carrying out operation support.	ITS Connect Promotic Consortium

\*1 UTMS Society of Japan

\*2 Website of ITS Connect Promotion Consortium (https://www.itsconnect-pc.org/en/)

### Advanced Safety Vehicle "Mazda Atenza ASV-5"

Mazda has participated in the ASV<sup>\*2</sup> research and development project since its first phase. In the fifth phase, the Company developed Mazda Atenza ASV-5 which is equipped with the communication technology-based driving safety support system. The vehicle is designed to eliminate blind-spots and supports hazard recognition in 360-degrees through a combination of vehicle-to-vehicle, street-to-vehicle and pedestrian-to-vehicle communication technologies and on-board autonomous sensors. The intuitive HMI displays hazards surrounding the driver in all directions including blind spots, and does not interfere with the operation of the vehicle. When the driver fails to recognize a hazard, and a risk of collision arises, the HMI warns the driver to brake.

### Demonstration test for Streetcar-to-Vehicle Communication ASV

In October 2013, in Hiroshima City where about 150,000 people use streetcars each day, the world's first demonstration test<sup>\*3</sup> for the streetcar-to-vehicle communication + autonomous safety technology<sup>\*4</sup> was conducted jointly by the University of Tokyo, Hiroshima Electric Railway, and National Traffic Safety and Environment Laboratory, and Mazda Motor Corporation. The findings on the test are as follows:

- Effective in preventing collisions in situations such as when a vehicle turns right or enters the streetcar's path in order to pass a stopped vehicle.
- Effective in preventing accidents by coordinating with a smartphone application for the early detection of pedestrians who are in positions difficult for the driver to see.

V Demonstration Tests on Public Roads





#### Reference website:

V

http://www.mazda.com/en/innovation/ technology/safety/its/

- and reducing the number of accidents throughout Japan 2 ASV: Advanced Safety Vehicle 3 As of September 2017, according to Mazda data.
- 4 The test was conducted as one of the post-congress tour events for the ITS World Conference Tokyo 2013

<sup>\*1</sup> ITS: Intelligent transport system uses telecommunications technology to bring together vehicles, people, and the traffic environment, with the aim of easing traffic congestion and reducing the number of acridents throughout lanan

Mazda CSR	Customer Satisfaction	Quality	Safety	Environment	Respect for People	Social Contributions	Management

### Mazda's Safety Initiatives and Primary Safety Technologies

For more details, visit Mazda website: SAFETY TECHNOLOGY : http://www.mazda.com/en/innovation/technology/safety/

	Accident reduct	ion	Injury reduction
Category	Basic safety (Maximizing the range of conditions in which the driver can drive safely and comfortably)	Preventive safety (Mitigation of risk/damage from an accident)	Collision safety (Minimizing injuries in accidents)
Vehicles	Offers the ideal driving position = Ideal pedal layout = Organ-type accelerator pedal Supports both safety and Driving Pleasure = SKYACTIV-CHASSIS: A newly developed front strut and rear multilink suspension system; a lightweight cross member with high rigidity = Active Driving Display = A-pillar/door mirror for improved front field vision = Power Windows with Injury Prevention Function Helps to avoid danger = Brake Assist and EBS = 4-Wheel Antilock Braking System (4W-ABS) = Dynamic Stability Control (DSC) = Brake Override System (BOS)	Alerts drivers to potential danger Blind Spot Monitoring (BSM)/ Rear Vehicle Monitoring (RVM) Rear Cross Traffic Alert (RCTA) Lane Departure Warning System (LDWS) Lane-Keep Assist System (LAS) Front Obstruction Warning (FOW) Traffic Sign Recognition System (TSR) 360 Degree View Monitor Emergency Signal System (ESS) Driver Attention Alert (DAA) Minimizes damage in an accident [When moving forward] Smart Brake Support (SBS) Advanced SCBS) Smart City Brake Support F (SCBS-F) AT Acceleration Control [When reversing] Smart City Brake Support R (SCBS-R) AT Acceleration Control [When reversing] Smart City Brake Support R (SCBS-R) AT Acceleration Control Supports both safety and Driving Pleasure Mazda Radar Cruise Control (with Stop & Go function) (MRCC) Adaptive Front Lighting System (AFS) High Beam Control (HBC) Adaptive LED Headlight (ALH)	<ul> <li>Helps to protect drivers/passengers in accidents</li> <li>SKYACTIV-BODY</li> <li>Straightened basic frame and continuous framework, multi-load path structure, cross-shaped front frame ultrahigh-tensile steel bumper frame</li> <li>SRS Airbag System (Driver's seat, front passenger's seat, curtain and front-side airbags)</li> <li>Soft Interior to Absorb Impacts</li> <li>Front Seats Designed to Reduce Impacts to the Neck / Rear Seats that Resist against Luggage Flying Forward</li> <li>Pre-Tensioners and Load-Limiter Seatbelts</li> <li>Collapsible Brake Pedal</li> <li>ISO-FIX-Compliant Child Seat</li> <li>Anchoring point</li> <li>Impact-Absorbing Steering Column</li> <li>Minimizes damage in an accident with pedestrians</li> <li>Impact-Absorbing Hood</li> <li>Active Hood</li> </ul>
People	Safety Education		
	■ Safety-related exhibitions at the Mazda Museum ■ Traff	ic safety awareness quiz website for children	Presentation of safety technologies at various events
Decide on t	Initiatives for a Safe society		
Infrastructure	<ul> <li>Intelligent Transport Systems (ITS)</li> <li>Sr</li> <li>Development of Advanced Safety Vehicles (ASVs)</li> <li>Ref</li> </ul>	nart Traffic Flow Control II pad-Vehicle Communication ITS (DSRC) V	IS Spot services Vorld's first demonstration tests*1 for the streetcar-to- rehicle communication ASV in Hiroshima

\*1 As of March 2018, according to Mazda data.

# **ENVIRONMENT**

Mazda views environmental protection as an urgent issue for humanity, and the highest priority issue facing automakers. The Company is making efforts to reduce environmental impact throughout the entire product life cycle.

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### CSR Targets for FY March 2019

0		(Self-assessment	(Self-assessment key $\bigcirc$ : Accomplished, $\triangle$ : Nearly accomplished, ×: Not				
Items	FY March 2018 targets	FY March 2018 results	Self- assessment	FY March 2019 targets	ISO 26000 core subjects		
Energy-and- global- warming- related issues							
Promoting resource recycling	(See Mazda Green Plan 2020) (see pp. 57-60)						
Cleaner emissions							
Environmental management							

Social

# BASIC APPROACH ON ENVIRONMENTAL PROTECTION

### The Mazda Global Environmental Charter

### **Environmental Principles**

The Mazda Group aims to promote environmental protection and contribute to a better society while maintaining harmony with nature in its business activities worldwide.

- $\boldsymbol{\cdot}$  We will contribute to society by creating environmentally friendly technologies and products.
- We will use the Earth's resources and energy sparingly and never overlook environmental considerations when conducting our business.
- · We will do our part to improve the environment by working with local communities and society.

### **Action Guidelines**

1. Creation of Environmentally Sound Technologies and Products

We are committed to the task of creating clean technologies, including methods to achieve cleaner exhaust emissions and reductions in CO2 emissions, and the development of clean-energy vehicles. We will promote the creation of products that are environmentally friendly from

planning and development to manufacturing, use and recycling/disposal.

2. Corporate Activities in Consideration of Conserving **Resources and Energy** 

We will actively promote resource-saving and recycling activities to conserve the Earth's limited resources. We will strive to diversify energy sources and use them efficiently.

We will promote the appropriate disposal and recycling of end-of-life vehicles.

- 3. Corporate Activities in Pursuit of a Cleaner Environment We will comply with environmental laws and regulations, and will also impose voluntary controls for higher standards and implement self-regulated controls We will promote the development of new technologies and the introduction of new systems in our pursuit of a cleaner environment.
- 4. Working with Business Partners to Create a Better Environment We will actively provide our employees with education and information about environmental protection to enhance their awareness of the global environment. We will work in close cooperation with each other to achieve better environmental protection.
- 5. Creating a Better Environment in Cooperation with Local **Communities and Society** We will work actively to understand and appreciate society's requirements for the

environment and reflect them in our business activities. We will disclose and publicize environment-related technologies, systems and information. We will not only conduct our own environmental activities, but will also actively participate in social activities for the conservation of the environment.

(Established in 1992; revised in April 2005)

a Philosophy and Policies for Environmental Initiatives

Corporate Vision

### Mazda's Approach to the Environment

Environmental problems, including global warming, are issues of critical importance for the human race. Mazda actively adopts initiatives to promote a low-carbon, recyclingoriented society in harmony with nature, in cooperation with local governments, industrial organizations, and non-profit organizations. These efforts are reflected in all of Mazda's corporate activities with the aim of achieving a sustainable society.

### Philosophy and Policies

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Mazda carries out its corporate activities with the aim of fulfilling its corporate vision (see p. 3). To this end, Mazda established the Mazda Global Environmental Charter as the basic policy for environmental matters in the Mazda Group. The Charter, which states "The Mazda Group aims to promote environmental protection and contributes to a better society while maintaining harmony with nature in its business activities worldwide," along with the five Action Guidelines from the basis of Mazda's approach to the environment. The Company carries out corporate activities related to products and technologies; manufacturing, logistics, and office operations; social contributions, respectively in consideration of the environment. Specific targets and results are laid out in the Mazda Green Plan, the Company's environmental mid-term plan. By using the PDCA (plan-do-check-act) cycle when executing activities and following up on their results, Mazda can effectively reduce impact on the environment. In FY March 2018, Mazda executed various efforts in each area based on the Mazda Green Plan 2020, and was able to achieve most of its goals (see pp. 57-60).

### Mazda Environmental Promotion Framework

Mazda has established three committees under the CSR Management Strategy Committee, chaired by the president of the Company, to promote environmental management throughout the Group. These are the Product Environment Committee, the Business Site Environment Committee, and the Social Contribution Committee. Each committee sets targets, and monitors results and progress, under the "Mazda Green Plan 2020" mid-term environmental plan.



Group companies in Japan and overseas

Customer Satisfaction

Safety

Respect for People Social

Contributions

### Mazda's Vision for Society's Relationship with Vehicles in the Future

Quality

Mazda is aware that the greatest challenge in curbing global warming is reducing CO<sub>2</sub> emissions, which is the major cause of this problem. The Intergovernmental Panel on Climate Change (IPCC) reported that global greenhouse gas emissions must be reduced by 40-70 percent as compared to 2010 levels by the year 2050 in order to limit the temperature increase to 2°C above pre-industrial levels. Also, the 2015 United Nations Climate Change Conference (COP 21) adopted the Paris Agreement. Against this backdrop, the world has been moving toward a decarbonized society. The realization of such a society requires major innovations, which will bring about changes in society and lifestyles. Mazda knows it must take these changes into account in its future operations.

### Around 2030: A society that aims for decarbonization, resource recycling, and coexistence in harmony with nature

Mazda predicts that around 2030 the world will see the evolution of energy and its related technologies in order to meet the unique characteristics of each country and region, as well as the steady introduction of low-carbon technology for all product life-cycle processes, including production, consumption by users, and disposal. Working toward decarbonization, energy structures will shift to be primarily based on renewable energy sources (including solar power, wind power, and biofuels and other renewable liquid fuels) and non-CO<sub>2</sub>-emitting hydrogen. In addition, the establishment of a smart grid,<sup>\*1</sup> whose main power supply comprises distributed energy<sup>\*2</sup> resources, is projected to build up an electric supply and demand structure characterized by the local consumption of locally produced power that is suitable for the respective regional environment.

Mazda also forecasts progress in various initiatives to realize a recycling-oriented society that coexists in harmony with nature from the perspective of natural capital. This will be achieved through using resources without any losses, establishing circulation systems including those based on the three Rs (reduce, reuse, and recycle) for water, plastic, and other resources, and activities to contribute to biodiversity conservation. It is also expected that household use of solar power generation units and energy-saving housing will become increasingly commonplace, while plants and offices will succeed in both reducing their environmental impact and improving energy efficiency thanks to artificial intelligence (AI) and the Internet of Things (IoT).

\*1 A power transmission network that can optimize the flow of power with a function to adjust the flow of power from both the supply and demand sides. \*2 Energy supplied from relatively small-scale power generation facilities and heat source equipment that have been installed near the relevant energy-consuming areas. Distributed energy generation has the advantage of reduced transmission loss and the ability to function as an emergency power source. In addition, it is considered to be effective in promoting widespread use of renewable energies and revitalizing focal industries.

### **Trends Regarding Vehicles**

Around 2030, as indicated by the IEA,<sup>\*3</sup> while the number of vehicles powered by electricity or hydrogen will increase, vehicles featuring internal combustion engines incorporating electrification technologies, <sup>\*4</sup> highly efficient transmissions, and reduced body weight will account for a significant proportion of total vehicles. Vehicles equipped with internal combustion engines are projected to further improve in terms of efficiency, electrification technologies, and widespread and effective use of diversified fuels, such as natural gas and biomass, that emit less CO<sub>2</sub>. Electric vehicles will be selected more often as the optimal form of mobility in regions where electricity can be generated with renewable energy or other cleaner sources. These factors will accelerate the trend toward lower carbon emissions. To substantially reduce CO<sub>2</sub> emissions throughout the entire vehicle lifecycle (on a Well-to-Wheel basis), a multi-solution approach that is tailored to each region is necessary in response to diversifying needs around the world, including regional needs, vehicle characteristics, fuel performance and characteristics, and power generation mixes. Additionally, as autonomous driving becomes prevalent in regions with advanced connectivity technologies and infrastructure innovations, unnecessary acceleration and deceleration and the stopping and starting of vehicles will decrease, which will lead to a reduced environmental impact. A significant reduction in energy and resource losses over the entire vehicle manufacturing supply chain may be expected as a result of efforts for their more efficient use. Dramatic progress will also be made in recycling and waste reduction initiatives through the promotion of the three Rs.

\*3 International Energy Agency (see p. 65) \*4 Idling-stop systems, regenerative braking, hybrid systems, plug-in hybrid systems, etc.

### Around 2050: A sustainable society that sees advancements in efforts toward decarbonization, resource recycling, and coexistence in harmony with nature

Around 2050, a decarbonized energy structure will have been realized. A new system is expected to emerge that will make the boundary between power supply and consumption seamless by combining a system for renewable energy-based electricity supply and storage (including energy accumulation in the form of hydrogen) with a supply and demand structure capable of local consumption of locally produced electricity using a smart grid. In addition, humankind will see significant progress toward the realization of a sustainable society, along with advances in activities to create a resource recycling-oriented society and achieve coexistence in harmony with nature.

It will also become necessary to address new social problems. These problems include a high aging rate, a decline in the working-age population, rural depopulation due to concentration of the population in large cities, and increased stress caused by weakening real-world relationships.

### **Trends Regarding Vehicles**

Around 2050, as a result of technological innovations, methods of reducing  $CO_2$  emissions from vehicles will be further diversified in accordance with the characteristics of each region and country, facilitating significant progress toward decarbonization. Vehicles powered by electricity and hydrogen will become ubiquitous, along with an increasing rate of low-carbon electricity generation in each country as part of the distributed energy resources that comprise smart grids. Internal combustion engine-equipped vehicles running on renewable liquid fuels (including biofuels) will also find widespread use. Moreover, the great evolution of autonomous driving technology using vehicle and connectivity expertise will expand the commercial use of fully-autonomous driving technology as a means of supplementing the labor force in public transportation and logistics services. This will be instrumental not only in improving environmental performance, thereby significantly reducing  $CO_2$  emissions. In addition, throughout the entire vehicle manufacturing supply chain, resource recycling will be realized through conversion to decarbonized energies and the establishment of recycling technologies.

Mazda believes that the above-stated innovations will be able to create a sustainable future in which people and cars coexist with a bountiful, beautiful earth, a future that offers safety and peace of mind and enriches lives by offering unrestricted mobility to people everywhere.

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# MAZDA GREEN PLAN 2020 MID-TERM ENVIRONMENTAL PLAN

### Mazda Green Plan 2020 Mid-Term Environmental Plan

Based on the "Philosophy and Policies" for environmental initiatives, being premised on "Mazda's Vision of a Future Society and Its Relationship with Vehicles", the plan is developed, centering on the following three main perspectives.

### I. Themes to Be Resolved in the Future

Mazda considers the following as issues that both customers and society expect automakers to make positive contributions toward:

- 1. Energy- and Global-Warming-Related Issues
- Undertaking measures to reduce CO<sub>2</sub> emissions over the entire life cycle of a vehicle. 2. Promoting Resource Recycling
- Reducing waste from vehicles, the vehicle manufacturing and shipping processes, and disposal of end-of-life vehicles, as well as actively promoting the comprehensive recycling of resources.
- 3. Cleaner Emissions

Reducing various emissions/waste (aside from  $CO_2$ ) from vehicles and manufacturing processes, especially emissions with highly adverse environmental impacts.

4. Environmental Management

Develop environmental management throughout the entire Group and supply chain.

- II. Mazda's Initiatives (two categories)
  - a. Vehicles and vehicle technology
    - Contributing to a reduced environmental impact through products and technology.

Manufacturing, Logistics, Office Operations, Social Contributions, etc.
 Contributing to a reduced environmental impact through all activities (excluding those related to products and technology)

### III. Consideration of the Entire Vehicle Life Cycle

Mazda is making efforts to reduce environmental impact throughout the entire product life cycle. Around 75% of  $CO_2$  emissions occur over the period from customer use to disposal – an overwhelming percentage of overall emissions (see p. 58).

- Manufacturing and logistics (materials manufacturing, and vehicle manufacturing): accounts for around 25%
- Product use and disposal (use by customer, maintenance, disposal and recycling): accounts for around 75%

### Approaches and Targets in Each Area for 2020

To execute the Mazda Green Plan 2020, three committees set the following approaches and targets to promote each effort.

### Products and technologies: Product Environment Committee

Mazda provides all customers who purchase Mazda vehicles with driving pleasure as well as outstanding environmental and safety performance.

Manufacturing, logistics, and office operations: Business Site Environment Committee Mazda contributes toward realizing a lowcarbon society through achieving even greater gains in operating efficiency by introducing low-CO<sub>2</sub>-emission production technologies and unwavering actions for constant improvement in the entire Mazda Group in Japan. Social contributions (environmental area): Social Contribution Committee Based on the three pillars of Mazda's social contribution activities regarding the environment and safety performance, human resources development and community contributions, and a group-wide, global perspective, Mazda commits to disclosure and raising public awareness of environmental issues through its main business as an automobile maker. The Company also focuses on collaboration with regional communities, including volunteer activities.



Social

Contributions



Respect for People

### Life Cycle Assessment (LCA)

Mazda adopts LCA, a method for calculating and evaluating the environmental influence of products across its entire life cycle of vehicles through the purchasing of materials, manufacturing, use of products, recycling and final disposal, in order to actively reduce environmental impacts. Since 2009, the Company has confirmed the benefits of its clean-energy vehicles and newly introduced vehicles with internal combustion engines.

LCA is conducted in compliance with international standards (ISO 14040, ISO 14044), in an objective and highly reliable manner.

Mazda will continue to steadily implement LCA for new technologies related to environmental performance, thereby promoting the development and introduction of vehicles with reduced environmental burdens.

LCA for the CX-5 (Japanese model)



 Calculated assuming a vehicle lifetime running distance of 110,000 km (13 years) and running under certain conditions.
 Results of evaluations are shown as an index. Figures for CO<sub>2</sub> refer to metric tons; all other figures refer to amounts in kilograms. Indices are shown separately. The CO<sub>2</sub> graph is based on an index of 1 for the CO<sub>2</sub> emission (weight) of the previous model, while all other graphs are based on an index of 1 for the SOx emission (weight) of the previous model.

NOx: Nitrogen Oxides NMHC: Non Methane Hydrocarbon PM: Particulate Matter SOx: Sulfur Oxides

Mazda CSR	Custon Satisfac	ner Quality tion	Safety En	vironment	Respect for People		Social Contributions	Management
Targets and A	ctions in the N	1azda Green Plan 2020 Mid-	Term Environmental Plan	(Self-assessment key ○:/	Accomplished, △	∖ :Near	ly accomplished, × : Not	accomplished)
Category	ltem	Targets and actions by 2020	FY	March 2018		Self-	FY March 20	19
Category	nem	algets and actions by 2020	Targets and actions	Results		assessment	Targets and ac	tions
1. Energy- and	d Global-Warr	ning-Related Issues						
	①Respond to fuel economy standards in each country/ region.	Introduce technology to raise fuel economy, to respond fully to the fuel economy standards of each country/region.	Meet fully the fuel economy/ greenhouse gas standards of each country/region.	<ul> <li>Achieved fuel economy/ emission standards in Japan, Ranked first for the fifth co Manufacturer Adjusted Fuel U.S. Environmental Protecti Duty Fuel Economy Trends R payment of penalties is so failure to achieve greenhou (CO2 emissions regulations)'</li> <li>*(The Company expected regulations at the plannin model mix changed with sa models exceeding estimates</li> </ul>	greenhouse gas , U.S., and China. nsecutive year in 1 Economy in the on Agency's Light teport. In Europe, cheduled due to use gas standards to comply with ng stage but the ales of larger SUV .)		•Meet fully the fue greenhouse gas stanc country/region. (For Europe, because t has shifted toward large Company expects to es target and payment o scheduled in line with emission regulations.)	l economy/ lards of each he model mix r vehicles, the ceed its initial f penalties is European CO <sub>2</sub>
a. Vehicles and vehicle technology	②Improve fuel economy using SKYACTIV TECHNOLOGY.	Raise the average fuel economy of the Mazda vehicles sold worldwide by 30% by 2015 and by 50% by 2020 compared with 2008 levels.	Achieve the fuel economy target for 2020.     Promote SKYACTIV TECHNOLOGY steadily.     Promote development and implementation of technologies based on the Building-Block Strategy.	Promoted SKYACTIV T steadily, and also promote and implementation of based on the Building-Blo	ECHNOLOGY ed development f technologies ock Strategy.	0	Achieve the fuel econo 2020.     Promote SKYACTIV TE- steadily.     Promote development implementation of techn on the Building-Block St	omy target for CHNOLOGY and nologies based rategy.
			Continue the sales of vehicles with hybrid system.	Continued the sales of Ax	kela Hybrid	0	Continue the sales of v hybrid system.	ehicles with a
	③Promote development of nextgeneration vehicles using biofuels, electrical	Promote the development of electric motor drive technologies.	Promote the development of electric motor drive technologies based on the analysis results of Demio EV's traveling data.	Examined solutions to pr to driving range, etc. wi Demio EV's traveling data feedback.	roblems related th reference to a and customer	0	Continue to promote the of electric motor drive based on the results Demio EV's traveling dat	e development technologies of analysis of a.
	power, hydrogen, etc.	Promote development of technologies supporting alternative fuels such as biofuels, synthetic fuels, and hydrogen.	Promote development of technologies supporting alternative fuels, such as biofuels, synthetic fuels, and hydrogen.	Promoted development o supporting alternative fue biofuels, synthetic fuels, a	of technologies els, such as Ind hydrogen.	0	Promote development of supporting alternative biofuels, synthetic fuels,	of technologies fuels such as and hydrogen.
b. Manufacturing, logistics, office operations,	④ Reduce CO <sub>2</sub> emissions from factories and offices.*	Reduce CO <sub>2</sub> emissions from all Mazda Group factories and offices in Japan by 28% or more compared with 1990 levels.	Reduce CO <sub>2</sub> emissions from all Mazda Group factories and offices in Japan by 43% compared with 1990 levels.	Reduced CO <sub>2</sub> emissions fr Group factories and office 44% compared with 1990	rom all Mazda es in Japan by ) levels.	0	Reduce CO <sub>2</sub> emissions f Group factories and offi 44% compared with 199	rom all Mazda ces in Japan by 00 levels.
social contributions, etc.	⑤Reduce CO2 emissions from logistics.	Reduce CO <sub>2</sub> emissions from all Mazda Group logistics operations in Japan by 50% compared with 1990 levels.	Reduce CO <sub>2</sub> emissions from all Mazda Group logistics operations in Japan by 60% compared with 1990 levels.	Reduced CO2 emissions fi Group logistics operatic 60% compared with 1990	rom all Mazda ons in Japan by Dlevels.	0	Reduce CO2 emissions f Group logistics operatic 60% compared with 199	rom all Mazda ns in Japan by 20 levels.

\* For CO<sub>2</sub> emissions calculations, the CO<sub>2</sub> coefficient based on the standard (Keidanren's Commitment to a Low Carbon Society) of the Japan Business Federation (Nippon Keidanren) are used. (For the calculations of FY March 2018 and after, the coefficient of FY March 2017 is used.)

### 2. Promoting Resource Recycling

		Develop vehicles that are easy to disassemble and recycle.	Promote development of plastic parts, etc. that are easy to disassemble and recycle.	For the CX-8, achieved improved disassembly/recycling efficiency and thermal recyclability, appropriate disposal measures, and expanded use of recycled materials.	0	Promote development for ease of disassembly and recycling.
a. Vehicles and vehicle technology		Promote the use of bioplastics.	Develop and implement bioplastics, and expand adoption.	Expand parts and models adopting paintless bioplastics with high-quality textures, which can also be used for exterior parts.	0	Develop and implement bioplastics, and expand adoption.
		Promote bumper-recycling technology.	Promote collection and recycling of damaged bumpers.	Continued to promote collection and recycling of damaged bumpers. (Collected bumpers: around 63,800)	0	Promote the collection and recycling of damaged bumpers.
	⑦ Reduce waste volumes, promote recycling.	Reduce direct landfill waste to zero across the entire Mazda Group in Japan.	Reduce direct landfill waste across the entire Mazda Group in Japan to 0.5% of total or less.	Reduced direct landfill waste across the entire Mazda Group in Japan to 0.1% of total.	0	Reduce direct landfill waste to zero across the entire Mazda Group in Japan.
b. Manufacturing, logistics,office operations, social contributions,	®Reduce packaging volume used.	Reduce volume of packaging and wrapping across the entire Mazda Group in Japan by 45% compared with 1990 levels.	Reduce volume of packaging and wrapping across the entire Mazda Group in Japan by 59% compared with 1990 levels.	Reduced volume of packaging and wrapping across the entire Mazda Group in Japan by 60% compared with 1990 levels.	0	Reduce volume of packaging and wrapping across the entire Mazda Group in Japan by 60% compared with 1990 levels.
etc.	(9) Reduce volume of water used and promote effective use of water.	Reduce volume of water used across the entire Mazda Group in Japan.     Reduce volume of tap water used by 47% compared with 1990 levels.	Reduce volume of water used across the entire Mazda Group in Japan.     Reduce volume of tap water used by 47% compared with 1990 levels.	<ul> <li>Reduce volume of water used across the entire Mazda Group in Japan.</li> <li>Reduced volume of tap water used by 48% compared with 1990 levels.</li> </ul>	0	Reduce volume of water used across the entire Mazda Group in Japan.     Reduce volume of tap water used by 49% compared with 1990 levels

Mazda CSR	Customer Satisfaction	Quality	Safety	Environment	Respect for People	Social Contributions	Management
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				(Self-assessment key O:Accomplished, 4	∆ :Nea	rly accomplished, × : Not accomplished	
Category	ltem	Targets and actions by 2020	FY M	Aarch 2018 Recults	Self- assessment	FY March 2019	
			largets and actions	Results		largets and actions	
3. Cleaner Em	lissions						
a. Vehicles and vehicle technology	(10) Ensure cleaner vehicle exhaust gas emissions.	Introduce and promote low emission vehicles to improve air quality in each country and region.	Promote the introduction of low emission vehicles that meet the needs of each country and region.	Japan: 98% (vehicle number ratio) of passenger vehicles met the SU-LEV (★★★★) standard. United States: Introduced low-emission vehicles that meet Tier3/LEV2,3 regulations in all product lines. Europe: All product lines met the Euro 6 standards. China: Developed vehicles that meet Euro5 standards or equivalent levels. Other: Introduced low-emission vehicles that meet the needs of each country and region.	0	Promote the introduction of low emission vehicles that meet the needs of each country and region.	
	① Reduce inclusion of substances of	Reduce VOCs in vehicle interiors.	Pass Ministry of Health, Labour and Welfare (MHLW) guidelines for the indoor aerial concentration in all new vehicles.	Passed Ministry of Health, Labour and Welfare (MHLW) guidelines for the indoor aerial concentration with the CX-8.	0	Pass Ministry of Health, Labour and Welfare (MHLW) guidelines for the indoor aerial concentration in all new vehicles.	
	environmental burden in products.	Promote development and adoption of car air-conditioning systems using new refrigerants with low environmental impact.	Promote development and adoption of car air-conditioning systems using new refrigerants with low environmental impact.	Developed a car air-conditioning system using a refrigerant with low environmental impact for adoption in new model vehicles.	0	Promote development and adoption of car air-conditioning systems using new refrigerants with low environmental impact.	
b. Manufacturing, logistics,office operations, social	12 Reduce waste volumes of PRTR substances.	Reduce waste volumes of PRTR substances across the entire Mazda Group in Japan.	Reduce waste volumes of PRTR substances across the entire Mazda Group in Japan.	Increased waste volumes of PRTR substances across the entire Mazda Group in Japan by 1.5% compared with FY March 2017 levels. (Reduced by 2% compared with FY March 2017 in terms of the basic emissions unit.)	Δ	Reduce waste volumes of PRTR substances across the entire Mazda Group in Japan.	
contributions, etc.	(3) Reduce volumes of VOC waste emissions.	Reduce volumes of VOC waste emissions to an average 23 g/m <sup>2</sup> or less across all Mazda lines.	Reduce volumes of VOC waste emissions to an average 22 g/m <sup>2</sup> or less across all Mazda lines.	Reduce volumes of VOC waste emissions to an average 22.0 g/m <sup>2</sup> or less across all Mazda lines.	0	Reduce volumes of VOC waste emissions to an average 22.0 g/m <sup>2</sup> or less across all Mazda lines.	
4. Environme	ntal Managen	nent					
	<sup>(4)</sup> Promote life cycle assessment (LCA).	Expand the implementation of LCA (in Japan).	Steadily implement LCA in vehicles.	Implemented LCA in the CX-8.	0	<ul> <li>Steadily implement LCA for new technologies related to environmental performance.</li> </ul>	
						•To expand use of renewable energy, promote demonstration testing of the combination of renewable energy and reused batteries at business sites.	
a. Vehicles and vehicle technology	(5) Promote an integrated approach to traffic systems.	Improve driving technique and promote activities to raise awareness.	Promote steady introduction and further progress of Intelligent Drive Master (i-DM).	Introduced i-DM in the CX-8 as a standard feature.	0	Aiming to realize smooth traffic flows that will help reduce energy loss due to frequent acceleration/deceleration, promote the development of technologies based on human-centered design (such as control technologies to enable operation of accelerator/brake pedals as intended and SKYACTIVE-Vehicle Architecture technologies to realize smooth driving that makes drivers feel a sense of connectedness to their cars).	
	®Reduce the environmental risk of the Mazda Group in Japan.		Promote environmental protection activities among Mazda Suppliers.	Expand promotion of the Mazda Green Purchasing Guidelines and revise if necessary.	Cascaded the Guidelines to all suppliers, and requested compliance.	0	Expand promotion of the Mazda Green Purchasing Guidelines and revise if necessary.
			Support 100% establishment of EMS among major suppliers.     Support and enhance EMS at secondary suppliers.	<ul> <li>Supported 100% establishment of EMS among major suppliers.</li> <li>Supported and enhanced EMS at secondary suppliers.</li> </ul>	0	Support 100% establishment of EMS among major suppliers.     Support and enhance EMS at secondary suppliers.	
		Promote the establishment and introduction of environmental management systems (EMS).	Promote introduction of EcoAction 21 at all Mazda Group dealerships in Japan, and encourage shops to obtain certification.	Provided follow-up support at all Mazda Group dealerships in Japan, and confirmed that newly opened shops had obtained certification.	0	Provide follow-up support for the continued introduction of EcoAction 21 at all Mazda Group dealerships in Japan, and support newly opened shops in obtaining certification.	
h Manufacturing		Review at aut and th Mazda, at the s	Review the activities carried out at auto parts sales companies and the support necessary from Mazda, in order to ramp up EMS at the sales companies.	Confirmed proper operation of EMS introduced at auto parts sales companies through periodic reports, etc.	0	Review the activities carried out at auto parts sales companies and the support necessary from Mazda, in order to ramp up EMS at the sales companies.	
b. Manufacturing, logistics, office operations, social contributions, etc.	Promote activities to raise awareness of environmental issues.	Actively disseminate environmental information to improve environmental awareness among Mazda and Mazda Group company employees.	Continuously raise awareness inside the Group regarding environmental issues that society faces and measures throughout the entire life cycle of vehicles to reduce environmental impact.	Continuously promoted education for employees at Mazda and its Group companies, implementing "cool-biz," "warm-biz" and "light-down" campaigns and other activities to raise biodiversity awareness.	0	Continuously raise awareness inside and outside of the Group regarding environmental issues that society faces and measures throughout the entire life cycle of vehicles to reduce environmental impacts.	
	Promote environmental protection activities in partnership with regional communities.	Promote environmental protection activities in regional communities by taking part in environmental volunteer activities (including regional cleanups and efforts to preserve biodiversity) and dispatching instructors to regional events and schools to offer environmental education.	Continuously raise awareness of environmental issues and deepen understanding of biodiversity based on the needs of regional communities, preserve forests, and participate in regional cleanups.	<ul> <li>Promoted environmental activities based on the needs of regional communities.</li> <li>Conducted around 30 activities in Japan and abroad, including forest preservation activities, support for protection of endemic species, regional cleanups, and carbon offset.</li> </ul>	0	Continuously raise awareness of environmental issues and deepen understanding of biodiversity based on the needs of regional communities, preserve forests, and participate in regional cleanups.	
	Inform the public about the Mazda Group's environmental protection activities.	Disseminate information about the Mazda Group's environmental protection activities worldwide by hosting and actively participating in environmental events.     Actively disseminate environmental information to improve environmental awareness among Mazda customers.	Continuously disclose information on the Mazda Group's environmental protection activities.	Participated in Eco-Pro 2017 (Dec. 7-9) and other environmental exhibitions.     Disseminated information by holding/ participating in events.     Continuously raise environmental awareness through holding environmental events and dispatching instructors for environmental education.	0	Continue and enhance disclosure of information on the Mazda Group's environmental protection activities and education to raise environmental awareness of customers.	

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### **ENVIRONMENTAL MANAGEMENT**

Mazda is establishing an environmental management system throughout its value chain, including Group companies, suppliers, dealerships, and others.

### Establishing Environmental Management Systems

Mazda is promoting the establishment of environmental management systems (EMS) across its entire supply chain and in all Group companies. The purpose of the EMS is to carry out more environmentally conscious business activities in a more effective manner, based on ISO 14001 and other standards.

### **Progress Status**

- 14 Mazda and Group manufacturing companies in Japan and overseas have now acquired ISO 14001 certification. (Disclosure by 14 out of a total of 15 companies)
- Mazda is expanding ISO 14001 certification scope to all domestic sites following the revision of ISO 14001:2015. The expansion of certification scope and examination of transfer to ISO 14001:2015 were completed in September 2016. Also, the Mazda Group companies that have acquired ISO14001 completed transfer to ISO14001:2015 within FY March 2018.
- Mazda certified dealerships in Japan under EcoAction 21 (EA21)\*1, an environmental management system (as of March 2018, 33 dealerships of the Mazda/Mazda Enfini sales channel, 142 dealerships of the Mazda Autozam sales channel, and Mazda Chuhan, a used car sales company, have been certified), and is progressively certifying newly opened shops.
- Mazda has completed introduction of an exclusive Mazda EMS to two Mazda Group vehicle parts companies in Japan.

### TOPICS Initiatives for Mutual Learning in Business Site Environment Committee

The Business Site Environment Committee sets work groups for energy saving, waste and other themes, where good practices are gathered and shared, and promotes environmental initiatives through mutual learning within the entire Mazda Group.

Best practices shared in the energy-saving working group

Practice at a plant in Mexico (MMVO)

Formed a company-wide environmental committee before starting activities. Each department identified items for energy saving and conducted activities to reduce energy loss.







### **EMPLOYEE'S VOICE**

Practice at a plant in Thailand (AAT)

Sets targets for each year based on the medium-term energy

achieve the targets and monitors their progress every month.

saving plan formulated every five years. Develops initiatives to

### Reducing impact on global environment through concerted efforts by the entire Mazda Group

I am in charge of activities to reduce energy consumption and  $CO_2$  emissions in business activities of the entire Mazda Group. Since the activities must be promoted in close cooperation with overseas production sites, we focus on the enhancement of ties with each site. During FY March 2018, we visited each overseas site and held face-to-face discussions between members in charge to talk about Mazda's ideal to be pursued and the status of activities at the site. This helped deepen our mutual understanding and enhance cooperative relationships. Practices of initiatives at Mazda began to be implemented at some overseas sites. Although there are difficulties due to differences in laws of different countries, the entire Mazda Group will make concerted efforts to keep the Earth rich for subsequent generations.

Akihiro Todani

Production Planning Depertment, Production Engineering Division

### a List of ISO 14001 Certified Production and Business Sites

Social

Contributions

Domestic production/business sites

Hirochima district	Hiroshima Plant	June 2000	
	Miyoshi Plant		
Lief: Diest	Nishinoura district	September 1998	
Holu Plant	Nakanoseki district (extended certification)	September 1999	
Overseas product	ion site		
AutoAlliance (Thailan	May 2000		
	December		

AutoAlliance (Thailand) Co., Ltd.*1	May 2000
Changan Mazda Automobile Co., Ltd.*1	December 2008
Changan Ford Mazda Engine Co., Ltd.*1	February 2009
Mazda de Mexico Vehicle Operation*2	December 2014
Mazda Powertrain Manufacturing (Thailand) Co., Ltd. <sup>*2</sup>	November 2016

\*1 Equity-method group company \*2 Consolidated group company

### Four Domestic Consolidated Group Companies (excluding sales companies)

(	
Mazda E & T Co., Ltd. *3	June 2000
Mazda Ace Co., Ltd. *3	June 2000
Mazda Logistics Co., Ltd. *3	June 2000
Kurashiki Kako CO., LTD.	December 2001

\*3 Some or all of the organizations at each of the companies above acquired ISO 14001 certification in the certification scope of Mazda.

#### Four Domestic Equity-Method Group Companies

1 / 1	
Toyo Advanced Technologies Co., Ltd. *4	June 2000
Japan Climate Systems Corporation	May 2000
Yoshiwa Kogyo Co., Ltd.	April 2002
MCM Energy Service Co., Ltd. *5	June 2008

\*4 The company was ISO 14001 certified in the certification scope of Mazda. As a separate business facility, the company individually acquired the certification in March 2016. As a separate company, however, the company acquired re-certification in April 2017, resulting in the exclusion of the company from the certification scope of Mazda. \*5 Althouev the commany was inside the certification scope of

Although the company was inside the certification scope of Mazda, it acquired the certification on its own in March 2013.

\*1 Simplified EMS established by the Ministry of the Environment, for application at companies of various scales, such as small to medium-sized companies.

For particularly relevant SDGs (sustainable development goals), see p. 21 for details of SDGs.



Practice at the powertrain plant in Thailand (MPMT) All the MPMT employees, having a keen eye on reduction of losses, identified subject items and implemented measures to eliminate the losses. Concluded a contract with an electricity company with low CO2 emissions so as to reduce total CO2 emissions in view of the future.



Social

Contributions

### **Promoting Green Purchasing**

Customer

With the aim of reducing the environmental burden throughout its entire supply chain, Mazda established the "Mazda Green Purchasing Guidelines" (revised in March 2017) and engages in operation activities accordingly. These guidelines require all of its suppliers worldwide to undertake measures to reduce their burden on the environment, at all stages from product development to manufacturing and delivery. The guidelines also make it clear that Mazda will give preference in purchasing to suppliers who implement such environmental measures. Mazda also requires its suppliers of parts, materials, and industrial equipment and tools to obtain and maintain ISO 14001 certification, and to reduce the amount of greenhouse gas emissions generated through their corporate activities by 1% annually. In addition, the Company promotes environmental activities in collaboration with its suppliers by providing them with information and other assistance. Presently, all major suppliers involved in Mazda vehicle development and manufacturing have acquired ISO 14001 certification.

### Status of Establishment of Environmental Management Systems (EMS) at Suppliers

- All major suppliers in Japan and abroad with which the Company has ongoing business relationships (around 400 companies), including new suppliers, have maintained certification as of the end of March 2018.
- Under the Mazda Green Purchasing Guidelines, Mazda requires, through primary suppliers, secondary suppliers to establish EMS.

### Status of Implementation of Environmental Audits

To confirm that environmental management systems, such as ISO14001 and EcoAction 21, are operating effectively, both internal audit and environmental management system audit (EMS audit) are carried out annually at Mazda and all of its Group companies, both in Japan and overseas, that have obtained certification. The FY March 2018 EMS audit revealed no serious compliance issues. The results of the internal audit and EMS audits were reported to senior management. Any problems were swiftly and appropriately rectified.

### **Eliminating Sensory Pollution**

Sensory pollution comprises noise, vibration, and odors that have a sensory or psychological impact on people.

Mazda recognizes that clearing legal regulations may not be enough to prevent noise, vibration, and odors from annoying neighborhood residents. For this reason, Mazda is systematically stepping up measures to alleviate the causes of such pollution, as well as measures to improve noise insulation and odor removal.

#### Specific Initiatives in Environmental Risk Management c d

### **Environmental Monitoring**

- Regular training is conducted at each plant and office to prepare for response in the event of accidents that adversely affect the natural environment.
- Environmental monitoring, including monitoring of air and water pollution, is conducted regularly.

### Legal Violations

In FY March 2018, Mazda received no guidance from government authorities under laws and ordinances.

### Complaints

In FY March 2018, Mazda received complaints concerning seven cases, and is taking appropriate actions to address them in good faith.

### b EMS Audit Results on ISO 14001

### Mazda Motor Corporation

	•				
	FY March 2014	FY March 2015	FY March 2016	FY March 2017	FY March 2018
Serious noncompliance issues	0	0	0	0	0
Minor noncompliance issues	1	2	2	6	1
Observation issues	18	8	16	10	5

### Group Companies

b

		FY Mar	ch 2018
		Japan	Overseas
	Serious noncompliance issues	0	0
ISO14001	Minor noncompliance issues	4	13
	Observation issues	30	75
EA 21	Noncompliance issues	0	-
EAL I	Observation issues	0	-

### C Environmental Monitoring

		-	
Environmental monitoring item	Target of monitoring	Items monitored	Monitoring frequency
Air quality	Boilers, melting furnaces, heating furnaces, drying furnaces, etc.	5 items: sulfur oxides, nitrogen oxides, soot, volatile organic compounds, hydrogen chloride	Around 400 times per year
Water quality	Treated wastewater	43 items: cadmium, cyanide, organic phosphorus, lead, hexavalent chromium, etc.	Around 1,600 times per year
Noise and Vibration	Site boundaries	2 items: noise level, vibration level	76 times per year
Odor	Site boundaries	1 item: odor index	16 times per year
Waste products	Slag, sludge, scrap metal, etc.	25 items: cadmium, cyanide, organic phosphorus, lead, hexavalent chromium etc	Around 100 times per year

### d Legal Violations and Complaints (FY March 2018)

		Number of incidents	Response
Guidance from local government		0	-
Complaints	Odor	1	Conducted inspection of equipment and implemented thorough operation control.
	Noise and Vibration	6	Implemented measures such as additionally installing sound insulating materials and sheets and renewing equipment.

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e f

### Environmental Education/Education Program Structure

As part of its EMS, Mazda conducts regular environmental education for all employees twice a year, as well as education for EMS leaders and department management twice a year, and encourages employees to obtain environment-related public qualifications. In addition, Mazda offers support for employees working toward these qualifications, including financial support through the Mazda Flex Benefit program (see p.94).

### **Routine Environmental Activities**

### **Reducing Paper Use**

Mazda continually makes bold efforts to considerably reduce the amount of paper used for office work through the digitization of documents, ledger sheets, and other forms, as well as through the use of projectors and monitors at meetings, etc. As part of its recycling efforts, the Company also reuses waste paper (shredder dust) as packaging material for shipping parts, and is increasing efforts to separate the collection of waste paper by type during disposal.

### **Reducing Energy Use**

Through regular initiatives, including purchasing of low power-consumption office equipment and furniture, and turning off lights and computers when they are not in use, Mazda makes continual efforts to reduce energy use.

Furthermore, Mazda implements a "Cool Biz" program during the summer season every year, setting internal room temperatures at 28°C (82.4°F) on a standard basis. During the winter season when electricity consumption is particularly high, energysaving measures are implemented through adjustment of air conditioning systems (heating set at 20°C, or 68°F), lighting, office automation equipment, etc.

### Use of Renewable Energy

Mazda uses renewable energy sources<sup>\*1</sup> as follows.

- At the Hofu Plant, solar-powered units have been introduced in some corridor lighting.
- A solar power system is installed on the roof of the radio wave experiment building of the Miyoshi Office. The amount of electricity generated by the system in FY March 2018 was 12.1 MWh. Electricity generated by this system is used to provide power and lighting for the building, thereby continuously contributing to the reduction of CO<sub>2</sub> emissions.
- Mazda de Mexico Vehicle Operation (MMVO) in Mexico installed outdoor solar lighting, thereby promoting effective use of renewable energy<sup>\*1</sup> using solar power and LEDs. In FY March 2018, MMVO installed 100 units. The total number of units reached 467, generating 78.8 MWh of power for lighting.

### Environment-Related Accident Emergency Drill and Prevention Campaign g h

Emergency Drill to Prevent Marine Pollution

In FY March 2018, an emergency drill was carried out based on an assumed simulation in which hydraulic oil had leaked from a domestic vessel into the sea. In the simulation drill, about 50 employees from Mazda Motor Corporation, Mazda Ace, and Mazda Logistics were engaged in operations of removing oil spillage and communicating through an emergency contact network. These operations were confirmed to be effective. For the drill this year, no scenario was prepared to simulate a situation that is closer to reality.Participants of the drill received a report in accordance with the internal contact network and conducted disposal of oil after arriving at the accident site. Launched in FY March 2015, this drill marked the fourth such event.

Campaign for Oil Spill Prevention and Traffic Safety Mazda Motor Corporation, Mazda Logistics and several truckload transportation companies are raising the awareness of delivery truck drivers and others by directly asking them to contribute to preventing oil spills on roads or by distributing leaflets for improving traffic safety. The campaign has been conducted every year since FY March 2011, and twice a year since FY March 2014, in spring and fall. In FY March 2018, besides the Hiroshima Plant, the Hofu Plant began to hold similar activities. The campaign helps to raise such drivers' awareness of the environment and safety, and ensures early detection of and response to oil spills from vehicles.

e	Qualifications that Employees
	Are Encouraged to Obtain:



Social

Contributions

General education	Basic environmental education
	Education for EMS leaders
	Education for managers
	Education for foremen
	Education for new employees
	Education for newly-employed mid-career workers
	Follow-up educations among general employees
	Departmental education
Internal environmental audit education	Pre-internal environmental audit education
Education of personnel engaged in	Education covering operational procedures manual
specific tasks	Training to deal with accidents
Education conferring qualifications	Education for development of assistant ISO14001 inspectors and internal environmental auditors, and support for obtaining environment-related qualifications
Other educational programs	Education for visitors
	Education for construction and logistics contractors
	Education for irragular visitors

Number of Employees Receiving Environmental Education

	(Non-consolidated Unit: person(s))				
	FY March 2014	FY March 2015	FY March 2016	FY March 2017	FY March 2018
Managers	70	75	81	83	75
Section managers	163	161	174	190	188
Foremen	86	86	76	60	60
New employees	386	282	755	538	550

In addition to the above, environmental education is provided to general employees in each department

provided to general employees in each department

g Emergency Drill to Prevent Marine Pollution (Extending an oil absorption mat)



h Campaign for Oil Spill Prevention and Traffic Safety



\*1 Refers to natural energy sources that can be used continuously without being depleted, such as electricity generation using solar, wind, geothermal, hydroelectric or biomass power, or direct solar heating. These types of energy generate zero or negligible CO<sub>2</sub> emissions.

Respect for People

/11.21

Social

### **Environmental Accounting**

Mazda is carefully assessing the costs and benefits of its environmental activities and is working constantly to improve their efficiency. Data collection period: April 2017 through March 2018 Basis of data collection: Calculated according to Mazda's own guidelines in line with Environmental Accounting Guidelines. The amounts do not include depreciation expenses. Boundary of data collection: Mazda Motor Corporation; 21 domestic & 12 overseas

Quality

consolidated Group companies; six domestic & five overseas equity-method Group companies

### Environmental Protection Costs

CI.	ivironmental Pro	dection Costs					(01	iit: million yen)	
				Mazda unconsolidated			Mazda Group		
Category		Major activities	Investment	Cost	Total	Investment	Cost	Total	
ea	Preventing pollution	Conforming to legal limits for air and water pollution, odor abatement, etc.	3,644	3,779	7,423	4,112	4,603	8,715	
iness ar	Protecting the global environment Preventing global warming, conserving energy, preventing destruction of the ozone layer, and other environmental protection activities		1,784	914	2,698	2,038	1,041	3,079	
Bus	Recycling resources	cycling resources Effective resource use, recycling waste, processing and disposing of waste		1,244	1,523	286	3,620	3,906	
Up	Upstream/downstream Container recovery, recovery of end-of-life vehicle bumpers		0	5	5	0	19	19	
Management activity Employee environmental education, creating and operating environmental management systems, monitoring and measurement of environmental impact, other activities		11	924	934	11	1,534	1,545		
Research and R&D for products, production methods and distribution, to contribute to reduced environmental impact		2,735	49,016	51,751	2,989	50,458	53,447		
Social activities Greening, beautification, and environmental improvement; support of community residents and organizations; information disclosure; and other activities		0	45	45	0	57	57		
En	Environmental Damage –		0	0	0	0	5	5	
_		Total	8,455	55,926	64,380	9,434	61,337	70,771	

### **Overall Environmental Protection Effects**

		Ma	Mazda Group				
	Category	/	Environmental prote	Economic effect (million yen)	Economic effect (million yen)		
Protecting the C	Global warming	Production	CO <sub>2</sub> emissions volume (on unit sales basis)	18.9 t-CO <sub>2</sub> /100 million yen	-	-	
global environment prevention		Distribution	Annual shipping volume	508,030 thousand (ton-km/year)	_	-	
Recycling resources		Effective use of resources, recycling	Shell sand	17,221 t (year)	50	2,991	
			Steel scrap	34,181 t (year)	2,941		
Upstream/dow	vnstream	Product recycling	Number of discarded bumpers collected	63,852 (bumpers/year)	-	27	
Other Sa			Metals	110,357 t (year)	2,607		
		Sale of items with commercial value	Paint thinner, effluent	659 t (year)		2,656	
			Empty drums, wheels, discarded tires	20,609 (units/year)	49		
			Recovered sand, plastics, cardboard scraps	6,720 t (year)			
			Total		5,647	5,674	

Boundary of data collection					
Mazda Motor Corporation					
Consolidated Group companies					
21 domestic companies: Manufacturing companies: Mazda Ace Co., Ltd., Mazda Logistics Co., Ltd., KURASHIKI KAKO Co., Ltd., Mazda Engineering & Technology Co., Ltd.,					
Sales companies: Mazda Chuhan Co., Ltd., Hakodate Mazda Co., Ltd., Tohoku Mazda Co., Ltd., Fukushima Mazda Co., Ltd., Kitakanto Mazda Co., Ltd., Koushin Mazda Co.,					
Ltd., Kanto Mazda Co., Ltd., Shizuoka Mazda Co., Ltd., Tokai Mazda Sales Co., Ltd., Hokuriku Mazda Co., Ltd., Keiji Mazda Co., Ltd., Kansai Mazda Co., Ltd.,					
Nishi- Shikoku Mazda Co., Ltd., Kyushu Mazda Co., Ltd., Minami Kyushu Mazda Co., Ltd., Okinawa Mazda Sales Co., Ltd.,					
Parts sales company: Mazda Parts Sales Co., Ltd.					
12 overseas companies: Mazda Canada Inc., Mazda Motor Manufacturing de Mexico, S.A. de C.V., Mazda Motors (Deutschland) GmbH, Mazda Motors UK Ltd., Mazda Motor Russia.000,					
Mazda Australia Pty Ltd., Mazda Motors of New Zealand Ltd., Mazda Powertrain Manufacturing (Thailand) Co., Ltd., Mazda Southern Africa (Pty) Ltd., Mazda Motor (China)					
Co., Ltd, Mazda Motor Taiwan Co., Ltd., Mazda de Colombia S.A.S,.					
Equity-method Group companies					
6 domestic companies: Toyo Advanced Technologies Co., Ltd., Japan Climate Systems Corporation, Yoshiwa Kogyo Co., Ltd., Mazda Processing Chugoku Co., Ltd., MCM Energy Service Co., Ltd.,					
Mazda Parts Hiroshima Sales Co., Ltd.,					
5 overseas companies: Mazda Sollers Manufacturing Rus LLC, AutoAlliance (Thailand) Co., Ltd., Changan Mazda Automobile Co., Ltd., Changan Ford Mazda Engines Co., Ltd.,					
FAW Mazda Motor Sales Co., Ltd.					

## EFFORTS REGARDING PRODUCT AND TECHNOLOGY DEVELOPMENT

Mazda is actively developing unique technologies to help achieve a sustainable society. In March 2007, Mazda announced its long-term vision for technology development: "Sustainable Zoom-Zoom." The basic policy of this vision is to "provide all customers who purchase Mazda vehicles with driving pleasure as well as outstanding environmental and safety performance."

Quality

In August 2017, a decade after the original and in light of the rapid changes taking place in the automotive industry, Mazda announced "Sustainable Zoom-Zoom 2030" (see pp. 5-6). This new vision for technology development takes a longer-term perspective and sets out how Mazda will use driving pleasure, the fundamental appeal of the automobile, to help solve issues facing people, the earth and society. Mazda believes its mission is to bring about a beautiful earth and to enrich people's lives as well as society. The Company will continue to seek ways to inspire people through the value found in cars. In terms of the environment, "Sustainable Zoom-Zoom 2030" demonstrates Mazda's determination to use conservation initiatives to help create a sustainable future in which people and cars can coexist with a bountiful, beautiful earth.

### Energy-and Global-Warming-Related Issues

### Approach to Product Environmental Performance

As vehicle ownership continues to expand around the world, automobile manufacturers must redouble their efforts to achieve cleaner exhaust emissions, and improve fuel economy in order to cut  $CO_2$  emissions and help reduce the world's dependence on increasingly scarce fossil fuels. Mazda considers it necessary to develop a multi-solution approach to automobile-related environmental issues that takes into account various factors such as regional characteristics, vehicle characteristics and types of fuel.

### Addressing Global Warming

Mazda sees reducing emissions of  $CO_2$  and other greenhouse gases over the vehicle's entire lifecycle — including manufacturing, use and disposal — as one of its top priorities and a duty of automotive industry. The Company wants to maximize its contribution by considering not only "tank-to-wheel" emissions that occur while driving but also "wellto-wheel" emissions, including fuel extraction, refining and power generation (wellto-tank). Offering a number of powertrain options in consideration of each region's energy sources and power generation methods will allow Mazda to make the optimum contribution to  $CO_2$  emissions reductions by region. In August 2017, Mazda set a goal of reducing corporate average "well-to-wheel"  $CO_2$  emissions to 50% of 2010 levels by 2030, with a view to achieving a 90% cut by 2050.

### The Building-Block Strategy

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Mazda adopts the Building-Block Strategy to realize its goal of reducing CO<sub>2</sub> emissions and raising the average fuel economy of Mazda vehicles sold worldwide. Given the internal combustion engine is forecast to remain a principle propulsion technology in cars worldwide for many years to come, the Company thinks it important to continue efforts to perfect the technology. At the same time, the Building Block Strategy also calls for the commercial introduction of electric, plug-in and other electrified vehicles in consideration of each country or region's energy resources, regulations, power generation methods, infrastructure and so on. Through this Building-Block Strategy and advances in process innovations, such as computer Model-Based Development (see p. 127), and Monotsukuri Innovation (see p. 128), Mazda will, despite limited management resources, offer products and technologies that exceed customers' expectations. Mazda plans to start introducing electric vehicles and other electric drive technologies in regions that generate a high ratio of power from clean energy sources or restrict certain vehicle types to reduce air pollution.

### a The "Well-to-Wheel" Perspective

Make efforts to reduce  $CO_2$  emissions from the perspective of "well-to-wheel," with the aim of reducing emissions over a vehicle's entire lifecycle.

Social

Contributions

### Conceptual diagram of Well-to-Wheel\*



#### \* Where fossil fuel is extracted and used to drive a vehicle

### b Building-Block Strategy



### C Graphic representation of global market share of powertrain technologies

It is expected that the majority of vehicles in the global market will continue to be powered by internal combustion engines, and that such vehicles will contribute the most to CO<sub>2</sub> reduction. (about 84% of the vehicles are powered by internal combustion engines in 2035)



Source: IEA/ETP "Energy Technology Perspective2015"

Customer Satisfaction

Safety

# Comprehensive Improvements of Base Technologies by SKYACTIV TECHNOLOGY d

The term SKYACTIV TECHNOLOGY covers all Mazda's innovative base technologies. Mazda redesigned these technologies from scratch, enhancing the efficiency of powertrain components, such as the engine and transmission, reducing vehicle body weight, and improving aerodynamics. The number of models featuring SKYACTIV TECHNOLOGY has steadily increased since the first SKYACTIV-G engine was introduced in 2011 in the Demio (known as Mazda2 overseas). Following the adoption of the technology in the CX-5 in 2012, the number of models that fully incorporate SKYACTIV TECHNOLOGY has increased. In August 2017, Mazda disclosed plans to introduce next-generation technologies from 2019, including the SKYACTIV-X engine, set to become the world's first commercial gasoline engine to use compression ignition.\*1 This unique new engine combines the advantages of gasoline and diesel engines to achieve outstanding environmental performance and uncompromised power and acceleration performance. Mazda will work toward the market introduction of the SKYACTIV-X while continuing to advance SKYACTIV-G and SKYACTIV-D, both of which remain highly competitive engines.

### d Features of the next-generation gasoline engine

Social

Contributions



\*1 As of August 2017, according to Mazda data

### TOPICS Mazda Leads Manufacturer Adjusted Fuel Economy in U.S. Environmental Protection Agency Report for Fifth Straight Year

The Light Duty Fuel Economy Trends Report<sup>\*1</sup>, released by the U.S. Environmental Protection Agency (EPA) in November 2017, lists the Company as having the highest overall Manufacturer Adjusted Fuel Economy<sup>\*2</sup> for the 2016 model year. Mazda received a first-place ranking for the fifth year in a row.

The EPA's Fuel Economy Trends Report summarizes the fuel economy trends of vehicles sold in the U.S. on a model year basis, and ranks automakers by Manufacturer Adjusted Fuel Economy.

http://www2.mazda.com/en/publicity/release/2018/201801/180117a.html

\*1 An annual report published by the EPA which summarizes the fuel economy trends of new passenger vehicles and light trucks since 1975.

2 The average fuel economy of all vehicles sold by a manufacturer over a one-year period. In the Fuel Economy Trends Report, the EPA uses its own combined city and highway fuel economy figures for each model by model year, and the average is weighted for sales volume. For particularly relevant SDGs (sustainable development goals), see p. 21 for details of SDGs.





Safety

Respect for People

### Improving Fuel Economy

Mazda is working to improve fuel economy in order to help our customers save money and reduce the use of fossil fuels, which is a cause of global warming. Prioritizing improvements in real-world fuel economy, the Company has adopted cylinder deactivation and other technologies that suppress fluctuations in fuel consumption rooted in the way the car is used and environmental factors such as air temperature.

Moreover, to provide customers with information on fuel economy that better reflects their real driving environment, the Company was the first automaker in Japan to display WLTC Mode<sup>\*1</sup> fuel economy figures.

### **Evolution of Eco Drive Support Technology**

The Intelligent-Drive Master "i-DM," developed by Mazda to encourage drivers to drive in a safe, fun and environmentally conscious manner, was introduced in all of Mazda's Japanese models that incorporate SKYACTIV TECHNOLOGY.

### **Electric Vehicles**

Mazda believes it is important to reduce CO<sub>2</sub> emissions not only while driving ("tankto-wheel") but also in the "well-to-wheel" (see p. 65) stage, which includes fuel extraction, refining and power generation (well-to-tank). Since the optimum power source to contribute to reduced "well-to-wheel" CO<sub>2</sub> emissions differs according to each country or region's energy situation, Mazda believes electrification technologies, such as electric vehicles and plug-in hybrids, are effective in countries and regions that do not rely heavily on thermal power generation. The Company's development efforts are premised upon introducing a new electric

vehicle and a new plug-in hybrid<sup>\*2</sup> vehicle.

From 2012 to 2013, Mazda leased around 100 units of the Demio EV, an independently developed electric vehicle based on the Mazda Demio (known as Mazda2 overseas).

Data on the status of use and driving of the leased Demio EV are analyzed and used for the development of new electric vehicle models.

### TOPICS Mazda, Denso and Toyota Agree to Jointly Develop EV Technologies

Mazda entered into an agreement with Denso Corporation and Toyota Motor Corporation to jointly develop technologies related to the basic concept of electric vehicles. To efficiently promote this joint basic structural technologies for electric vehicles. Furthermore, the three companies also decided to establish a new company consisting of selected engineers from the three companies to ensure the efficient implementation of the joint technological development projects.Mazda and Toyota will contribute development resources on an equal basis, streamline development and maximize use of existing production equipment. This will enable each company to focus resources on enhancing electric vehicles' essential value as cars and add values unique to each brand to avoid their commoditization. The companies also aim to create a business structure that is open to participation by other automakers and suppliers. http://www2.mazda.com/en/publicity/release/2017/201709/170928c.pdf

### TOPICS Mazda, ELIIY Power and Ube Industries Agree to Jointly Develop 12-Volt lithium-ion Batteries for Vehicles

Mazda entered into an agreement with ELIIY Power Co., Ltd. and Ube Industries, Ltd. regarding the joint development of 12-Volt lithium-ion batteries for vehicles. In light of global trends in environmental regulations, this joint development project aims to make a next-generation battery for widespread use in place of conventional lead-acid starter batteries and to contribute to the realization of a safe and stress-free motorized society. In addition, the three companies will assess prospects for further collaboration in a range of fields, including using the technologies that result from this project as a base for other low-voltage lithium-ion batteries applicable to vehicle electrification technologies other than starter batteries.

http://www2.mazda.com/en/publicity/release/2018/201803/180315a.html

I ACTION

For particularly relevant SDGs (sustainable development goals), see p. 21.



<sup>1</sup> Stands for Worldwide-harmonized Light Vehicles Test Cycle.

This is a test cycle based on WLTP (Worldwide-harmonized Light Vehicles Test Procedure) \*2 Hybrid vehicle with a battery that can be charged by

household power supply.

For particularly relevant SDGs (sustainable development goals), see p. 21.



Safety

### Promoting Technology Development for Alternative Fuels

One of the ways Mazda is addressing global warming through its products is by promoting the research and development of technologies compatible with alternative fuels, including biofuels and synthetic fuels, so that countries and regions can use energy sources that suit their circumstances.

Compatibility with Bioethanol and Bioethanol Mixed Fuel

e

Mixed fuels, which include bioethanol or biodiesel made from plant materials, are attracting attention for their effectiveness in reducing CO<sub>2</sub> emissions. Mazda sells vehicles that are compatible with these fuels.

### e Status of Bioethanol Sales\*1

Japan: Compatible with B5\*2 - Mazda2, Mazda3, Mazda6, CX-3, CX-5 Thailand: Compatible with E20\*3 - Mazda2, MX-5 Compatible with E85\*4 - Mazda3, CX-3, CX-5 \*1 Subject to variation depending on specifications

Social

Contributions

- \*2 Diesel mixed with 5% biodiesel fuel
- \*3 Gasoline mixed with 20% ethanol \*4 Gasoline mixed with 85% ethanol

#### TOPICS Demonstration Project in Hiroshima to Promote the Use of Next-generation Biofuels in Automobiles

Mazda has joined the Hiroshima "Your Green Fuel" Project, a demonstration project for next-generation biofuels jointly run by the Hiroshima Council for the Promotion of Collaboration between Government, Academia and the Automobile Industry and Euglena Co., Ltd. In collaboration with Euglena's Made-in-Japan Biofuels Project, this project aims to promote the spread of biofuels and establish a model for revitalizing regional areas by retaining the entire biofuel value chain - from the manufacture and supply of raw materials through to fuel use - within the Hiroshima area. Specifically, the project promotes the production of biofuels from oils derived from microalgae or used cooking oil and encourages the use of such biofuels in passenger cars in Hiroshima. The project is also planning research into cultivating microalgae using CO2 emitted by Hiroshima-based businesses as well as algal residue-based fertilizers and feed for use in the agriculture, livestock and fishery industries. These initiatives will be launched in phases by around 2020.

http://www2.mazda.com/ja/publicity/release/2018/201806/180613a.html (Japanese only)

For particularly relevant SDGs (sustainable development goals), see p. 21.



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### Reducing Use of "CFC Alternative" Greenhouse Gases

Mazda is working to reduce the amount of CFC alternatives, which constitute greenhouse gases, used as car air-conditioner refrigerants. The Company intends to promote development and early adoption of car air-conditioning systems using new refrigerants.

### Development of Resin Material for Auto Parts For Weight Reduction

In addition to SKYACTIV TECHNOLOGY, which is developed with the whole concept of weight reduction, Mazda actively adopt new technologies for reducing weights in detailed parts. Mazda will continue to pursue weight reduction by using resin, aluminum, ultra-high tensile steel and other materials having both lightness and strength.

### Offers a Bumper Which Is One of the Lightest in Its Class

Mazda has developed a new resin material for auto parts that can maintain the same level of rigidity as conventional materials while trimming vehicle weight. Because the new resin enables the manufacture of thinner parts and thus a significant reduction in the amount of material used, when used for front and rear bumpers, this resulted in the reduction of weight by around 20%. In the manufacturing process, thinner parts have enabled the shortening of cooling time upon shaping and halved the shaping time of bumpers partly due to the utilization of CAE analysis techniques. This resulted in a drastic reduction of the amount of energy used in manufacturing.

This new resin bumper, one of the lightest in its class,<sup>\*1</sup> has been used for newgeneration models. In FY March 2018, it was introduced into the CX-8.

**Development of Light Weight Wiring Harness Using Aluminum Electric Wire** f Mazda has developed a lightweight wiring harness using aluminum electric wire, which enables the Company to achieve vehicle weight reduction while maintaining connection reliability (quality). Since equipping the Roadster/MX-5, launched in 2015, with this lightweight wiring harness, the Company has been increasing the number of models\* that incorporate the material. In FY March 2018, it was introduced into the CX-8.

\* Models equipped with the lightweight wiring harness: Roadster/MX-5, Axela/Mazda3, Atenza/Mazda6, CX-5, CX-8, CX-9

### **Cleaner Emissions**

### **Cleaner Gas Emissions**

Mazda is committed to mitigating air pollution from exhaust gases. To this end, the Company is working hard to develop low-emission vehicles. The Company is steadily bringing to market vehicles that clear both SU-LEV, Japan's certification system for low-emission vehicles, and Euro 6, the stringent emissions regulations of the European Union (EU).

- As of March 31, 2017, a remarkable 98% of Mazda passenger models (not including compact mini vehicles and OEM-supplied vehicles) were SU-LEVcertified — the highest level<sup>\*1</sup> among Japanese automakers.
- Starting from the CX-3 equipped with the SKYACTIV-G 2.0 liter gasoline engines, Mazda has began to meet the Japanese Emission Regulations 2018 (WLTC mode) which have been applied since October 2018.

f Aluminum electric wire of the Roadster/ MX-5 Connection between capacitor and DC-DC converter Connection between DC-DC converter and battery



<sup>\*1 1,500</sup> to 2,000 cc class, as of March 2017, according to Mazda data

### **Development of Unique Single-Nanotechnology**

Mazda pays attention to global movements toward tighter control of exhaust emissions and fuel economy, market expansion due to rapidly growing emerging countries, and depletion of scarce resources. The Company has developed its unique single-nanotechnology and soot (PM) oxidation catalyst, promoting reduction of the use of precious metals and cleaning of exhaust gases.

Single-Nanotechnology Dramatically Reduces Consumption of Precious Metals Based on the belief that it is important to help three-way catalysts for gasoline exercise

excellent catalyst performance after reducing the use of scarce elements, such as rare metals (precious metals) and rare earths (ceria material), Mazda developed in 2009 the world's first single-nanocatalyst\*1 that achieves both cleaner exhaust characteristics and higher durability while reducing the use of precious metals for vehicle catalysts by around 70% compared with the conventional figure at Mazda.

Furthermore, Mazda succeeded in an additional 30% to 40% reduction in the consumption of precious metals needed for a single-nanocatalyst, and has been progressively introducing the technology since 2011, when it was first introduced into the Demio (Mazda2 overseas). At present, this technology is employed in Mazda's clean diesel engine SKYACTIV-D. (For details, see the URL)

http://www.mazda.com/en/innovation/technology/env/other/singlenano\_tech/

### Technology to improve performance of PM oxidation catalyst

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g

Mazda has developed a unique PM oxidation technology for diesel engine catalysts, which enables rapid combustion and removal of PM (soot) and reduces CO<sub>2</sub> emissions. Compared with conventional catalysts, this technology effectively utilizes oxygen not only on the surface of catalyst particles but also of their inside, and enables supply of a larger amount of highly active oxygen for soot, thereby achieving dramatic improvement in functions. The introduction of this technology has reduced the use of precious metals, or rare elements, to around one-tenth, along with the durability sufficient to maintain the catalytic function throughout the entire vehicle life cycle. The introduction began in 2009 into diesel engine models, and in the CX-8 in FY March 2018.

### Proper Management of Chemical Substances and Heavy Metals

Mazda publishes Management Standards for Environmentally Hazardous Materials, specifying substances and heavy metals whose use in parts and materials it purchases is subject to restrictions (prohibited substances and substances for which reporting is required), to properly control the use of such hazardous materials.

### Collection and Management of Automotive Parts Materials

Mazda is working across its entire supply chain to reduce the use of environmentally hazardous materials such as lead, mercury, hexavalent chromium and cadmium. Using the standardized IMDS<sup>\*2</sup>, international system, the Company gathers information on the materials from suppliers (Met all of the voluntary targets of the Japan Automobile Manufacturers Association, Inc. (JAMA) (reduction of the use of lead and mercury, and prohibition of the use of hexavalent chromium and cadmium) by February 2007, earlier than the scheduled deadlines). i

### Measures Related to Application of IMDS

- To ensure that suppliers enter IMDS data appropriately, the Company publishes and distributes guidelines each year.
- The data gathered through IMDS is used to calculate the Company's vehicle recycling rate and to comply with various regulatory regimes for chemical materials, such as REACH\*3 in Europe.



Social

Contributions





### h Mechanism of PM oxidation catalyst



#### i. How IMDS Works



\*1 Catalyst featuring single-nanotechnology to control finer materials structures than nanotechnology \*2 International Material Data System.

Chemicals

<sup>\*3</sup> Registration, Evaluation, Authorization and Restriction of

#### Example of Anti-Noise Measures (The CX-8) j

Social

Contributions



Resource-saving based on 3Rs



### VOC Reductions: VOCs in Vehicle Cabins

To maintain a comfortable cabin environment, Mazda is committed to reducing VOCs<sup>\*1</sup> such as formaldehyde, toluene and xylene, which have been implicated as possible causes of sick building syndrome.

- In 1999 Mazda developed a deodorizing filter with the capacity to remove aldehydes (adopted as either standard or optional in core vehicle models).
- In new models, starting with the Demio (Mazda2 overseas) launched in 2007, Mazda reduced VOCs in the main materials used in the cabin, such as plastics, paints, and adhesives, thereby conforming with the indoor aerial concentration guidelines established by Japan's Ministry of Health, Labour and Welfare. (The CX-8, launched in 2017, conforms with the same guidelines.)

### **Reduction of Vehicle Noise**

j

Mazda has established its own noise standards, which are even stricter than the most recent legal requirements, and the Company is working to make its vehicles produce less noise during driving by applying the in-house noise standards to all of its vehicles, including both passenger vehicles and commercial vehicles.

### **Promoting Resource-Saving Initiatives**

### Product Development and Design with Consideration for Recycling Needs k |

Mazda builds resource-saving initiatives into every phase of the lifecycle of its vehicles, based on the three Rs: reduce, reuse, and recycle. Many limited resources are used to manufacture vehicles, such as steel, aluminum, plastics and rare metals. Mazda established the Recyclable Design Guidelines in 1992, and is incorporating three Rs design into all vehicles currently under development. Mazda is steadily increasing the recyclability of its new vehicles, drawing on the following initiatives.

1. Research into vehicle design and dismantling technologies that simplify dismantling and separation, to make recyclable parts and materials easier to remove

Use of easily recyclable plastics, which constitute the majority of ASR<sup>\*2</sup> by weight





### **Bumpers**

Constructed to enable swift removal in one piece during dismantling

Thin-walled construction used for bumper underside fastenings so that they can be easily removed by pulling strongly Strengthened bumper apertures so that bumpers can be pulled off in one piece without breaking

### Instrument Panel

Instrument panel fasteners are constructed to disengage simply, so that they can be removed easily when pulled during dismantling



\*1 Volatile Organic Compounds \*2 Automobile Shredder Residue It refers to the residue remaining after the crushing/ shredding of what is left of the vehicle body following the removal of batteries, tires, fluids, and other parts requiring appropriate processing; the removal of engines, bumpers, and other valuable parts; and the separation and recovery of metals.

Safe

m

Respect for People

### Expanded Adoption of Biomaterials

Mazda has produced new vehicle parts from plant-derived materials on a commercial basis, which have the potential to facilitate society's shift away from the use of fossil fuels and reduce CO<sub>2</sub> emissions. Since 2011, when the Company used bioplastic for the radiator tank of the Demio (overseas: Mazda2) equipped with SKYACTIVE-G for the first time, biomaterials have been increasingly launched for new models.

In 2014, Mazda developed bio-based engineering plastic featuring high-quality finish without paint, suitable for vehicle exterior parts. By developing paint-less technology for interior and exterior parts taking advantage of the characteristics of this material, the Company achieved not only the excellent environmental performance of the material but also a high-quality finish that could not be achieved with conventional paint, and succeeded in contributing to the environment and improving costs by abolishing the painting process. In 2017, Mazda developed materials and optimized material composition that are suited for large exterior parts in complicated shapes, such as the front grille, achieving substantially improved formability. Mazda will increase models that use the interior and exterior design parts to which these technologies are applied.

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### EFFORTS REGARDING MANUFACTURING AND LOGISTICS

#### Energy - and Global-Warming-Related Issues

Mazda promotes the efficient use of energy while aiming to reduce CO<sub>2</sub> emissions in the areas of manufacturing and logistics.

#### [Manufacturing]

#### Total CO<sub>2</sub> Emissions from Mazda's Four Principal Domestic Sites Reduced by 47.1% (Compared with FY March 1991 Levels) a b

Measures to reduce the total energy-related CO<sub>2</sub> emissions from Mazda's four principal domestic sites<sup>\*1</sup> (including R&D and other indirect areas) in FY March 2018 were as follows: <**Key Initiatives in FY March 2018**>

- Further implementation of Monotsukuri Innovation
- Improvements in overall facility operating efficiency
- Concentrating production and reducing losses from unnecessary work and equipment downtime
- <FY March 2018 Results (compared with FY March 1991)>
  - Total CO<sub>2</sub> emissions from Mazda's four principal domestic plants reduced by 47.1% compared with FY March 1991 (499 thousand tons-CO<sub>2</sub>)
  - Emissions per unit of sales revenue reduced by 55.4% (18.9 t-CO<sub>2</sub>/100 million yen)

#### [Manufacturing] Efforts for Energy-Saving Manufacturing

At production sites in Japan and abroad, improving the facility operation rate, shortening cycle time, and other measures are being taken to optimize the line process as well as the entire manufacturing process. Also, losses in each step from production to consumption of energy are reanalyzed to further cut losses, including cutting losses by suspending the power supply (for hydraulic pressure, etc.) during standby.

#### 【Manufacturing】 Reducing Energy Use through "Monotsukuri Innovation"

To improve quality and brand value, as well as to increase profit margins, while flexibly responding to the requirements for the manufacture of several models with different production scales and changes in production volume, a breakthrough in "sharing a completely new concept beyond the boundaries of models" is necessary. This idea has resulted in generation of the "Monotsukuri Innovation" (see p. 128). Under "Monotsukuri Innovation," at the timing of introducing new models equipped with the SKYACTIV TECHNOLOGY, Mazda has substantially reduced per-unit energy consumption. The specific efforts are as follows.

- Material: Reduced material weight by using thinner casted and forged parts, shortening the forging cycle time, and modifying production methods, so as to reduce energy consumption.
- Processing and assembly: Evolved conventional flexible manufacturing lines to realize higher-efficiency, mixed flow production, which resulted in dramatically improved operating rates and reduced energy consumption.
- Press: Reduced the amount of scraps generated in manufacturing of press parts, and retrieved parts from scraps to reduce the amount of use of steel sheets. Also achieved multi-pressing, which performs molding of several parts using a single die, resulting in both integration of processes and reduction of energy consumption.
- Paint: Developed and introduced the Aqua-Tech Paint System, a new water based painting technology that enables elimination of the primer process while further improving the painting performance and quality, resulting in reduced energy use for air conditioners in painting booths, and substantial reduction of VOC (volatile organic compound) emissions.

a CO<sub>2</sub> Emissions from Mazda's Four Principal Domestic sites/CO<sub>2</sub> Emissions per Unit of Sales Revenue



- CO2 emissions at Mazda's four principal domestic sites are calculated using the CO2 coefficient for each year based on standards from the Japan Automobile Manufacturers Association Inc. (JAMA) (Commitment to a Low Carbon Society). Data for each fiscal year were recalculated according to the coefficient change of August 10, 2017. The power coefficient for FY March 2018 is undetermined as of May 25, 2018; the FY March 2017 power coefficient is used for FY March 2018.
- \* The figures of the CO<sub>2</sub> emissions at Mazda's four principal domestic sites in FY March 2018 have been verified by a third party (see p. 138).

#### b Energy Consumption Breakdown at Mazda's Four Principal Domestic Plants

				Unit: (Th	ousands o	f GJ/year)
	FY March 1991	FY March 2014	FY March 2015	FY March 2016	FY March 2017	FY March 2018
Electricity	4,921	6,345	6,247	6,150	6,124	6,248
Industrial steam	0	1,453	1,409	1,359	1,236	1,253
Coal	4,967	0	0	0	0	0
Coke	766	191	170	171	168	171
Fuel oil A	596	23	27	19	15	14
Fuel oil B	11	0	0	0	0	0
Fuel oil C	1,168	28	6	6	7	6
Gasoline	193	65	65	64	52	54
Kerosene	101	15	8	11	11	15
Diesel	81	37	43	47	46	48
LPG	989	54	52	55	55	56
City gas	45	1,036	1,019	1,006	949	955
Total	13,838	9.247	9,046	8.888	8,663	8.820

\* Amount of heat emission at Mazda's four principal domestic facilities is calculated using the CO<sub>2</sub> coefficient for each year based on standards from the Japan Automobile Manufacturers Association Inc. (JAMA) (Commitment to a Low Carbon Society). Past data was recalculated according to the change of the coefficient.

\*1 Head office (Hiroshima); Miyoshi Plant; Hofu Plant, Nishinoura District; Hofu Plant, Nakanoseki District (including nonmanufacturing areas such as product development)

#### [Logistics ] CO<sub>2</sub> Emissions during Product Shipment Reduced by 41% (Compared with FY March 1991 Levels) C

Mazda is working with logistics companies, dealerships, and other automakers throughout Japan to provide customers with the volume they require, with the precise timing they expect, while reducing  $CO_2$  emissions during product shipment through highly efficient logistics across the entire supply chain.

#### <FY March 2018 Results>

Total domestic transportation volume was approximately 500 million ton-kilometers. This represents a 41% reduction in transportation CO<sub>2</sub> emissions per ton-kilometer compared with FY March 1991 levels, far exceeding the Company's target of 30% or more.

#### Range of the tracking capability for CO<sub>2</sub> emissions in the supply chain

(Current tracking line, ---> Tracking line to be extended by 2030)



#### [Logistics] Realizing Logistics that Enables CO<sub>2</sub> Reduction in a Timely Manner

Mazda is taking the following measures to provide customers with the volume they require, with the precise timing they expect, while reducing  $CO_2$  emissions. Efforts to focus on the following three pillars of logistics are being taken by visualizing in detail the hidden logistics issues in each process on a global level. **1. Hub-and-spoke system for transportation of completed vehicles and service parts**<sup>\*1</sup> d

Reforming transportation by consolidating logistics centers for completed vehicles Mazda consolidated its logistics centers nationwide with the aim of combining delivery routes with low shipping volumes while ensuring timely shipments (and finished the consolidation in FY March 2012).

Continuously reviewing the operation of car carriers (hereinafter referred to as "domestic vessels") according to their shipping volumes has enabled the Company to improve loading efficiency. To make more effective use of the domestic vessels on the return journey, collaborative transportation has also been promoted with other companies.

In February 2016, Mazda started the operation of a new domestic vessel. In May of the same year, existing vessels were modified, resulting in a 30% improvement in transportation capacity.

In FY March 2018, Mazda reduced CO<sub>2</sub> emissions by around 3,800 tons, by enhancing fuel economy as well as transportation capacity through full-fledged operations of these domestic vessels.

Moreover, by loading completed vehicles into ships as directly as possible from their manufacturing sites, the Company succeeded in curbing around 17 tons of CO<sub>2</sub> emissions.

#### d Hub-and-Spoke System



\*1 In the "hub-and-spoke" system, distribution centers around the country (hubs) act as bases for delivering completed vehicles to dealerships (spokes). In transporting service parts, parts suppliers serve as the hubs and vehicle dealerships the spokes.

C CO<sub>2</sub> Emissions and Reductions for Logistics (in Japan)



Mazda CSR Customer Quality Safety Environment Respect for Social Manager	Mazda CSR	Customer Satisfaction	Quality	Safety	Environment	Respect for People	Social Contributions	Managem
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Improving the ratio of modal shift for the transportation of service parts Mazda is striving to improve the rate of modal shift regarding the transportation of service parts. In May 2016, the Company started to use large returnable containers, originally introduced to transport parts overseas, for domestic transportation. This was aimed at reducing transportation CO<sub>2</sub> emissions by improving the load efficiency of JR containers. In FY March 2018, Mazda promoted the use of JR for domestic transportation, in accordance with the relocation of parts sales companies beginning in FY March 2016. As a result, the Company increased the rate of transportation by JR from 25% to 45% per transportation volume (ton-kilometer), reducing CO<sub>2</sub> emissions by around 400 tons.

#### 2. "Straightening" of logistics network

Straight logistics without distribution centers (Vanning at plant, packaging at plant) After the manufacture of parts to be exported to overseas assembly plants is completed, they are packaged and loaded into containers at the same location, eliminating the need for shipment between production locations and distribution centers. At present, the coverage of this logistics system is expanding to engines, transmissions and auto body parts produced at the Hiroshima Plant and the Hofu Plant.

In FY March 2018, Mazda expanded the quantity of transmissions vanned at plants to be exported to the Mexico plant.

Reducing the transportation distance for procured parts for overseas production Previously, the parts procured in Asia to be used for overseas production were transported via Japan to the Mexico plant. In July 2016, this was changed to direct transportation, so that now these parts are transported from existing distribution centers in Thailand and China, leading to a reduced transportation distance.

In Japan, in FY March 2017 Mazda started to land parts imported from overseas at the ports close to production sites, in order to reduce the transportation distance between the Hiroshima Plant and Hofu Plant. In FY March 2018, the Company enlarged the scope of models to which this measure is applied, thereby achieving about 8 tons of  $CO_2$  emissions.

Reducing the transportation distance for repair parts When the Mexico plant started to run, repair parts were transported via North America to Europe, since their transpiration volume was small. Three years after the plant's startup, however, the volume was on the rise. For this reason, the shipping method was changed to direct transportation to Europe. By reducing the transportation distance through straight logistics, Mazda succeeded in reducing around 1,400 tons of CO<sub>2</sub> emissions.

3. Continuous improvement of transportation efficiency for procured parts For domestically produced parts, deployment of the Milk-Run system<sup>\*1</sup> was completed throughout Japan by FY March 2008. Today, Mazda is introducing the same system in overseas production sites, with deployment in the Mexico plant completed in FY March 2014, and in the transmission plant in Thailand completed in FY March 2016, aiming to reduce CO<sub>2</sub> emissions by further promoting efficiency in the purchasing and logistics processes across the entire supply chain.

The Company is continuing its initiatives to optimize its packaging volume for purchasing parts, reflecting the logistics needs at the beginning of the product development process, so as to further improve the load efficiency of trucks and reduce the number of trucks required. In Japan, Mazda introduced the Cloud-based Transportation/Delivery Progress Management Service for Logistics Operators<sup>\*2</sup> in 2016. This service has been proven effective in reducing delivery time and costs and improving the quality of transportation, as well as in mitigating the burden on drivers, easing traffic congestion, and reducing CO<sub>2</sub> emissions through efficient transportation. The Company plans to apply this service to 600 vehicles in five years after its launch. In FY March 2018, the number of vehicles covered by this service increased to 350 from 220 at its inception.

#### TOPICS Presenting Energy Conservation Efforts to Ministry and Agency Officials from Central and South American Countries (Mazda Logistics Co., Ltd.\*)

Mazda Logistics Co., Ltd. presented a lecture as part of the IICA thematic training course on "Promotion of Energy Efficiency and Conservation," organized by the Japan International Cooperation Agency (JICA) Chugoku Center and the Hiroshima International Center. The intended participants of the training course were persons in charge of related areas from governments and public organizations in Central and South America. These participants were given explanations about the modal shift initiatives implemented at Mazda Logistics, and listened to a presentation on the company's cargo loading/unloading processes that use dedicated car carriers.

st A Mazda Group company that ships automobiles and parts, and conducts other logistics operations.

For particularly relevant SDGs (sustainable development goals), see p. 21 for details of SDGs.



### (Vanning at plant)

Logistics without Distribution Centers



Milk-Run System



\*1 A method in which a single truck visits multiple suppliers to collect supplies. Named after truck routes in rural areas, which picked up milk from each farm.

\*2 The Cloud-based Transportation/Delivery Progress Management Service for Logistics Operators, developed by DoCoMo Systems, Inc.



#### Promoting Resource Recycling

Customer

Mazda builds resource-saving initiatives into every phase of the life cycle of its vehicles, based on the three Rs: reduce, reuse, and recycle. The Company implements thorough recycling and waste-reduction initiatives in the areas of manufacturing and logistics as well, in order to ensure that limited resources are used effectively.

#### [Manufacturing] Maintaining the Status of Zero Landfill Waste g h and Promoting the Reduction of Waste

To reduce landfill waste at its four principal domestic facilities<sup>\*1</sup> to zero, Mazda is promoting reductions in the volume of manufacturing byproducts and waste, more rigorous sorting of waste, and recycling. As a result, the Company has achieved zero landfill waste, and has maintained this status from FY March 2009 to FY March 2018.

The amount of waste<sup>\*2</sup> in FY March 2018 was reduced by 81% compared with FY March 1991 levels.

#### TOPICS Reducing Waste Generated during Production of Castings (Yoshiwa Kogyo Co., Ltd.<sup>\*1</sup>)

Under the initiative of the Hiroshima Plant, the Mazda group make global efforts to reduce waste at production sites in Japan and abroad.

Here is one example of such efforts. Yoshiwa Kogyo Co., Ltd., which is engaged in production of castings, promotes various activities aimed at zero emissions\*2. In FY March 2018, Yoshiwa Kogyo achieved zero emissions by making many improvements, including introduction of a new technique that enables reduction of waste sand, and encouragement of the use of waste sand by visualizing the sand processing flow. The contents of these activities are shared as good practices in the Mazda Group.

\*1 A Mazda equity-method Group company,

 \*2 Mazda's definition: Direct-to-landfill waste is less than 0.5% of the total amount of generated waste

For particularly relevant SDGs (sustainable development goals), see p. 21 for details of SDGs.



#### [Logistics] Reducing Volume of Packaging and Wrapping Materials

Mazda is moving forward with efforts centering on the "three Rs of Mazda logistics" to cut down on resources used for packaging and wrapping. The target for packaging and wrapping materials was a reduction in volume of 49% or more from FY March 1991 levels; in FY March 2018, a 56%\*3 reduction was achieved.

Since FY March 2013, Mazda has been continuing activities to reflect logistics needs at the beginning of product development, so as to optimize parts specifications and structures, by considering efficient logistics in the development stage of work processes, from design to production and shipment.

In FY March 2017, departments in the five areas—development, production, procurement (purchasing), logistics and quality-closely worked together to achieve the optimization of parts procurement and vehicle manufacturing, from the stage of product development, and to establish strong cooperation with the supply chain. These efforts resulted in reduced volumes of packaging and wrapping materials, and an increased packaging filling rate. In FY March 2018, Mazda continued integrated efforts among departments in relevant areas to optimize the specifications and structures of the parts for the next models. And for some parts, the Company enabled containers that are used to hold double the previous volume of parts. Mazda will continue promoting and expanding these activities that involve efforts in different areas, so as to reduce the consumption of materials.

In the area of repair parts for overseas, the Company continues to expand the application of large-size returnable containers, aiming at increasing the container filling rate. In FY March 2018, with these returnable containers used for around 30% of the total transportation volume, Mazda succeeded in reducing the use of packaging and wrapping materials by about 2,200 tons.

g Changes in the Amount of Landfill Waste



h FY March 2018 Recycling of Manufacturing Byproducts and Waste in the Manufacturing Areas



Presentation on Yoshiwa Kogyo's activities to other companies of the Mazda Group



#### i Activities Image



\*1 Head office (Hiroshima); Miyoshi Plant; Hofu Plant, Nishinoura District; Hofu Plant, Nakanoseki District (including nonmanufacturing areas such as product development)

- \*2 The figures of the amount of waste at four principal domestic sites in FY March 2018 have been verified by a third party (see p. 138).
- \*3 Forecasted reduction rate compared with measures similar to those performed in FY March 1991

Quality

Safe

#### **Cleaner Emissions**

To preserve water and air quality, Mazda has specified voluntary emission standards stricter than the legal requirements and is ensuring appropriately low emissions of pollutants. In the area of manufacturing, the Company is engaged in a range of initiatives to eliminate or reduce chemical substances that damage the environment.

#### [Manufacturing] Clean Water Consumption at Mazda's Four Principal Domestic Sites<sup>\*1</sup> Reduced by 25.9% Compared with j k FY March 2014 Levels

With the exception of its Miyoshi Plant, nearly all the water Mazda uses in production processes at the plants and offices in Japan is water for industrial use. The Company does not use subsurface water, as this may cause ground subsidence. Mazda also makes effective use of water by collecting and storing rainwater for use in the Miyoshi Plant. Furthermore, the Company is committed to saving clean water consumption at plants and offices.

In FY March 2018, Mazda introduced water-saving shower caps in washroom faucets and saved makeup water for the cooling tower. The Company also ensures wastewater cleanliness by properly treating water used for industrial processes, human hygiene, and other purposes.

### [Manufacturing] Air Pollution Prevention: Actively Adopting Fuels that Reduce Environmental Burdens

Mazda is continuing efforts to reduce the emission of sulfur oxides (SOx), nitrogen oxides (NOx),dust and soot, fine particles, vapors, and volatile organic compounds (VOCs).

In addition, Mazda is shifting the use of fuel oil to that of city gas and makes other efforts to actively adopt materials that reduce the environmental burden.

#### **VOC Reductions: Body-Painting Lines**

In FY March 2018, Mazda made steady progress toward achieving the target of reducing VOC emissions from vehicle body paint in body-painting lines to 22.0 g /m<sup>2</sup> or less. The target was achieved by reducing VOC emissions in body painting lines to 21.9 g/m<sup>2</sup>, as a result of various measures. Such measures include the Three Layer Wet Paint System introduced as the standard process in all plants in Japan and major plants overseas, the Aqua-Tech Paint System (see p. 73) that delivers world-leading environmental performance, a low-VOC paint that the Company developed and introduced, and improved efficiency in thinner recovery in cleaning operations.

#### [Manufacturing] Reducing Emissions of PRTR-Listed Substances

With various efforts, such as improvements to the efficiency of thinner recovery for cleaning operation, in FY March 2018 the amounts of substances that are designated under the PRTR Law<sup>\*2</sup> released into the water system and the atmosphere decreased by 62% from FY March 1999 levels, to 1,052 tons. Mazda will continue working to reduce emissions of PRTR designated substances.



Social

Contributions



<sup>\*</sup> The figures of the amount of clean water consumption at four principal domestic sites in FY March 2018 have been verified by a third party (see p. 138).

### k Overview of Wastewater Treatment System (Hiroshima Plant)



VOC Emissions in All Lines at Plants in Japan



\*1 Head office (Hiroshima); Miyoshi Plant; Hofu Plant, Nishinoura District; Hofu Plant, Nakanoseki District (including nonmanufacturing areas such as product development) However, Mazda Hospital, dormitories and catering

 facilities are excluded.
 2 Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof. PRTR: Pollutant

Release and Transfer Register

Mazda CSR	Customer Satisfaction	Quality	Safety	Environment	Respect for People	Со
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FY March 2018 Data on Water and Atmosphere

Water Pollutants Wastewater Drainage Destination: Enko River and Kaita Bay

Cit.	Matan Dallutanta	1 Junite	Desulation		Actual	
Site	vvater Pollutarits	Unit	Regulation	Max.	Min.	Avg.
	pH (freshwater)	-	5.8~8.6	7.4	6.3	6.8
	pH (seawater)	-	5.5~9.0	7.4	6.7	7.0
	BOD	mg/L	160	3.9	ND	<1.2
	COD	mg/L	20	14	1.8	4.7
	SS	mg/L	200	15	0.8	4.6
	Oil	mg/L	5	ND	ND	ND
	Fluorine (freshwater)	mg/L	8	0.2	ND	<0.14
	Fluorine (seawater)	mg/L	15	8.8	0.1	3.1
Hiroshima	Copper	mg/L	3	0.04	ND	<0.01
Diant	Zinc	mg/L	2	0.73	0.01	0.12
Flant	Soluble manganese	mg/L	10	0.8	ND	<0.3
	Chromium	mg/L	2	1.3	ND	< 0.12
	Total nitrogen	mg/L	120	8.9	1.4	4.6
	Total phosphorus	mg/L	16	2.6	ND	< 0.25
	Coliform groups	colonies/cm <sup>3</sup>	3,000	150	ND	<17
	Boron (freshwater)	mg/L	10	0.2	ND	<0.1
	Boron (seawater)	mg/L	230	2	0.2	1.5
	Ammonia, ammonium, nitrous acid, and nitrous acid compounds	mg/L	100	3.1	1.4	2.3

The following substances were not detected: cadmium, cyanogen, organic phosphorus, lead, hexavalent chromium, arsenic, mercury, alkyl mercury, PCBs, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1.2-dichloroethylene, 1.1.1-trichloroethane, 1.1.2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, selenium, 1,4-dioxane, phenol and soluble iron.

			Was	tewater Draina	nge Destinatio	n: Basen River
Sito	Water Pollutante	Unit	Population		Actual	
Site	Water Follutarits	Unit	Regulation	Max.	Min.	Avg.
	pН	-	5.8~8.6	7.4	6.8	7.2
	BOD	mg/L	90	1.9	ND	<1
	SS	mg/L	90	5.0	1.2	2.7
	Oil	mg/L	5	ND	ND	ND
	Fluorine	mg/L	8	0.3	0.3	0.3
Miyochi Plant	Soluble iron	mg/L	10	0.2	0.2	0.2
wiiyosiii Tiant	Soluble manganese	mg/L	10	0.3	ND	<0.1
	Total nitrogen	mg/L	120	1.4	1.4	1.4
	Total phosphorus	mg/L	16	0.04	0.04	0.04
	Coliform groups	colonies/cm <sup>3</sup>	3,000	85	ND	<16
	Ammonia, ammonium, nitrous acid, and nitrous acid compounds	mg∕L	100	0.9	0.9	0.9

The following substances were not detected: cadmium, cyanogen, organic phosphorus, lead, hexavalent chromium, arsenic, mercury, alkyl mercury, PCBs, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, selenium, 1,4-dioxane, phenol, copper, zinc, chromium and boron.

			Wa	astewater Drai	nage Destinat	ion: Oumi Bay
<b>C</b> 11	Maria Ballataria	11.2	Des later		Actual	
Site	vvater Pollutants	Unit	Regulation	Max.	Min.	Avg.
	рН	-	5.0~9.0	6.9	6.2	6.7
	COD	mg/L	50	13.9	1.3	9.1
	SS	mg/L	40	4.3	3.8	4.1
	Oil	mg∕L	2	ND	ND	ND
	Zinc	mg∕L	2	0.6	0.2	0.4
Nishinoura	Soluble manganese	mg/L	3	0.1	ND	<0.1
District,	Total nitrogen	mg/L	120	12.5	0.6	4.0
Hofu Plant	Total phosphorus	mg/L	16	3.4	0.2	1.8
	Coliform groups	colonies/cm <sup>3</sup>	3,000	120	100	110
	Boron	mg/L	230	1.0	0.9	0.95
	Fluorine	mg/L	15	4.5	3.7	4.1
	Ammonia, ammonium, nitrous acid, and nitrous acid compounds	mg/L	100	5.8	2.5	4.2

The following substances were not detected: cadmium, cyanogen, organic phosphorus, lead, hexavalent chromium, arsenic, mercury, alkyl mercury, PCBs, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,3-dichloropropene, thiuram, simazine, thiobencarb, benzene, selenium, 1,4-dioxane, phenol, copper, soluble iron and chromium.

Wastewater Drainage Destination: Oumi Bay Actual Site Water Pollutants Unit Regulation Max. Min. Avg. рΗ  $5.0 \sim 9.0$ 7.5 6.6 7.2 COD mg/L 50 8.3 3.6 4.2 10 ND SS 40 mg/L Oil ND ND ND 2 mg∕L Zinc 0.2 0.03 0.1 mg∕L 2 Nakanoseki Soluble manganese mg∕L 3 0.3 ND < 0.2 District, Total nitrogen mg/L 120 12 2.6 7.4 Hofu Plant 1.1 0.1 0.5 Total phosphorus mg/L 16 Coliform groups 3,000 310 39 colonies/cr Boron mg∕L 230 0.2 0.1 0.15 Fluorine mg∕L 15 ND ND ND Ammonia, ammonium, nitrous mg/L 100 5.1 4.0 4.6 acid, and nitrous acid compounds

The following substances were not detected: cadmium, cyanogen, organic phosphorus, lead, hexavalent chromium, arsenic, mercury, allyl mercury, PCBs, trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethane, 1,1-dichloroethane, 1,3-dichloroethane, 1,3-dichloroethan

Site	Wa	ter Pollutants	Unit	Regulation	Actual (Max.
		Boilers	ppm	150	47
				250	92
Site Site Site Viyoshima Iant Viyoshi Plant Viyoshi Plant Vistrict, Iofu Plant Vistrict, Iofu Plant		Drying ovens	ppm	230	30
		Melting furnaces	ppm	180	80
	NOx	Diesel engines	ppm	950	560
				200	42
		Heating furnaces	ppm	180	71
				150	61
			6.20.	0.25	0.002
		Boilers	g∕ m³N	0.1	0.002
				0.4	0.0018
liroshima			4	0.35	0.0031
lant		Drying ovens	g∕ m³N	0.2	0.0047
-				0.15	0.0059
	Dust			0.4	0.027
		Melting furnaces	g∕m³N	0.20	0.047
				0.10	0.0012
		Diesel engines	g∕m³N	0.10	0.03
				0.4	0.0032
		Heating furnaces	g∕m³N	0.25	0.018
				0.20	0.023
	SOx	K-value regulation	_	7	0.76
		Painting facilities	ppm	700	393
	VOC	Washing facilities	ppm	400	87
		Boilers	ppm	250	160
41	NUX	Diesel engines	ppm	950	700
niyosni Plant	Durt	Boilers	g∕m³N	0.30	0.0044
	Dust	Diesel engines	g∕m³N	0.10	0.07
		Deilen.		150	110
	NOx	DOIIERS	ppm	130	72
		Drying ovens	ppm	230	53
		Boilers	g∕m³N	0.10	0.003
lishinoura	Dust			0.35	0.002
District, Jofu Plant	Dust	Drying ovens	g∕m³N	0.30	0.003
				0.20	0.004
		K-value regulation	_	4.5	0.003
	SOx	Total pollutant load control	m³N∕h	20.56	0.026
	VOC	Painting facilities	ppm	700	320
	NOx	Melting furnaces	ppm	180	34
			- ( 1):	0.25	0.002
lakanoseki	Dust	Heating Turnaces	g∕ m³N	0.20	0.002
District,		Melting furnaces	g∕m³N	0.20	0.01
ioiu riant	SOX	K-value regulation	—	4.5	0.03
	304	Total pollutant load control	m³N⁄h	8.37	0.81

Management ontributions

Social

A

Mazda CSR	Customer Satisfaction	Quality	Safety	Environment	Respect for People	Social Contributions	Management
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#### Volume of PRTR-designated Pollutants Emitted and Transferred in FY March 2018

(Items marked with an asterisk (\*) are Class 1 designated chemical substances of which 500 kg/year or more are handled.) Unit: (kg/year)

Hiroshim	a Plant									Unit: (kg/year)
Substance	Substance group	Amount				Volume	Amount	Amount	Amount transferred	Amount
INO.	- · ·	nandied	Air	Water	Soil	emitted	consumed	aisposea	Waste products	recycled
1	Water-soluble zinc compounds	27,546	0	441	0	441	24,075	3,030	0	0
37	4,4'-isopropylidenediphenol	0	0	0	0	0	0	0	0	0
53	Ethyl benzene	156,925	75,902	0	0	75,902	35,114	35,660	0	10,249
80	Xylene	520,525	240,529	0	0	240,529	146,468	90,543	0	42,985
87	Chromium and trivalent chromium compounds	50,249	0	0	0	0	49,589	0	659	1
88*	Hexavalent chromium compounds	1,608	0	0	0	0	949	659	0	0
258	1,3,5,7-tetraazetoricyclo [ 3.3.1.1 <sup>3.7</sup> ] decane	4,499	0	0	0	0	0	4,499	0	0
277	Triethylamine	188,942	1,134	0	0	1,134	0	187,808	0	0
296	1,2,4-trimethylbenzene	167,713	23,825	0	0	23,825	91,170	52,718	0	0
297	1,3,5-trimethylbenzene	50,983	28,421	0	0	28,421	1,280	14,443	0	6,839
300	Toluene	839,040	262,517	0	0	262,517	302,013	223,968	0	50,542
308	Nickel	1,410	0	0	0	0	1,410	0	0	0
309*	Nickel compounds	5,160	0	619	0	619	1,780	0	2,761	0
349	Phenol	31,194	1	1	0	2	0	31,192	0	0
355	Bis (2-ethylhexyl) phthalate	18,908	0	0	0	0	18,341	0	567	0
374	Hydrogen fluoride and its water-soluble salts	3,359	0	537	0	537	0	2,822	0	0
392	n-Hexane	118,197	296	0	0	296	101,364	16,537	0	0
400*	Benzene	23,418	29	0	0	29	18,150	5,239	0	0
411*	Formaldehyde	4,882	1,701	0	0	1,701	0	3,181	0	0
412	Manganese and its compounds	51,138	0	392	0	392	48,444	0	2,242	60
438	Methylnaphthalene	1,104	6	0	0	6	0	1,098	0	0
448	Diisocyanate (methylene-bis [4,1-phenylene])	220,209	0	0	0	0	0	220,209	0	0
453	Molybdenum and its compounds	952	0	0	0	0	884	0	67	1
302	Naphthalene	13,114	76	0	0	76	0	13,033	0	5
	Total	2,501,075	634,437	1,990	0	636,427	841,031	906,639	6,296	110,682

#### Miyoshi Plant

Substance	Substance group	Amount				Volume	Amount	Amount	Amount transferred	Amount
No.	Supplance Broad	handled	Air	Water	Soil	emitted	consumed	disposed	Waste products	recycled
53	Ethyl benzene	2,173	0	0	0	0	0	2,173	0	0
80	Xylene	9,243	1	0	0	1	0	9,242	0	0
296	1,2,4-trimethylbenzene	6,008	1	0	0	1	0	6,007	0	0
297	1,3,5-trimethylbenzene	844	0	0	0	0	0	844	0	0
300	Toluene	26,113	9	0	0	9	0	26,104	0	0
392	n-Hexane	4,058	10	0	0	10	0	4,048	0	0
400*	Benzene	967	1	0	0	1	0	966	0	0
438	Methylnaphthalene	4,049	20	0	0	20	0	4,029	0	0
	Total	53,455	42	0	0	42	0	53,413	0	0

#### Nishinoura District, Hofu Plant

Substance	Substance group	Amount				Volume	Amount	Amount	Amount transferred	Amount
No.	cusstance 5.04p	handled	Air	Water	Soil	emitted	consumed	disposed	Waste products	recycled
1	Water-soluble zinc compounds	14,698	0	235	0	235	12,846	1,617	0	0
53	Ethyl benzene	95,018	59,777	0	0	59,777	25,513	9,728	0	0
80	Xylene	235,898	88,849	0	0	88,849	106,332	16,514	0	24,203
296	1,2,4-trimethylbenzene	118,355	31,408	0	0	31,408	65,991	5,269	0	15,687
297	1,3,5-trimethylbenzene	20,888	13,680	0	0	13,680	218	3,052	0	3,938
300	Toluene	464,462	219,754	0	0	219,754	212,544	19,711	0	12,453
309*	Nickel compounds	2,881	0	346	0	346	994	0	1,541	0
355	Bis (2-ethylhexyl) phthalate	2,745	0	0	0	0	2,663	0	82	0
392	n-Hexane	75,919	190	0	0	190	75,720	9	0	0
400*	Benzene	13,356	17	0	0	17	13,334	5	0	0
411*	Formaldehyde	3,480	1,253	0	0	1,253	0	2,227	0	0
412	Manganese and its compounds	3,908	0	212	0	212	2,464	0	1,213	19
	Total	1,051,608	414,928	793	0	415,721	518,619	58,132	2,836	56,300

Nakanoseki District, Hofu Plant (No applicable chemical substances subject to reporting. (The volume of the PRTR-designated groups' substances handled is less than the designated volume subject to reporting.)

#### **Company Total**

Substance No.	Substance group	Amount handled			C 11	Volume emitted	Amount consumed	Amount disposed	Amount transferred	Amount recycled
			Air	vvater	2011				vvaste products	
	Total	3,622,712	1,049,411	2,783	0	1,052,194	1,359,650	1,034,754	9,132	166,982

Safety

### COLLECTION AND RECYCLING OF END-OF-LIFE VEHICLES (ELVS) AND USED PARTS

Around 80% of a vehicle can be recycled. Implementing thorough recycling and waste reduction initiatives to ensure that limited resources are used effectively, Mazda promotes efforts to establish a recycling-oriented society. Attaching importance to building resource-saving initiatives into every phase of the life cycle of its vehicles, based on the three Rs: reduce, reuse, and recycle, the Company undertakes various efforts, such as the collection and recycling of end-of-life vehicles (ELVs) and used parts.

#### End-of-Life Vehicles (ELVs)

### Measures in Response to End-of-Life Vehicle Recycling Law a b c

Mazda properly processes and recycles three designated items (fluorocarbons, airbags, and automobile shredder residue [ASR]<sup>\*1</sup>) pursuant to the End-of-Life Vehicle Recycling Law in Japan. In addition, the Company is creating unique technologies and measures to move this recycling program forward. In the case of ASR, Mazda is working through ART<sup>\*2</sup>, a consortium of 13 key companies including Mazda, Nissan Motor Co., Ltd., and Mitsubishi Motors Corporation, to comply with the law and achieve progress in the reuse of resources. The Company appropriately executes recycling at dealerships. Dealerships collect vehicle recycling fees at the time of sale and receive the ELVs from their final owners in order to transfer them to the disposal processing companies.

As for recycling fees, the Company reviewed its fee calculation standard for new models launched in 2012. The new fee standard is applicable to the Company's new models launched after that. While forecasting a future recycling situation, the Company will continue to push forward with its recycling business in such a way to ensure a balance between revenue and expenditures in the medium- and long-term.

The End-of-Life Vehicle Recycling Law was revised in February 2012, and newly designated lithium-ion batteries and nickel-metal hydride batteries as items for advance collection before dismantling of end-of-life vehicles. Mazda, in cooperation with manufacturers, is committed to collecting lithium-ion batteries installed in micro-minis (OEM vehicles) launched in and after October 2012. The Company also collects nickel metal hydride batteries installed in the new Axela (Mazda3 overseas) Hybrid (launched in November 2013). Moreover, Mazda promotes the appropriate disposal of capacitors for i-ELOOP, a brake energy regeneration system, in order to ensure safety during recycling by related contractors, even though capacitors are not designated for advance collection. Measures to ensure appropriate disposal include attaching a caution label inside the engine room of the vehicle, and providing a disposal manual on the Company's website.

Reference website (Japanese only) for Mazda's efforts with regard to the End-of-Life Vehicle Recycling Law http://www.mazda.com/ja/csr/recycle/

#### ASR and the End-of-Life Vehicle Recycling Law

Disposed vehicles consist of about 80% useful metal and about 20% automotive shredder residue (ASR) that includes resin.

Useful metal is recycled in cooperation with metal recycling-related companies such as dismantlers, crushing/shredding contractors, and steel manufacturers. With regard to ASR, which used to be disposed by landfill, is now subject to the End-of-Life Vehicle Recycling Law, which was enforced in January 2005. This is due to the rise in the risk of illegal dumping of end-of-life vehicles on the back of a surge in disposal costs due to overstrained final landfill sites and weakness in iron scrap prices.

After the enforcement of this law, car manufacturers are required to recycle ASR, chlorofluorocarbons—which lead to global warming and ozone depletion —and airbags—which require specialist knowledge for disposal—under their responsibility, using recycling fees deposited by final owners of the ELVs.

#### a End-of-Life Vehicle Recycling Process

Social

Contributions



#### b Resource Recycling Results in FY March 2018

Number of vehicles from which fluorocarb	139,709 units	
Number of vehicles from which airbags	128,090 units	
Number of vehicles from which ASR	148,570 units	
Recycling ratio	Airbags	93.9%
	ASR	98.2%
Recycling ratio for ELVs*		More than 99%
Total contracting deposits received		1,714,599,985 yen
Total expenses for recycling		1,472,141,715 yen
(Includes constate cost required a	t Mazda)	

(Includes separate cost required at Mazda

Recycling ratio for ELVs is the recycling ratio in dismantling/ shredder processes of 83% (cited from the May 2003 joint council data), plus the remaining ASR ratio of 17% multiplied by the ASR recycling rate of 98.2%.

#### C Vehicle caution labels for capacitors for i-ELOOP

#### [For the Roadster (MX-5)]



[For models other than the Roadster (MX-5)]



\*1 ASR: Automobile Shredder Residue \*2 ART: Automobile shredder residue Recycling promotion Team

c d

#### Promoting Recycling Overseas

Mazda is committed to the recycling of end-of-life vehicles overseas in accordance with the laws in each country and region, under the initiative of the local distributors.

As for countries in which recycling-related laws are planned to be established, Mazda is preparing to respond in cooperation with the distributors in such countries. To ensure the appropriate disposal of capacitor-equipped vehicles in countries where i-ELOOP equipped new models are introduced, Mazda provides related contractors with information on appropriate disposal by attaching a caution label in vehicles and providing a capacitor disposal manual in eight languages on its website, as in the case of cars sold in Japan.

#### Europe

Based on the EU Directive, Mazda Motor Europe provides a dismantling manual to recycling contractors when introducing a new model and has established a network to collect used vehicles from their final owners free of charge, in cooperation with the distributors in each country.

#### China

A law was enforced in January 2015, in accordance with which local manufacturers are managing substances with environmental impact and developing dismantling manuals.

Capacitor disposal manual reference website http://mazda.com/recycle/capa/

#### Used parts

#### Promoting the Collection and Recycling of Used Parts (in Japan)

Mazda is continuously engaged in the recycling of damaged bumpers replaced for repairs as plastic materials for new vehicle bumpers, etc.

Recycling of damaged bumpers: Mazda collects bumpers removed for repairs at dealerships throughout Japan, and recycles them for reuse as plastic parts (new vehicle bumpers, undercovers, etc.). In FY March 2018, the Company collected 63,852 bumpers, which were utilized as recycled materials.

#### d Capacitor Disposal Manual



Social

Contributions

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Biodiversitv

a Process for Assessment of Impacts on

Step 1: Selecting an assessment target scope

in the value chain.)

regarding biodiversity

(The assumption is that an assessment will

be made for companies with major impacts

impacts on ecosystem services, as well as

current situations of the existing responses Step 5: Identifying a direction for future responses

Step 2: Assessing the levels of the dependence and

assessing the threat to biodiversity

Step 3: Identifying business risks and opportunities

Step 4: Identifying priority issues and assessing the

### **BIODIVERSITY CONSERVATION**

Quality

#### Initiatives for Biodiversity

Endorsing the aims of the "Declaration of Biodiversity by Nippon Keidanren (the Japan Business Federation)," Mazda promotes initiatives to protect the global environment. In FY March 2012, with the aim of systematically developing its initiatives to protect biodiversity, Mazda conducted an assessment of impacts on biodiversity, and recognized the blessings of nature it receives and the significance of the impacts on ecosystems it gives through business activities. In line with this assessment, the Company established the Mazda Biodiversity Guidelines in December 2012 and has been implementing relevant initiatives in cooperation with society.

Based on the results of the above assessment of impacts on biodiversity, Mazda believes that the Company is not so directly connected with biodiversity, although it ensures cooperation with society and implements a wide variety of awareness-raising activities for its employees and other people concerned. In its core business activities, the Company understands that it generates impacts on biodiversity in no small quantities, especially in energy, water, and other resources.

To mitigate such impacts, the Company undertakes a wide variety of efforts in the processes of products, technology, production, and logistics.

In FY March 2018, Mazda issued a newsletter carrying articles about life forms found during the ecosystem survey conducted at the Miyoshi Plant (Hiroshima Prefecture). These life forms were also presented to participants of a bus tour to observe the plant

facilities held as part of the Miyoshi Commerce and Industry Festival.

#### The Mazda Biodiversity Guidelines

#### [Basic Approach]

Based on "The Mazda Global Environmental Charter," the Mazda Group, recognizing the blessings of nature and the significance of environmental impacts, contributes to the conservation of biodiversity through its corporate activities worldwide, with the aim of establishing and developing a rich, sustainable society that ensures harmony between people and nature.

#### [Priority Initiatives]

#### 1. Creation of Environmentally Sound Technologies and Products

We will encourage the creation of technologies and products considering harmony between the environment and our corporate activities, by developing technologies that contribute to cleaner emission gases, reduction of  $CO_2$  emissions, research and development of clean energy-based vehicles, promotion of recycling and biodiversity.

### 2. Corporate Activities in Consideration of Conserving Resources and Energy

We will promote reduction of substances with environmental impact and effective use of resources, and contribute to conservation of biodiversity, through efficient energy use and resource-saving/recycling activities.

#### 3. Collaboration/Cooperation with Society and Local Communities

We will promote local community-based activities, by striving to establish collaboration/cooperation with a wide range of stakeholders including supply chains, local governments, communities, NPOs/NGOs, and education and research institutions.

#### 4. Awareness Enhancement and Information Disclosure

We will take active and self-initiative actions and disclose and share the achievements widely to society, by striving to enhance awareness of the importance of coexistence between people and nature.

Established in December 2012

#### **Examples of Initiatives**

Creation of Environmentally Sound Technologies and Products	<ul> <li>Improving the base technologies comprehensively through the introduction of SKYACTIV TECHNOLOGY (see pp. 66)</li> <li>Electric vehicles (see p. 67)</li> <li>Developing and designing product with consideration for recycling (see p. 71)</li> </ul>
Corporate Activities in Consideration of Conserving Resources and Energy	<ul> <li>Improving the facility operation rate and shortening the cycle time in the production process (see p. 73)</li> <li>Introducing hub-and-spoke system for transportation of completed vehicles and service parts (see p. 74)</li> <li>Assessing and considering the impact on biodiversity when constructing a new plant</li> </ul>
Collaboration/Cooperation with Society and Local Communities	•Promoting the preservation of forests, the protection of rare species, and the protection of habitats of migratory birds*1
Awareness Enhancement and Information Disclosure	<ul> <li>Activities through the Mazda Foundation*1</li> <li>Educating employees</li> <li>Introducing the activities to the inside and outside of the company through the Mazda Sustainability Report etc</li> </ul>

\*1 United States http://www.mazdafoundation.org/ Australia http://mazdafoundation.org.au/ New Zealand http://mazdafoundation.org.nz/

### **ENVIRONMENTAL COMMUNICATION**

Under the Mazda Global Environmental Charter, Mazda carries out a wide variety of environmental protection activities related to products and technologies; manufacturing, logistics, and office operations; and social contributions. The Company appropriately discloses information on each of these activities, and ensures opportunities for dialogue with the stakeholders concerned, thereby striving to respond promptly and appropriately to social problems.<sup>\*1</sup>

#### Participation in Environmental Exhibits and Events

Mazda actively participates in various environment-related exhibitions and events, for the purpose of gaining stakeholders' understanding regarding its environmental initiatives and hearing their broad range of opinions. Mazda adopts a wide range of approaches to communicate about the environment, such as introducing its advanced environmental technologies at motor shows all over the world and offering test-drives of its vehicles equipped with SKYACTIV TECHNOLOGY at various events held in and outside Japan.

### Reducing Environmental Impact Generated by Communication Activities

Mazda has been working to reduce the environmental impact generated by its communication activities.

#### Environmental considerations in event operation

- Reusing/recycling booth decorating items
- Decreasing the amount of handouts to reduce CO<sub>2</sub> emissions
- Implementing carbon offsetting by calculating CO<sub>2</sub> emissions from event activities

#### Environmental considerations in publishing materials

- Adopting FSC-certified paper, waterless printing, and vegetable oil ink
- Implementing carbon offset by calculating CO<sub>2</sub> emissions from the printing and bookbinding processes

#### Use of Website and Publishing Materials

Mazda ensures environmental communication in a wide variety of ways in consideration of matters of interest that each stakeholder may have and media that he/she may frequently use.

Mazda uses images and computer graphics on its website in order to provide easyto-understand explanations of environmental technologies. Reinforcing the use of social media, the Company disseminates information in a timely manner, and uses the comments provided to the Company for its daily operations.

For the Mazda Sustainability Report, the Company has prepared in-depth/ digest versions, as well as PDF/Website/booklet versions, in consideration of stakeholders' needs regarding the edition method/media to be used. The results of the collected questionnaires and the number of visitors to the website are provided to the executive officer in charge of related affairs, as well as to production members, as feedback, and used for planning the next fiscal year's version.

#### TOPICS EcoPro 2017

In December 2017, Mazda set up its booth at the EcoPro 2017—International Exhibition on Environment and Energy—, which was one of Asia's leading comprehensive expositions of the environment and energy. At the booth, the CX-5, featuring a front grille made of bio-based engineering plastic and the Aqua-Tech Paint System, was on display. The Company also held an environmental education quiz show entitled "Mazda's Challenge of Devising Methods to Reduce CO<sub>2</sub> Emissions toward a Better Future of the Earth" designed for elementary and junior high school students, and other events to provide visitors with an easy-to-understand explanation about Mazda's environmental initiatives.



\*1 Refer to the following URL for social contribution activities regarding environmental communications by the Mazda Group: http://www.mazda.com/en/csr/social/ Safet

#### In-House Awareness-Raising Activities

To raise environmental awareness among its employees, Mazda conducted a wide range of activities in FY March 2018 including the following.

#### Eco Walk Commuting Program

In order to raise employees' environmental consciousness and encourage them to take better care of their health, employees who walk two kilometers or more as part of their daily commute to work are rewarded with an addition of 1,500 yen per month to their commuting allowance. **Lunchtime Lighting Halved** 

Efforts to reduce lighting in Mazda offices and plants during lunch breaks to half the normal levels have continuously been promoted.

#### Light-Down Campaign

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- CO<sub>2</sub> Reduction/Light-Down Campaign promoted by the Ministry of the Environment Mazda and its domestic Group companies participated in the CO<sub>2</sub> Reduction/Light-Down (i.e., lights-off) Campaign promoted by the Ministry of the Environment. They turned off the lights at each of their sites in Japan, thereby saving around 20 thousand kWh of electricity, equivalent to around 10 tons of CO<sub>2</sub> emissions (from 8 p.m. to 10 p.m. on June 21 and July 7, 2017, estimated figures).
  - Mazda Motor Corporation shut off the lighting of its signboards and indoor lighting every night from the summer solstice in June to Tanabata, the Star Festival (July 7) (15 sites). Nation-wide 777 production/business sites of 99 Mazda Group companies in Japan participated in the campaign (On the summer solstice and Tanabata).
- WWF's Earth Hour 2018

Mazda and its domestic Group companies participated in the Earth Hour 2018 event organized by the World Wildlife Fund (WWF).

They turned off the lighting of their signboards and indoor lighting at each of their sites in Japan (from 8 p.m. to 10 p.m. on March 24, 2018).

Mazda Motor Corporation shut off the lighting of its signboards and indoor lighting (15 sites). Nationwide, a total of 787 production/business sites of 75 Mazda Group companies in Japan shut off the lighting of their signboards and indoor lighting.

Mazda also participated as a supporting company in the WWF's event of shutting off the lighting of the Hiroshima Peace Memorial (Genbaku Dome) in the Hiroshima Peace Memorial Park. It was the first time that this Light-Down event was held in Hiroshima.

Employees' private participation in the Light-Down campaign

Mazda also encouraged its employees and their family members to privately participate in activities involving turning off their lights in conjunction with the  $CO_2$  Reduction/Light-Down Campaign promoted by the Ministry of the Environment.

A total of around 37,000 employees and their family members of Mazda and its Group companies in Japan turned off their lights from 8 p.m. to 10 p.m. on both the summer solstice and Tanabata.

#### President's Messages during Environment Month

The president transmitted messages to the entire Company during Environment Month (June), emphasizing the importance of thinking about and taking action for the environment. In FY March 2018, the president placed a special focus on raising employees' awareness of the importance of global warming prevention and biodiversity conservation. The president's message was also disseminated to Group companies in Japan and overseas.

#### **Environmental Education during Environment Month**

To encourage every employee to think about and take action for the environment, educational programs regarding general environmental issues, the importance of biodiversity, Mazda's environmental initiatives, and environmental conservation activities in the workplace have been implemented, in coordination with basic education on ISO 14001.

### TOPICSAs a Supporting Company of the WWF's Earth Hour, Participating in<br/>that Event Together with Its Group Companies

Mazda endorses the aim of Earth Hour<sup>\*</sup> organized by the World Wildlife Fund (WWF). As a supporting company of Earth Hour, Mazda participated in the Earth Hour event held in March 2018, together with 75 Group companies (787 sites).

As part of Earth Hour 2018, a light-down (lights-off) event took place for the first time in Hiroshima, around the Hiroshima Peace Memorial (Genbaku Dome) in the Hiroshima Peace Memorial Park. In coordination with local governments (Hiroshima City and Hiroshima Prefecture) and NPOs, the Company participated in the event as a supporting company. (Mazda Group-related facilities in the vicinity of the Genbaku Dome also joined the lightdown event.)

\* Earth Hour is an initiative to represent participants' intention to contribute to global warming prevention and environmental protection, through the action of turning off lighting at the same time on the same day.

а	Companies that Participated in the Light-
	Down Campaign

<ol> <li>Mazda Motor Corporation</li> </ol>	58. Hiroshima Seimitsu Co., Ltd.
2. Haliadata Maada Ca. Ital	50 Manda Processing Churchu
2. Hakodale Mazda Co., Lld.	59. Mazda Processing Chugoku
<ol><li>Aomori-Mazda Automobile</li></ol>	Co., Ltd.
Corporation	60 Mazda Logistics Co. Ltd
	ca ha la construction construction
<ol><li>Iohoku Mazda Co., Ltd.</li></ol>	61. Mazda Ace Co., Ltd.
5. Fukushima Mazda Co., Ltd.	62. Tovo Advanced Technologies
	C- It-l
6. Koshin Mazda Co., Ltd.	Co., Ltd.
<ol><li>Kanto Mazda Co., Ltd.</li></ol>	63. Mazda Odawara Co., Ltd.
8 Kitakanto Mazda Co. 1td	64 Tokyo Mazda Corporation
o. Ritakanto Mazua Co., Eta.	64. Tokyo Mazda Corporation
<ol><li>Chiba Mazda Co., Ltd.</li></ol>	65. Kyoto Mazda Co., Ltd.
10. Eunos Horie Co., Ltd.	66. Yamaguchi Mazda Co., Ltd.
11 Shimusha Maada Ca, Jad	67 Marda Autoram Tomoho
TT. Shizuoka Mazda Co., Ltd.	67. Mazda Autozam Tomobe
<ol><li>Eunos Sansho Co., Ltd.</li></ol>	68. Mazda Autozam Kashiwa
13 Hokuriku Mazda Co. Itd	69 Mazda Autozam Kamogawa
13. HOKUIIKU Mazua CO., Etu.	
14. Tokai Mazda Co., Ltd.	70. Mazda Autozam Tateyama
<ol><li>Keiji Mazda Co., Ltd.</li></ol>	<ol><li>71. Mazda Autozam Nikko-Toyama</li></ol>
16 Koho Mazda Co. Itd	72 Mazda Autozam Kvosai
TO: Robe Mazua Co., Etu.	
17. Kansai Mazda Co., Ltd.	73. Mazda Autozam Sena
18. Tottori Mazda Co., Ltd.	74. Mazda Autozam Minato
10. Okawara Maada Ca. Jad	75 Mazda Autozam Katsuragi
19. Okayama Mazua Co., Liu.	75. Mazua Autozani Katsuragi
20. Hiroshima Mazda Co., Ltd.	<ol><li>76. Mazda Autozam Matsue</li></ol>
21 Enfini Hiroshima Co. Ltd	77. Mazda Autozam Bizen
23 Million 110 Shining Col, Etd.	70 Manda Autor 5
<ol> <li>Nishi-Shikoku Mazda Co., Ltd.</li> </ol>	78. Mazda Autozam Fuchu
23. Nagasaki Mazda Co., Ltd.	<ol><li>Mazda Autozam Mihara</li></ol>
24 Kyushu Mazda Co. Itd	80 Mazda Autozam Kaita
24. Ryushu Mazua Co., Etu.	oo. Mazua Autozani Kaita
25. Minami-Kyushu Mazda	81. Mazda Autozam Geibi
Co., Itd.	82. Mazda Autozam Mivoshi
26 Olizavia Maada	82 Manda Autonom Llafe Chur
26. Okinawa Mazua	65. Mazua Autozam Holu-Chuo
Corporation	84. Mazda Autozam
27 Mazda Chuhan Co. Ltd	Obihiroinada
26. Mazua Autozam Ishikawa	65. Mazua Autozam Miyamoto
<ol><li>Mazda Autozam Sukagawa</li></ol>	Obihiro
30 Mazda Autozam Tanagura	86 Mazda Autozam Asahikawa
3 I. Mazda Autozam Maebashi-	87. Mazda Autozam Omagari
Chuo	<ol> <li>Mazda Autozam Shin-</li> </ol>
32 Mazda Autozam	Shirakawa
32. Mazda Autozam	Shirakawa
32. Mazda Autozam Kashiwanoha-Campus	Shirakawa 89. Mazda Autozam Chichibu-Nishi
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Higashi
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<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Izumo-Hirata</li> <li>Mazda Autozam Yasufuruichi</li> <li>Mazda Autozam Bairin</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Higashi 92. Mazda Autozam Kikugawa 93. Mazda Autozam Kikugawa 94. Mazda Autozam Toyohashi-Tobu
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Izumo-Hirata</li> <li>Mazda Autozam Isayfuruichi</li> <li>Mazda Autozam Masufuruichi</li> <li>Mazda Autozam Nasifuruichi</li> <li>Mazda Autozam Nanami</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Higashi 92. Mazda Autozam Gifu-Nishi 93. Mazda Autozam Kikugawa 94. Mazda Autozam Toyohashi-Tobu 95. Mazda Autozam
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Yasufuruichi</li> <li>Mazda Autozam Yasufuruichi</li> <li>Mazda Autozam Bairin</li> <li>Mazda Autozam Tonami</li> <li>Mazda Autozam Oda</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Higashi 92. Mazda Autozam Gifu-Nishi 93. Mazda Autozam Giyuagawa 94. Mazda Autozam Toyohashi-Tobu 95. Mazda Autozam Fukuchiyama
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Yasufuruichi</li> <li>Mazda Autozam Yasufuruichi</li> <li>Mazda Autozam Bairin</li> <li>Mazda Autozam Tonami</li> <li>Mazda Autozam Oda</li> <li>Mazda Autozam Oda</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Mirashi 93. Mazda Autozam Gifu-Nishi 93. Mazda Autozam Kikugawa 94. Mazda Autozam Toyohashi-Tobu 95. Mazda Autozam Fukuchiyama 96. Mazda Autozam
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Isumo-Hirata</li> <li>Mazda Autozam Isufuruichi</li> <li>Mazda Autozam Bairin</li> <li>Mazda Autozam Oda</li> <li>Mazda Autozam Oda</li> <li>Mazda Autozam Kurashiki-oda</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Higashi 92. Mazda Autozam Gifu-Nishi 93. Mazda Autozam Kikugawa 94. Mazda Autozam Toyohashi-Tobu 95. Mazda Autozam Fukuchiyama 96. Mazda Autozam Yano
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<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Tumo-Hirata</li> <li>Mazda Autozam Yaufuruichi</li> <li>Mazda Autozam Yaufuruichi</li> <li>Mazda Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Kurashiki- Funabashi-Kita</li> <li>Mazda Autozam Gaki-</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 92. Mazda Autozam Gifu-Nishi 93. Mazda Autozam Toyohashi-Tobu 94. Mazda Autozam Toyohashi-Tobu 95. Mazda Autozam Yano 97. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Tohi 99. Niitech Co., Itd. 100. Kawada Co., Itd.
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<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Lumo-Hiraida</li> <li>Mazda Autozam Kuraini</li> <li>Mazda Autozam Susimi</li> <li>Mazda Autozam Susimi</li> <li>Mazda Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Kurashiki- Higashi</li> <li>Mazda Autozam Suraini</li> <li>Mazda Autozam Susunai</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Suraini</li> <li>Mazda Autozam Suraini</li> <li>Mazda Autozam Suraini</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Suraini</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Mirakami 92. Mazda Autozam Kikugawa 94. Mazda Autozam Kikugawa 94. Mazda Autozam Toyohashi-Tobu 95. Mazda Autozam Toyohashi-Tobu 96. Mazda Autozam Yano 97. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Tohi 99. Niitech Co., Itd. 100. Kawada Co., Itd. 101. Nara Mazda Co., Itd. 102. Osaka Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Yamamoto-Aoba 105. Mazda Autozam Nagaoka- Nishi
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Yaufuruichi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi-Kita</li> <li>Mazda Autozam Nichido- Funabashi-Kita</li> <li>Mazda Autozam Qgaki- Higashi</li> <li>Mazda Autozam Tanabe</li> <li>Mazda Autozam Taupaa</li> <li>Mazda Autozam Taupaa</li> <li>Mazda Autozam Taupaa</li> <li>Mazda Autozam Taupaa</li> <li>Mazda Autozam Tusyama</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Ueda</li> <li>Mazda Autozam Ueda</li> <li>Mazda Autozam Ueda</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Ueda</li> <li>Mazda Autozam Ueda</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Mutozam Lida Mazda Faltoparing &amp; Technology Co., Itd.</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 92. Mazda Autozam Kikugawa 94. Mazda Autozam Kikugawa 94. Mazda Autozam Toyhoashi-Tobu 95. Mazda Autozam Yano 96. Mazda Autozam Yano 97. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Tohi 99. Niitech Co., Itd. 100. Kawada Co., Itd. 101. Nara Mazda Co., Itd. 102. Osaka Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Yamamoto-Aoba 105. Mazda Autozam Nagaoka- Nishi
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Tumo-Hirata</li> <li>Mazda Autozam Lumo-Hirata</li> <li>Mazda Autozam Kuranini</li> <li>Mazda Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Kurashiki- Higashi</li> <li>Mazda Autozam Qaki- Higashi</li> <li>Mazda Autozam Gaki- Higashi</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Tanabe</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Kusunoki</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 92. Mazda Autozam Kikugawa 94. Mazda Autozam Kikugawa 94. Mazda Autozam Toyohashi-Tobu 95. Mazda Autozam Toyohashi-Tobu 96. Mazda Autozam Yano 97. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Tohi 99. Niitech Co., Itd. 100. Nawada Co., Itd. 101. Nara Mazda Co., Itd. 102. Osaka Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Yamamoto-Aoba 105. Mazda Autozam Nagaoka- Nishi 106. Mazda Autozam Kumagaya
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Yaufuruichi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi-Kita</li> <li>Mazda Autozam Ogaki- Higashi</li> <li>Mazda Autozam Gaki- Higashi</li> <li>Mazda Autozam Tanabe</li> <li>Mazda Autozam Tanabe</li> <li>Mazda Autozam Tusyama</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Ueda</li> <li>Mazda Autozam Ueda</li> <li>Mazda Autozam Leda</li> <li>Mazda Autozam Led</li></ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 92. Mazda Autozam Kikugawa 94. Mazda Autozam Kikugawa 94. Mazda Autozam Toyhashi-Tobu 95. Mazda Autozam Yano 96. Mazda Autozam Yano 97. Mazda Autozam Yano 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Tohi 99. Niitech Co., Itd. 100. Kawada Co., Itd. 101. Nara Mazda Co., Itd. 102. Osaka Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Yamamoto-Aoba 105. Mazda Autozam Nagaoka- Nishi 106. Mazda Autozam Kumagaya 107. Mazda Autozam Kumagaya
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Lumo-Hirata</li> <li>Mazda Autozam Kuronita</li> <li>Mazda Autozam Sudriruichi</li> <li>Mazda Autozam Sudriruichi</li> <li>Mazda Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Qaki- Higashi</li> <li>Mazda Autozam Gaki- Higashi</li> <li>Mazda Autozam Gaki- Higashi</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Tanabe</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Susunoki</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 92. Mazda Autozam Migashi 92. Mazda Autozam Kikugawa 94. Mazda Autozam Ciyohashi-Tobu 95. Mazda Autozam Toyohashi-Tobu 96. Mazda Autozam Yano 97. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Tohi 99. Niitech Co., Itd. 100. Nara Mazda Co., Itd. 101. Nara Mazda Co., Itd. 102. Osaka Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Nagaoka- Nishi 106. Mazda Autozam Kumagaya 107. Mazda Autozam Cishaya
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Yaufuruichi</li> <li>Mazda Autozam Yaufuruichi</li> <li>Mazda Autozam Yaufuruichi</li> <li>Mazda Autozam Vasufuruichi</li> <li>Mazda Autozam Yaufuruichi</li> <li>Mazda Autozam Yaufuruichi</li> <li>Mazda Autozam Yaufuruichi</li> <li>Mazda Autozam Nainin</li> <li>Mazda Autozam Nainin</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Susungai</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Lakehara</li> <li>Mazda Autozam Lakehara</li> <li>Mazda Autozam Leda</li> <li>Mazda Autozam Kusunoki</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 91. Mazda Autozam Kikugawa 94. Mazda Autozam Kikugawa 94. Mazda Autozam Toyhashi-Tobu 95. Mazda Autozam Yano 96. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Jyotetsu- Matsuyama 98. Mazda Autozam Tohi 99. Niitech Co., Itd. 100. Kawada Co., Itd. 101. Nara Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Nagaoka- Nishi 105. Mazda Autozam Nagaoka- Nishi 106. Mazda Autozam Kumagaya 107. Mazda Autozam Shahaya 108. Mazda Autozam Shahaya
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Tumo-Hirata</li> <li>Mazda Autozam Lumo-Hirata</li> <li>Mazda Autozam Kurashiki-</li> <li>Mazda Autozam Kurashiki-</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Kurashiki-</li> <li>Mazda Autozam Surashiki-</li> <li>Mazda Autozam Surashiki-</li> <li>Mazda Autozam Qaki-</li> <li>Higashi</li> <li>Mazda Autozam Gaki-</li> <li>Higashi</li> <li>Mazda Autozam Surashiki-</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Sales Hiroshima Co, Itd.</li> <li>Mazda Parts Sales</li> <li>Mazda Parts Sales</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 92. Mazda Autozam Migashi 92. Mazda Autozam Gifu-Nishi 93. Mazda Autozam Gifu-Nishi 94. Mazda Autozam Toyohashi-Tobu 95. Mazda Autozam Yano 96. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Tohi 99. Niitech Co., Itd. 100. Niate Aco., Itd. 101. Nara Mazda Co., Itd. 102. Osaka Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Nagaoka- Nishi 106. Mazda Autozam Kumagaya 107. Mazda Autozam Mishaya 108. Mazda Autozam Iyaseya 108. Mazda Autozam Iyaseya
<ol> <li>Azda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Yaufuruichi</li> <li>Mazda Autozam Yaufuruichi</li> <li>Mazda Autozam Yaufuruichi</li> <li>Mazda Autozam Vasufuruichi</li> <li>Mazda Autozam Vasufuruichi</li> <li>Mazda Autozam Vasufuruichi</li> <li>Mazda Autozam Vasufuruichi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Michido- Funabashi</li> <li>Mazda Autozam Michido- Funabashi</li> <li>Mazda Autozam Sangashi</li> <li>Mazda Autozam Tanabe</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Parts Sales Hiroshima Co, Itd.</li> <li>Mazda Parts Sales</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 92. Mazda Autozam Kilugawa 94. Mazda Autozam Cifu-Nishi 93. Mazda Autozam Cifu-Nishi 94. Mazda Autozam Toyohashi-Tobu 95. Mazda Autozam Yano 97. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Tohi 99. Niitech Co., Itd. 100. Kawada Co., Itd. 101. Nara Mazda Co., Itd. 102. Osaka Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Nagaoka- Nishi 106. Mazda Autozam Samaya 107. Mazda Autozam Samaya 108. Mazda Autozam Isahaya 109. Mazda Autozam Isahaya 109. Mazda Autozam Kuse
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Lumo-Hirata</li> <li>Mazda Autozam Sudruruichi</li> <li>Mazda Autozam Sudruruichi</li> <li>Mazda Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Sudrusani</li> <li>Mazda Autozam Sudrusani</li> <li>Mazda Autozam Qaki- Higashi</li> <li>Mazda Autozam Gaki- Higashi</li> <li>Mazda Autozam Caki- Higashi</li> <li>Mazda Autozam Tanabe</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Engineering &amp; Technology Co., ttd.</li> <li>Mazda Parts Sales Irioshima Co., Itd.</li> <li>Mazda Parts Co., Itd.</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 92. Mazda Autozam Gifu-Nishi 93. Mazda Autozam Gifu-Nishi 93. Mazda Autozam Gifu-Nishi 94. Mazda Autozam Toyohashi-Tobu 95. Mazda Autozam Yano 97. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Tohi 99. Niitech Co., Itd. 100. Kawada Co., Itd. 101. Nara Mazda Co., Itd. 102. Osaka Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Nagaoka- Nishi 106. Mazda Autozam Kumagaya 107. Mazda Autozam Sahaya 109. Mazda Autozam Isahaya 109. Mazda Autozam Isahaya 110. Mazda Autozam Kuse 111. Mazda Autozam Kuse 111. Mazda Autozam Kuse 111. Mazda Autozam Kuse
<ol> <li>Azzda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Yaufuruchi ada Mazda Autozam Yaufuruchi ada Autozam Yaufuruchi ada Autozam Yaufuruchi ada Autozam Vaufuruchi ada Autozam Vaufuruchi ada Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Michido- Funabashi</li> <li>Mazda Autozam Michido- Funabashi</li> <li>Mazda Autozam Jiaki Autozam Nichido- Funabashi</li> <li>Mazda Autozam Sunabashi</li> <li>Mazda Autozam Tanabe</li> <li>Mazda Autozam Tanabe</li> <li>Mazda Autozam Tuyama</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Parts Sales Hiroshima Co, Itd.</li> <li>Mazda Parts Sales</li> <li>Mazda Parts Sales</li> <li>Mazda Parts So., Itd.</li> <li>Mazda Parts Co., Itd.</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 92. Mazda Autozam Kikugawa 94. Mazda Autozam Kikugawa 94. Mazda Autozam Kisugawa 94. Mazda Autozam Toyhoashi-Tobu 95. Mazda Autozam Yano 97. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Tohi 99. Niitech Co., Itd. 100. Kawada Co., Itd. 101. Nara Mazda Co., Itd. 102. Osaka Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Nagaoka- Nishi 106. Mazda Autozam Nagaoka- Nishi 106. Mazda Autozam Samaya 107. Mazda Autozam Iwase 110. Mazda Autozam Mase 110. Mazda Autozam Misa
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Tumo-Hiraida</li> <li>Mazda Autozam Lumo-Hiraida</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Surini</li> <li>Mazda Autozam Surini</li> <li>Mazda Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Kurashiki- Kurabashi</li> <li>Mazda Autozam Qaki- Higashi</li> <li>Mazda Autozam Cgaki- Higashi</li> <li>Mazda Autozam Tanabe</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Suyama</li> <li>Mazda Parts Sales Hiroshima Co, Itd.</li> <li>Mazda Parts Soles Linishima</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 92. Mazda Autozam Gifu-Nishi 93. Mazda Autozam Gifu-Nishi 93. Mazda Autozam Gifu-Nishi 94. Mazda Autozam Toyohashi-Tobu 95. Mazda Autozam Toyohashi-Tobu 96. Mazda Autozam Yano 97. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Chi 100. Kawada Co., Itd. 101. Nara Mazda Co., Itd. 102. Osaka Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Nagaoka- Nishi 105. Mazda Autozam Kumagaya 105. Mazda Autozam Mugawa 108. Mazda Autozam Mugawa 108. Mazda Autozam Sahaya 110. Mazda Autozam Kuse 111. Mazda Parts Sales Chiba Co.
<ol> <li>Azzda Autozam Marka Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Lumo-Hirata</li> <li>Mazda Autozam Yasufuruichi</li> <li>Mazda Autozam Yasufuruichi</li> <li>Mazda Autozam Vasufuruichi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Ngaki- Higashi</li> <li>Mazda Autozam Tanabe</li> <li>Mazda Autozam Tusuama</li> <li>Mazda Autozam Tusuama</li> <li>Mazda Autozam Susunoki</li> <li>Mazda Autozam Lekhara</li> <li>Mazda Autozam Lekhara</li> <li>Mazda Autozam Sales Hiroshima co., Itd.</li> <li>Mazda Parts Sales</li> <li>Mazda Parts Sol, Itd.</li> <li>Mazda Yos, Itd.</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 91. Mazda Autozam Kikugawa 94. Mazda Autozam Kikugawa 94. Mazda Autozam Kikugawa 95. Mazda Autozam Toyhashi-Tobu 95. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Tohi 99. Niitech Co., Itd. 101. Nara Mazda Co., Itd. 102. Osaka Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Nagaoka- Nishi 106. Mazda Autozam Nagaoka- Nishi 106. Mazda Autozam Sagaya 107. Mazda Autozam Sagaya 108. Mazda Autozam Sagaya 108. Mazda Autozam Mase 109. Mazda Autozam Mase 109. Mazda Autozam Mase 110. Mazda Autozam Mase 110. Mazda Autozam Muse 111. Mazda Autozam Ojiya 112. Mazda Parts Sales Chiba Co., Ltd.
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Lumo-Hiraida</li> <li>Mazda Autozam Susono</li> <li>Mazda Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Ogaki- Higashi</li> <li>Mazda Autozam Cogaki- Higashi</li> <li>Mazda Autozam Kusunoki</li> <li>Mazda Parts Sales Hiroshima Co, Itd.</li> <li>Mazda Parts Co, Itd.</li> <li>Maya Sco, Itd.</li> <li>Yoshiwa Kogyo Co, Itd.</li> <li>Surashiki Kako Co, Itd.</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 92. Mazda Autozam Gifu-Nishi 93. Mazda Autozam Gifu-Nishi 93. Mazda Autozam Gifu-Nishi 94. Mazda Autozam Toyohashi-Tobu 95. Mazda Autozam Yano 96. Mazda Autozam Yano 97. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- 101. Nara Mazda Co., Itd. 101. Nara Mazda Co., Itd. 102. Osaka Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Nagaoka- Nishi 105. Mazda Autozam Kumagaya 106. Mazda Autozam Kumagaya 107. Mazda Autozam Kumagaya 109. Mazda Autozam Kuse 111. Mazda Autozam Kuse 111. Mazda Parts Sales Chiba Co., Itd. 13. DreamArts Corporation
<ol> <li>Mazda Autozam Kashiwanoha-Campus</li> <li>Mazda Autozam Toki</li> <li>Mazda Autozam Tumo-Hirata</li> <li>Mazda Autozam Yasufuruichi 34. Mazda Autozam Yasufuruichi 35. Mazda Autozam Vasufuruichi 39. Mazda Autozam Kasini 39. Mazda Autozam Kurashiki- Chuo</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Nichido- Funabashi</li> <li>Mazda Autozam Suki Karada Autozam Suki Funabashi</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Takehara</li> <li>Mazda Autozam Tusyama</li> <li>Mazda Autozam Sukehara</li> <li>Mazda Autozam Sukehara</li> <li>Mazda Autozam Sales Hiroshima Co, Itd.</li> <li>Mazda Parts Sales Hiroshima Co, Itd.</li> <li>Mazda Parts Co, Itd.</li> <li>Mazda Parts Co, Itd.</li> <li>Mazda Parts Co, Itd.</li> <li>Yoshiwa Kogyo Co, Itd.</li> <li>Korashiki Kako Co, Itd.</li> <li>Korashiki Kako Co, Itd.</li> </ol>	Shirakawa 89. Mazda Autozam Chichibu-Nishi 90. Mazda Autozam Murakami 91. Mazda Autozam Murakami 92. Mazda Autozam Kikugawa 94. Mazda Autozam Kikugawa 94. Mazda Autozam Toyhashi-Tobu 95. Mazda Autozam Toyhashi-Tobu 95. Mazda Autozam Yano 97. Mazda Autozam Yano 97. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Iyotetsu- Matsuyama 98. Mazda Autozam Tohi 99. Niitech Co., Itd. 100. Kawada Co., Itd. 101. Nara Mazda Co., Itd. 102. Osaka Mazda Motor Corporation 103. Hiroshima Orizuru Tower 104. Mazda Autozam Nagaoka- Nishi 106. Mazda Autozam Nagaoka- Nishi 106. Mazda Autozam Sugaya 107. Mazda Autozam Sugaya 108. Mazda Autozam Sugaya 109. Mazda Autozam Sugaya 109. Mazda Autozam Iwase 110. Mazda Autozam Giya 111. Mazda Autozam Giya 112. Mazda Autozam Giya 112. Mazda Autozam Giya 113. DreamArts Corporation 114. Hitoshima Branch of Daily

Companies No. 63 to 100 participated only in the CO<sub>2</sub> Reduction/ Light-Down Campaign by the Ministry of the Environment. Companies No. 101 to 114 participated only in the WWF's Earth Hour 2018.



Marda CSP	Customer	Quality	Safaty	Environment	Respect for	Social	Managamont
VIdZUd CSN	Satisfaction	Quality	Safety	Environment	People	Contributions	Management

### MAZDA'S CORPORATE ACTIVITIES AND **IMPACT ON THE ENVIRONMENT**

#### Results of FY March 2018

Mazda tracks ecological data to help reduce the environmental impact of its corporate activities in all areas.



\*1 Energy consumption, greenhouse gas emissions and distribution volume are calculated using the energy conversion factor and carbon emission coefficient based on the standards of the Japan Automobile Manufacturers Association, Inc. (JAMA) (Commitment to a Low Carbon Society). (For FY March 2018, the FY March 2017 coefficients are used.) Figures for consolidated subsidiaries and equity-method Group companies are prorated based on the percentage equity stake held by Mazda. CO<sub>2</sub> emissions resulting from power consumption by overseas companies are calculated by applying the coefficient used in CO<sub>2</sub> Emissions from Fuel Combustion (2013 Edition) published by International Energy Agency (IEA).

Data collection period: April 2017 to March 2018

Scope of data collection: Area A: Mazda Motor Corporation, 22 domestic consolidated Group companies and eight domestic equity-method Group companies, and 13 overseas consolidated Group companies and five overseas equity-method Group companies. Area B: Mazda Motor Corporation, 22 domestic consolidated Group companies and eight domestic equity-method Group companies. Area C: Mazda Motor Corporation. Area D: Mazda Motor Corporation, four domestic production sites and five overseas production companies (two consolidated Group companies and three equity-method Group companies). Area E: Domestic and major sales regions (North America, Europe and China)

\*2 Scope 1: Direct emissions from consumption of fuels and industrial processes; Scope 2: Emissions associated with consumption of purchased heat/electricity (indirect emissions from energy consumption) \*3 Scope 3: Other indirect emissions are calculated using Mazda's own calculation method, based on the Ministry of the Environment's emission basic unit datab

2.3, released in December 2017) for organizations to use when calculating greenhouse effect gas emissions generated throughout their supply chains. (Source:

2.5. reduction between the 2017 https://www.env.go.jp/cath/ordanka/supply\_chain/gvc/files/tools/DB\_v2.3\_r.pdf)
\*4 CO2 emissions are calculated based on the Ministry of the Environment's emission basic unit database (ver. 2.5, released in March 2018) for organizations to use when calculating greenhouse effect gas emissions generated throughout their supply chains. (Source: https://www.env.go.jp/earth/ondanka/supply\_chain/gvc/files/tools/DB\_v2.3\_r.pdf) chain/gvc/files/tools/DB V2.5.pdf)

Statistic provides (Section Section Processing S franchise system

\*9 Figures assured by a third-party (see p. 138).

\*10 Including figures assured by a third-party (see p. 138).

1,631 thousand units

87,803 units

1,456 units

67.733 units

203 units

1,420 thousand units overseas

Shipments of vehicles certified for low emissions (in Japan)\* (Vehicles that have been certified as low-emission vehicles ba

\* Number of passenger vehicles shipped within Japan, excluding micro minis and OEM vehicles

od 759

(excluding SULEV, U-LEV)

(Total retail units of Mazda-brand vehicles sold on a global basis)

210 thousand units in Japan

exhaust emissions certification regulations) SU-LEV (exhaust gas emissions reduce compared to the 2005 levels

U-LEV (exhaust gas emissions reduced 50% compared with 2005 level 화상값)

Vehicles meeting 2005 exhaust gas

emission standards Clean diesel

<sup>\*7</sup> Category 15: Investments, for group companies, are included in the greenhouse gas emissions in plants and offices. \*8 The total figure may not match the sum of the individual items due to rounding.

Mazda CSR	Customer Satisfaction	Quality	Safety	Environment	Respect for People	Social Contributions	Managemen
Period of Da	ata Collection: FY	March 2018 (April 2017–Ma	ırch 2018)				]
Boundary of	f Data Collection						
Mazda Moto	or Corporation	Hiroshima Head Office, Hiro Osaka Fleet Sales Gr., Mazda Mine Proving Ground, Parts Studio, Mazda Education Ce	shima Plant, Miyosl a R&D Center Yokol Centers (2 sites), M nter, IT Solution Div	hi Plant, Hofu Plant (Nishinou nama, Hokkaido Kenbuchi Pr azda Technical Service Cente rision (Ozu Building), Mazda	ura district), Hofu Pla roving Ground, Hokk rs (6 sites), Mazda Tr Hospital	nt (Nakanoseki district), <sup>-</sup> aido Nakasatsunai Provin aining Centers (2 sites), N	īokyo Office, g Ground, Λazda Saka
Consolidate	ed Group compani	es					
22 dome	estic companies	Manufacturing companies: A Co., Ltd. Sales companies: H Koushin Mazda Co., Ltd., Ka Keiji Mazda Co., Ltd., Kansai Okinawa Mazda Sales Co., L Parts sales company: Mazda	Aazda Ace Co., Ltd., akodate Mazda Co. nto Mazda Co., Ltd. Mazda Co., Ltd., N td., Mazda Chuhan Parts Co., Ltd.	, Mazda Logistics Co., Ltd., Kı ,, Ltd., Tohoku Mazda Co., Ltd , Shizuoka Mazda Co., Ltd., 1 ishi-Shikoku Mazda Co., Ltd. Co., Ltd., Mazda Motor Inter	urashiki Kako Co., Ltc d., Fukushima Mazda Fokai Mazda Sales Cc , Kyushu Mazda Co., national	I., Mazda Engineering & T Co., Ltd., Kitakanto Maz ., Ltd., Hokuriku Mazda ( Ltd., Minami-Kyushu Ma:	echnology da Co., Ltd., Co., Ltd., zda Co., Ltd.,
13 overse	eas companies	Mazda Canada, Inc., Mazda M GmbH, Mazda Motors UK Ltc Zealand Ltd., Mazda de Color Motor Taiwan Co., Ltd.	Motor Manufacturing I., Mazda Motor Rus mbia S.A.S, Mazda F	g de Mexico S.A. de C.V., Maz sia.000, Mazda Southern Afric Yowertrain Manufacturing (Tha	da Motors (Deutschla ca (Pty) Ltd., Mazda A iland) Co., Ltd., Mazd	nd) GmbH, Mazda Motor ustralia Pty Ltd., Mazda Mu a Motor (China) Co., Ltd.,	Europe otors of New , Mazda
Equity-Meth	nod Group Compa	nies					
8 domest	tic companies	Toyo Advanced Technologies Processing Chugoku Co., Ltd	Co., Ltd., Japan Cli ., SMM Auto Financ	imate Systems Corporation, Y ce, Inc., MCM Energy Service	∕oshiwa Kogyo Co., L Co., Ltd., Mazda Pa≀	td., Sanfrecce Hiroshima ts Sales Hiroshima Co., L	FC, Mazda td.
5 oversea	as companies	Mazda Sollers Manufacturing Engines Co., Ltd., FAW Mazda	g Rus LLC, AutoAllia a Motor Sales Co., L	ance (Thailand) Co., Ltd., Chi td.,	angan Mazda Autom	obile Co., Ltd., Changan	Ford Mazda

# **RESPECT FOR PEOPLE**

Mazda aims to be a company staffed by people who enjoy their work. To this end, the Company promotes personal development revolving the principles of the Mazda Way. Mazda also regards respect for human rights as fundamental to its corporate activities, and is actively and sincerely committed to human rights protection activities.

#### **CONTENTS**

- 88 Initiatives with Employees
- 100 Human Rights

#### CSR Targets for FY March 2019

#### $(\mathsf{Self}\text{-}\mathsf{assessment} \; \mathsf{key} \; \bigcirc : \mathsf{Accomplished}, \bigtriangleup : \mathsf{Nearly} \; \mathsf{accomplished}, \mathsf{\times} : \mathsf{Not} \; \mathsf{accomplished})$

Items	FY March 2018 targets	FY March 2018 results	Self- assessment	FY March 2019 targets	ISO 26000 core subjects
Achieving of diversity	Continue to respect the diversity of employees. (1) Continue and evolve training and effective development of top management in each region. (2) Steadly implement plans for training female managers, toward achieving the target number of female managers. <sup>11</sup> (3) Continue to achieve the legally required percentage of employees with special needs (2.0%) and promote employment of intellectually challenged people. <sup>11</sup>	① Held meetings (twice a year) aimed to formulate a plan for developing successors of top management of Group companies, and implemented collective training and project work for successor candidates. ② psecified highly promising female candidates at the assistant manager level for management positions in the future, and drew up individual development plans for them. Progress is continuously followed up by each division and the Personal Development Committee 2 (POC2). (Number of female middle managers: 42: percentage of female managers [middle management and above]: 2.9%) <sup>11</sup>	0	Continue to respect the diversity of employees. (1) Continue and evolve training and effective development of top management in each region. (2) Steadily implement plans for training female managers, toward achieving the target number of female managers." (3) Promote employment of people with special needs, encourage employment of intellectually challenged people and expand their opportunities, toward achieving the legally required percentage of employees with special needs (which was raised to 2.2%)."	6.3 Human rights
Human resource development	Strengthen initiatives to promote understanding of brand value management and its practice, and check the progress of these initiatives.	<ul> <li>Held the 1st session of MBLD#14 themed on the implementation of brand value management practices in December, and subsequently held the 2nd and 3rd sessions.</li> <li>Established the Hirosthima Cross-Industrial Co-creation Seminar, bringing together people from diverse industries working at Hirosthima-based companies and organizations (industry, academia and government).</li> <li>Participating employees were given opportunities to understand the importance of strengthening bonds with customers and to conduct practical activities. They were also given chances to improve their loyally to the Company."</li> </ul>	0	Strengthen initiatives to promote understanding of brand value management and its practice, and check the progress of these initiatives. (1) Hold the MBLD#15 session themed on the implementation of brand value management practices. (2) Start training for managers themed on what they should implement, to achieve dual goals—jobs (tasks) that lead to providing value to customers, and the improvement in the level of members' job satisfaction. <sup>17</sup>	6.4 Labor practices
Work-life balance	Improve the quality of various measures for further implementation of work-life balance.*1	<ul> <li>To increase business competitiveness, worked to realize flexible working styles, and improve the environment/measures to enable individual employees to work enjoyably (e.g., by making revisions to the vacation regulations, the flexitime working system, business travel regulations, the work-at-home system).<sup>11</sup></li> <li>The minimum number of paid vacation days taken a year (11 or more days) was achieved by almost all employees.<sup>11</sup></li> <li>Increased both the rate and the average number of paid vacations: to 88%, up 2% from the previous year, to 16.9, up 0.4 days from the previous year.<sup>11</sup></li> </ul>	0	Improve the quality of various measures for further implementation of work-life balance*1	6.4 Labor practices
Occupational safety and health	Promote activities based on the Safety and Health Management System. ① Continue risk assessment and improvement activities based on the assessment results. <sup>11</sup> ② Continue system auditing and share best practices with the related divisions. <sup>11</sup> ③ Achieve Japan's lowest-level workplace accident occurrence ratio, and consolidate the results of workplace accident occurrence surveys of Group companies on a global basis.	<ol> <li>Surveyed/identified dangerous or hazardous factors and then conducted activities to remove/reduce these factors, resulting in a 62% reduction in high-risk factors.<sup>41</sup></li> <li>Conducted system auditing in all the targeted divisions, and shared the auditing results (improvements and best practices) with related divisions.</li> <li>Total injury frequency rate<sup>32</sup>: 0.42 (increased by 0.09 points from 2016, and ranked 7th among 14 JAMA companies).</li> <li>Consolidated the results of workplace accident occurrence surveys of Group companies (production sites).</li> </ol>	10 20 3∆	Promote activities based on the Safety and Health Management System. ① Continue to conduct risk assessment and improvement activities based on the assessment esults. ② Continue system auditing and share best practices with the related divisions." ③ Achieve Japan's lowest-level workplace accident occurrence ratio, and consolidate the results of workplace acident occurrence surveys of Group companies on a global basis.	6.4 Labor practices
Industrial relations	Maintain sound labor relations in each region on a global basis, based on the legislation, culture, and labor practices in respective countries.	Maintained and improved sound labor relations through mutual communication between labor and management in Mazda Motor Corporation and in each region (resulting in no collective labor disputes).	0	Maintain and improve sound labor relations through mutual respect and communication between labor and management at Mazda Motor Corporation and in each region.	6.4 Labor practices
Respect for human rights	① Continue to support international initiatives, including the Universal Declaration of Human Rights and the International Labour Organization (IIQ) Declaration on Fundamental Principles and Rights at Work. ② Encourage all divisions across the Company, Group companies and suppliers to use materials and manuals of Mazda's human rights awareness raising activities, for human rights meetings and training by level, <sup>13</sup> including the programs to understand LGBT issues.	① Continued to clarify support for both declarations, in the Mazda Sustainability Report 2017. Continued drots to realize the principles of the UN Global Compact, such as human rights protection. ② Executed the following activities as scheduled, to raise awareness of human rights': • Held human rights 'I': • Held human rights': • Held human rights course in Cases That Occurred in Succession and Their Background' and 'Social Rehabilitation from Intractable Diseases.') • Held on-site training lectures at a greater number of venues, including the entire Hiroshima Plant and Group companies. • Augmented and held a training program for managers aimed at improving their interpersonal skills. • As part of LGBT-related initiatives, held a human rights lecture at the Company (for middle management, in July), held training by level and human rights meetings, and encouraged Group companies to use materials and manuals designed for Mazda's human rights awareness raising activities.	0	① Continue to support international initiatives, including the Universal Declaration of Human Rights, the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work, and the UN Global Compact. ② Encourage all divisions across the Company, Group companies and suppliers to use materials and manuals of Mazda's human rights awareness raising activities, for human rights meetings and training by level, <sup>13</sup> including programs to understand LGBT issues.	6.3 Human rights
Due diligence	Continue surveys and follow-up of the status of human rights initiatives throughout the value chain.	Promoted human rights initiatives throughout the value chain, recognized the status of these initiatives, and conducted surveys of these initiatives, as planned. • Applied Mazda materials for human rights meetings to Group companies, dealerships, and parts sales companies in Japan. • Provided advance guidance to employees dispatched to overseas Group companies on local cultures and customs. • Checked the expressions used to disseminate information inside and outside the Company for human rights infringements. • Conducted to consultation requests from collaborating companies submitted to the Human Rights Counseling Desk. • Conducted a questionnaire survey and hearing of local suppliers, regarding the way the Human Rights Counseling Desk was being managed. Also, presented the management method of the Mazda Global Hotime to local suppliers.	0	Continue surveys and follow-up of the status of human rights initiatives throughout the value chain.	6.3 Human rights

\*1 Initiatives at Mazda Motor Corporation (FY March 2018 results, and FY March 2019 targets).
 \*2 Results between January and December 2017. Accident frequency, measured as the number of casualties per million person-hours worked.
 \*3 Training programs for new recruits, mid-career hires, new band 5 (assistant manager level) and newly appointed managers.

### **INITIATIVES WITH EMPLOYEES**

#### Basic Approach to Human Resources

Mazda recognizes that people are its most important resource and aims to be a company staffed by people who enjoy their work.

To this end, the Company promotes human resources training based on the Mazda Way principles that are shared throughout the entire Mazda Group worldwide. Also, the Company has established Group-wide human resources policies and measures along with promotion of various initiatives.

#### Mazda Way

In FY March 2009, Mazda summarized seven basic principles and values handed down within the Company over time and defined these as the Mazda Way. In FY March 2017, examples of best work practices conducted within the Company were shared to encourage the implementation of such practices, in order to raise awareness of the Mazda Way in each Mazda employee and promote related changes in behavior. Mazda continues to promote measures to ensure that the Mazda Way can easily be put into practice by employees.

#### Group-wide Human Resources Policies

Mazda engages in regular communication with Group companies worldwide, and each Group company is working together to create further opportunities for interaction among personnel and cultivate a climate based on a shared point of view. Overseas Group companies have established a system to conduct management strongly rooted in local communities.<sup>\*1</sup> By appointing locally hired personnel as managers and above, the Company makes global efforts to create a comfortable working environment tailored to the culture of each country and region. Mazda also implements human resources exchanges throughout the Group (short-term personnel exchange program), through the Global PDC (Global Personnel Development Committee) and other measures, to enable a diverse range of employees to succeed on the global stage regardless of their country of origin or place of employment.

#### Global Personnel Development Committee<sup>\*2</sup>

Mazda is aiming to provide medium- to long-term training for employees to become leaders in every field of global business and ensure their optimal positioning and performance. Top managements of Mazda Motor Corporation and its Group companies discuss and decide the development and exchange plan for individual personnel in these companies.

#### Short-term Personnel Exchange Program

This program is mainly designed for employees in mid-level positions, with the aim of developing human resources who can be immediately effective in global business settings. Suitable employees in the Head Office are exchanged with their counterparts in overseas regions to gain opportunities for overseas business experience for a short term (three to six months). (Total number of employees exchanged from FY March 2011, when the program commenced, to FY March 2018: 31)

#### Regular Meetings with Human Resources Managers of Group Companies

- Bimonthly regular meetings with overseas regions
- Biannual global human resource meetings with the managements in charge of human resources of major overseas bases
- Half-yearly meetings with domestic Group companies located on the premises of the Head Office (Hiroshima)

#### Maintaining Global Employment and Recruitment

The Mazda Group conducts recruitment activities to employ the personnel suited to each country and region. Particularly production sites strive for the maintenance and management of appropriate employment, with an understanding that such practices have great impact on the local economies. In Japan, the Company has maintained the production volumes and related employment at manufacturing sites in Hiroshima and Yamaguchi Prefectures. Overseas, each of the Group companies promotes employment maintenance and recruitment activities tailored to the labor practices of each country/ region. At the same time, initiatives are under way to improve the operation rate of plants in Mexico and Thailand, and to establish a new plant in the United States.

#### a Seven Principles of the Mazda Way

#### ■ INTEGRITY

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b

We keep acting with integrity toward our customers, society, and our own work.

Social

Contributions

- BASICS/FLAWLESS EXECUTION We devote ourselves to the basics, and make steady efforts in a step by step fashion.
- CONTINUOUS KAIZEN We continue to improve with wisdom and ingenuity.
- CHALLENGER SPIRIT We set a high goal, and keep challenging to achieve it.
- SELF INITIATIVE We think and act with "self initiative."
- TOMOIKU We learn and teach each other for our mutual growth and success.
- ONE MAZDA We think and act with the view of "Global" and "One Mazda."

#### Rate of employees by region



b Rate of locally hired personnel assigned to management-level in overseas Group companies

	(Consolidated)
Employment rate in FY March 2018	72.5%
* Executive officers/	divisional general managers

<sup>\*1</sup> Countries/regions where Mazda Group companies are located.

<sup>\*2</sup> The Personal Development Committee (PDC) comprises four committees: PDC1 and Global PDC, which cover personnel in domestic and overseas global companies; PDC2, which covers the personnel in middle management of Mazda Motor Corporation; and PDC3, which covers employees of Mazda Motor Corporation excluding PDC1 and PDC2 level.

Respect for People

#### Realization of Diversity

Mazda respects the diversity of its employees, and the Company aims to foster a corporate climate in which every employee can express his/her individuality while working alongside others to contribute to the Company and society. Mazda also works on a variety of programs to enable its employees — a diverse range of people with different values and lifestyles — to enjoy their work by finding a healthy balance between their work and personal lives.

Increasing the Employment and Range of Opportunities for Female Employees<sup>\*1</sup> Through enhancement of measures promoting work-life balance and other initiatives, Mazda is striving to cultivate a workplace in which women can work comfortably. The Company has set the goal of increasing the number of female middle managers and above to three times the figure as of March 31, 2014 by 2020. To achieve this numerical target, Mazda has promoted initiatives according to voluntary action plans<sup>\*2</sup>. In 2016, the Company submitted these voluntary plans to the authority concerned as the business owner's action plans, based on the Act of Promotion of Women's Participation and Advancement in the Workplace. As of March 2018, the number of female middle managers and above has increased to twice the figure in FY March 2014. In the future, Mazda will continue to draw up and implement individual development plans for female candidates for middle and above management positions and also further promote the opportunities for female employees, by improving training and promoting female employee recruitment.

#### Employment for Those with Special Needs\*1

Mazda steadily and continuously recruits employees with special needs, considering that each employee can demonstrate his/her best performance. In support of a comfortable working environment for employees with special needs, Mazda has established the Physical Challenge Support Desk for consultations.

In FY March 2016, the Company started to employ intellectually challenged people. Mazda has also assigned two sign-language interpreters to further ensure information provision to people with hearing impairments (as of April 2018).

In March 2014, the Company was certified as an Ai Support Company/Organization under the Ai Support campaign\*<sup>3</sup>, by Hiroshima Prefecture. Mazda participates in this campaign with the aim of helping realize a society where all people can live in harmony and in comfort, regardless of whether they are with or without special needs. The Company has also registered itself with the "special support school employment support unit Hiroshima" \*<sup>4</sup> to carry out the internship program for intellectually challenged students, as part of its collaboration with the local community to promote employment of people with special needs.

### Promoting Re-Employment of the Elderly, and Passing on Expertise, Skills, and Know-How<sup>\*1</sup>

Mazda is actively re-employing retired former employees to help them share their expertise, skills, and know-how with younger employees.

Efforts are being made to create a work environment that is fulfilling yet able to balance work and personal life through measures such as reduced work hours and shorter days. Starting in FY March 2014, Mazda has introduced a system to ensure the continued employment of all post-retirement employees who wish to continue working, in response to the revised Act on Stabilization of Employment of Elderly Persons, which took effect in April 2013.

### Systems to Enable Limited-Term Employees in Manufacturing Operations to Become Fulltime Employees and Mazda Workers' Union Members<sup>\*1</sup>

Mazda is implementing ongoing measures toward the achievement of a workplace in which limited-term employees can feel fulfilled with their work.

A system has been put in place for limited-term employees who have worked for one year or more at Mazda in becoming full-time employees.

In addition, limited-term employees who have worked for six months or more and had their contracts renewed can become members of the Mazda Workers' Union. Through these and other initiatives, the Company is cultivating a sense of oneness among employees with different employment styles as it aims to cultivate a vibrant environment where employees can enjoy their work.

Employee Data (as of March 31, 2018) 🗹 (	see p.	139)
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Social

Contributions

		Number of Production / medical	Employees Administrative / engineering	Average age <sup>*3</sup>	Average years of employment*3
ed*1	Male	10,191	10,347	40.3	17.2
Nonconsolidate	Female	683	1,396	37.4	13.7
	Total	22,617		40.0	16.8
Consolidate	d*2 Total	49,	755	_	_

\*1 The "Non-consolidated" numbers exclude the number of employees dispatched to Mazda Motor Corporation from other companies, but include the number of Mazda Moto Corporation employees dispatched to other companies.

\*2 The "Consolidated" numbers exclude the number of Mazda Group employees dispatched to companies outside the Group, but include the number of employees dispatched to Mazda Group companies from outside the Group.

 \*3 Exclude the number of employees hired under the Expert Family system.

	(Non-consolidated				
	FY March 2016	FY March 2017	FY March 2018		
Number of female employees hired	144	133	170		
Number of female managers (assistant manager and above)	173	190	206		
Number of female managers (middle management and above)	29	36	42		
Percentage of female managers <sup>*1</sup> (assistant manager and above)	4.3%	4.6%	4.9%		
Percentage of female managers <sup>*2</sup> (middle management and above)	2.0%	2.5%	2.9%		
Number of male managers (middle management and above)	1,409	1,419	1,405		
Number of workers aged 60 and over (Expert Family)	1,067	1,042	994		
Percentage of employees with special needs <sup>*3</sup>	2.02% (Legal rate: 2.0%)	2.03% (Legal rate: 2.0%)	2.11% (Legal rate: 2.0%)		
Number of employees with special needs*3	295	303	324		
Average age of managers	51.9	52.0	52.2		
Employee turnover rate*4	3.1%	2.8%	3.1%		
Number of new Male	459	449	448		
graduates hired (University, college and high school graduates)	87	77	94		

\*1 Number of female managers (assistant manager and above)/ Number of managers (assistant manager and above)

\*2 Number of female managers (middle management and

above)/Number of managers (middle management and above) \*3 Average number in each fiscal year

\*4 Exclude the number of employees hired under the Expert Family

Global rate of female middle managers and above (Consolidated)

	,	
FY March 2018		6.7%

Percentage of female new graduates hired (from FY March 2017 to FY March 2019)

(nonnin 1 March 2017 to 11 March 2017) consolidate					
	FY March 2017	FY March 2018	FY March 2019		
Administrative	35%	37%	42%		
Engineering	11%	15%	15%		
Production	10%	11%	12%		

Subject to independent third-party assurance

\*1 Initiatives at Mazda Motor Corporation

- \*2 "Mazda Promoting Active Participation of Female Employees" http://www2.mazda.com/en/csr/
- csr\_vision/employee/pdf/diversity.pdf \*3 "Ai" is Love in English. The Ai Support campaign is intended to certify companies and organizations that recommend their employees to read the textbook "Let's Learn about and Live with People with Special Needs," and to participate in
- Ai Supporter training programs. \*4 A program to promote the employment of special school students through collaboration between local companies and Hiroshima Prefecture.

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Safety

Environment

Respect for People

#### Global Employee Survey

Mazda has conducted employee surveys on a continual basis. These surveys are intended to identify employees' work motivation and the conditions in the environment supporting such motivation, and the results are used to make further improvements.

The survey results are reported to top managements of Mazda and its Group companies at home and abroad, and the major contents are disclosed to employees. The results for each division/company are fed back to its management-level members, who are thereby encouraged to develop improvement plans as part of the PDCA (plan-do-check-act) cycle.

To more accurately grasp the state of human resources and organizations that contribute to the realization of its corporate vision, Mazda revised the survey items in FY March 2018. Specifically, the questions were refined regarding "Mazda's unique ways of proceeding with work" and "management." The revised survey was commenced in May 2018.

Percentage of Positive Responses in Global Employee Survey Results

	FY March	FY March	FY March
	2015	2016	2017
I would like to work at Mazda/Mazda Group companies as long as possible.	78%	79%	79%
I make efforts to develop my knowledge or skills at work for which I am responsible as a professional.	77%	77%	79%
I feel motivated to go beyond my formal job responsibility.	74%	75%	76%
I understand the relationship between my job and this company's strategy and goals.	70%	71%	72%
I try my best to exceed the expectations of customers and stakeholders at work by putting myself in their position.	74%	75%	78%
I consider how I can act or behave in line with Mazda's Corporate Vision and deal to be pursued.	61%	63%	62%
I propose and implement ways of working that enable me to realize Mazda's Corporate Vision and deal to be pursued.	57%	58%	59%

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Examples of Improvement Measures at Workplaces Based on Survey Results

- Organizing divisional town hall meetings (for explanation of strategies/policies and holding discussions) and meetings with senior management
- Promoting idea sharing and strengthening teamwork by activating small-group activities

#### The Global HR cocreation team

Tetsuro Nakayama, Aya Izumitani, Yuriko Hara, Takayuki Ito (Mazda Head Office – left to right

> Bruno L. Mueller (Mazda Motor Europe)





#### EMPLOYEE'S VOICE

Mazda revised the Global Employee Survey (GES) in FY March 2018. Revised the Global Employee Survey (GES) - To build and sustain a Mazda unique success model

(Consolidated)

Our former GES was designed based on generic definitions of a successful company and did not lend itself to identify the factors that are strengthening Mazda's unique organizational power. To build and sustain Mazda's unique success model, the Global HR co-creation team from Japan, Australia, Canada, Europe and the US, made a directional decision to update the former Global Employee Survey. The project team wanted to create a better alignment to our business strategy and to measure what our people feel about Mazda's internal quality (the experience that our people have at work), employee engagement, agility, alignment, and motivation, which are covered in the 6 important categories of the survey<sup>\*</sup> (described further down). We also wanted to introduce a more effective management tool to support the many organizations within Mazda to review, understand and take action on the feedback they received. During the co-creation phase we were faced with many demanding challenges, including an extremely tight time schedule, global complexity and cultural differences, as well as complying with the latest European data protection regulation. We also had to translate the survey into 19 local languages and design a user-friendly survey tool. We overcame these challenges because the project team demonstrated team work, had mutual trust in one another and had great support from our Global Executive Officers within HR.

Bringing the new GES to life was only possible because of the way that HR at MC and the regions completed global co-creation activities - a success model the Global HR members highly value and will continuously build on.

\*6 categories

- Mazda's Global Essence (Customer First, Mukainada Spirit("Never Stop Challenging" spirit), Collaboration, Mazda Way)
- 2.Employee Motivation (Enablement, Job Role & Connection with Mazda, Personal Growth & Development)
- 3.Working Environment (Positive Working Environment, Pay & Benefits, Communication) 4.Effective Leadership & Management (Setting up for Success, Building Positive Relationships,
- Recognition)
- 5.Brand Engagement
- 6.Clear Advantage Framework (Agility, Alignment, Engagement)

#### On the phone and/or missing on the picture:

Jacinta Spedding (Mazda Australia) , Theresa Barrera (Mazda North American Operations), Takeshi Fujiga, Kazuhisa Yoshida, Yuzo Toyoda, Masahiko Takamura, Yuko Yamade, Kiyotaka Ishii, Toshio Suhara, and Chris Clark (Mazda Head Office)

Safety

Environment

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**Respect** for Contributions People

(Non-consolidated)

#### Best Match of People, Work and Rewards

Mazda has put in place a system to ensure that each employee understands their work evaluation results and ability level assessments, and feels that their growth and performance are appropriately reflected in their compensation. Specifically, since 2003, instead of using gender, age, nationality, or years of service as criteria, employees are graded according to their ability level (production and medical staff) and work level (administrative and engineering staff), so that individual employee's performances are directly reflected in their base salaries and bonuses. In wage determination, Mazda is not only in compliance with local laws and regulations in each region both in Japan and overseas, but also taking industry standards into consideration.

#### Choice and Self-Accomplishment

Mazda provides various opportunities for employees to take the initiative in setting their own growth and performance goals and doing their best to achieve them, so that ultimately, such efforts will bring great results to the Company. Mazda offers a range of education and training programs to assist employees in developing their careers and improving their skills according to their job types and positions. These programs are for Mazda and its Group companies in Japan and overseas to manufacture and sell products of the same quality in all countries and regions, by sharing the same objectives.

Major Education and Training Programs

Average yearly salary d

	FY March 2016	FY March 2017	FY March 2018
Total	6,812,000 yen	6,846,000 yen	6,803,000 yen

Social

#### (Non-consolidated, Average salary by gender е in April 2018)

	Male	Female
Middle management and above positions	643,108 yen	578,854 yen
General employees	309,070 yen	291,089 yen

#### f Education/training results in FY March 2018

	(Non-consolidated)
Average days of training per person	1.23 days/year
Average training cost per person	2,337 yen/year
Number of employees that received training	5,809 employees/year

Name of education and training program	Duration, frequency, etc.	Target	Objective	Content of training	Remarks
Mazda Business Leader Development (MBLD)	Once a year	All Group employees in Japan and overseas	<ul> <li>To communicate the intention of the top management</li> <li>To cultivate business leaders at all levels who have a company-wide perspective</li> <li>To reform the corporate culture and climate.</li> </ul>	Regarding management issues and the future direction of the Company, message from the management team is delivered. The understanding and the future execution of the message through active participation by all employees is promoted	Commenced in 2000. Since FY March 2013, the program has been annually implemented on the theme of "Brand Value Management."
Global Business Leader Program	As needed	Employees selected from Mazda Group companies around the world	To hone skills in areas including leadership, broadness of vision, and the ability to think strategically, and train the next generation of business operators to take the lead in global business	The program features practical activities such as communication with top business leaders and engagement as a team on management issues	Inaugurated in FY March 2016
Human Resource Development at Global Production Sites	As needed	Management and production staff at overseas production sites	To provide basic training by level to employees working at overseas production sites	•Management training •Supervisor education program •Technical skills training •Karakuri Kaizen training	-
Training by level*1	As needed	Administrative and engineering staff*1	To encourage employees to reconfirm their roles at each level, and consider how they can help improve the organizational strength of the Company	• Training for third-year employees • Training for band 6 employees • Training through communication between departments for band 5 employees	_
Management skill training*1	When newly appointed	Newly appointed senior managers, new band 5 employees (assistant manager level)*1	To develop trainees' awareness and sense of responsibility as managers and urge them to acquire a companywide perspective, thereby altering their mindset toward their own roles	Mazda Way, CSR, compliance, internal controls, personnel management, human rights, safety and health, etc.	-
Production Leader Training Program*1	As needed	Foreman/ Assistant Foreman/ Team Leader candidates <sup>*1</sup>	To develop trainees' abilities to recognize and resolve problems, management improvement skills, and leadership capabilities and other skills required to work as a leader at each level	• Super leader training • Senior leader training • Team leader training • Junior leader training	_
WorldSkills Competition Training Program <sup>*1</sup>	Two years / 12 employees	Selected employees in the production field who are under 21 years old*1	Systematic training of young engineers     Training participants to compete in the regional, national and international WorldSkills competitions	Employees are trained in special skills so as to participate in the WorldSkills competition	Results of FY March 2018         Gold, silver and bronze medals in         Sheet Metal Technology       1 of each         Bronze medal in Car Painting       1         Medallion for Excellence in Autobody Repair       2
Advanced Technical Skills Training course* <sup>2</sup>	As needed	Selected highly skilled employees*1	To preserve the advanced technical skills necessary for manufacturing and hand them down from one generation of craftspeople to the next	•During the two-year program, one expert trains two apprentices •After completing the course, the expert is awarded the title of Production Engineering Meister and receive the Meister Badge	Cumulative Results since 1996129Number of employees completing the course12Production Engineering Meisters61Hiroshima Prefecture award winning skilled worker16Contemporary Master Craftspeople13Medal with Yellow Ribbon recipients15
Welding Skills Training Program*1	As needed	Welding technicians <sup>*1</sup>	• To train technicians to compete in the regional and national competitions • To promote the growth of individual technicians, pass on skills within Mazda and raise standards	Specialized training is conducted with the goal of sending welding technicians to complete in the national championships	Inaugurated in 1982 (Figures below are the cumulative numbers)       National competition winners     9       Prize recipients     36

\*1 Initiatives at Mazda Motor Corporation

\*2 Twenty-four courses comprising skills to pass on to new engineers are available in 13 fields: iron and casting, die casting, casting, powder alloys, heat treatment, machining, engine assembly, axle assembly, transmission assembly, press, chassis, painting, and vehicle assembly

Customer

Safety

Environment

**Respect** for People

Social Management Contributions

#### TOPICS Creating a Proactive and Enjoyable Working Environment by Combining the Forces of All Employees

The entire Mazda Group strives to create workplaces that enable all employees to align their efforts in the same direction and that allow each employee to work enjoyably and proactively with a sense of job satisfaction. In FY March 2018, Mazda enhanced opportunities for dialogue between management and employees regarding the future of the Company. Also, some measures, including flextime working and work-at-home systems, were reviewed for improvement, to ensure that employees can use these systems more flexibly. These activities are considered to lead to the "correction of the issue of long working hours," "promotion of the use of annual paid leave" and "promotion of flexible work styles," which have been promoted by the Japanese government under the "work-style reforms."

#### Human Resources System to Provide Appropriate Jobs and Environments\*1

Mazda uses the Tobiuo\*2 Human Resources System to provide the appropriate jobs and environments where each employee can demonstrate their best performance and to support their development and success.

Specifically, a wide variety of human resource measures are actively deployed based on the system's three pillars of "Choice and Self-Accomplishment," "Promote Balance between Work and Life," and "Best Match of People, Work and Rewards."

#### The Three Pillars of Tobiuo



#### Career Meetings<sup>\*1</sup>

At Mazda, opportunities for formal communication are provided for all employees through one-on-one career meetings between supervisors and their staff, held four times a year. The things that employees should do, the specific targets and broad goals expected by supervisors are combined with the employees' personal goals as well as the things they hope to, and can achieve, enabling supervisors and their staff to understand each other and proceed to set common targets. Based on the Mazda Way, they reflect on their work accomplishments and personal initiatives and efforts in order to encourage personal development and successful performance.

In addition, supervisors are required to take coaching training so that they can successfully motivate employees at these career meetings.

For particularly relevant SDGs (sustainable development goals), see p. 21 for details of SDGs.



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Main Themes of Career Meetings Discussions to

encourage personal development:

Confirm vision of future upon accomplishment of goals, determine abilities to refine through work and activities to undertake, monitor rate of improvement

Discussions to encourage performance: Determine work-related targets, confirm progress toward meeting targets, share present and future issues

Ratio of career meetings held FY March 2018 92.5% of all applicable employees

\*1 Initiatives at Mazda Motor Corporation

Management

Social

Contributions

#### **Competency Evaluation System**

Once a year, Mazda carries out a competency evaluation, through which the work attitude and behavior of administrative and engineering staff are evaluated. Based on the seven principles of the Mazda Way, a subjective evaluation is carried out to assess the work attitude and behavior that individual employees are expected to improve (competency evaluation items), from the employees' own perspectives and from the perspectives of their supervisors and subordinates/colleagues/ partner companies (multidimensional feedback). Feedback on the evaluation results is given to employees by supervisors at the career meetings, at which they discuss future issues to be addressed.

The competency evaluation system is used as an effective tool for supporting employees' personal development and successful performance. The evaluation results are used as a reference for effective company-wide positioning of personnel.

#### OJT Coach System<sup>\*1</sup>

Mazda has introduced the OJT (on-the-job-training) coach system for all new employees in administrative and engineering positions since FY March 2012. Typically a senior employee who shares a workplace with the new hire is assigned as an OJT coach providing the job related advices to each new hire. The purposes of this system are to train new employees, foster the coach's growth, and energize the workplace.

#### Career Challenge (In-House Recruitment / FA) System<sup>\*1</sup>

As part of the Career Challenge System (for employees' career development assistance), an in-house recruitment system has been implemented. Briefing sessions on in-house recruitment were held, attracting many participants who considered applications for the system. They actively communicated with the personnel from the departments that called for applicants for specific assignments. Mazda will continue to implement this system to provide employees with an opportunity to think about their own career development.

#### Mazda Technical College (Two-Year Course)\*1

Mazda Technical College, approved by the Ministry of Health, Labour and Welfare, is an in-house education institution offering courses to high school graduates and selected employees in order to cultivate human resources that can play a central role in manufacturing at Mazda. Those who complete the two-year program are assigned to production and manufacturing related divisions, and thrive at various manufacturing sites and in a range of situations.

Number of present students: 103 (as of April 1, 2018)<sup>\*2</sup>

 Total number of graduates (among present employees): 1,707 (from April 1988 to March 2018)

#### Promotion of Work-Life Balance\*1

Mazda is working on a variety of programs to enable its employees — a diverse range of people with different values and lifestyles — to enjoy their work and find a healthy balance between their work and personal lives. To promote understanding of various measures to help employees achieve a better life-work balance (see p. 94), the Company provides explanations in management skills training programs, and in the section "Compass for Work and Rewards of Employees" on the Intranet about support measures designed for each life event. In FY March 2004, Mazda's variety and frequency of use of systems introduced to enable the balancing of work with child-rearing and/or nursing care was recognized, and the Company received commendation from the Minister of Health, Labour and Welfare as the most "Family-Friendly Company" in Japan. Also, in FY March 2008, Mazda was awarded the Kurumin\*<sup>3</sup> certification logo mark in affirmation of its action plan for child-rearing support initiatives, based upon the Ministry of Health, Labour and Welfare's Law to Support the Development of the Next Generation.

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#### In-house recruitment

A system where the Company releases details on occupational experience and skill requirements for the specific assignments so that the appropriate employees are able to apply for a particular job

#### FA (Free Agent) System

A system where employees release their abilities and career history via the FA Declaration in order to challenge the job in a different field of work or department using their accumulated skills and experience

#### i Kurumin logo mark



\*1 Initiatives at Mazda Motor Corporation

\*2 Including five students from Group companies \*3 Kurumin logo certification status of domestic Group

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companies: Mazda Motor Corporation (2007), Mazda E&T (2009), Mazda Logistics (2011), Kurashiki Kako (2011), Mazda Ace (2012)

Mazda CSP	Customer	Quality
Mazua CSK	Satisfaction	Quality

Safety

Environment

Respect for People Social Ma Contributions

Management

System	Description (as of March 31, 2018)	Started	FY March 2016	FY March 2017	FY March 2018
Maternal care paid leave	This system allows female employees who are pregnant and have difficulty performing their duties due to morning sickness or other feelings of discomfort to take paid leave for the necessary amount of time.	Aug. 2008	38 beneficiaries (1,081 days)	47 beneficiaries (845 days)	36 beneficiaries (825 days)
Child-rearing paid leave	This system allows employees to take up to five consecutive working days off, following childbirth or for child-rearing.	Aug. 2008*1	2,189 days (491 beneficiaries) Including 17 non-regular employees Male: 1,684 days (389 beneficiaries) Female: 505 days (102 beneficiaries)	2,474 days (546 beneficiaries) Including 30 non-regular employees Male: 1,876 days (429 beneficiaries) Female: 598 days (117 beneficiaries)	2,164 days (481 beneficiaries) Including 35 non-regular employees Male: 1,742 days (394 beneficiaries) Female: 422 days (87 beneficiaries)
Child-rearing leave	This system supports unpaid leave for child-rearing for children up to 3 years old. It is possible to take leave in installments. (Legal requirement: Up to one year old.)	Jan. 1991	252 beneficiaries (including 11 male) Rate of reinstatement after childrearing leave: 99% Rate of retention after childrearing leave: 100%	300 beneficiaries (including 14 male) Rate of reinstatement after childrearing leave: 98% Rate of retention after childrearing leave: 85%	269 beneficiaries (including 13 male) Rate of reinstatement after childrearing leave: 98% Rate of retention one-year after childrearing leave: 96%
Nursing care leave	This system allows employees with eligible family members requiring nursing care to take a leave of absence (maximum length of 1 year). (Legal requirement: up to total of 93 days per eligible family member.)	Jan. 1992	8 beneficiaries (including 4 male)	2 beneficiaries (including 1 male)	11 beneficiaries (including 5 male)
Special working arrangements for employees involved with child-rearing or nursing	This system allows employees involved with nursing or childrearing (until end of child's sixth year of primary school) to reduce work hours, be excused from overtime and holiday work, etc. (Legal requirement regarding work hour reduction: until the child reaches 3 years old.)	Apr. 1999	Employees with reduced working hours For child-rearing: 325 For nursing care: 7	Employees with reduced working hours For child-rearing: 369 For nursing care:6	Employees with reduced working hours For child-rearing: 392 For nursing care: 8
Work-at-home system	This system enables employees to perform up to 25% of their work hours at home for the purpose of childrearing or nursing care, or when working at home will raise work efficiency.	Aug. 2008	118 beneficiaries	149 beneficiaries	265 beneficiaries
Special Warm Heart leave system	A paid-leave system covers nursing care for relatives, volunteer work, functions     at one's child's school, and infertility treatment     "Volunteer work" here refers to the following:     Social welfare (welfare services for children, for elderly people and for people     with disabilities, etc.)     •Environmental protection (forest preservation, recycling activities, etc.)     •Interaction and cooperation with communities (participation in community     events, support for activities of children's associations, crime prevention     activities, etc.)     ·Interactional friendship activities (welcoming home stay guests, interpretation     service, etc.)     ·Helath and medical volunteering (health care instructions, donor activities, etc.)     ·Disaster relief     ·Acquisition of qualifications, skills and knowledge that are useful in volunteer     activities     ·Support for sports activities (sports coaching, organizing sports events, etc.)     *Note that activities related to specific political and religious beliefs are not     included in volunteer work.	Aug. 2008*1	404 beneficiaries (2,492 days) Male: 180 beneficiaries (963 days) Female: 224 (1,529 days) For nursing care for relatives 342 beneficiaries (1,692 days) Including 30 non-regular employees Male: 137 beneficiaries (675 days) Female: 205 (1,017 days)	503 beneficiaries (2,598 days) Male: 229 beneficiaries (1,593 days) For nursing care for relatives 377 beneficiaries (1,786 days) Including 30 non-regular employees Male: 165 beneficiaries (780 days) Female: 212 (1,006 days)	769 beneficiaries (3,051 days) Male: 448 beneficiaries (1,476 days) For nursing care for relatives 411 beneficiaries (1,758 days) Including 34 non-regular employees Male: 158 beneficiaries (724 days) Female: 253 (1,034 days)
Onsite daycare center:Mazda Waku Waku Kids En	This daycare center was established for employees' children who have not yet entered school. A permanently stationed nurse is available to look after children who become ill.	Apr. 2002	Preschoolers: 47	Preschoolers: 47	Preschoolers: 47
Challenging Career leave	In order to increase future career potential, employees can use this system to take leave for up to three years while attending a school or other training facilities.	Oct. 2003	2 beneficiaries	2 beneficiaries	2 beneficiaries
Leave for employees accompanying a transferred family member	This system allows employees to take a fixed-term leave in order to accompany a spouse who has been transferred, allowing the employee to resume their career at Mazda later on.	Oct. 2003	24 beneficiaries	22 beneficiaries	15 beneficiaries
Re-employment Systems	This system provides an opportunity for former Mazda employees who left the Company due to marriage, child-rearing, nursing care, or other reasons to return to work if they desire.	Aug. 2008	1 registrant	4 registrant	2 registrant
Expert Family System	This system enables interested individuals who meet a certain standard of abilities and experience to be rehired as engineers, advisors to younger engineers (to pass on their knowledge), specialists or in other positions following their retirement at the mandatory retirement age.	Apr. 2006	250 hires	201 hires	180 hires
Super-Flextime Working System (with no set core working hours)	This system was introduced to maximize results by supporting a balance between each employee's private life and working life. Under this flextime working system, the employees can setup days of not showing up to their workplace.	Oct. 2000	Used at 80% of administrative and engineering field workplaces	Used at 80% of administrative and engineering field workplaces	Used at 80% of administrative and engineering field workplaces
Go Home Early Campaign	By streamlining operations, the Company has reduced the long working hours for divisions not directly connected with production. Examples of this initiative include no-overtime days and setting mandatory lights-out times. (Information about the overtime hours is reported back to management of each division, once in three months to implement the PDCA cycle.)	Sep. 2007	Ongoing	Ongoing	Ongoing
Paid Leave for JICA Activities	Employees participating in Japan International Cooperation Agency (JICA) volunteer activities are entitled to take paid leave for these activities.	Apr. 2007	_	-	-
Mazda Flex Benefit System	This is a selective benefit system. Individual employees can seek the type of assistance that most suits them by choosing from a number of preset benefit options within the points they have. Livelihood support, capacity development, childrearing, nursing care, social contributions, hobbies, etc.	Oct. 2001	All employees	All employees	All employees
Benefit program to support employees' environmental protection and social contribution activities	As part of the Mazda Flex Benefit System, employees can apply their points toward compensation for the costs incurred during volunteer activities they perform. This system is also extended to employees who take a leave of absence to participate in JICA activities.	Oct. 2001	6 instances 115,000 yen	19 instances 415,800 yen	14 instances 201,800 yen
Promotion of planned use of paid leave	Labor and management cooperate to streamline and standardize work processes, helping to create an environment in which employees take the initiative in planning for and using their paid vacation days (vacation may be taken in 0.5 day increments).	Ongoing	Rate of vacation day use: 82% Average of vacation days taken: 15.6 days	Rate of vacation day use: 86% Average of vacation days taken: 16.5 days	Rate of vacation day use: 88% Average of vacation days taken: 16.9 days

\*1 Operated under a different system before August 2008.

Social

Contributions

#### Mazda Mutual Aid Union\*1

The Mazda Mutual Aid Union has its foundations in the spirit of mutual assistance for all members<sup>\*2</sup>. Funded by mutual membership fees (from both members and the Company) as well as special contributions from the Company, this organization provides a range of assistance to its members and their families.

Quality

#### Marriage and Childbirth Support

Payments of gift money for marriage and childbirth ¥15,000 is paid upon marriage, and ¥5,000 per child is paid upon childbirth

#### Long-Term Care Support

- Long-term care leave payments
   ¥30,000/month will be paid to members who take leave under the long-term care leave system (If payment continues for more than three months, ¥100,000/month will be paid for the months after first three months)
- Family long-term care relief payments

¥50,000/year will be paid to members whose spouse is in a state requiring long-term care (as defined by the Ministry of Health, Labour and Welfare) for a continuous period of one year or more

#### **Education Support**

Payment of subsidies for raising disabled children
 ¥50,000/year will be paid in support of child development to members whose child possess a grade 2 disability or higher

#### Support During Disasters, etc.

Payments of money as condolence following a disaster Up to ¥160,000 will be paid in condolence if a member or his/her parents' home is adversely affected by a disaster

#### **Other Support**

Injury/sickness leave payments, long-term medical relief payments, and injury/sickness leave special payments ¥5,000 will be paid each time a member takes leave of one month or more for injury or sickness

¥30,000/month will be paid for a long-term (three months or more) period of leave (if longterm leave results in the member not receiving his/ her bonus the member will receive a special payment of up to ¥100,000)

- Financial aid for advanced medical treatment
- Monetary condolence gifts and farewell gifts, financial support for survivor's pensions funds and scholarship pension funds, etc.

 \*1 Initiatives at Mazda Motor Corporation
 \*2 Executives and regular employees, as well as those approved by the governing board Customer Satisfaction

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Respect for People

Occupational Safety and Health

Under its Safety and Health Creed, Mazda is proactively working to develop people, workplaces, and mechanisms that ensure the safety and health of the employees. In FY March 2017, Mazda launched a new three-year plan. and globally promoted all-participating-type activities under the three pillars that support the realization of a proactive and enjoyable workplace. The Company believes that it will help invigorate employees and improve their work performance, also leading to the fulfillment of Mazda's Corporate Vision.

#### General Safety and Health Committee

Mazda has established the General Safety and Health Committee, whose members include management (executive officer in charge of safety, general managers of each division and independent department) and labor representatives (Mazda Workers' Union<sup>\*1</sup> leaders). The committee members meet to discuss each year's action plan and priority measures concerning safety and health. Based on the decision made by the committee, division/independent department general managers take the lead in promoting occupational safety and health activities taking into account the work characteristics and risks of each workplace. For Group companies in Japan and overseas, the committee shares information on its activities, observes and provides guidance to each workplace, and supports education activities, etc.

#### Coordination with Overseas Group Companies

Mazda steadily promoted fostering people and improving workplaces that emphasize safety and health across the Mazda Group through sharing safety and health management methods with oversea Group companies considering the laws and regulations as well as labor practices of the countries and regions. During the three years from 2016 to 2018, Mazda supported each local site according to its level of safety and health activities, with the aim of facilitating work standardization. In addition, initiatives are due to start to manage the injury frequency rate for the entire Mazda Group. The Company will continue to provide global support and establish a system that enables mutual learning between its Group companies, while strengthening exchange among production sites and encouraging each local site to make selfreliant efforts to develop people and workplaces that focus on safety and health.

#### Safety and Health Management System (SMS)

Mazda implements voluntary and continuous safety and hygiene management through its Safety and Health Management System. This system reduces the potential risks for work-related accidents and enhances overall levels of safety and hygiene standards.

#### Contents of the Management System Initiative

Mazda performs risk assessments to prevent accidents before they happen. The Company also carries out internal audits for all applicable divisions and departments to investigate and evaluate the management system, as part of the PDCA (plan-do-check-act) cycle. **Risk Assessments** 

Since FY March 2006, Mazda has conducted risk assessments at all facilities to determine potential dangers and risks in manufacturing, product development, administration, office operations and other processes, in order to determine suitable countermeasures. Through these efforts the Company reviews and identifies risks each year, improving the level of workplace safety.

Since FY March 2016, Mazda has been developing a mechanism for risk evaluation based on the status of use and harmful effects of chemical substances and the system to prevent diseases caused by chemical substances by introducing risk assessment of chemical substances. Safety Record (Injury Frequency Rate) in FY March 2018

In FY March 2018, Mazda saw a rise in the injury frequency rate, from the previous year. This was primarily because the number of minor accidents increased due to work difficulties associated with the upsizing of parts or other operational changes, although the number of accidents involving serious injuries decreased because of a reduction in the number of accidents that occurred during troubleshooting. In FY March 2019, Mazda is intensifying its efforts to anticipate potential risks that may arise when changes are made, by enhancing employees' attentiveness and sensitivity to better identify hazardous spots, through thorough risk assessments and cross-checks between the divisions concerned. The Company understands that the trends in work-related accidents vary according to the employee's years of experience. With this recognition, Mazda pushes forward with initiatives to coach employees in view of their behavioral characteristics and to reduce work difficulties, by preparing manuals for unskilled workers and by other means.

 Safety and Health Creed / Three-Year Plan "One Mazda Movement for an Enjoyable Workplace"

Social

Contributions

#### Safety and Health Creed

For workers, safety and health are essential assets. Our people are our most valuable resource, and we are committed to keeping them safe.

#### One Mazda Movement for an Enjoyable Workplace The Three-Year Plan

Policy: Realize a proactive and enjoyable workplace\* by accomplishing safety and health activities initiated by individuals and divisions.

Slogan: Safety and health first in One Mazda, 24 hours a day

- Three pillars of activities
- 1) Development of human resources with
- heightened sensitivity 2) Realization of a safe, secure and comfortable working environment
- 3) Activities on a global basis

Proactive and enjoyable workplace: A workplace where intensive problem-solving activities are implemented, taking into account the division's characteristics, and where individual employees work as a team harmoniously led by their manager, so that individual employees and the organization are both invigorated.

k Global lost-time injury frequency rate\*

FY March 2018	0.16
* Lost-time injury frequency rate:	

The number of lost-time accidents per million person-hours worked.

Scope of data collection:

Mazda Motor Corporation, eight Group companies in Japan, and five overseas production sites

(Subsidiaries and equity-method Group companies that promote safety and health initiatives are included in the scope of data collection.)



The number of lost-time and non-lost-time accidents in Mazda Motor Corporation per million person-hours worked.

Lost-time injury frequency rate:

The number of lost-time accidents in Mazda Motor Corporation per million person-hours worked.

Subject to independent third-party assurance \*1 Membership is around 90% of Mazda employees.

**Respect** for People

#### Education and Training Concerning Occupational Safety and Health m

To develop human resources with a heightened sensitivity toward occupational safety and health, Mazda provides education that "resonates with participants" and offers employees opportunities for practical implementation, in addition to the conventional training designed for knowledge acquisition and skill development. In FY March 2018, a survey was conducted in order to reconsider the ideal state of safety and health education and the method of improving participants' motivation and practical abilities. As a result, some training program contents were revised. Mazda also provides education and training on safety and health for suppliers (Toyukai Cooperative Union\*1), and distributes training materials to overseas production sites.

#### m Contents of Education and Training Programs Concerning Occupational Safety and Health (FY A

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lealth (	(FY	March	2018)	)	
				(N	

	(Non-consolidated)
Contents	Number of training participants
Safety and health training prescribed by the Occupational Safety and Health Law	2,295 (including 554 from Group companies and suppliers)
Training for achieving zero accidents (prediction trainer training, etc.)	525
Capacity-building training for dangerous or hazardous work engaged persons (forklift operation, etc.)	176
Training for safety and health managerial and supervisory personnel (for newly appointed personnel)	134
Practical first aid training (including AED use)	1,406

#### TOPICS Developing Production Processes from the Female Perspective, in Consideration of Differences in Physical Constitution and Strength among Employees

Powertrain Production Department No .4 at Hofu plant is carrying out improvement activities with the aim of developing production processes taking into account the differences in physical constitution and strength among employees. The concept of universal design\* has been incorporated into these activities, in which loads on the arm and knee as well as the angle of bending forward at the waist during work were evaluated from the female perspective. For the work processes with which a problem was found, countermeasures were taken, such as the introduction of auxiliary devices. As a result, improvements were made for around 40% of problematic work processes in FY March 2018.

\* Concept of designing products and services to make them easier to use to the greatest extent possible for all people, regardless of their age, gender, etc.

Example of improvements) A work process requiring severe bending at the waist was eliminated, by holding a part at its predetermined position with a weight balance provided by a gas spring.

#### Before improvement



For particularly relevant SDGs (sustainable development goals), see p. 21 for details of SDGs.



\*1 The Toyukai Cooperative Union consists of 62 vehicle parts and equipment companies that are direct or ndirect trading partners with Mazda, and is a unio organization that actively engages in initiatives with a constant awareness of the need to put "quality first." It was founded in 1952 by Mazda and 20 collaborating companies that have trading relationships with the Company, with the aim of promoting friendly relations among members and improving welfare, as well as developing a system for cooperating with Mazda. The Company offers advice and support to this group from a safety viewpoint by introducing safety information and inviting safety training provided by Mazda.

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#### Mental Health Measures<sup>\*1</sup>

In 2003, Mazda declared its commitment to active cooperation between labor and management to promote employees' mental health in the Warm Heart Declaration, and formulated the Mazda Warm Heart Plan. In 2007, labor and management, including managements, respective divisions, Company doctors and occupational health nurses, and the Mazda Worker's Union, cooperated to establish the Mental Health Project and construct a Company-wide support system.

#### **Consultation System**

Mazda has established a system to provide consultations by Company doctors and health advisors. Not only for employees at Mazda Head Office, but also for employees dispatched to other companies in Japan and overseas, the Company offers on-site healthcare consultations, and consultations via video-conference system to support their health maintenance. n

#### **Education and Training**

Mazda holds "listening skills, coaching and assertion training" and "advanced training based on case studies" targeting newly appointed managers, and self-care training targeting third-year employees, on a regular basis. The Company also offers training by division on demand of the workplace. In addition, information is periodically provided to managers regarding the important points of mental health measures.

#### System for Supporting Employees Returning to Work

The Company is also making efforts to support employees who have taken time off from work not to be absence again by improving measures to support them in getting back to work. The measures are such as the reduce work hour system, a system of allowing them to return to workplaces on a trial basis, and follow-up consultations after their reinstatement. Vitality Checkups (Investigation of Occupational Stress and Diagnosis of the

#### **Organization's Comprehensive Health Degree**)

Prior to the legislation requiring companies to implement the stress check system (that came into effect in December 2015), in 2008 Mazda introduced occupational stress diagnoses known as "vitality checkups" for employees to reveal individual and organizationlevel risks. Employees use the results of individual diagnoses to grasp and manage their own health conditions. The result for organization-level is shared with the respective divisions. Based on the results of these diagnoses, each division promotes the complete checkups for workplaces<sup>\*2</sup> which will facilitate workplace improvements to prevent mental health problems. In FY March 2016, Mazda introduced the diagnosis of the organization's comprehensive health degree, aiming to assess the organizational productivity and human productivity based on the results of management and employees' engagement surveys.

#### Measures to Prevent Lifestyle-Related Diseases<sup>\*1</sup>

To alleviate and prevent lifestyle-related diseases, including metabolic syndrome, Mazda carries out various activities, such as non-smoking measures, promotion of walking, and holding seminars on these themes.

#### Promotion of Non-Smoking Measures

Mazda has set a long-term target of reducing the percentage of smokers in the Company to 25%. To achieve this target, Mazda offers full individual support and promotes a nonsmokerfriendly environment. A Company-wide smoke-free day has been implemented once a month. In addition, the provision of outside smoking areas is promoted to prevent passive smoking. **Promotion of Walking** 

To help employees improve their health, Mazda promotes various measures to encourage walking. These include:

- Eco-Walk Commuting Program (with allowance payments)
- "10,000-step Challenge" (with the goal of walking 10,000 steps a day), which is held for indirect employees
- Mazda Active Walking, for which tools on the Company Intranet are provided to help employees record the distance they walk

#### Physical Management Seminars (Started in 2015)

Mazda holds seminars for employees of 31 years of age (in the year following the comprehensive medical checkups for those reaching the age of 30), aiming at "improving the practical skills to improve their lifestyles" and "preventing metabolic syndrome." Using external facilities, these seminars provide participants with opportunities to listen to lectures (about dietary habits) and to actually experience exercises and relaxation (these seminars are jointly held with the Mazda Health Insurance Society.)

#### **Encouraging Healthy Eating**

Starting in FY March 2010, a new type of healthy meal that is low calorie, low salt, and uses high-fiber ingredients, is being offered as a regular part of the Company lunch menu. It is also applied to dietary instruction of specific health guidance.

#### n Number of Participants in Mental Health

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Training	(Non-consolidate			
	FY March 2016	FY March 2017	FY March 2018	
Training for newly appointed managers	171	190	152	
Training for managers (advanced)	54	92	196	
Training for third-year employees (Self-care seminar)	299	107	247	
Training by division (at the division's request)	213	357	653	

#### O Vitality Checkups (Investigation of Occupational Stress and Diagnosis of the Organization's Comprehensive Health Degree)

		(Non-	consolidated	
	FY March 2016	FY March 2017	FY March 2018	
Comprehensive health risk <sup>*1</sup>	93	94	90	
Comprehensive health degree of the organization <sup>*2</sup>	52.9	52.3	52.8	

\*1 An indicator of health effect (risk), based on workload/ discretion/support conditions. The above figures are calculated assuming the national average value (announced by the Ministry of Health, Labour and Welfare) to be 100. (A smaller value indicates a smaller

risk.) \*2 An indicator of the organization's current health degree, based on the stress response and work engagement. Expressed as a deviation value.

#### Data on Measures to Prevent Lifestyle-Related Diseases (Non-consolidated)

		FY March 2016	FY March 2017	FY March 2018
Non- smoking promotion activities	Percentage of employees who smoke	30.6%	29.9%	29.2%
	Number of employees receiving nicotine patches /guidance	25	18	9
	Number of participants in the "10,000-steps Challenge" / Percentage of employees who achieved 10,000 steps per day	9,067 /45.8%	9,659 /42.6%	9,330 /39.7%
Walking activities	Number of participants in Mazda Active Walking	5,709	5,709	5,654
	•Number of employees who completed the Smile Course (2,000 km/year)	133	144	136
	•Number of employees who completed the Steady Course (2,500 km/year)	574	606	584
	•Number of employees who completed the Speedy Course (3,000 km/year)	138	119	116

1 Initiatives at Mazda Motor Corporation

\*2 Activities in which all members of a workplace participate to identify points needing improvements and make proposals for improvements, and assess their working environment from a broad perspective, thereby improving it by using clear and simple procedures. Implemented since FY March 2017.

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#### Health Maintenance and Improvement

To maintain and improve the health of its employees, Mazda conducts health checkups, and promotes measures to prevent and mitigate mental health problems and lifestyle-related diseases. Companywide health improvement activities are under way emphasizing the reduction of health risks, by providing guidance and education based on the results of health checkups, taking aging countermeasures, supporting related activities at domestic Group companies, and offering health maintenance support for employees dispatched to other companies overseas. Mazda was selected as one of the Excellent Enterprises of Health & Productivity Management in the large enterprise category (White 500), under the Certified Health and Productivity Management Organization Recognition Program, which is jointly run by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi, for the second consecutive year since the inception of the Program in 2017.

#### Health Checkups<sup>\*1</sup>

In addition to legally prescribed health checkups for all employees, Mazda carries out comprehensive medical checkups<sup>\*2</sup> covering a variety of areas for employees when they reach the ages of 25, 30, and 35, and when they pass the age of 40. Furthermore, the Company conducts complete physical checkups, \*<sup>3</sup> including gastroscopy and abdominal ultrasonography, for employees when they reach the ages of 50, 54, and 58. Based on the results of these health checkups, Company doctors determine if employees can continue to work or not. Mazda also promotes employees' health by offering personal health guidance and education by Company doctors and health advisors.

#### Health Risk Measures<sup>\*1</sup>

The business climate has undergone various changes, including the globalization of workplaces and an increase in the number of people who are continuously employed after retirement. Giving consideration to these changes, Mazda strives to establish a system to appropriately assess and deal with the health risk of employees,<sup>\*4</sup> from the perspectives of risk prevention and management. **Measures for Employees at High Health Risk** 

Mazda has established a system to take appropriate measures for employees at high health risk for heart diseases and cerebrovascular diseases. The Company also promotes activities to clarify the assessment indexes, such as the process of determining high-risk individuals by multiple Company doctors based on relevant data, and to establish a follow-up system to care for high-risk individuals after their health checkups, through collaboration among the person in question, the Company doctor and other members of the workplace.

#### **Industrial Relations**

Mazda has a standing labor agreement with the Mazda Workers' Union.\*<sup>5</sup> The Company build relationships in which everyone thinks and works together with the Union to build environment contributing to all stakeholders. The Company and the Union held discussion on such themes as personnel affairs, production and sales once or twice a month.

A discussion with the Mazda Workers' Union is also held regarding operation changes which may have a significant impact. The information about operation changes should be shared with employees with sufficient lead time. Moreover, various measures for discussion with labor are ready in entire Mazda Group to maintain and develop positive labor relations.

- Group companies in Japan
  - Regularly exchanges information and engages in active discussions with the Federation of All Mazda Workers' Unions.
- Group companies oversea

Measures for discussion with labor are ready based on the labor practices in each country and region.

(There was no collective labor dispute in FY March 2018.)



#### Y Healthcare Guidance Data



\* After the interview results are confirmed by the employee, these results are also reported to the employee's manager.

		(Non-consolidated		
	FY March 2016	FY March 2017	FY March 2018	
Personal guidance on the basis of health checkup results (including specific health guidance)	1,467	1,393	1,258	

\*1 Initiatives at Mazda Motor Corporation

- \*2 Checkup items: Height, chest circumference, chest X-ray, blood test, urinalysis, electrocardiogram, etc.
  \*3 For employees who reach the age of 30, 35, and 40-and above,
- broat employees who reach the age of 50, 53, and 40-and above, breast cancer and uterine cancer examinations are available with comprehensive medical checkups upon request. Checkups of the brain, the lungs, etc. are offered as paid options.
- \*4 Example) Vaccinations against infectious diseases (including malaria and tetanus) for employees dispatched to other companies overseas

\*5 Membership is around 90% of Mazda employees.

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### **HUMAN RIGHTS**

Customer

#### **Basic Approach**

Mazda respects for human rights as fundamental to its corporate activities. Mazda believes that a friendly, productive workplace in which employees respect the dignity and individuality of their coworkers is essential. Such a workplace harnesses the capabilities of its employees and is a source of great strength for the organization. With this in mind, Mazda adopted the Human Rights Declaration in November 2000. The declaration states that Mazda must never tolerate human rights violations of any kind, including discrimination or bullying on the basis of race, nationality, faith, gender, social status, family origin, age, mental or physical disability, sexual orientation, or gender identity. It also sets forth that Mazda is determined to eliminate human rights violations from business activities both inside and outside the Company.

Based on the notion that there is no end to human rights efforts, the Company continues its initiatives with the ultimate goal of zero problems.

Mazda recognizes that, from the perspective of human rights due diligence<sup>\*1</sup>, a system and mechanism to grasp the activity status and to identify, report, correct and follow-up actual and potential negative impacts are required. The scope of human rights activities has been expanded to include domestic and overseas Group companies as well as suppliers, with the following efforts being conducted.

#### Rules / Guidelines

One of the five principles of behavior stipulated in the Mazda Corporate Ethics Code of Conduct is "to comply with laws and regulations, company rules, common sense and sound practice in international society." Mazda has striven to increase employee awareness of its fundamental approach to respect for human rights, by further clarifying Company policies and standards of behavior among employees, in the light of the basic principles of the United Nations Universal Declaration of Human Rights, the United Nations Guiding Principles on Business and Human Rights, and the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work.

Specifically, Mazda established the Guidelines on Eliminating Sexual Harassment in 1999 and the Rules to Eliminate Human Rights Violations in 2000, prohibiting any activity that may infringe on an employee's human rights, and created a list of rules and guidelines to ensure a good working environment. In general, these rules and guidelines will be reviewed, with consideration to internal and external circumstances at the time, and if necessary, will be revised accordingly. The most recent revisions were made in compliance with the revised Equal Employment Opportunity Law for Men and Women and the revised Child Care and Family Care Leave Act, both of which came into effect in January 2017. Specifically, in 2017, Mazda revised the Rules to Eliminate Human Rights Violations and formulated the Guidelines to Eliminate Human Rights Violations.\*2

In these rules and guidelines, the Company stipulates that inappropriate behavior regarding respect for the human rights of sexual minority or LGBT people, or pregnancy, childbirth, childcare or elderly care leave, constitutes harassment and violates Mazda working regulations. These revised rules and guidelines have been posted on the Company's Intranet, to make them known to everyone in Mazda.

#### Systems for Promoting Human Rights

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The Human Rights Committee, comprising executive officers and division general managers, deliberates on human rights activities, and based on their decisions the Human Resources Office promotes human rights education activities and resolves issues throughout the Group. Each division manager leads the division's activities as the human rights promotion officer at Mazda Motor Corporation, while the person in charge of human rights leads activities at each Mazda business location as well as at Group companies in Japan and overseas. Exchanges of opinions among Group companies take place on a regular basis. Serious human rights violations within the Group are reported to Mazda Motor Corporation human resources officer or other senior executives, providing a framework that enables the implementation of Group-wide solutions. Once a year, the Global Employee survey is conducted to check the progress in human rights initiatives and confirm whether there is any problem to be addressed or not. The results of the survey are fed back to each management and improvement measures are taken as needed. As for suppliers, Mazda seeks to establish a supply chain in which suppliers are also required to fulfill their social responsibilities in the area of respect for human rights, based on the Mazda Supplier CSR Guidelines (see p. 120).

а Human Rights Declaration (November 2000)

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Mazda will strive to become the leading company in Japan for respecting human rights and for the ethical treatment of its employees.

#### b Human Rights Promotion System



#### Global Employee Survey C

(Consolidated) (Positive Answer Percentage) FY March FY March FY March 2015 2016 2017 I understand the company's basic 68% 72% philosophy and 66% policy for human rights Company ensures 63% human rights are 64% 66% properly protected.

\* The survey was not conducted in FY March 2018, due to the revision to the survey items

\*1 Due diligence is the comprehensive, proactive process to identify the actual and potential negative social, environmental and economic impacts of an organization's decisions and activities over the entire life cycle of a project or organizational activity, with the aim of a or mitigating negative impacts (cited from ISO 26000).

\*2 Renamed from the Guidelines on Eliminating Sexual Harassment established in 1999, after adding contents other than those regarding sexual harassment

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#### Activities at Group Companies in Japan and Overseas

In line with its "ONE MAZDA" concept, Mazda is committed to promoting human rights activities in its Group companies. Based on the Mazda Human Rights Declaration's basic principles and with reference to the Rules to Eliminate Human Rights Violations, the Guidelines to Eliminate Human Rights Violations, Mazda Group companies are maintaining a set of rules and guidelines that take into account the conditions in each country where they are applied. Through these efforts, the Company strives to protect human rights at all companies throughout the Group. There is also regular information exchange between human rights officers at Mazda Motor Corporation and each Group company. Depending on the circumstances of the particular company, Mazda Motor Corporation may also take steps such as providing training/education tools or dispatching instructors.

During FY March 2017, Mazda supported Group companies in establishing a system for human rights training, and provided materials of Mazda's Human Rights Meetings to Group companies.

In case problems arising at Group companies, Mazda accepts reports through the pertinent superiors, but in cases where this is difficult, accepts direct reporting from employees via the Human Rights Counseling Desk, the Female Employee Counseling Desk, the Mazda Global Hotline (see p. 117).

#### Human Rights Counseling by Dedicated Counselors

Mazda has established a Human Rights Counseling Desk and a Female Employee Counseling Desk to appropriately respond human rights consultations from employees, through providing advices and, supporting early relief from human rights violations. Mazda has set out regulations mandating strict confidentiality, guaranteeing immunity from reprisals, and ensuring that no disadvantage will accrue to employees who request consultations. Counseling is offered in various forms, such as face-to-face, by telephone, or by e-mail. Mazda promptly responds to consultations, with the goal of rapidly improving the work environment for the affected employee, and offers the necessary support to ensure respect for human rights throughout the entire workplace, through the above-mentioned counseling desks. For example, these desks offer advice on workplace culture improvement to the employee's supervisor, and provide counseling and advice for the employees and other persons concerned. These counseling desks are managed by the Human Resources Office, and following set protocol, all received cases are followed up until they are resolved. To prevent similar cases from occurring, the counseling desks investigate all the facts through working in collaboration with related divisions/departments, in sufficient consideration to the intention of the employees who have requested consultations.

#### Initiatives to Eliminate Human Rights Violations

Mazda carries out various initiatives to eliminate human rights violations. In case a problem involving human rights violations occurs, the Company discloses the case on the intranet as an example of disciplinary action, and conducts educational and awareness raising activities in order to prevent a recurrence. Mazda records the results of handling these cases and manages in accordance with the stipulated procedure, and reports to the Human Rights Committee. These records are used to formulate more effective Companywide policies and to prevent the recurrence of similar problems. At the meeting of the Human Rights Committee held at the end of FY March 2018, members held discussions based on issues that had occurred in the same fiscal year, to decide the themes for FY March 2019 activities. The selected themes were "improving the quality of dialogue to secure honest communication while paying mutual respect" and "further promoting understanding of diversity of people, including sexual minorities."

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#### Training and Educational Activities

To raise awareness of human rights, Mazda requires all executive officers and employees to consider human rights issues by participating in training programs and educational activities.

Mazda gauges the status of employees' human rights awareness based on the results of questions related to employee human rights included in the Global Employee Survey (see p. 90). These results are referred to during revisions of activities and improvement measures.

In March 2008, Mazda became the first corporation in Japan to be awarded the Human Rights Merit Award by Japan's Ministry of Justice and the National Federation of Consultative Assemblies of Civil Liberties Commissioners.

### Human Rights Training<sup>\*1</sup> Collective training

Mazda holds obligatory human rights training programs for employees when they newly join the Company and they are promoted in rank or position. The Company also holds event-based training such as human rights lectures for executive officers and senior managers. Moreover, The Company also holds training programs by department that are customized to each department in response to its specific needs.

In FY March 2017, Mazda started to organize training programs and lectures to promote understanding of sexual minority (LGBT) issues. (As of July 2017, executive officers, general managers of each division and independent department, as well as managers and supervisors of production sites, have taken these training programs.)

Human rights mini-lectures and other information offered via the in-house intranet Mazda conducted activities to raise human rights awareness by human rights mini-lectures through intranet, and e-learning programs and to ensure that all employees can share recognition regarding power harassment and sexual harassment.

#### President's Message During Human Rights Week\*1

The Company president delivers to all employees a message on the importance of respect for human rights every year during Human Rights Week, in connection with Human Rights Day on December 10.

#### Human Rights Meetings\*1

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Mazda held regular meetings (four times a year for plant workers, twice a year for office workers) at each workplace themed on familiar topics, allowing employees to develop awareness for human rights on a daily basis.

#### Other Human Rights Education Activities<sup>\*1</sup>

Mazda distributes Human Rights Card upon hiring, and holding of Human Rights Slogan Competition, etc.

### Collaborating with External Organizations and Contributing to Local Communities

Mazda actively collaborates with local governments, companies and other external organizations to implement human rights protection activities for local communities. Other efforts towards promoting respect for human rights include social contributions on a global basis, such as participating in human rights events in regional communities, exchanging opinions with human rights organizations, adopting measures against poverty, supporting an HIV/AIDS care facility, and supporting education for ethnic minority groups.<sup>\*2</sup>

#### d Themes of Human Rights Mini-Lectures (Examples)

- Sexual diversity (LGBT)
- Power harassment
  Sexual harassment
- Sexual narassment
- Various issues and challenges (regarding women, people with special needs, nationality/race, the elderly
- [HIV-] infected persons, etc.)

#### e Human Rights Card



\*1 Initiatives at Mazda Motor Corporation \*2 http://www.mazda.com/en/csr/social/

# **SOCIAL CONTRIBUTIONS**

Mazda is fulfilling its responsibilities as a good corporate citizen through ongoing involvement in socially

beneficial activities tailored to the needs of local communities.

Social contribution activities (in Japan and overseas) are introduced under "Social Contribution Initiatives" on the official website.

(http://www.mazda.com/en/csr/social/)

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#### CSR Targets for FY March 2019

(Self-assessment key  $\bigcirc$ : Accomplished,  $\triangle$ : Nearly accomplished,  $\times$ : Not accomplished)

Items	FY March 2018 targets	FY March 2018 results	Self- assessment	FY March 2019 targets	ISO 26000 core subjects
Corporate citizenship activities	<ol> <li>Implement programs based on Mazda's basic policy on initiatives and each region's local community contribution policy.</li> <li>Continue to implement the PDCA cycle (to make efforts to resolve social issues) based on the program effect evaluation index (the Mazda Social Contribution Prize).</li> </ol>	<ol> <li>Continued or newly launched more than 500 activities.</li> <li>Continued to implement the PDCA (plan-do-check-act) cycle.</li> </ol>	0	<ol> <li>Implement programs based on Mazda's basic policy on initiatives and each region's local community contribution policy.</li> <li>Continue to implement the PDCA cycle (to make efforts to resolve social issues) based on the program effect evaluation index (the Mazda Social Contribution Prize).</li> </ol>	6.8 Community involvement and development
Disclosure of results regarding community involvement and development	Continue active disclosure of social contribution activities.	Presented around 100 activities in the Sustainability Report and 26 items in the Social Contribution Report, and posted relevant information on SNS sites, etc.	0	Further promote active disclosure of social contribution activities.	6.8 Community involvement and development

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### SOCIAL CONTRIBUTIONS

#### **Basic Policy on Initiatives**

#### **Basic Principles**

As a company engaged in global business, Mazda is fulfilling its responsibilities as a good corporate citizen through ongoing involvement in socially beneficial activities tailored to the needs of local communities, in order to ensure that its business activities contribute to the building of a sustainable society.

#### Plans for Future Activities

- Proactive, ongoing responses to social needs through the core business activities of the Mazda Group in Japan and overseas
- In collaboration with local communities, contribute to the development of a sustainable society through activities tailored to the needs of communities
- Emphasize and provide support for self-motivated volunteer activities by employees, and incorporate diverse values to foster a flexible and vibrant corporate climate
- Proactively disclose the details of activities and engage in a dialogue with society Three Pillars

Mazda promotes activities that are strongly rooted in local communities. Its social contribution activities are underpinned by the three pillars of environmental and safety performance, human resources development, and community contributions (see p. 106-107).

#### **Promotion Framework**

In May 2010, Mazda established the Social Contribution Committee. The role of this committee, which meets regularly (twice a year), is to discuss issues facing the entire Mazda Group and share information, in line with the social contribution policy and the CSR targets (see pp. 21-24) decided by the CSR Management Strategy Committee (see p. 19).

The details of the actual activities are considered by a Working Group comprised of related divisions. Through the activities of the committee undertaken since 2010, Mazda continues to enhance information collection and utilization from a global and Group standpoint. Individual activities are carried out based on the budget plan in each region or department.<sup>\*1</sup>

#### FY March 2018 Major Results:

- Set the CSR targets and the Mazda Green Plan 2020 (social contribution) (see pp. 57-60) and took actions.
- Carried out over 500 activities<sup>\*2</sup> in Japan and overseas (cost of social contribution activities: around 2.0 billion yen in FY March 2018).
- Established the Mazda Social Contribution Prize, selected based on evaluation indexes for social contribution programs, and continued implementing the PDCA (plan-do-check-act) cycle process (see p. 105).

#### **Evaluation Indexes for Social Contribution Programs**

In FY March 2015, Mazda established the evaluation indexes for social contribution programs.

These indexes are used to evaluate and promote programs which resolve social issues and improve corporate values and created the PDCA (plan-do-check-act) process.

They are designed to evaluate these social contribution programs from three perspectives: effect on society; effect on the Company; and Mazda uniqueness. (To be more specific, the indexes comprise eight categories such as "the number of beneficiaries," "the number of participating employees," "conformity with the Three Pillars in Basic Policy on Social Contribution Initiatives," etc.)



#### b Promotion Framework



<sup>\*1</sup> In Japan, the United States, Australia, and New Zealand, the Mazda Foundation in each country separately undertakes various activities.

<sup>2</sup> Social contribution activities: Monetary donation, goods donation, facility sharing, employee participation and dispatch, voluntary programs, and support for disasterstricken areas.

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Management

#### Establishment of the Mazda Social Contribution Prize

In January 2015, Mazda established the Mazda Social Contribution Prize as a commendation system to recognize outstanding social contribution activities. The objective of the prize is to raise in/external recognition of the outstanding social contribution activities and support for increasing excellent social contribution activities. Based on the evaluation indexes for social contribution programs, members of the Social Contribution Committee Working Group, the Mazda Workers' Union and the Federation of All Mazda Workers' Unions collaborate to evaluate candidate activities. The Social Contribution Committee then selects prizewinning activities, each of which will be presented with a certificate of recognition in the name of the Company President on the anniversary of Mazda's foundation in January every year.

Mazda Social Contribution Prize

The 2018 prizewinning activities were selected from the social contribution activities introduced in the Mazda Sustainability Report 2017 [Social Contribution Version]<sup>\*1</sup> (which covered the period from April 2016 through March 2017).

#### Volunteering by Employees

Mazda offers support to help employees become actively involved in volunteer activities.

- Providing volunteer opportunities (Specialist Bank, Volunteer Center, etc.)
- Subsidizing part of the cost of activities (Mazda Flex Benefits (see p. 94), etc.)
- Enabling employees to take leave for activities (volunteer leave such as the Special Warm Heart leave system, etc.)
- Providing volunteer training opportunities

#### Support for Disaster-Affected Areas

The Mazda Group provides various supports for the early recovery and restoration of areas affected by natural disasters. Mazda Head Office coordinates with its production/business sites in the affected area to provide appropriate support in case of natural disasters such as an earthquake and abnormal weather. Recent support cases: Great East Japan Earthquake / heavy rain in July 2018 (Japan), hurricanes (United States), Mexico Earthquake (Mexico), flooding in Southern Thailand (Thailand), etc.

#### Support through Mazda Foundations

Mazda and its Group companies have established Mazda Foundations in four countries, to promote support activities tailored to each region.

Country	Name	Support activities/objectives	Year of establishment	Amount of grants (donations) in FY March 2018
Japan	Mazda Foundation http://mzaidan.mazda.co.jp (Japanese only)	Support activities to promote science and technology and the sound development of youth.	1984	¥52.30 million
U.S.	Mazda Foundation USA (MFUS) http://www.mazdafoundation.org/	Provide funds to various initiatives for education, environmental conservation, social welfare, cross-cultural understanding, etc.	1990	Around US\$481,000
Australia	Mazda Foundation Australia (MFA) http://mazdafoundation.org.au/	Provide funds to various initiatives, including education, environmental conservation, technology promotion, and welfare.	1990	Around A\$1,152,000
New Zealand	Mazda Foundation New Zealand (MFNZ) http://mazdafoundation.org.nz/	Provide funds to various initiatives, including education, environmental conservation, and culture.	2005	Around NZ\$ 246,000

С	Mazda	Social	Contribution	Prize
_				

	Activity name
Grand Prize	Mazda Ekiden Road Relay Race (Mazda Motor Corporation [Hiroshima Plant, Hofu Plant]) (Mazda de Mexico Vehicle Operation) (see p. 107)
Special Prize	Public Service at the Mine Proving Ground (Mazda Motor Corporation [Mine Proving Ground])
Special Prize	Donating Computers (Mazda Engineering & Technology )
Special Prize	Raising Traffic Safety Awareness— Activities to raise awareness of traffic safety— (Hokkaido Mazda and Hakodate Mazda)
Special Prize	Sponsorship for Arts and Culture (Mazda Australia)
Prize for Encouragement	Installation of Community-Support Vending Machines (Mazda Parts)

\*1 http://www.mazda.com/globalassets/en/assets/csr/ download/2017/2017\_s\_all.pdf

Respect for People Social Contributions

Management

#### Initiatives Based on the Three Pillars

Mazda promotes activities that are strongly rooted in local communities. Its social contribution activities are underpinned by the three pillars of environmental and safety performance, human resources development, and community contributions. **Environmental and Safety Performance** 

Mazda's business activities have a relationship with and impact social issues, such as global warming, energy and resource shortages, and traffic accidents. To resolve these issues, the Company attaches importance to the environmental and safety perspectives, not only in conducting its main business, but also when making social contributions.

- Hosting environmental awareness-raising programs at various events, dispatching lecturers to environmental education programs, and carrying out volunteer activities for biodiversity conservation and various other environmental protection initiatives
- Offering lectures on traffic accident issues at various events, and holding safer-driving seminars

#### [Environment]

Japan / Raising Environmental Awareness among Children

Environmental events and on-site lectures are held to raise environmental awareness among elementary and junior high school students. In EcoPro 2017, Mazda introduced its attempts to contribute to global warming prevention, on the theme of reducing CO<sub>2</sub> emissions. The Company also held a quiz through which participating children could learn ways that vehicle users can easily cooperate in addressing the above theme, looking ahead to an automotive society in the future when they grow up.



#### Japan / Activities to Preserve the Mazda Forest

In 2010, Mazda concluded a Forest Preservation and Management Pact with the government of Hiroshima Prefecture. The pact outlines a series of activities in which Mazda and the prefecture would partner for the preservation of forest resources. With the Mazda-no-Mori (Mazda Forest) in the Hiroshima Prefecture Rvokka Center ("ryokka" means afforestation) serving as a base of operations, Mazda cooperates in regional forest protection activities. With guidance and cooperation from a forest management volunteer organization, present and former Mazda Group employees, their families and friends, and members of a social contributions study group\*2 joined carefully planned forest thinning efforts as volunteers. Also, mini-lectures were arranged to enhance employees' environmental awareness.



#### [Safety] Japan / Raising Traffic Safety Awareness

Local dealerships participate in the cleaning of convex traffic mirrors, and implement activities to raise awareness of traffic safety (standing guard, patrolling neighborhoods, participating in traffic safety parades and events, donating traffic cones, etc.). Some dealerships make donations to support children who have lost their parents in traffic accidents, and/or offer part of their shop premises as an area leading to a sidewalk or a bridge over a roadway.



#### United States / Raising Driver Safety Awareness

A Group company in the United States has supported Project Yellow Light, a safe driving education program targeted at young people, since 2012. Every year, Project Yellow Light challenges teens to create public service announcement videos to encourage young people to avoid distracted driving, e.g., operating a mobile phone while driving. All of the winners receive scholarships provided by Mazda Motorsports. Also, professional racers have been delivering lectures to young people about the dangers of distracted driving.



#### TOPICS Mazda Won the 11th Kids Design Award<sup>\*1</sup> (Designs that Develop Children's Creativity and Shape their Future)

Mazda received the 11th Kids Design Award<sup>\*1</sup> (Designs that Develop Children's Creativity and Shape their Future) for its educational program "Let's compare new cars and old cars—driving pleasure as well as outstanding environmental and safety performance." In this program, the Company presented the evolution of vehicles as well as its efforts to reduce CO<sub>2</sub> emissions, and raised awareness of traffic safety, through quizzes and experiments. The program was held as part of an event to support students' learning activities during summer vacation, which has been organized since 2008 with the aim of imparting the pleasure of manufacturing and developing their interest in vehicles. A total of around 430 elementary school children as well as their parents and guardians participated in this program between July and August 2016. It was the first time for Mazda to win the award for its social contribution activities (see p. 134).

\*1 The Kids Design Award is a commendation system to select and make widely known excellent products, spaces, and services that help realize three design missions: "security and safety for kids' lives," "the development of sensitivity and creativity in kids," and "a secure environment for having and raising kids."



Mazda	Sustaina	bility	Report	2018	ł

Mazda CSR

Customer

Satisfaction

**Human Resource Development** Mazda emphasizes the perspective of human resources development, based on the idea that fostering people who will be future leaders in the foundation of society and in business is important.

Safety

- Holding seminars and lectures by employees with specialized knowledge and
- skilled techniques such as manufacturing. Accepting students for internship programs, supporting to learn about vehicles using facilities in the Company, etc.

#### [Human Resources Development] lapan / **Promoting Children's Education**

The Mazda Museum at Mazda Head Office (Hiroshima) has welcomed approximately 1.62 million visitors from around the world since its opening in 1994. The Museum offers exhibitions of Mazda's history, technology, etc. In addition, the Museum provides tours of Mazda's assembly line and learning opportunities about the vehicle manufacturing process, helping to augment social studies curriculums in elementary and junior high schools.

Guide to the Mazda Museum http://www.mazda.com/en/about/museum/

#### **Community Contributions**

Mazda promotes community contribution activities to cope with specific issues of each local community, in the countries/regions where the Company conducts its business operations.

- Making monetary/vehicle donations to charities and participating in
- various charitable activities
- Promoting sports and culture

#### [Community Contributions] Japan /

#### **Donation of Welfare Vehicles**

Mazda contributes to community revitalization, making effective use of the Hiroshima Municipal Baseball Stadium (Mazda Zoom-Żoom Stadium Hiroshima), for which Mazda acquired the naming rights. For each one million stadium visitors, the Company donates one Mazda welfare vehicle to a social welfare organization. In September 2017, the cumulative number of visitors reached 16 million, and accordingly, the 16th vehicle was donated to such an organization.



#### Australia / Sponsorship for Arts and Culture

Thailand /

highly recognized for its education

This company helps produce highly

qualified graduates who are able to

community, a Group company in Australia has been a hero partner of Art Australia for 13 years, sponsoring freeof-charge outdoor opera performances in Sydney and Melbourne.

# To make arts accessible to the

Exhibitions Australia (AEA) for 17 years. and also a principal partner of Opera





### **EMPLOYEE'S VOICE**

To promote interaction with the community, the Hiroshima Plant, Hofu Plant, and Mexico plant\*1 have hosted the Mazda Ekiden Road Relay Race on their plant grounds. Although it was commenced at the Hiroshima Plant in 1966 as an event only for employees, since 1981 Mazda has invited participants from outside the Company as well. Subsequently the Hofu Plant and the Mexico Plant began to host the Ekiden Relay Race. These activities won the Grand Prize of the 4th Annual Mazda Social Contribution Prize (See p.105). \*1 Official name is Mazda de Mexico Vehicle Operation (MMVO)

#### Striving to Enhance Bonds with Race Participants

We are in charge of organizing the Mazda Ekiden Road Relay Race at our production sites. Employees of respective plants have devised various methods of pleasing participants of the event and making them feel closer to Mazda. We will continue striving to enhance bonds with participants of the Ekiden Road Relay Race. (Left)Person in charge of Ekiden race at the Hiroshima Plant: Fukumi Izumi, General Affairs Department, Corporate Services Division

"To live up to participants' trust and expectations, I made constant efforts to provide them with accurate information in a timely manner."

(Center) Person in charge of Ekiden race at the Hofu Plant: Takashi Taketani, General Affairs Department (Hofu) "I worked out measures to ensure the safety of the race course and carefully laid out major facilities for the event, in order to make it more comfortable for participants."

(Right) Person in charge of Ekiden race at the Mexico Plant: Sandra Garcia Pardo, Public Relations and **Business Relations Group** 

"I planned the event not only to provide an opportunity for participants to interact with each other, but also to promote Japanese culture in Mexico."







## MANAGEMENT

Mazda has established management systems to fulfill its social responsibility throughout the Mazda Group and the entire supply chain.

#### CONTENTS

- 109 Management (Corporate Governance/Internal Control/Risk Management/Compliance)
- 120 Implementing CSR in the Supply Chain
- 123 With Shareholders and Investors

#### CSR Targets for FY March 2019

#### $(\mathsf{Self}\text{-}\mathsf{assessment}\;\mathsf{key}\;\;\bigcirc:\mathsf{Accomplished}, \bigtriangleup:\mathsf{Nearly}\;\mathsf{accomplished}, \mathsf{\times}:\mathsf{Not}\;\mathsf{accomplished})$

Items	FY March 2018 targets	FY March 2018 results	Self- assessment	FY March 2019 targets	ISO 26000 core subjects
Corporate governance	Continuously improve and strengthen corporate governance measures, in light of the purport and spirit of the Corporate Governance Code. <sup>*1</sup>	<ul> <li>Held advisory committee member meetings chaired by an outside director, to discuss the remuneration system for directors and executive officers, as well as the process for their appointment in this fiscal year.</li> <li>Evaluated the board's effectiveness to confirm that the improvement measures taken based on the previous year's evaluation results were working effectively. Also, disclosed the outline of the evaluation results via the Corporate Governance Report.</li> <li>In light of the matters pointed out in the evaluation of the board's effectiveness, provided a more substantial explanation on important matters, such as the medium-and long-term business strategies, to outside directors in advance of the board meetings.</li> <li>Improved the ways of information disclosure regarding notices of the general meetings of shareholders, by using visual media and enhancing explanations.</li> </ul>	0	Continuously improve and strengthen corporate governance measures, in light of the purport and spirit of the Corporate Governance Code. <sup>11</sup>	6.2 Organizational governance
Risk management	Identify various internal and external risks and continue activities to minimize such risks. (1) Improve the level of development of the risk management systems of Mazda and its Group companies, and have these systems checked and evaluated by the Risk Compliance Committee. (2) Continue risk management activities based on the action plans in preparation for earthquakes and tsunami. (3) Update and enrich data for the supply chain management system.	<ul> <li>① Further visualized the risks at Mazda and its Group companies, and strengthened risk management activities there, based on the mid-term action plan (for FY March 2018–2020) that was formulated at the Risk Compliance Committee meeting in FY March 2017.</li> <li>Based on the results of measures to cope with risks identified by each division, established common priority issues to be addressed by the Mazda Group and took countermeasures.</li> <li>Revised the Risk Management Regulations so as to clearly state the necessary matters to promote continuous activities through cooperation among Mazda and its Group companies, and made the revision known to all parties.</li> <li>② Conducted risk management activities based on the action plans in preparation for earthquakes and tsunami.</li> <li>Created the procedures for stockpile management and distributed the procedures to self-disaster-defense teams.</li> <li>Introduced a safety confirmation system on a trial basis.</li> <li>③ Continued to operate the SCR keeper, a supply chain risk management system.</li> <li>Updated supplier information, so as to help understand the possible impact in the event of disaster.</li> </ul>	0	Identify various internal and external risks and continue activities to minimize such risks. (1) Improve the level of development of the risk management systems of Mazda and its Group companies, and have these systems checked and evaluated by the Risk Compliance Committee. (2) Continue risk management activities based on the action plans in preparation for earthquakes and tsunami. (3) Update and enrich data for the supply chain system, and expand its application.	6.2 Organizational governance
Information management	<ul> <li>① Ensure information management through continuous awareness-raising activities.</li> <li>② Promote and strengthen information security measures.*2</li> </ul>	① Implemented an e-learning program entitled "Basic Rules for Handling Personal Information." ② - Revised the relevant regulations and procedures, in accordance with the revision to the Act on the Protection of Personal Information. <sup>2</sup> - Disseminated information on the important points of the revisions and response, and provided guidance and support to all divisions of Mazda and Group companies in Japan in establishing work procedures. <sup>2</sup>	0	<ul> <li>① Ensure information management through continuous awareness-raising activities.</li> <li>② Promote and strengthen information security measures.<sup>*2</sup></li> </ul>	6.6 Fair operating practices
Protection of intellectual property	Promote activities to protect and make effective use of intellectual properties. (1) For the protection of Mazda' intellectual properties: • Continue strengthening the management system, and promote rights acquisition activities on a global basis. (2) For the protection of the intellectual properties of other parties: • Continue to strengthen awareness-naising activities aimed at protecting the intellectual properties of Mazda and other parties. • Promote the appropriate use of works belonging to other parties, in conducting communication activities.	<ul> <li>(1) For the protection of Mazda' intellectual properties:</li> <li>In Japan: Completed around 980 patent applications.</li> <li>Overseas: Completed around 810 patent applications, aiming at promoting rights acquisition activities in the United States, Germany, China and other countries.</li> <li>(2) For the protection of the intellectual properties of other parties:</li> <li>Patent training: Held patent training as scheduled, with around 140 participants in the basic patent seminars, around 30 participants in the seminar on effective use of patent information, and around 30 participants in the intellectual property risk seminar.</li> <li>Promotion of the appropriate use of trademarks: Added about 561 new images to the Mazda-Shared-Image-Collection.</li> </ul>	0	Promote activities to protect and make effective use of intellectual properties. (1) For protection of Mazda' intellectual properties: Promote rights acquisition activities on a global basis. • Maintain the number of patent applications at the same level as the previous year in Japan • File 30% or more overseas patent applications than those in Japan. The primal targets for the rights acquisition activities are the United States, Germany and China, which are Mazda's major sales markets. ② for the protection of the intellectual properties of other parties: • Continue to strengthen avareness-raising activities aimed at protecting the intellectual properties of Mazda and other parties. • Promote the appropriate use of works belonging to other parties, in conducting communication activities.	6.6 Fair operating practices
Compliance	<ol> <li>Ensure compliance and improve the level of compliance awareness through continuous awareness-raising activities, etc.<sup>22</sup></li> <li>Continue and strengthen support for Group companies through the provision of timely information, etc.</li> </ol>	<ul> <li>① Ensured the implementation of the existing awareness-raising activities.<sup>12</sup></li> <li>Around 1,000 employees participated in the compliance seminar organized by the Human Resources Office as part of management skill training.</li> <li>Released an e-learning program entitled "Security Export Control (Basics and Case Studies)" for Group companies.</li> <li>Held a compliance seminar for senior executives and general managers.</li> <li>Conducted inspections, including reconfirmation of work procedures, at the Company and Group companies, in view of examples of problems at other companies.</li> <li>② Support for Group companies</li> <li>Continued to hold regular meetings among departments concerned, in order to share information on the administration of oversea affiliates and to secure the consistency thereof.</li> <li>Started to hold meetings equivalent to the above, also regarding the administration of domestic affiliates.</li> </ul>	0	<ul> <li>① Ensure compliance and improve the level of compliance awareness through continuous awareness-raising activities, etc.<sup>*2</sup></li> <li>② Continue and strengthen support for Group companies through the provision of timely information, etc.</li> </ul>	6.6 Fair operating practices
Fair transactions	<ol> <li>Continue and strengthen activities to request that suppliers comply with the Mazda Supplier CSR Guidelines and to conduct surveys on their operation status of CSR initiatives.</li> <li>Gradually promote the establishment of the supply chain management system at individual overseas production sites.</li> </ol>	<ol> <li>Discussion is under way as to a revision to the Mazda Supplier CSR Guidelines, by adding "promotion of appropriate transactions," which goes beyond compliance with laws and regulations, as a compliance item.</li> <li>Reached an agreement with the person in charge of purchasing at MPMT, the production site in Thailand, regarding the application of the revised Guidelines to its suppliers.</li> </ol>	0	<ol> <li>Based on the revised Mazda Supplier CSR Guidelines, hold discussions about conducting a questionnaire survey to understand suppliers' operation status of CSR initiatives, and about follow- up of the survey results (e.g., through study meetings, and announcement of outstanding companies).</li> <li>Complete the activities to apply the Mazda Supplier Guidelines to MPMT, the production site in Thailand, and announce the guidelines to all MPMT suppliers.</li> </ol>	6.6 Fair operating practices

\*1 Corporate governance guidelines for listed companies announced by the Tokyo Stock Exchange in June 2015. \*2 Initiatives at Mazda Motor Corporation (FY March 2018 results, and FY March 2019 targets).
# MANAGEMENT

Mazda is working to enhance corporate governance and strengthen internal control in order to improve the transparency of management and expedite decision-making.

# Corporate Governance

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Mazda respects the purport of the Corporate Governance Code formulated by the Tokyo Stock Exchange and, while working to build a good relationship with its stakeholders, including shareholders, customers, suppliers, the local community and its employees, the Company strives to sustain growth and enhance its corporate value over the medium and long term through transparent, fair, prompt and decisive decisionmaking and to continue to enhance its corporate governance.

# Corporate Governance Framework

The Board of Directors is made up of ten directors, two of whom are highly independent outside directors. The outside directors are expected to help strengthen oversight of the Board of Directors and further boost the transparency of management by offering advice on Mazda's management activities based on their knowledge, experience, and insights, and by taking part in the decision-making process. The Audit & Supervisory Board is made up of five members, including two full-time corporate auditors and three highly independent outside corporate auditors. The Audit & Supervisory Board members audit the directors in the execution of their duties in accordance with an annual audit plan formulated by the Audit & Supervisory Board. Accounting audits are conducted by KPMG AZSA LLC.

In addition to the general meeting of shareholders and meetings of the Board of Directors, Audit & Supervisory Board and other bodies designated by law, Mazda holds executive committee meetings to convey information necessary for debate on important companywide policies and initiatives and business management as well as advisory bodies that contribute to decision-making by the president. The Company has also introduced an executive officer system. By separating execution and management, the effectiveness of the oversight of the Board of Directors is enhanced, and decision-making is speeded up through expanded debate by the Board of Directors and by delegating authority to executive officers. In this way, the Company is working to further managerial efficiency.

# Enhancing Transparency and Fairness in the Nomination and Appointment of Officers and Determination of their Remuneration

Mazda has established an Officer Lineup Advisory Committee to discuss the makeup of the officer lineup and policies for the development and selection of candidates for nominating and appointing directors, Audit & Supervisory Board Members and executive officers.

The Company has established an Officer Remuneration Advisory Committee to discuss remuneration policy and a structure and process based on the policy to enable its continued growth and to enhance its corporate value over the medium and long terms. The Officer Lineup Advisory Committee is composed of eight internal directors and two outside directors, while the Officer Remuneration Advisory Committee is composed of three internal directors and two outside directors. Both committees are advisory bodies to the president and are chaired by an outside director.

The policies for the nomination and appointment of officers and the policies for determining remuneration are disclosed in the Corporate Governance Report.

#### Corporate Governance Framework а

Social

Contributions



\* Company-wide Safety and Health Committee, Quality Committee, Risk Compliance Committee, Human Rights Committee, Security and Export Control Committee, etc.

For detailed information, please see b the following.

Corporate Governance Report

http://www.mazda.com/en/investors/library/ governance/

Annual Report 2018

http://www.mazda.com/en/investors/library/ annual/ ·Officers' areas of responsibility, profiles, etc. (pp. 38-39) ·Officers' compensation/Audit fees (p. 34)

Company Outline http://www.mazda.com/en/about/profile/ executive/ ·Officers' areas of responsibility

Securities Report (Japanese only) http://www.mazda.com/globalassets/ja/assets/ investors/library/s-report/files/f\_repo180627. pdf ·Corporate governance, etc. (pp. 37-47)

Social

Contributions

# Support for Outside Directors and Outside Audit & Supervisory Board Members

The Company provides explanations of matters to be brought before the Board of Directors as necessary so that outside officers can freely state their opinions at board meetings. The Company also arranges for outside officers to interview executive officers and provides opportunities for them to inspect facilities and participate in events both inside and outside the Company.

# Analysis and Evaluation of the Effectiveness of the Board of Directors

Mazda analyzes and evaluates the effectiveness of the Board of Directors in order to steadily advance measures for the further enhancement of the board's efficiency. In this initiative, based on a survey prepared by the board's secretariat, all of the directors and members of the Audit & Supervisory Board evaluate the board's effectiveness. After the results are compiled by the secretariat, an analysis of the current situation is shared at a board meeting, and the ideal to be pursued and improvements are discussed.

In FY March 2018, it was found that members of the Board of Directors were properly involved in determining the Company's business strategy and share an understanding of its content, that outside directors and corporate auditors expressed their opinions from an independent perspective after gaining an understanding of the Company's situation by receiving explanations of resolutions in advance and other forms of support, and that the oversight function of the execution of operations was ensured.

In view of the results of the previous survey (2016), Mazda worked to provide outside directors with more substantial information. Efforts were also made to ensure that at board meetings, members were given more thorough reports on progress and engaged in deeper deliberations regarding important matters. As a result, it was found that the outside directors had a better understanding of operations, and that lively and constructive discussions took place at board meetings in a timely manner.

On the other hand, it was found that there is a need to further reinforce monitoring of important matters such as the business strategy, to strengthen deliberations regarding risks and profitability, and to continue discussions on the diversity of members of the Board of Directors.

The Company will analyze and evaluate the board's effectiveness annually and continue to make improvements in order to enhance corporate value over the medium and long term.

# Cooperation among Parties Responsible for Auditing

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C For detailed information, please see the following.

Audit & Supervisory Board members (full time), the auditing company, and the Mazda's auditing department hold three kinds of meetings on a regular basis to improve the quality of auditing and to deepen their mutual understanding by exchanging information on audit plans and results.

- Meeting between Audit & Supervisory Board members (full time) and the auditing company
- Meeting between Audit & Supervisory Board members (full time) and the Mazda's auditing department
- Three-party meeting among Audit & Supervisory Board members (full time), the auditing company, and the Mazda's auditing department

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Environment

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## Governance for Group Companies

In the Mazda Group, each Group company has established a corporate governance framework with the aim of enhancing cooperation between Mazda and the Group companies.

#### Japan

Group companies in Japan set the corporate auditors. Through the Group Audit & Supervisory Board Members' Meetings attended by the Audit & Supervisory Board members (full time) of the Group's large companies and appointed part-time corporate auditors from among the Mazda employees, Mazda aims to strengthen ties between Mazda and its Group companies. **Overseas** 

Major overseas Group companies hold meetings of the Audit Committee.\*<sup>1</sup> Members participating in these meetings are executives and internal auditing-related departments of each overseas Group company, Mazda's executives and internal auditing-related department, and the department in charge of each group company. They enhance each Group company's internal control by discussing and exchanging opinions on activities related to internal control. Mazda further provides guidance and support to other overseas Group companies, to improve their internal control-related initiatives.

### **Internal Auditing**

Internal audits are conducted in Mazda and its Group companies in Japan and overseas, for the purpose of ensuring sound and efficient management. The Mazda's auditing department is staffed with those qualified as Certified Internal Auditor (CIA), Certified Information System Auditor (CISA), etc. Members of the department are continuously encouraged to improve their auditing skills, acquire specialized qualifications, and participate in outside training programs and internal workshops.

In April 2018, the Global Internal Audit Summit was held, bringing together the parties responsible for auditing at Mazda Group's major operation bases. At the Summit, which was in its ninth round, participants shared their auditing policies and plans as well as related risks and issues. They also presented best practices at each base and discussed the promotion of the "global audit alliance," in which an auditor of an overseas Group company conducts auditing of another operation base, working together with Mazda's internal auditing-related department.

In this manner, efforts are under way to improve the quality of auditing of the entire Mazda Group and foster its greater efficiency.

### System Auditing

The Mazda's auditing department and the internal auditing departments of overseas Group companies conduct audits on overall IT control concerning financial reports and IT security for individual operations and systems, with the aim of reducing IT-related risks.

# EMPLOYEE'S VOICE



Social

Contributions

Dr. Frank Theis Head of European Audit and Control Mazda Motor Europe GmbH

Discussing various issues with our business units and offering the customized solutions.

I am responsible for European Audit and Control. European organizations have their special characteristics and therefore require customized solutions. Our team is often in regular contact with people in each European organization and discusses various issues we face. Every day, we learn something new through communicating with the European teams. Hopefully, this contributes to our business skills.

#### d Internal auditing in Group companies

- Major Group companies (North America, Europe, China, Thailand, Australia, etc.): The internal auditing department of each company conducts audits and reports the results to Mazda. To ensure high auditing quality, Mazda's auditing department conducts audits advises on annual audit plans and audit results, and provides information related to auditing, and various other supports.
- Other Group companies in Japan and overseas, and Mazda: Mazda's auditing department conducts audits.

<sup>\*1</sup> Committees are set and operated independently for each overseas group company for the purpose of gathering information and exchanging opinions on internal control

Environment

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## **Internal controls**

Mazda has established the Mazda Corporate Ethics Code of Conduct (see p. 117), which states action guidelines for employees, the Finance Control Guideline for global financial control, and other guidelines. Based on these guidelines, each department develops rules, procedures, manuals, etc. to promote establishment of internal control.

For Group companies, cooperative systems have been established, in accordance with the affiliates' administration rules. The responsible department at Mazda supports training and system improvement for each Group company.

# Internal Control Self-Diagnosis

In 1998 Mazda initiated a system of self-diagnosis of internal controls for the purpose of disseminating awareness concerning internal controls. Currently, self-diagnosis is carried out at almost all Mazda Group companies in Japan and overseas. This system enables the supervisors in charge of actually developing and operating the processes and mechanisms, not third parties such as internal auditing departments or auditing companies, to evaluate internal controls using the checklist. Through this system, Mazda's departments and Mazda Group companies have proactively found inadequacies in internal controls and taken action to improve them.

Mazda's internal auditing department reviews the procedure for self-diagnosis and provides advices for necessary improvements while ensuring that any newly found risks would be reflected in the checklist, so as to always ensure proper and effective diagnosis.

# Implementation of Internal Controls Signoff System

From FY March 2007 Mazda has introduced the signoff system, in which top management of Mazda's each department and each Group company ensure internal controls by "signing off" after identifying inadequacies in controls and confirming the status of correction thereof through auditing and self-diagnosis. The Mazda Internal Controls Report is prepared based on the contents of these signoffs. From FY March 2010, for the purpose of early discovery of inadequacies at each department or Group company, a new system of quarterly reporting has been implemented whereby inadequacies found are reported to the Mazda's auditing department on a quarterly basis. For each inadequacy reported, the deadline and responsible person for improvement are determined to facilitate speedy improvement.

e Mazda Internal Controls



Social

Contributions

Quali

Safety

fg

# **Risk Management**

Mazda makes continuous efforts to identify and reduce various internal and external risks in accordance with the Basic Policy on Risk Management, Risk Management Regulations, and other related internal regulations, so as to ensure continuous and stable progress of business activities. Among the risks identified, considering the level of importance, individual business risks are managed by the department in charge of that business area while company-wide risks are handled by departments that carry out business on a company-wide basis. These departments manage the risks appropriately, following the PDCA cycle.

In the event of an emergency, such as a natural disaster or situation that creates serious managerial consequences, Mazda takes appropriate measures in reference to its internal regulations, including establishing an emergency response taskforce when necessary. In FY March 2018, the Company revised the Risk Management Regulations to clearly set forth what is required to promote continuous business operations through cooperation between Mazda and its Group companies. The revision was publicized to ensure that all parties were aware of these required matters.

In line with the medium-term action plan established in the previous year, the Risk Compliance Committee has worked to further clarify the risks in the Company and its Group companies and to strengthen the risk management. The committee has also ascertained the progress of these activities on a half-yearly basis. In FY March 2018, the committee selected the common key issues to be addressed across the Mazda Group, from among the risks identified by each division, based on the confirmed results of the said risk management. Then, measures were put in place to deal with these key issues. The committee also periodically reports its initiatives to the Board of Directors. Mazda is presently upgrading and expanding its business continuity plan (BCP) to avoid suspension of business that would extensively impact society.

# f Risk Management Structure in Normal Times

Social

Contributions



#### g Emergency Risk Management Structure



For incidents that fall outside the scope of existing risk management organizations and require a coordinated interdepartmental response, the executive officer in charge of risk management will consult with the president, establish an emergency response taskforce, and appoint a general manager for this taskforce.

#### Annual Report 2018

http://www.mazda.com/en/investors/library/ annual/

Business risk (pp. 45-47)

#### **Basic Policies of Risk Management**

#### Concept

With the advance of IT and globalization and the growing awareness of environmental issues and compliance with the law, the environment surrounding the company's activities is rapidly changing, and it can be expected to change even further in the future. In order to realize this "Corporate Vision," it is necessary to specifically address these changes in the environment and minimize the potential risks that threaten to interfere with the continuous, safe furtherance of our business activities. The company must also create a system that will allow a rapid recovery when abnormal or emergency circumstances occur and gain the strong trust from our customers, shareholders and the community. The entire Mazda Group shall address risk management and work toward becoming a company that can truly be trusted.

#### Goals

In the following ways, Mazda shall strive for Enhancement of Corporate Value and Harmony with the Community thereby realizing the company's "Corporate Vision."

- 1. Ensure the health and safety of all those who make up the Mazda Group as well as local citizens
- 2. Maintain and increase the trust from the community
- 3. Make appropriate use of the tangible and intangible corporate assets of the Mazda Group
- 4. Secure interests of the stakeholders, earn their trust and meet their expectations
- 5. Support the functions of the organization and seek a rapid restoration of business activities at the time of abnormal circumstances or emergencies

#### Action Plan

All corporate officers and all employees shall have responsibility for carrying out risk management based on the awareness that risk exists in every facet of business activities. Risk management shall be addressed from all angles at every stage of operations.

#### Methods

Risk management activities shall be divided into two types:

- 1. Continuous efforts to prevent and mitigate potential risks existing in everyday duties and the promotion of the proactive use of these activities (risk management)
- 2. Minimization of damage resulting from crisis and rapid recovery (crisis management)

#### Scope of Application

- 1. Shall include the control of all types of business risk.
- 2. Shall apply to the entire Mazda Group including subsidiaries and related companies.

Customer Satisfaction

Quality

Safet

Environment

h

Respect for People

#### Response to Accidents and Other Emergencies

Mazda has been systematically undertaking preparatory measures for major earthquakes since FY March 2004. Examples of such "hardware" and "software" measures include quake-proofing buildings and facilities, and raising embankments, as well as maintaining emergency-contact networks, organizing self-disaster-defense teams, developing response manuals, selecting tsunami evacuation areas, and carrying out evacuation drills. Moreover, disaster drills are held annually both jointly with the fire authorities and solely by Mazda's self-disaster-defense teams to confirm initial response to an emergency, based on lessons learned from the Great East Japan Earthquake and the earthquakes that occurred in Kumamoto and Tottori Prefectures.

In FY March 2018, Mazda introduced a system to automatically confirm employees' safety in the event of a large-scale disaster, into some departments on a trial basis. Also, starting in FY March 2019, the same system is scheduled to be deployed company-wide. In the future, Mazda is planning to apply the system to affiliates and overseas bases of operation. Steady efforts to enhance both the "hardware" and "software" aspects of emergency readiness will continue in preparation for the expected Nankai Trough Earthquake or other large earthquakes and tsunami associated therewith. Mazda also supports local communities' disaster prevention activities through the dispatching of fire engines and other means.

### Information Security

Personal information and other important information are appropriately managed and protected based on the established information management policies and internal regulations, so as to ensure information security.

To raise employees' awareness about information security, Mazda requires its employees to execute training on the management of confidential information, protection of personal information, and IT security. When newly joining the Company, management of confidential information is covered in the introduction program, while e-learning is used for personal information protection and IT security training. Other continuous education efforts are also available, including an Intranet site dedicated to information and knowledge on information security.

For companies in the Mazda Group, Mazda provides guidelines and educational tools regarding information security, realizing a group-wide effort to ensure information security. **IT Security Management Rules** 

The IT security policy based on the BS 7799<sup>\*1</sup> framework has been established as IT security management rules, under which the mechanisms for security control and monitoring that should be incorporated into IT systems are determined. Whether such mechanisms are properly installed and operated is confirmed on both a regular and random basis.

#### **Protection of Personal Information**

Mazda rigorously protects personal information in line with its own Personal Information Protection Policy.

Handling rules are set out in order to ensure appropriate management of personal information, regular examination of management records for retained personal data is taken, and management statuses are checked once a year. In cases in which the handling of personal information is entrusted to outside parties, such contractors are carefully selected based on a checklist which determined the necessary items including security management. The Mazda Call Center responds to customers who wish to inquire about the Company's handling of personal information and those who request disclosure regarding privacy issues. In FY March 2018, Mazda revised its rules and procedures for the handling of personal information. The Company also released a new e-learning program titled "Basic Rules on Personal Information Handling." The relevant information was communicated to the Group companies, so as to support each company in complying with the revised Act. As for the EU General Data Protection Regulation (GDPR), whose application started in 2018, Mazda has taken appropriate measures, with recognition of its impact on the Company.

h Number of participants in drills at Mazda Head Office

Drill for disaster response, firefighting and first aid (using AED) in preparation for an earthquake, tidal wave, etc.

Social

Contributions

	FY March 2016	FY March 2017	FY March 2018
Participants	19,100	19,021	19,289

\*1 Standards on information security management established by the British Standards Institution (BSI), on which ISO/ IEC27001 & 27002, the current international standards for information security management, are based. Sa

Respect for People Social

Contributions

#### Personal Information Protection Policy

The Company endeavors to adequately protect the personal information of its customers, business partners, employees and other parties in accordance with laws and regulations on the protection of personal information and the basic guidelines described below.

- 1. Mazda shall establish Regulations for the Protection of Personal Information, to be adhered to by all parties that handle personal information.
- 2. Mazda shall put in place a presiding supervisor for the management of personal information, and provide corresponding educational activities for its employees (directors, employees, part-time workers, temporary agency workers, etc.) and other related persons.
- 3. Mazda shall acquire personal information through appropriate means. When collecting personal information, Mazda shall either inform that person of the purposes of use and its contact address, or announce such information by a well-recognized method or methods (such as through a website).
- 4. At Mazda, personal information shall only be utilized by those who have been authorized to manage such data, to the extent disclosed to the parties concerned or publicly announced, and within the scope necessary.
- 5. Mazda shall take all necessary measures required by law, including obtaining consent from the relevant party, for the provision of such personal information to a third party.
- 6. If Mazda assigns a third party to any business relating to personal information, the Company shall make an appropriate selection of the assignee for such business, and take all necessary measures required by law, such as conducting necessary and adequate supervision.
- 7. If Mazda receives any claim for disclosure, correction, suspension, or elimination of all or any part of the personal information retained by the Company, Mazda shall react appropriately in accordance with laws after the Company confirms that said claim was made by the relevant party.
- 8. Mazda shall ensure reasonable security measures, and continuously improve such measures to prevent illegal access, loss, destruction, falsification, and/or leakage of personal information.

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### **Basic Policy on Intellectual Property**

Mazda's overall vision for intellectual property is to use intellectual property as a management resource in support of its business management and enterprise activities, based on respect for its own and others' intellectual property. Based on this vision, Mazda has established an Intellectual Property Committee to discuss and decide key items regarding intellectual property. The committee is comprised of division general managers from related divisions and chaired by an executive officer responsible for intellectual property issues. Also, the invention incentive system increases motivation for inventions among employees working at the forefront of research and development. For its Group companies in Japan and overseas, Mazda supports them in developing/ implementing policies and establishing systems for handling intellectual property, with the aim of enhancing the intellectual property management functions of the entire Mazda Group.

# Protection of Intellectual Property and Intellectual Property Risk Management

Mazda's dedicated Intellectual Property Department leads Company activities regarding intellectual properties so as not to infringe upon the intellectual property rights of other companies, and conducts strategic activities aimed at fiercely protecting, accumulating, and making optimal use of the intellectual properties generated through these in-house activities.

- 1. Exhaustively uncovers and globally obtains rights concerning intellectual properties created by its business activities, including new technologies, markings, model names and vehicle designs, and protects Mazda technologies and the Mazda brand.
- 2. Takes steps to exhaustively investigate as well as prevent and solve any problems regarding intellectual properties that may obstruct business activities in each domain, such as infringement of other parties' patent rights; trademark rights, design rights and copyrights; and violations of the Unfair Competition Prevention Act.

To avoid patent litigation driven by patent trolls, <sup>\*1</sup> which has been increasing mainly in the United States, Mazda joined the License on Transfer Network<sup>\*2</sup> in March 2015. The Company also participated in 2017 in the Open Innovation Network (OIN), in which all members agree that there should be no patent conflict around LINUX and related technology. The aim of this participation was to reduce the risks regarding LINUX-related patents, which have been on the rise as the use of LINUX-based OS becomes widespread in the automotive industry.

#### Invention and device awards

Once a year on Mazda's foundation day, certificates of commendation, commemorative medals, prize money, etc. are presented to the selected recipients through the manager of their department. No limit is set for the amount of prize money, so that inventors are fully rewarded for their contribution.

\*1 A patent troll is an organization or group that is not engaged in technology development itself but acquires patents for technologies developed by others, for the purpose of demanding unreasonably high patent royalties or settlement money from third parties that use the relevant technologies.

<sup>\*2</sup> A patent association established in July 2014 by Canon Inc., Google Inc. and some other companies. If a member company sells a patent it owns to an external organization, group, or individual, the license for the patent will be automatically granted to other member companies. (If a patent troll obtains a patent of a member company, Mazda cannot be charged a patent royally by the patent troll.)

Sa

Environment

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## Awareness-Raising Activities

The Mazda Corporate Ethics Code of Conduct (see p. 117) stipulates "Protect confidential information. Never infringe on any intellectual property rights, whether belonging to Mazda or another party," so as to clearly convey a relevant code of conduct to all employees and guide their behavior. The Intellectual Property Department is responsible for the overall management of intellectual property, and also regularly conducts awareness-raising activities to instill respect for intellectual property law. Based on periodic review of risks according to changes in the external environment, the Department offers awareness-raising programs tailored to the management level and position of each employee and executive in Mazda and each Mazda Group company at home and overseas, and to the type of intellectual property in question.

In FY March 2018, to prevent intellectual property-related problems, intellectual education was provided with particular focus on the risks involved in joint development, thereby promoting information sharing and awareness raising.

# Brand Protection (Measures against Imitation Products)

To protect customers, Mazda implements activities to eliminate the risk posed to customers by the purchase of imitation products. These activities are aimed at supporting and improving the strength of the Mazda brand and its trustworthiness, as a brand that continues to be relied on by customers.

#### [Details of Activities]

- 1. Mazda develops and implements its own measures against the sale of imitation products.
- 2. Mazda actively participates in programs organized by the private and public sectors against imitations.
- 3. Mazda appoints permanent staff from among the members most knowledgeable in intellectual property issues to liaise with countries and regions that are major sources of imitation products. Working with government and other agencies tasked with exposing imitation products, these staff members work to devise measures to stem the flow of such products.

J Examples of awareness-raising activities

 Preparing manuals for creating and publishing materials

Social

Contributions

 Developing Mazda-Shared Image-Collection, which collects communication materials that involve no risks of intellectual property infringements Customer Satisfaction

Quality

Safety

k

### Compliance

At Mazda the concept of compliance applies not only to laws and regulations, but also includes adherence to other rules such as internal guidelines and societal norms and expectations. Business operations are conducted in accordance with the Mazda Corporate Ethics Code of Conduct to ensure fair and honest practice. This also applies overseas; Mazda not only complies with international regulations and the laws of each country and region, but also respects local history, culture, and customs. The Mazda Corporate Ethics Code of Conduct is revised as needed to cope with changes in the social environment, social needs, etc. The Global Employee Engagement Survey, which includes a questionnaire concerning compliance, is conducted to check the employees' degree of understanding of compliance.

Outline of the Mazda Corporate Ethics Code of Conduct

#### Five principles of "faithful" behavior

- 1. To comply with laws and regulations, company rules, common sense and sound practice in international society.
- 2. To be fair and even-handed.
- 3. To fulfill the company's social responsibilities.
- 4. To fulfill your own duties truthfully.
- 5. To be honest.

#### Guidelines

- 1. Comply with laws and regulations and the company rules. In a situation where such rules are not clearly defined, make a judgment considering their spirit.
- Treat employees, customers and clients fairly and justly. Do not obtain from or give anybody an unjust benefit and/or favor taking advantage of your business position.
- 3. Make distinctions between public and private affairs, and never pocket or abuse the company assets.
- 4. Keep confidential information. Never infringe on any intellectual property rights, whether it belongs to Mazda or another party.
- 5. Seek to develop, manufacture and sell products taking human safety and the environment into consideration.
- 6. Act with a view to seeking sound profit.
- 7. Respect human rights and human dignity.
- 8. State the truth honestly and timely in reporting internally and/or to the public.

### Mazda Global Hotline

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In 1999, Mazda established the Ethics Advisory Office to handle employee inquiries about compliance and conduct investigations on ethical matters. In September 2007, the office was renamed the Mazda Global Hotline and the scope was expanded to include domestic and overseas Mazda Group companies and contact points were established both inside the Company and outside (attorney's office). To ensure that all employees are aware of this hotline, Mazda has distributed the Compliance Card with the contact information to all employees at Mazda Motor Corporation, and ensures awareness of this hotline at every opportunity through compliance education. Mazda has also introduced the hotline to Mazda Group companies in Japan and overseas via each company's Intranet. This hotline is also introduced to suppliers so that they can report the questions arose from any transaction.

The Mazda Corporate Ethics Code of Conduct states that "Persons who report incidences of violation of the law and persons who cooperate in investigations of alleged violations shall not be subjected to retribution or disadvantageous treatment." In addition, Mazda has set up several contact points to provide various consultations for employees.

These contact points aid in the early detection and appropriate handling of important compliance-related information. The critical cases are reported to the management.

#### k Compliance Promotion System



Social

Contributions

#### Global Employee Engagement Survey Percentage

of positive responses*	(Consolidate		
	FY March 2015	FY March 2016	FY March 2017
Legal and company policy compliance is strictly observed in this company.	73%	73%	75%
This company deals properly with violations of compliance.	70%	71%	73%

\* In FY March 2018, the survey items were revised. A new survey was commenced in May 2018.

#### Overview of Compliance Activities

1997	Ethics Committee established under the direct
	supervision of the president
1998	Mazda Corporate Ethics Code of Conduct

- 1998 Mazda Corporate Ethics Code of Conduct established. Guidelines on Entertainment and Gifts established
- 1999 Ethics Advisory Office established
- 2002 Compliance Seminar held for executives and middle managers (once a year in principle)
- 2005 A mandatory e-learning course held for all indirect employees Ethics Questionnaire conducted targeting executives and employees A wallet-size "Compliance Card" is distributed to every employees in the Mazda Group.
- 2007 The Mazda Global Hotline established
- 2008 Distribution of "Learning from Other Companies" and "Compliance Communications" started on the Company Intranet The Ethics Committee reorganized to Risk
- Compliance Committee 2013 Compliance Card revised and disseminated through the Mazda Global Hotline
- 2017 Distribution of "Let's Learn Together about Compliance!" started on the Company Intranet

#### Mazda Global Hotline



#### **M** Various Contact Points



9

Environment

# **Compliance Education**

Mazda believes that mere adherence to laws and regulations is not enough; it is important to have each and every employee understand the essence of such laws and regulations and to practice integrity. Various compliance education activities are organized in line with the changes in the social environment and social needs. In FY March 2018, around 1,000 employees took part in these activities. The content of voluntary learning opportunities using e-learning is also being enhanced. Moreover, the Company uses its Intranet to raise employee awareness of compliance issues. For example, Mazda distributes a case study series entitled "Learning from Other Companies' Case Examples," which highlights problems and best practices at other companies relating to compliance and risk management. Another Intranet-based study tool is a monthly series entitled "Let's Learn Together about Compliance!" which presents case studies on themes closely related to daily operations in a conversational form. Every month around 4,000 employees read these materials. This information is also shared with Mazda Group companies, who apply it in their own compliance education activities. There are also department-specific compliance efforts, such as the arrangement of regular meetings using "Let's Learn Together about Compliance!" Continued initiatives targeting executives and middle managers are also taking place to reemphasize the importance of compliance through compliance seminars and timely provision of information.

### **Enhancing Global Tax Compliance**

The Mazda Group handles tax affairs with integrity, in keeping with the Mazda Corporate Ethics Code of Conduct and other relevant rules and regulations. It is an important duty as a good corporate citizen to pay taxes in an appropriate and timely manner, in accordance with followings: international rules, each country's laws and regulations, and the Company's Finance Control Guidelines. With this in mind, Mazda contributes to social development in each country, by voluntarily fulfilling its tax obligations.

The Mazda Group understands the purport of the Base Erosion and Profit Shifting (BEPS) projects, which are promoted by the OECD and the G20 countries. The Group will not engage in tax-evasion behaviors through the abuse of tax havens, but will sincerely cooperate in implementing information disclosure in response to requests from the tax authorities of each country, to ensure tax transparency. Particularly in its global business operations, Mazda is well aware of the importance of transfer pricing taxation as a means of determining proper profit-sharing among Group companies in the respective countries. By promoting active dialogue with tax authorities through effective use of Advance Pricing Arrangement, the Mazda Group is committed to transparent and fair transfer pricing. The Group will continue to establish trusted relationships with the tax authorities in each country and enhance tax compliance from a global standpoint, while taking into account changes in the social environment and needs regarding tax affairs.

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N Themes of "Learning from Other Companies' Case Examples," "Let's Learn Together about Compliance!" and "e-Learning" (Example)

Social

Contributions

- Agreement
- Copyright
- Insider Stock Trading
- Personal Information
- Act on Subcontracting
- Security Control
- Act against Unjustifiable Premiums and Misleading Representations
- Ordinances on Exclusion of Violence Group
- Anti-Monopoly Act
- Unfair Competition Prevention Act (including bribery of national civil servants)
- Security Export Control
- Non-Disclosure Agreement
- Outsourcing Agreement
- And others

Quality

Safety

#### Management

## Supporting Enhancement of Compliance at Dealerships in Japan

To support transparent management throughout all Mazda Group companies, Mazda systematically promotes the strengthening of compliance among its dealers in Japan based on the principle as compliance being the base for building the brand.

Specific initiatives:

- CSR Committee meetings are convened in conjunction with the Mazda Dealership Association in order to discuss basic policies and measures related to compliance and internal controls, and request the promotion of compliance to all Mazda dealerships in Japan at every opportunity, such as during the conferences for dealership representatives.
- Know-how sharing including examples of practical and effective activities is promoted, by holding a biannual conference bringing together the responsible persons and employees engaged in internal controls, from dealerships in Japan. Since FY March 2019, a briefing session focusing on internal control self-diagnosis has been held, in order to promote problem prevention activities. By providing detailed support for such activities, Mazda has further strengthened compliance at domestic dealerships.
- Questions encompassing risks concerning standard business process and laws particular to dealerships in Japan as well as internal control were added to the Self Diagnosis Checklist on Internal Controls, which is deployed throughout the Mazda Group. It supports the promotion of dealership management in compliance with related laws and improvement of work efficiency.

The Self-Diagnosis Checklist reflects examples of dealerships' activities. It is intended to promptly share best practices and risks with related parties and to promote more practical self-diagnosis.

- The CSR site has been opened on the intranet used by all dealerships in Japan, in order to promote understanding of compliance and internal controls among dealership employees. The site provides the standard operating procedures that define the basic business operations to be performed by dealerships, as well as education tools, such as onepoint lessons on compliance concerning near-at-hand case studies and specialized e-learning programs.
- For immediate reporting of problems regarding compliance, internal controls and other CSR-related issues, an in-house consultation contact point has been set up at each dealership in Japan, and effective use of the Mazda Global Hotline reporting system has been brought back to attention.

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# **IMPLEMENTING CSR IN THE SUPPLY CHAIN**

# Working with Mazda's Suppliers

Mazda carries out a wide variety of activities in order to achieve mutual growth and prosperity with suppliers and dealerships, both in Japan and overseas. In line with its basic purchasing policy, Mazda is making efforts to build open business relationships and ensure fair and even-handed dealings with its suppliers both in Japan and overseas, while extending opportunities to businesses throughout the world, regardless of nationality, scale or history of transactions with the Company. Upon receiving a request to start business with Mazda, Mazda assesses the company in question in a fair and even-handed manner according to its in-house criteria for evaluation of suppliers, and determines the feasibility of a business partnership.

In addition, Mazda bases its assessments of business dealings with its suppliers on a comprehensive evaluation that covers not only quality, technical strengths, pricing, delivery time and management approach, but also the corporate compliance structure and CSR initiatives, including environmental protection activities (see p. 121). Mazda has conducted questionnaire surveys of its suppliers on an as-needed basis, aiming to understand and evaluate the status of their CSR implementation in more detail (see p. 121). Also, concerted efforts are under way between Mazda and its suppliers to establish risk management systems that ensure business continuity and stable development, so as to avoid suspension of business that would extensively impact society (see p. 122). In addition to proactively offering opportunities for communication, Mazda provides supports in various forms to suppliers to ensure that the Company can promote CSR initiatives and risk management in close concert with them (see p.122).

### Promoting CSR Initiatives in Partnership with Its Suppliers

# Promoting Suppliers' CSR Initiatives and Deployment of the Mazda Supplier CSR Guidelines

The Company stipulated the Mazda Supplier CSR Guidelines, based on Mazda's basic approach on CSR initiatives and with reference to the CSR Guidelines of the Japan Automobile Manufacturers Association. The Guidelines outline CSR areas and items that are closely related to the purchasing area. In the Guidelines, CSR activities are categorized into six areas: Customer Satisfaction (Safety/Quality), Environment, Social Contribution, Respect for People (Human Rights/Work), Compliance, and Information Disclosure. The Guidelines request that all Mazda suppliers comply with the guidelines in these areas. The Mazda Green Purchasing Guidelines (see p. 62) are separately created to indicate the Company's approach on the environmental protection area in more detail, and Mazda requests that suppliers observe these guidelines. The Company also conducts

periodic surveys of suppliers to confirm their compliance status (see p. 121). **Customer Satisfaction(Safety/Quality):**Suppliers are requested to abide by the guidelines regarding products and services that meet the needs of consumers and customers, sharing appropriate information about products and services, safe products and services, quality products and services, etc.

**Environment:**Suppliers are requested to abide by the guidelines regarding environmental management / greenhouse gas reduction / air, water and soil pollution prevention / resource conservation and waste reduction / chemical management / ecosystem conservation, etc.

**Social Contribution:**Suppliers are requested to make social contributions proactively and continuously at home and abroad to meet the needs of each region, thereby fulfilling their responsibilities as a good corporate citizen.

**Respect for People (Human Rights/Work):**Suppliers are requested to abide by the guidelines regarding abolition of discrimination / respect for people / prohibition of child labor / prohibition of forced labor / non-use of conflict materials<sup>\*1</sup> (see p. 121) / wages / working hours / dialogue with employees / safe and healthy working environment, etc.

**Compliance:**Suppliers are requested to abide by the guidelines regarding regulation compliance / competition law compliance / corruption prevention / confidential information management and protection / export management / intellectual property protection, etc. (In FY March 2018, items for "promotion of fair transactions" [see p. 121] will be added.)

**Information Disclosure:**Suppliers are requested to disclose information to their stakeholders in a timely and appropriate manner, and make efforts to maintain and develop mutual understanding and trustful relationships with stakeholders through open and fair-minded communication.

#### **Basic Purchasing Policy**

Mazda will, in the fullest sense of coexistence and mutual prosperity, engage in research and production for improved competitiveness.

Social

Contributions

The Company will build open and fair business relationships to ensure sustainable growth and raise its level of contributions for social and economic development. (1994)

#### Number of Suppliers (As of March 31, 2018)

Automotive parts	538
Materials, etc.	147
Equipment and tools	396
Total	1,081

#### a Measures for Supplier Support

 Co-creation and technology exchange with suppliers, aimed at improving their competitiveness

- Cooperating with suppliers in improving their product quality
- Adoption of the Milk-Run system (Mazda has shifted from the conventional system, with delivery of parts by each supplier, to the Milk-Run system (MRS) (see p. 75), in which Mazda trucks stop at multiple suppliers to collect parts.
- Provision of advice on joint subscription systems for product liability insurance, which reduces manufacturers' liability risks for parts.
- Provision of information on third-party exhibitions and conventions to showcase the latest technologies and manufacturing methods

#### b Mazda Supplier CSR Guidelines

 $http://www.mazda.com/globalassets/en/assets/csr/csr_vision/distributor/supplier_csr_guideline_e.pdf$ 

#### C Mazda Green Purchasing Guidelines

http://www.mazda.com/globalassets/en/assets/csr/csr\_vision/ distributor/greenpurchasing\_guideline\_e.pdf

\*1 Conflict minerals: Minerals and their derivative metals designated by Financial Regulatory Reform Article 1502 that are sourced from and used as financial sources for armed groups in conflict-affected regions in the Democratic Republic of Congo or adjoining countries (Regulated minerals: tantalum, tin, tungsten, gold). Under this act, listed US companies are obliged to report that no conflict materials are used in their products.

# Example of CSR Initiatives in Cooperation with Suppliers

#### Respect for People: Activities to Address Problems regarding Conflict Minerals

Mazda considers that among crucial social problems in the supply chain are human rights violations and illegal extraction in disputed regions and issues regarding conflict minerals\*1, which may be used as financial sources by armed groups.

To ensure that conflict minerals and other materials that may cause social problems are not used, the Mazda Supplier CSR Guidelines clearly state Mazda's policy, and the Company requires all suppliers to comply with it. In FY March 2018, Mazda conducted a survey on conflict minerals, targeting about 300 suppliers of the parts and materials of vehicles to be supplied to companies to which Mazda vehicles are delivered, in response to the request. The survey was carried out using the format designated by the Electronic Industry Citizenship Coalition (EICC) (now the Responsible Business Alliance [RBA]). d

**Compliance: Promotion of Fair Transactions** 

Mazda promotes fair transactions to ensure that both the Company and its suppliers have fair dealings under clear standards with a common recognition to strengthen their global competitiveness through mutual collaboration. Based on the Guidelines for Appropriate Transactions in the Automobile Industry, which was formulated at the initiative of the Ministry of Economy, Trade and Industry, Mazda carries out various activities, including the formulation of the Promotion Manual for Appropriate Purchasing, education for those engaged in procurement operations at Mazda, and information provision to suppliers through the website and briefing sessions. In 2017, the Japan Automobile Manufacturers Association prepared the Voluntary Action Plan to Promote Appropriate Transactions and to Improve Productivity and Added Value. In response, Mazda took the following measures. Initiatives in 2017:

July: Briefing sessions were held to explain the specific activities/action plan to employees in purchasing divisions of Mazda. August - November: These sessions were subsequently held for employees in related divisions and consolidated subsidiaries. November : Seminars/counseling sessions were held, individually for each of the 53 companies, primarily local suppliers.

### The Supplier Evaluation System

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When starting business with a new supplier, related departments coordinate together to confirm the supplier's quality control system, research & development system, technological capabilities, financial conditions, and CSR initiatives, in order to evaluate whether or not the supplier is compliant with the procurement/selection policies of the Mazda Group. For each long-term supplier, Mazda conducts not only an evaluation based on the quality, cost and delivery time of the procured goods or services, but also a comprehensive evaluation of the entire business including the quality control system, research & development system, technological capabilities, and the status of its CSR initiatives. For the supplier quality control system, Mazda employs a system that enables continuous grasping of issues, evaluation of the situation, and provision of guidance for improvement by receiving daily reports on product quality as well as voluntary audit results, and when a supplier is in need of quality improvement, conducts quality auditing that involves on-site confirmation of actual products at both domestic and overseas sites. Also, Mazda comprehensively evaluates its suppliers every year (265 suppliers in 2017) from the perspectives of quality, pricing, delivery time, etc., in order to build more positive business relationships with them, and passes the results of these evaluations back to the suppliers. Outstanding suppliers are recognized with awards. The Company has also introduced CSR-based evaluation, giving special awards to suppliers that have made outstanding proposals on weight trimming, which greatly affects environmental performance such as fuel efficiency.

### Questionnaire Survey for Suppliers

Mazda has conducted questionnaire surveys of its suppliers since FY March 2014, aiming to understand and evaluate the status of their CSR implementation. The survey results confirm that these suppliers have appropriately implemented CSR initiatives and established their own CSR promotion systems. In FY March 2018, a questionnaire survey was carried out about compliance (appropriate transactions) and labor practices (reform of working practices), in view of the growing social awareness of these matters. The survey was targeted at approximately 60 local manufacturers, a major percentage of whose sales consisted of products delivered to Mazda. After analyzing the survey results, the Company held individual interviews with companies deemed to be in need of improvement, in order to offer them cooperation in devising improvement methods. Mazda is planning to implement a questionnaire survey regarding the Mazda Supplier CSR Guidelines, to check the statuses of suppliers' compliance with the Guidelines.

#### In-House Education to Ensure Fair Transactions

Social

Contributions

The following educational initiatives are conducted for those engaging in procurement operations in order to realize fair and equal transactions.

- Administering comprehension tests on fair transactions (including Subcontractors Act)
- Education on financial control
- Posting of guides and process rules regarding appropriate transactions and compliance of the Purchasing Division website on the Intranet
- Participation in the fair trade promotion seminar hosted by the Small and Medium Enterprise Agency

#### e Evaluation System

#### Evaluation items when starting business with a new supplier

Quality management system, research & development system, technological capacity, production and delivery capacity, financial conditions, CSR initiatives, etc.

#### Evaluation items for long-term suppliers

Ouality management system, research & development system, technological capacity, production and delivery capacity, financial conditions; quality, pricing, delivery time of goods or services procured, and other items in the Supplier CSR Guidelines (see p. 120)

\*1 Conflict minerals: Minerals and their derivative metals designated by Financial Regulatory Reform Article 1502 that are sourced from and used as financial sources for armed groups in conflict-affected regions in the Democ Republic of Congo or adjoining countries (Regulated minerals: tantalum, tin, tungsten, gold). Under this ac listed US companies are obliged to report that no conflict materials are used in their products.



Satisfaction

Customer

Safety

fg

Management

# Risk Management in Collaboration with Suppliers

# Upgrading and Expanding the Business Continuity Plan (BCP)

In the light of risk management, Mazda is presently upgrading and expanding its business continuity plan (BCP) to avoid suspension of business that would extensively impact society. For procedures when suppliers are affected by disasters, the Company has compiled the Risk Management Procedures for Affected Suppliers. Assuming a largescale disaster, risks for each supplier were identified in terms of substitutability, location, and business continuity. By sharing the identified risks, measures against them will be developed. To enable early recovery while placing the highest priority on human life, the Company has introduced the "SCRKeeper,"\*1 a supply chain risk management system, with the aim of enhancing its initial response and risk management. Mazda started operation of the system following the completion of the registration of data on suppliers in Japan, and worked with suppliers to establish alternative means for the production and procurement of high-risk parts and materials in preparation for the expected Nankai Trough Earthquake. The Company will continue to enhance its BCP in cooperation with its suppliers.

# **Communicating with Suppliers**

# Information Exchange and Dialogues with Suppliers

Mazda proactively offers opportunities for communication with suppliers, to ensure that the Company can work in close concert with them. Seeing all the suppliers as its important business partners, the Company takes steps to promptly brief suppliers on medium- to long-term business strategies and on matters related to sales and production, and arranges opportunities for information exchange and dialogues on a regular basis. As part of such efforts, Mazda organizes an annual seminar with the aim of enhancing awareness of environmental and other CSR initiatives.

The Company also maintains close liaisons with supplier-managed purchasing cooperative organizations<sup>\*2</sup>. For example, staffs from member companies visit each other's offices in order to exchange examples of successful approaches and practices through subcommittee activities. In FY March 2018, 128 companies conducted a total of 53 activities.

#### Major Channels of Communication with Supplier

Target participants		Frequency	Aims/content
Roundtable Conference with Supplier Management	e-level nent at ppliers	Once a year	•Mazda's president and CEO explains Mazda's current status, the problems the Company faces and its policies, after which the general manager of the Purchasing Division explains Mazda's purchasing policies in order to heighten participants' understanding of Mazda and gain their cooperation. •This conference also deepens friendly ties between Mazda and its suppliers.
Supplier Meeting Supplier Meeting Supplier divisions departme major sup	itatives of business and ents at ppliers	Once a year	<ul> <li>Mazda's specific purchasing policies are explained to representatives of frontline business divisions at suppliers, based on the explanation given at the roundtable conference by the general manager of the Purchasing Division. This helps to promote a better understanding of Mazda and provides useful input for the work that suppliers do.</li> </ul>
Supplier Represen Communication divisions Meeting departme major su	ntatives of business and ents at ppliers	Once a month	<ul> <li>To facilitate smoother collaboration with its suppliers, Mazda provides them with information, such as topics concerning daily operations between Mazda and its suppliers (including CSR), production/sales status, quality status of purchased materials, pilot construction schedules for newly developed models, and mass-production implementation schedules for new models.</li> </ul>
Other	_	As	Mazda also employs a range of other communication channels, by using the in-house "Mazda Technical Review", highlighting new

using the in-house "Mazda Technical Review", highlighting new technologies and research.

Lecture at Supplier Communication Meeting f "Mazda's CSR initiatives" (October 2017)

#### g Purchasing Cooperative Organizations\* (As of March 31, 2018)

Parts suppliers	Yokokai	169
Materials suppliers (Raw materials, equipment, molds, etc.)	Yoshinkai	80

\* An autonomous management organization, comprising suppliers that have a certain degree of transaction with Mazda, with the purpose of strengthening relationships between Mazda and its suppliers as well as promoting mutual growth and prosperity.

Supply Chain Resiliency system

- This is a system combining map data with the earthquake information by the Meteorological Agency, with which the seismic intensity of the registered production sites can be found quickly in the event of an earthquake.
- \*2 Yokokai member companies: 169 parts suppliers, Yoshinkai member companies: 80 material suppliers The procurement amount from member companies of Yokokai and Yoshinkai accounts for about 90% of the whole



#### **EMPLOYEE'S VOICE**

#### Aiming to Build Up "Special Bonds" with Suppliers and Relationships that Enable Mutual Growth

We are in charge of procurement at Mazda de Mexico Vehicle Operation (MMVO). To establish relationships with suppliers that enable co-creation, MMVO organizes the Supplier Conference once a year. The program of this year's event, held on the theme "Tackling the Challenge of Manufacturing Vehicles that Offer Customers Excitement," included presentations on Mazda's approach and ideal to be pursued, commendation of outstanding suppliers, and a dialogue session to hear opinions of suppliers. MMVO aims to build up "special bonds" with suppliers and relationships that enable mutual growth with them.

> (Left) Giovanna Fernandez Monroy, Assistant Manager (Right) Cynthia Angeles Duran, Analyst Purchasing Administration, Mazda de Mexico Vehicle Operation (MMVO)

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# WITH SHAREHOLDERS AND INVESTORS

## Dialogue with Shareholders and Investors

For continued growth and enhancement of corporate value over the medium and long terms, Mazda engages in a variety of investor relations initiatives in keeping with its policy of timely and appropriate disclosure of information and with constructive dialogue. In addition to general shareholders' meetings, the Company holds frequent meetings with its shareholders and investors, providing quarterly announcements to explain its business results and other activities. The Company is working to increase opportunities for dialogue in such ways as holding business briefings for institutional investors, individual investors, and domestic and overseas securities analysts. Mazda's official website provides information such as the schedule for general shareholders' meetings and financial results announcements, performance/financial data, notices of the general meetings of shareholders (business reports), shareholders reports (Japanese only), summary of financial results, briefing materials for the financial results, Securities Report (Japanese only), annual report, Cooperate Governance Report. Mazda strives for highly transparent and fair disclosure. Mazda is planning to voluntarily apply International Financial Reporting Standards (IFRS), in order to enhance the international comparability of its financial information, quality of Group management and corporate governance. Mazda will consider its concrete timing of IFRS application, observing the trend of the adoption among Japanese companies as well as the domestic and overseas economic situations.

### Management Conditions and Dividends for FY March 2018 b

With regard to the business environment surrounding the Mazda Group for the fiscal year ended March 31, 2018, with the global economic recovery there was a moderate improvement overall. Amid these circumstances, under the medium-term business plan Structural Reform Stage 2, the Mazda Group has worked to offer appealing products that provide both driving pleasure and outstanding environmental and safety performance, to achieve qualitative growth in all areas of the business and to further enhance brand value. In this consolidated fiscal year, Mazda launched its CX-8 in the Japanese market. Also, in order to respond quickly to the growing demand for SUVs globally, the Company has created a flexible production system, starting production of the CX-5 crossover at its Hofu Plant. Meanwhile, Mazda has expanded its advanced safety technologies, and in Japan all of the company's six major models, from the compact car to the three-row crossover SUV, qualify for the Safety Support Car S -Wide rating.

In order to further strengthen the Mazda's ongoing partnership with Toyota Motor Corporation, in August 2017 the two companies signed an agreement to enter a business and capital alliance. A joint venture production company was established in the U.S. in March 2018, and preparations have begun to start operations in 2021.

With a boost from global sales of the CX-5 and continued strong sales in China and Thailand, global sales volume in this fiscal year was up 4.6% year on year and set a new record at 1,631,000 units. Net sales were 3,474.0 billion yen, up 259.7 billion yen from the previous fiscal year, owing to the increase in sales volume and impact of yen's depreciation, etc. Operating income was 146.4 billion, up 20.7 billion yen over the previous fiscal year. Net income attributable to owners of the parent was 112.1 billion yen, up 18.3 billion yen from the previous fiscal year. The Company's policy regarding the stock dividend is to determine the amount of dividend payments, taking into account current fiscal year's financial results, business environment, and financial condition, etc. And Mazda isstriving for realization of a stable shareholder returns and its future steady increase.

With regard to the dividend for the fiscal year ended March 31, 2018, we plan to declare. The Company paid a dividend of 35 yen per share (comprising an interim dividend of 15 yen and a year-end dividend of 20 yen) for FY March 2018.



Social

Contributions

\* Treasury stock is included in Japanese individuals and others

#### b Management Conditions

			(consolida	ted /billion yen)
		FY March 2016	FY March 2017	FY March 2018
Net	sales	3,406.6	3,214.4	3,474.0
Ope inco	rating me	226.8	125.7	146.4
Net income attributable to owners of the parent company		134.4	93.8	112.1
Cap inve	ital stment	89.2	94.4	104.1
R &	D costs	116.6	126.9	136.0
Tota	l assets	2,548.4	2,524.6	2,728.1
Equity		954.0	1,039.4	1,192.9
			(Consolidated;	thousand units)
		FY March 2016	FY March 2017	FY March 2018
	Total	1,534	1,559	1,631
Global sales volume	Japan	232	203	210
	North America	438	429	435
	Europe	257	262	269
	China	235	292	322
	Others	372	373	394

\*1 One of the categories of the "Safety Support Car S (Suppocar S)," the vehicle safety concept promoted by the Ministry of Economy, Trade and Industry and the Ministry of Land, Infrastructure, Transport and Tourism. The vehicles qualifying for the "Wide" Suppocar S category are especially recommended for elderly drivers, since they incorporate an acceleration control device that helps reduce accidents caused by misoperation of the pedals.

# INNOVATION

Mazda has been committed to manufacturing unique cars that fascinate people with the pleasure of driving, brightening customers' lives through car ownership, and offering cars that are sustainable for the earth and society. To this end, the Company has been developing unique technologies and enhancing cooperation with business partners, universities and research institutions, and administrative organs.

#### Mazda-unique Innovation

With the aim of developing innovative vehicles that exceed the expectations of its stakeholders, Mazda has promoted company-wide efforts to review the vehicle-manufacturing processes from scratch. In FY March 2017, these efforts were highly appreciated both inside and outside Japan (see p.134).

# Innovation in Base Technologies "SKYACTIV TECHNOLOGY"

Mazda engages in research and development with the aim of creating the most functional products with the maximum efficiency. SKYACTIV TECHNOLOGY,<sup>\*1</sup> which the Company began introducing in models in 2011, achieved comprehensive improvements in base technologies, such as improving the efficiency of powertrain components including the engine and transmission, reducing vehicle body weight, and improving aerodynamics. In 2019, the Company will introduce cars equipped with the Skyactiv-X, which is set to become the world's first<sup>\*2</sup> commercial next-generation gasoline engine to use compression ignition, and the next-generation SKYACTIV-VEHICLE ARCHITECTURE (see p.126).

# Design Theme, KODO - Soul of Motion

Since 2010, Mazda has striven to create cars that embody the dynamic beauty of life through application of its KODO—Soul of Motion design philosophy. To maintain and further deepen value, the Company has been pursuing the expression of a new elegance based on Japanese aesthetics characterized by a beauty that is subtle and restrained yet rich and abundant. The next-generation designs will focus on a "less is more" aesthetic that cherishes space and eliminates non-essential elements to create simplicity of form. The challenge then is to bring the car to life via carefully honed reflections on the body surface. The Company is reinterpreting the very essence of Japanese aesthetics, a subdued beauty cultivated since ancient times. The goal is to create an elegant and refined look with a sense of vitality that makes Mazda cars truly come alive.

## a SKYACTIV TECHNOLOGY\*

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Features
Highly efficient direct-injection gasoline engine
Highly efficient clean diesel engine
Highly efficient automatic transmission
Highly efficient Manual transmission
Lightweight body with high rigidity
High-performance, lightweight chassis

\* For next-generation technologies, see p.126.

b Next-generation design vision model (released in October 2017)



\*1 It covers all Mazda's base technologies such as the engine, transmission, chassis and body.

#### TOPICS Mazda wins the METI Minister's Prize under the Seventh Monodzukuri Nippon Grand Award\*1

In February 2018, Mazda won the METI Minister's Prize under the Seventh Monodzukuri Nippon Grand Award for its *Monotsukuri*, or Product Development and Manufacturing That Underpins the Mazda Brand, KODO—Soul of Motion Design through the integrated process from design to production. At Mazda, our goal is to manufacture cars that embody the KODO—Soul of Motion design theme to offer driving pleasure to customers. Co-creation activities have been promoted to understand and share the ideals and sensibilities to be achieved through seamless collaboration between departments and between internal and external entities. These activities have helped to establish new technologies such as forming technologies and made it possible to manufacture cars that properly reflect the designers' intentions, which used to be considered extremely difficult.

For particularly relevant SDGs (sustainable development goals), see p. 21 for details of SDGs.





<sup>\*2</sup> As of August 2017, according to in-house investigation.

<sup>\*1</sup> The Monodzukuri Nippon Grand Award is granted every two years by the Ministry of Economy, Trade and Industry. The award recognizes individuals or groups that overcome advanced engineering issues and develop and commercialize superb and innovative products, parts, materials, etc. Mazda won the METI Minister's Prize for the second time.

# G-Vectoring Control Improves Comfort, Handling, and Stability c

Mazda has been pushing ahead with the development of Skyactiv-Vehicle Dynamics, a series of new-generation vehicle dynamics control technologies. These technologies provide integrated control of the engine, transmission, chassis and body to enhance the car's Jinba-ittai driving feel-a sense of connectedness between the car and the driver.

The first technology in the Skyactiv-Vehicle Dynamics series, G-Vectoring Control (GVC),\*1 was released in July 2016. GVC was the world's first control system to vary engine torque in response to steering inputs in order to provide integrated control of lateral and longitudinal acceleration forces and optimize the vertical load on each wheel for smooth and efficient vehicle motion. \*2 The second technology in the Skyactiv-Vehicle Dynamics series, GVC Plus, introduced in October 2018, uses the brakes to add direct yaw moment control for further enhanced handling stability. As the driver steers out of a corner by returning the steering wheel to the center position, GVC Plus applies a light braking force to the outer wheels, providing a stabilizing moment that helps restore the vehicle to straight line running. The system realizes consistently smooth transitions between yaw, roll and pitch even under high cornering forces, improving the vehicle's ability to accurately track sudden steering inputs and crisply exit corners. In addition to improving handling in emergency collision avoidance maneuvers, GVC Plus offers a reassuring feeling of control when changing lanes on the highway and when driving on snow or other slippery road surfaces.

**G-Vectoring Control Plus** C (GVC Plus) operation image\*



\* Mz: restoring moment, Fx: braking force

\*1 G-Vectoring Control: Vectoring control for vehicle

<sup>\*2</sup> As of June 2016 for mass production vehicles, according to in-house investigation



#### TOPICS

Mazda released concept models featuring next-generation technologies and nextgeneration designs at the 45th Tokyo Motor Show (organized by the Japan Automobile Manufacturers Association, Inc.) in October 2017. Specifically, the Company released a concept model of the next-generation product lineup and a concept model that embodies the vision of next-generation designs to be introduced.

#### Next-generation technologies

#### Next-Generation SKYACTIV-X Gasoline Engine

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Thanks to Mazda's unique Spark Controlled Compression Ignition (SPCCI), Skyactiv-X is set to become the world's first commercial gasoline engine to use compression ignition.\* The engine realizes a sharp response and exhilarating torque-rich acceleration combined with better fuel economy and cleaner emissions than ever before.

\* As of August 2017, according to an in-house investigation

#### Next-generation SKYACTIV-VEHICLE ARCHITECTURE Platform

Skyactiv-Vehicle Architecture was developed an enhanced focus on the humancentered design philosophy to leverage the human body's inherent ability to balance itself. Mazda reviewed every component and function -- seats, body, chassis, NVH performance, etc. -- approaching development and commercial implementation from a viewpoint of total vehicle optimization. (An example is the seats, which are designed to keep the pelvis upright, maintaining the spine's natural "S" curve). This also improves the body's balance for driving operations and enhances the ultimate Jinba-ittai feeling, allowing the driver to control the car easily.

#### **Next-generation Design**

#### Mazda VISION COUPE design vision model

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The Mazda Vision Coupe is a next-generation design vision model which showcases the "new elegance" that we have developed, drawing upon Mazda's long history of design. Within the sleek four-door coupe configuration, the strikingly beautiful silhouette imparts a stirring visual expression of the vehicle's high performance, while the sculpted athletic form is free of all decorative elements, a key factor in Mazda's minimalist design approach. Strong highlights on the shoulders contrast with an ever-changing interplay of light and shadow on the body sides to express a new sense of natural vitality, giving rise

to a uniquely Mazda sense of elegance derived from Japanese aesthetics. The Vision Coupe sets the stage for the introduction of a more mature Kodo design language.

# Mazda KAI CONCEPT compact hatchback integrates next-generation technologies and designs

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Designed as the ultimate combustion engine-powered car, the Mazda Kai Concept compact hatchback combines Mazda's next-generation technologies and design. The powertrain includes the next-generation Skyactiv-X gasoline engine. Together with Skyactiv-Vehicle Architecture, component technologies designed with an enhanced focus on the human-centered development philosophy, it achieves sophisticated performance. The design features a honed beauty free of extraneous elements, combined with the unique, powerful compactness of a hatchback. The next-generation design is intended to artistically embody Japanese aesthetics, condensed into the Kai Concept's compact form to create Mazda's ideal hatchback.

#### d SKYACTIV-X



e Spark Controlled Compression Ignition (SPCCI)

Spark-Controlled Compression Ignition (SPCCI) is Mazda's proprietary combustion technology that offers complete control of compression ignition combustion by means of spark ignition. Once ignited by the spark plug, the expanding fireball serves as a second piston (air piston), further compressing the air-fuel mixture in the combustion chamber and providing the necessary conditions for compression ignition. By controlling the timing of spark plug ignition, SPCCI expands the range of conditions under which compression ignition can take place.



A seat that keeps the pelvis upright to maintain the spine's natural "S" curve



g Mazda VISION COUPE



h Mazda KAI CONCEPT



# Mazda Digital Innovation (MDI)

Mazda has been pushing ahead with the Mazda Digital Innovation (MDI), an initiative aimed at reforming work processes by introducing the latest IT technologies. In MDI Phase 1 (1996–2008), the Company promoted innovations in product development and manufacturing processes by employing CAD/CAM technologies, contributing to the efficient development and production of newgeneration models with Skyactiv technology. MDI Phase 2 began in April 2016, in response to the advancement of IT technologies such as IoT and AI and the diversification of customer needs. The Company has been taking on challenges to continuously increase Mazda fans worldwide based on innovation through the CX MAP, which depicts the Ideal Customer Experience (CX) as a flow of Marketing Sales Service Engagement.



# Model-Based Development (MBD)

Cars are being called on to provide increasingly advanced and diverse functions, while vehicle architecture and control systems are becoming more and more complex. Model-based development, which uses computers to efficiently replicate development processes, is essential to keep developing complex systems quickly and with limited resources. Model-based development involves creating computer models of the vehicle, control systems, drivers, passengers, driving environments and other development subjects, and conducting development via thorough computer simulation. It is an efficient method of optimization. By carrying out development through simulations from design to vehicle evaluation, we are able to reduce the number of prototype parts and actual unit verification, thereby enabling us to develop complex, highly sophisticated new products with minimum resources while also ensuring quality. Mazda will increase the application of models in collaboration with its suppliers.

#### j Model-Based Development

A technique to develop outstanding products by modeling (quantifying) and connecting all four elements of (1) the car, (2) control systems, (3) the driver & passengers, and (4) the environment without using an actual vehicle



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# Innovation in Vehicle-Manufacturing Processes through "Monotsukuri Innovation"

In line with its efforts to manufacture attractive vehicles that go beyond diversifying customer expectations, Mazda is working to significantly improve its business efficiency by increasing product development/manufacturing efficiency. Upholding the objective of realizing both "diversity that enhances product competitiveness" and "commonality that improves manufacturing economies of scale" at a high level, Mazda launched "*Monotsukuri* Innovation," an initiative to review all vehicle-manufacturing processes from scratch, and is promoting it on a global scale.

The integrated planning initiative of the *Monotsukuri* Innovation involves close collaboration among several departments, such as product development, manufacturing, purchasing, logistics and quality, as well as suppliers. They plan together the models to be introduced in the future across the vehicle classesranks and segments from a five or ten-year perspective.

This initiative has resulted in improved quality, brand strength and profit margins, while enabling flexible response to requirements for manufacturing several models with different production scales and changes in production volume.

# Establishing a Global Production Framework

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To enable each production site both in Japan and overseas to carry out high-quality and highly efficient production activities that encourages mutual learning and improve the Mazda brand value and, Mazda has promoted the Global Manufacturing Network since 2013. Production sites in Japan (the Hiroshima and Hofu Plants) take the initiative in fostering skills in process management and improvement ("workplace capabilities") to enable overseas sites that differ in maturity to conduct production activities at the same levels of quality and efficiency. Activities are promoted at each site facilitate simultaneous, even, and high-quality production during the preparation phase of mass production of new models, in addition to daily production activities.

In promoting this initiative, to support overseas sites in improving their workplace capabilities in daily practices, the Company actively hosts various forms of personnel exchange, such as accepting trainees in Japan from overseas sites and dispatching skilled personnel to overseas sites. The Company has held the Global Manufacturing Forum annually since 2014 to share its medium to long-term goals, as well as successful examples and problems at each of its sites. At the fifth Global Manufacturing Forum in April 2018, the concepts of next-generation products, *monotsukuri*, or product development and manufacturing, and brand value management were shared by production sites to promote understanding. The entire Mazda Group has been working to introduce new products.

# Establishing Global Logistics Framework

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To deliver products that exceed customer expectations in a highly efficient and flexible manner and provide the best services in all stages including after sales, Mazda has been establishing a logistics framework in which all its logistics sites in Japan and overseas collaborate to enable globally optimal transportation within the entire Mazda Group.

To establish an optimal framework, the Company has held the Global Logistics Meeting annually since 2014. To improve the brand value throughout the supply chain, the Company pursues best practices and enhances ties while sharing problems and successful cases of improvement across the Mazda Group. Personnel from both in and outside Japan will continue to meet to discuss quality, cost and delivery time from the viewpoint of designing logistics.



Global Manufacturing Forum



m Global Logistics Meeting



# Open innovation

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Mazda has promoted collaboration with companies, universities and government authorities, aiming to efficiently resolve business issues by obtaining new knowledge from outside the Company and to achieve the sustainable growth of society and businesses (open innovation).

The business environment in which companies operate is becoming increasingly competitive due to stricter environmental and safety regulations, new competitors from other industries, and diversification of the mobility business. Through open innovation, the Company will achieve the growth of the Mazda Group and contribute to society, thereby fulfilling the Corporate Vision.

#### System diagram of open innovation



### (1) Inter-company collaboration

Mazda has been promoting inter-company collaboration with other automakers and suppliers to enhance their manufacturing and engineering capabilities and create synergies.

# Collaboration with automakers

Mazda is promoting an alliance strategy with other automakers to mutually complement our products, technologies, and regions in the most appropriate way and efficiently improve the value of the Mazda brand.

In August 2017, Mazda entered into an agreement on a business and capital tieup with Toyota Motor Corporation to further deepen their cooperative relationship.

# Collaboration with suppliers

The Company builds a system for efficiently developing high-performance parts through collaboration with suppliers with advanced engineering capabilities. In FY March 2018, Mazda concluded an agreement to jointly develop a 12 V lithium ion battery for starting cars (see p.67).

#### TOPICS Business Capital Tie-up with Toyota Motor Corporation

In August 2017, Mazda entered into an agreement on a business and capital tieup with Toyota Motor Corporation. By further enhancing each other's excellent technologies and business foundations and deepening their cooperative relationship, the two companies will take on and overcome challenges together to realize sustainable growth in this period of drastic change. Establishing an equal and amicable long-term relationship that respects the independence of both parties, the two companies will advance efforts toward the agreed joint projects. Working together to "create new value in cars" as long-term partners, Toyota and Mazda will accelerate and expand mutual cooperation to satisfy customers and contribute to the development of a sustainable society.

<Matters agreed in relation to the business tie-up>

- Jointly develop technology for electric vehicles
- Collaborate on next-generation technologies, including connected car and advanced safety features
- Seek further opportunities to complement each other's product lineups

Details http://www2.mazda.com/en/publicity/release/2017/201708/170804c.pdf

#### n Objectives of opening innovation

 [Contribution to society]
 Achieve a sustainable society, advance monotsukuri or product development and manufacturing (share knowledge and skills), and enhance regional empowerment

[Achieve the growth of the Mazda Group]
Improve engineering capabilities, improve the brand value, and increase R&D efficiency

O Partnership Strategies to Complement the Brand



Establishing a joint venture production company for complete vehicles in the U.S.

# Activities to Improve Manufacturing Capabilities in Collaboration with Local Suppliers

Mazda is rolling out its J-ABC (Jiba ["local"] Achieve Best Cost) program for local suppliers in and around Hiroshima Prefecture starting in 2004. Under this program, Mazda staff visit suppliers' plants and use the approach employed in Mazda production systems as a basis for identifying wasteful, unnatural or problematic manufacturing processes. The Company then works cooperatively with the suppliers to formulate and implement countermeasures. This program is also expected to enhance potential for improvement at manufacturing sites in connection with Mazda's *Monotsukuri* Innovation activities (see p.128). It has helped increase productivity and reduced production costs by around 3 billion yen per year.

#### Results of J-ABC activities for FY March 2018

Case Example	Objective	Initiative	Results for FY March 2018
Cooperative Improvement Efforts	Improving operation rates, shortening cycle times, improving logistics operations (started in 2004)	A total of around 2,000 visits to 50 plants at 23 companies were carried out to implement cooperative improvement activities.	Held 54 results-reporting meetings Promoted a shift from site-based activities to company-wide activities.
J-ABC Karakuri ®* <sup>1</sup> Kaizen Dojo	Fostering high levels of creativity and making work more fun without incurring additional costs (launched in 2006)	Offered practical programs such as lectures and on-site guidance meetings to improve the ability to devise mechanisms for increased productivity.	11 participants from nine companies successfully completed the program. The Master Trainer qualification system introduced in 2016, to qualify leaders within local suppliers. Outstanding works are proactively submitted to the Mazda Hiroshima Plant Karakuri Exhibition and Karakuri Kaizen® Mechanism Exhibition.
J-ABC Maintenance Workshop	Preventing facility stoppages and drops in production capability (launched in 2010)	Practical programs such as lectures and on-site guidance meetings were offered to improve the ability to both detect and properly respond to irregularities.	Held twice a year in the Hiroshima and Hofu districts, with a total of three members from three companies successfully completing the program in FY March 2018. Under the leadership those who have completed the program with the help by their plant managers, self-motivating maintenance initiatives took place at 18 plants.
J-ABC Conference	To encourage study through the sharing of J-ABC activity policy and outstanding activity examples (started in 2005)	Held for all participating companies, providing a venue for presentations, awards, and other events.	At the 2017 conference, the morning session (in which messages were delivered, the policy was explained, and outstanding activities were presented and commended) was attended by a total of 450 participants, with 400 participants from 52 local suppliers and 50 participants from Mazda. In the afternoon session (in which outstanding activity examples were presented, and karakuri, or self-motivating maintenance initiatives, were exhibited), 21 examples, eight works, and two activities were presented and introduced.

\*1 Karakuri Kaizen® is a registered trademark of the Japan Institute of Plant Maintenance.

# Activities to Improve Manufacturing Capabilities in Collaboration with Overseas Production Sites and their Local Suppliers

As the importance of overseas production sites increases along with its attempt to establish a global production footprint, Mazda is promoting activities to improve manufacturing capabilities, with a view to improving quality and productivity jointly with local suppliers. While paying respect to the differences in national characters and cultures and understanding the key points necessary to promote continuous improvement activities at worksites, the Company employs the know-how obtained through the J-ABC activities. The Company has also established a system to develop leaders at both local production sites and suppliers in promoting activities to support improvement of suppliers. Mazda will continue to expand the activities in cooperation with its suppliers.

#### A-ABC activities in Thailand

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In 2013, Mazda launched the A-ABC (ASEAN Achieve Best Cost) program at AutoAlliance (Thailand) Co., Ltd. (AAT), starting with five local suppliers.

As the contribution of the activities under this program to improving quality, productivity and cost performance has been gradually gaining recognition among other suppliers, the number of participating suppliers has reached 10 as of June 2018. Three Mazda representatives in charge of the A-ABC program and four AAT promotion representatives serve as facilitators in conducting activities. This program is designed to have each supplier envision an ideal, understand and analyze the present situation, develop and implement measures for improvement toward realizing said ideal, and finally report the results. It is carried out twice a year. The A-ABC conference is held annually, to encourage communications and information exchange among participants. In FY March 2017, the fourth year of this program, past activities were thoroughly reviewed and expanded to promote both structural reform and fundamental improvement, which are the two wheels of the program, so as to enable AAT/suppliers to conduct autonomous activities.

#### M-ABC activities in Mexico

Mazda de Mexico Vehicle Operation (MMVO) launched the M-ABC (Mexico Achieve Best Cost) program in 2015, starting with two local suppliers. The number of participating companies has reached six as of June 2018. Two Mazda representatives in charge of the M-ABC program and six MMVO promotion representatives serve as facilitators in promoting activities in cooperation with local suppliers. Similar to the A-ABC program, the program is designed to have each supplier envision an ideal, and activities are carried out twice a year. The members first address themes related to stable quality and stable supply of production lines, and gradually move to issues related to productivity and quality improvement. Local promotion members are called national staff. National staff members are encouraged to autonomously and independently operate the program. To this end, Japanese management of MMVO and its suppliers are making joint efforts to facilitate autonomous operation.

#### p A-ABC activity



#### **q** M-ABC activity



# (2) Industry-academia collaboration

Mazda has a system to efficiently offer advanced training through collaboration with educational institutions such as universities and research institutions.

# Participating in World-Leading

#### National Projects and Joint Studies

Mazda participates in world-leading national projects and joint studies with

external research institutions, with the aim of solving social problems facing the

#### automobile industry.

Relevant government institutions/organizations	Project name	Outline
Ministry of Economy, Trade and Industry / New Energy and Industrial Technology Development Organization / Innovative Structural Materials Association	Development of Innovative New Structural Materials Technology http://isma.jp/en/index.html	Research and development on structural materials, bonding technology, etc., to fundamentally reduce the weight of automobiles and other transportation equipment, for the purpose of reducing CO2 emissions
Ministry of Economy, Trade and Industry / New Energy and Industrial Technology Development Organization / Thermal Management Materials and Technology Research Association	Research and development on innovative technology to utilize unused thermal energy http://www.thermat.jp/english/	Research on technology to make use unused energy <sup>*1</sup> released as thermal energy into the atmosphere

\*1 In Japan, refers to the energy consumed in the living environment, industry, and transportation fields and released as unused heat energy into the atmosphere.

# Collaboration with Universities

Through enhancing collaboration with universities in various fields, Mazda aims to solve

a broader range of issues from a wider perspective, thereby contributing to society.

University	Collaboration outline	Measures and activities
Hiroshima University	<ul> <li>Next-generation automotive technology joint study course (since April 2015)</li> <li>Mazda has set up four joint study courses and one endowed chair jointly with a university (e.g., an internal combustion engine lab, the Algae Energy Creation Lab) to find solutions to long-term technological issues and to develop human resources to implement the solutions. Industry-academia collaboration activities have been promoted to enable Hiroshima to lead Japan in <i>Monotsukuri</i> (product development and manufacturing) through human resources development and research and development based on Model Based Research (MBR) and Model Based Development (MBD).</li> <li>Comprehensive collaboration agreement (since February 2011)</li> <li>Through collaboration in broad areas, from technologies related to research &amp; development and production to social science fields such as planning, management, and marketing, proactively conducting joint research from exploring research themes to finding solutions. Also cooperating in examining the ideal form of internship, and deciding the method of accepting interns and setting themes for human resources development.</li> <li>Regional empowerment and open innovation</li> <li>Mazda contributes to regional empowerment and human resources development of the Chugoku region and Hiroshima Prefecture, and to global sustainable development goals (SDGs) through collaboration with Hiroshima University and local communities and participation in national projects, etc.</li> </ul>	Opened next-generation automotive technology joint-studycourse (in FY March 2016) •Internal combustion engine lab (opened in April 2015) •Aerodynamics lab (opened in July 2016) •Advanced materials lab (opened in October 2016) •Algae energy creation Lab (opened in April 2017)( see p. 69)
Hiroshima City University	Mazda and Hiroshima City University Faculty of Arts Co-Creation Seminar (since May 2017) Set up a co-creation seminar with the university, aiming to develop human resources who are capable of creating new manufacturing for a new era, and make Hiroshima a place to generate human resources for manufacturing that Hiroshima can boast to the world.	Held Co-creation Seminar in FY March 2019 as well.
Kyushu University	Inter-organizational collaboration regarding next-generation automotive technologies (since May 2011) Working together to reinforce research and development projects and to encourage academic research and education activities.	Opened the Mazda Next-generation Energy Storage Joint Research Department (in August 2017).
Kindai University	Agreement concerning comprehensive research collaboration (since December 2012) Cooperating in bolstering cutting-edge research development and in strengthening the technological capabilities of local industries.	Research Collaboration Promotion Committee ·Held meetings to discuss the progress of joint research projects and specific measures to strengthen cooperation.
University of Hyogo	Concluded an agreement on joint research using Spring-8, a large synchrotron radiation facility (May 2016) Cooperating in the development of innovative materials and product development technologies using radiation analysis techniques.	_
Tokyo Institute of Technology	Industry Liaison Member (since August 2013) Technology transfer through joint research, for the purpose of improving the quality of research and education and promoting application of research and education results. Contributing to the creation of new industries and promotion of innovation.	<ul> <li>Searched for research seeds and arranged matching them with the development needs.</li> <li>Participated in technology exchange seminars and hosted inhouse seminars by faculty members.</li> <li>Implemented joint study on algae energy.</li> </ul>

#### (3) Industry-government collaboration

Mazda efficiently promotes cutting-edge joint research and shares needs and seeds with customers through collaboration with government authorities.

# Business Matching Meetings for Suppliers and Universities (Collaboration with Administrative Organs)

Mazda organizes business-matching meetings in collaboration with the local administrative organs, in which information on technological needs and seeds was exchanged between suppliers, universities and public research institutes. FY March 2018 activities

# New Technologies and New Engineering Solutions Exhibition and Business Meeting in Mazda organized by the Osaka Prefectural Manufacturing & Industrial Association

2. Kinki SMEs Cooperation Project (KSP)

Kinki SMEs Cooperation Project New Technologies Exhibition and Business Meeting
Fukushima Prefecture New Technologies and New Engineering Solutions
Exhibition and Business Meeting in Mazda organized by the Fukushima Prefecture
Transport Equipment-related Industry Cooperative Association
Kyushu New Automotive Technologies and Engineering Solutions Exhibition

and Business Meeting in Mazda organized by the Kyushu Automotive-Motorcycle Industry Promotion Conference

# Promotion of model distribution in the automotive industry

Mazda has participated in the Study Group for Ideal Approaches to Model Utilization in the Automobile Industry organized by the Ministry of Economy, Trade and Industry since its launch in November 2015. The Company works on initiatives with other automakers and parts manufacturers to spread Model Based Development (MBD), a development technique to achieve the advanced development and performance assessment process for automobiles through virtual simulation. In FY March 2018, efforts were made to formulate a policy to spread MBD and promote international collaboration activities with Europe, etc. In April 2018, the Company agreed on the Enrichment of SURIAWASE 2.0<sup>\*1</sup> for the Automobile Industry (an industry-academiagovernment joint strategy project policy), and announced that the Company would continue with the initiatives to enrich MBD and harmonization areas, etc. In this study group, the Company takes full advantage of its knowledge of virtual simulation and unique MBD that have been refined through Mazda Digital Innovation (MDI) (see p.127) to contribute to activities for increasing the global competitiveness of the Japanese automotive industry.

# Basic and Applied Research on Technologies for Internal Combustion Engines and Cleaner Exhaust Emissions

Mazda participates in the Research Association of Automobile Internal Combustion Engines (AICE<sup>\*2</sup>), a new joint research organization in the Japanese automobile industry. AICE was established on April 1, 2014, with the support of the Ministry of Economy, Trade and Industry to enable automobile manufacturers to conduct basic and applied studies jointly with universities and research institutions on themes common to automobile manufacturers, and to use the research results to accelerate their in-house development activities. Taking advantage of its participation in AICE, Mazda is promoting its development of technologies for internal combustion engines and cleaner exhaust gases, with a view to achieving improved fuel economy and reduced exhaust emissions.

<sup>\*1</sup> SURIAWASE 2.0 is an initiative to enhance the harmonization of development processes by taking advantage of an MBD process that uses virtual simulations instead of physical machines across entire supply chains in Japan. A Study Group for Ideal Approaches to Model Utilization in the Automobile Industry was organized in November 2015 by the Ministry of Economy, Trade and Industry, to further enhance the international competitiveness of the automotive industry. http://www.meti.go.jp/english/press/2017/0331\_004.html http://www.meti.go.jp/english/press/2018/0404\_001.html

<sup>\*2</sup> Research Association of Automobile Internal Combustion Engines, participated in by nine Japanese auto manufacturers and two organizations (as of April 2015)

#### (4) Industry-academia-government collaboration

Mazda, in establishing the Industry-Academia-Government Collaboration Secretariat, has promoted collaboration with government authorities and universities. By visualizing such collaborative activities and sharing relevant information with government authorities and universities, the Company aims to achieve the maximum outcomes from its daily efforts. Moreover, through collaboration with government, academia and industry, the Company has contributed to the local community in terms of the recruitment of local people, human resources development, and the production of human resources.

## Hiroshima Council for the Promotion of Collaboration between Government, Academia and the Automobile Industry

As a company which has its research & development and production facilities mainly in Hiroshima Prefecture, Mazda believes that cooperation with local business and industry is very important.

Under this belief, Mazda is collaborating with the Chugoku Bureau of Economy, Trade and Industry, Hiroshima Prefecture, Hiroshima City, Hiroshima Industrial Promotion Organization, and Hiroshima University to support local automobilerelated companies and promote innovation and the vitalization of the region. Toward achieving the 2030 Industry-Academia-Government Collaboration Vision established in 2015, various initiatives are implemented, such as creating new frameworks to support local businesses, investigating next-generation automotive societies, and raising awareness in society.

In FY March 2018, the Company planned and organized an education and training program related to Model Based Development<sup>\*1</sup> in collaboration with the Hiroshima Digital Innovation Center,<sup>\*2</sup> which was certified by the Ministry of Economy, Trade and Industry as a Course on IT-Skill Training to Meet the Era of the Fourth Industrial Revolution. Thus, the Company launched full-scale efforts to promote the digitalization of local *monotsukuri* (product development and manufacturing).

#### The 2030 Industry-Academia-Government Collaboration Vision

- Transform Hiroshima into a hub that attracts people seeking innovative automotive technologies and dynamic car culture, and a place that continually produces technologies that amaze the world.
- Industry, government and education sectors work together to nurture human resources capable of innovation across all generations, and enliven the region through *Monotsukuri* (product development and manufacturing).
- Develop Hiroshima's unique Industry-Academia-Government Collaboration into a leading model for "regional empowerment" in Japan, serving also as a benchmark for the rest of the world.

#### Major initiatives

	Initiative	Details and results
Supporting suppliers' personnel recruitment	Exhibiting vehicles and parts at career seminars, and proposing/implementing booth layout according to the vehicle supply chain (March 2018)	To help suppliers solve problems in recruitment, displayed Mazda vehicles and parts at career seminars, and proposed and demonstrated a booth layout that can effectively show how suppliers are connected to mass produced vehicles (highly appreciated by the participating suppliers).
Co-creation and technology exchange with suppliers	<ol> <li>Local companies co-creation subcommittee</li> <li>Industry-academia collaboration subcommittee</li> <li>Administrative organs collaboration subcommittee</li> </ol>	<ol> <li>NVH performance assessment of a benchmark vehicle @ C-HR, and research on a lightweight frame structure</li> <li>Innovation training, and follow-up of the briefing session on needs in FY March 2017</li> <li>Review of the creation of collaboration synergies and the next-generation vision</li> </ol>
Studies on future energies	The Energy Work Group held "Symposium on Next-Generation Liquid Fuel for Automobiles 2018" (June 2018)	Focusing on biomass-derived, carbon-neutral liquid fuel, known as a future energy source for automobiles, experts in each of the industry, government, and academia sectors explained its potentials and practical applications, to think about energy in the future.
Research and development of internal combustion engines	Promoting research & development of base technologies for internal combustion engines	A study meeting was held for local companies under the theme of abrasion/friction control technologies. The study meeting led to joint research between some of the companies that participated in the meeting and a university.
Research and development in KANSEI (sensibility) field	<ol> <li>Sensibility-based monotsukuri (product development and manufacturing) in collaboration with local communities</li> <li>Joint research on sensibilities with local suppliers</li> <li>Overall coordination of sensibility activities by relevant local groups</li> </ol>	<ol> <li>(1) Started the sensibility innovation practical course and the needs-seeds matching meeting under the auspices of the Council for the Promotion of Innovation with KANSEI (Hiroshima Prefecture).</li> <li>(2) A real-time saliency map of interior parts is being created to clarify the sensitivity of drivers and passengers to the parts.</li> <li>(3) A sensibility monitor program was started to obtain reliable data.</li> </ol>
Human resources development in Model Based Development (MBD)* <sup>2</sup> field	Aiming to enhance the research & development capabilities of local companies, opening basic courses for the development of human resources with MBD abilities	MBD/CAE training courses were planned and organized for all manufacturing companies, including both auto suppliers and non-automobile industries, in collaboration with the Hiroshima Digital Innovation Center. In FY March 2018, 955 individuals in cumulative total participated in the training. Of these training courses, the MBD process training course was certified as a Course on IT-Skill Training to Meet the Era of the Fourth Industrial Revolution by the Ministry of Economy, Trade and Industry.

\*1 Model Based Development: development process employing simulation technologies.

\*2 The organization, which offers common services for the computer environment (e.g., super computers), and human resources development and training programs for digital technologies to local companies, was established within the Hiroshima Industrial Promotion Organization In October 2017.

#### f MBD process training

r

 Certified as a Course on IT-Skill Training to Meet the Era of the Fourth Industrial Revolution
 This is the first industry-academia-government course to be certified in Japan.



# Major External Evaluations/Awards for FY March 2018\*

Category	Time	Evaluated/Awarded by	Evaluated/Award name	Evaluated/Award target	Country
Mazda CSR	(See p.25)	Dow Jones Sustainability Indices H Diskovitor with Research Content	od Select Leaders Indexes MSCI 2018 Constituent MSCI 2018 Constituent MSCI 2018 Constituent MSCI 2018 Constituent Select Leaders Indexes	yent Soc rys Index	P
Customer Satisfaction (Quality)			(See p.42)		
	April 2017	Ministry of Education, Culture, Sports, Science and Technology	Commendation for Science and Technology 2017 by the Minister of Education, Culture, Sports, Science and Technology: Prize for Creativity	Invention of a system that simplifies the body sealant application process	Japan
	May 2017	Japan Society of Corrosion Engineering	2017 Japan Society of Corrosion Engineering Technology Award	Development of a corrosion resistance quick evaluation method that innovates anticorrosion technologies for vehicles, and putting the method into practical use	Japan
				Mechanical Improvement to eliminate the chip removal operation in the broaching process	
	April 2018	Ministry of Education, Culture, Sports, Science and Technology	Commendation for Science and Technology 2018 by the Minister of Education, Culture, Sports, Science and Technology: Prize for Creativity	Invention of an optimal sand injection method for the sand mixing process	Japan
			,	Invention of a technology for visualizing underbody muddy-water behavior of a running vehicle	
	April 2017	Design Zentrum Nordrhein Westfalen	2017 Red Dot product design award "Red Dot: Best of the Best"	MX-5 RF (Roadster RF)	Germany
Customer Satisfaction (Products)	April 2017	Ministry of Education, Culture, Sports, Science and Technology	Commendation for Science and Technology 2017 by the Minister of Education, Culture, Sports, Science and Technology: Prizes for Science and Technology (Development Category)	) New-generation 4WD system "i-ACTIV AWD"	
		Society of Automotive Engineers of	The 67th JSAE Awards: Technological Development Award	Highly efficient clean diesel engine SKYACTIV-D 1.5	
	May 2017	Japan (JSAE)	The 67th JSAE Awards: Outstanding Technical Paper Award	Natural Sound Smoother	Japan
	February 2018	Festival Automobile International	33rd Festival Automobile International: Most Beautiful Concept Car of the Year	VISION COUPE	France
	February 2018	Minister or Economy, Trade and Industry	The Seventh Monodzukuri Nippon Grand Award:METI Minister's Prize (Category of Product and Technology Development)	KODO Design	
	February 2018	Quattroruote	Q Global Tech Award	Next-Generation Gasoline Engine "SKYACTIV-X"	Italy
	March 2018	Car Design News	Concept Car of the Year	VISION COUPE	Europe
	April 2018	Edison Universe	2018 Edison Award: Gold (Category of Engine Enhancements)	Next-Generation Gasoline Engine "SKYACTIV-X"	U.S.
	May 2018	Society of Automotive Engineers of Japan (JSAE)	The 68th JSAE Awards: Asahara Science Award	Wall Heat Transfer of Undeveloped Turbulent Flow in Internal Combustion Engines	Japan
	September 2017	Kids Design Association	The 11th Kids Design Award:Council President Award(3rd Prize) (Designs that contribute to safety and security from the viewpoint of children)	The Progress of MAZDA TECHNOLOGY FOR KIDS	Japan
	April 2018	Japan Society of Mechanical Engineers	2017 JSME Medal for New Technology	New-generation vehicle motion control technology "G-Vectoring Control (GVC)"	Japan
	May 2018	Society of Automotive Engineers of Japan (JSAE)	The 68th JSAE Awards: Technological Development Award	New-generation vehicle motion control technology "G-Vectoring Control (GVC)"	Japan
Safety	_	JNCAP	(See p.51)		Japan
	_	US-NCAP	(See p.51)	_	U.S.
	_	IIHS	(See p.51)		U.S.
	_	Euro-NCAP	(See p.51)		Europe
	January 2018	United States Environmental Protection Agency	Light Duty Fuel Economy Trends Report: Manufacturer Adjusted Fuel Economy (First place ranking)	Manufacturer Adjusted Fuel Economy for the 2016 model year	U.S.
Environment	April 2018	Ministry of Education, Culture, Sports, Science and Technology	Commendation for Science and Technology 2018 by the Minister of Education, Culture, Sports, Science and Technology: Prizes for Science and Technology (Development Category)	Highly efficient clean diesel engine SKYACTIV-D 1.5	Japan
	May 2018	Japan Institute of Invention and Innovation	National Commendation for Invention 2018: Invention Prize	New water based painting technology Aqua- Tech Paint System	Japan
Respect for	_	Skills	(See p.91)	-	
People	February 2018	Ministry of Economy, Trade and Industry, and Nippon Kenko Kaigi (Japan Health Council)	Excellent Enterprise of Health and Productivity Management—White 500	Mazda Motor Corporation	Japan
Social Contributions	September 2017	Kids Design Association	The 11th Kids Design Award: Kids Design Award (Designs that develop children's creativity and shape their future)	An educational program about Mazda automobile history and production for Kids	Japan

\* Including some evaluations/awards after April 2018

# **HISTORY OF MAZDA**



\* Launching date is based on Japanese market

		Corporate	Pro	oduct*
2000	2000.11	Mid-term plan "Millennium Plan" is announced	2000.7	
	2002.1	Nakasatsunai Proving Ground is completed	"Roadster (MX-5)" is recognized by the	
	2002.4	New brand statement "Zoom-Zoom" is introduced	production of lightweight open two-seater sports car	2002.5
	2002.6	Lewis Booth becomes president and CEO	2003.4 "RX-8" is launched	Ine first "Atenza (Mazda6)" is launched (Receives the "2003 RJC Car of the Year")
	2003.1	Production of "Mazda6" commences at FAW Car Company in China	(Receives the "2004 RJC Car of The Year")	2003.10
	2003.8	Hisakazu Imaki becomes president and CEO	2005.8	The first "Axela (Mazda3)" is launched
	2004.11	Mid-term plan "Mazda Momentum" is announced	(Receives the "2005-2006 Car of the Year Japan")	10
	2005.8	China Engineering Support Center is opened		2006.2 Leasing of hydrogen vehicle,
	2006.5	Mine Proving Ground is completed	2006.3	"RX-8 Hydrogen RE", is started
	2007.3	Mid-term plan "Mazda Advancement Plan" is announced	Global presentation of the first "BT-50" at	
	2007.3	Long-term vision for technology development: "Sustainable Zoom-Zoom" is announced	Bangkok International Motor Show	
	2007.4	Changan Ford Mazda Engine Co., Ltd. (CFME) in China commences operation	2006.12 "CX-7" is launched	2006.10 Production of the first "CX-9" commences
	2007.7	Cumulative domestic production reaches 40 million vehicles		2007.7
	2007.10	Changan Ford Mazda Automobile Nanjin Co., Ltd. (CFMA, now CMA) commences operation		"Demio (Mazda2)" is fully redesigned (Receives the "2008 RJC Car of the Year" and the "2008 World Car of the Year")
	2008.11	Takashi Yamanouchi becomes president and CEO		-V Aberla
			2009.3 Leasing of hydrogen vehicle, "Premacy Hydrogen RE Hybrid", is started	2008.7 "Biante" is launched
2010	2010.4	"Framework for Medium- and Long-term Initiatives" is announced	2010.10 Next-generation	2012.2
	2012.2	"Structural Reform Plan" is announced	SKYACTIV TECHNOLOGY	"CX-5" is launched
	2012.9	Mazda and Sollers establish Mazda Sollers(MSMR), a joint venture production company in Russia		Car of the Year Japan")
	2012.9	Mazda and Bermaz establish Mazda Malaysia(MMSB), a joint venture company	"Atenza (Mazda6)" featuring a series of the advanced i-ACTIVSENSE is fully redesigned (Receives the "2014	safety technologies RJC Car of the Year")
	2013.1	Business agreement is concluded for the development and production of Fiat brand two-seater convertible sports car	2013.6 Commenced public road test of leased hydrogen ve "Premacy Hydrogen RE Range Extender EV"	ehicles,
	2013.6	Masamichi Kogai becomes president and CEO	2013.11	
	2014.1	Operations at the production facility Mazda de Mexico Vehicle Operation (MMVO) a joint venture with Sumitomo Corporation in Mexico are started	"Axela (Mazda3)" is fully redesigned	2014.9 "Demio (Mazda2)" is fully redesigned (Receives the "2014-2015
	2015.1	Operations at transmission plant in Thailand, Mazda Powertrain Manufacturing (Thailand) (MPMT) are started	2015.2 "CX-3" is launched	Car of the Year Japan")
	2015.4	"Structural Reform Stage 2" is announced		
	2015.4	New Corporate Vision is established	2015.5 "Roadster (MX-5)" is fully redesigned (Receives the "2015-2016 Car of the Year the "2016 World Car of the Year" and the	r Japan,"
	2017.8	Agreement is entered into with Toyota on business and capital tie-up	"2016 World Car Design of the Year")	
	2017.8	Long-term vision for technology development "Sustainable Zoom-Zoom 2030" is announced	2015.7 "Mazda BT-50" is fully	2016.2
	2018.3	Mazda and Toyota establish a joint-venture company "Mazda Toyota Manufacturing U.S.A"	commences in Thailand	redesigned and production
	2018.5	Cumulative domestic production reaches 50 million vehicles	2016.4 "CX-4" makes its world debut	commences 2016.7 A series of Mazda' s new-generation vehicle
	2018.6	Akira Marumoto becomes president and CEO		motion control technologies "SKYACTIV-VEHICLE DYNAMICS" is announced
			2016.11 Retractable hardtop model "Roadster (MX-5) RF" is unveiled	2016.12 "CX-5" is
			2017.8 Next-generation engine "SKYACTIV-X"	fully redesigned
2		18	is announced	"CX-8" is launched
				* Launching date is based on Japanese market

# Third-Party Opinion

As she did last year, Sachiko Kishimoto again shares her opinion on the CSR activities of Mazda Motor Corporation and its Group companies, after reading the Mazda Sustainability Report 2018.



Sachiko Kishimoto Executive Director Public Resources Foundation

In August 2017, Mazda Motor Corporation announced "Sustainable Zoom-Zoom 2030," a new long-term vision that looks ahead to the year 2030. Under the vision, the Company set a goal of reducing corporate average "wellto-wheel" CO<sub>2</sub> emissions to 50% of 2010 levels by 2030, with a view to achieving a 90% cut by 2050. I highly evaluate that Mazda established a specific numerical target for reduction of CO<sub>2</sub> emissions. The Company is also enthusiastic about reviewing the energy sources, as indicated by its industry-academia-government collaboration initiatives to, for example, develop renewable bio liquid fuel made from microalgae.

To realize its goal of reducing CO<sub>2</sub> emissions, Mazda has been promoting the Building-Block Strategy, which combines optimal control technologies and effective electrification technologies in consideration of each country or region's energy resources, regulations, power generation methods, infrastructure, and so on. This strategy is commendable for being realistic, given increasing demand for vehicles in emerging countries. The Company believes that electrification technologies, such as electric vehicles, are an optimal solution in countries and regions that do not rely heavily on thermal power generation. It can be said that based on this belief, Mazda has made a choice to accelerate the commercialization of electric vehicles, and clarified a long-term strategy for this purpose.

With 78% of its employees living in Japan, Mazda is a company that has taken root in the Hiroshima region. In fact, after the record rains in July 2018, Mazda gave priority to supporting the disaster recovery efforts of affected people and areas, over addressing the Company's own issues, including the recovery of its manufacturing operations. This is evidence that shows the Company's commitment to local communities. Mazda states that "Without just waiting for requests from disaster victims and residents of affected areas, the Company will think about what we can do now from a broader perspective, express our ideas in words, and proactively make proposals." I felt that this statement indicates Mazda's strong sense of responsibility as a company that takes the lead in the region with sincerity.

In addition, Mazda Motor Corporation signed the United Nations Global Compact in 2018. This signing can be

highly valued as a significant and major step for a global company that sells vehicles in more than 130 countries and regions and has manufacturing sites in seven countries. On the other hand, the Company's activities seen from the viewpoint of Sustainable Development Goals (SDGs) are considered to be still in their infancy. I hope that Mazda will intensify its efforts to address key CSR issues, establish specific targets regarding SDGs that are particularly necessary to achieve, analyze the activity results and report on improvements in performance.

Mazda has taken a clear policy of promoting respect for people and diversity. As part of such efforts, the Company stipulated in 2017 that inappropriate behavior towards, or not respecting the human rights of sexual minorities or LGBT people, or not respecting the taking of pregnancy, childbirth, childcare or elderly care leave, constitutes harassment and violates Mazda working regulations. I think that this stipulation is excellent.

It is hoped that the Company's concept of respect for people will be applied more extensively, so as to transcend the framework of respect for employees and become incorporated into supply chain management, thereby resulting in an improved quality of life for workers involved in Mazda's supply chain. In the future, I expect that a broader application of this concept will be one of the CSR goals of the Company, while also serving as a key theme for its SDGs-related activities.

As for safety initiatives, based on the human-centered concept, the Company has proposed an ideal driving position, and is working to develop autonomous driving technologies in line with the Mazda Co-Pilot Concept, aiming to make them standard on all models by 2025. In the Third-Party Opinion in the previous year's report, I expressed my hope that these technologies would be instrumental in resolving social problems such as the disappearance of rural communities due to depopulation and aging. I therefore felt happy to see progress in Mazda's safety initiatives, which was shown in the announcement that the Company would start the demonstration test of a mobile service in Miyoshi City in Hiroshima Prefecture, in anticipation of realizing a ride-sharing service in the future.

# Third-Party Verification

The Mazda Sustainability Report 2018 [In-Depth Version] was assured by third parties to improve the reliability of the data disclosed in the report. The amounts of GHG emissions, water use and waste emissions disclosed in the Mazda Sustainability Report 2018 [In-Depth Version] are those verified in "FY2017 Scope 1 & 2 GHG emissions Calculation Report", "FY2017 Scope 3 GHG emissions Calculation Report", "FY2017 Water Use Report" and "FY2017 Waste Emissions Report".



# Third-Party Assurance

The Mazda Sustainability Report 2018 [In-Depth Version] was assured by third parties to improve the reliability of the data disclosed in the report.

Independent Assurance Report To the Representative Director, President and CEO of Mazda Motor Corporation We were engaged by Mazda Motor Corporation (the "Company") to undertake a limited assurance engagement of the soc performance indicators marked with "⊠"for the period from April 1, 2017 to March 31, 2018 (the "Indicators") included in SUSTAINABILITY REPORT 2018 (IN-DEPTH VERSION) (the "Report") for the fiscal year ended March 31, 2018. The Company's Responsibility The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company reporting criteria"), as described in the Report. <b>Our Responsibility</b> Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. I conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Assurand Standards Board, and the 'Practical Guidelines for the Assurance of Sustainability Information' published by the Japano Association of Assurance Organizations for Sustainability Information. The limited assurance engagement consisted of maki inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical a other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement are reviewing the Company's reporting criteria. Interviewing the Company's reporting criteria. Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity w the Company's headquarter selected on the basis of a risk analysis. Evaluating the overall presentation of the Indicators.
To the Representative Director, President and CEO of Mazda Motor Corporation We were engaged by Mazda Motor Corporation (the "Company") to undertake a limited assurance engagement of the soc performance indicators marked with "⊡" for the period from April 1, 2017 to March 31, 2018 (the "Indicators") included in SUSTAINABILITY REPORT 2018 (IN-DEPTH VERSION) (the "Report") for the fiscal year ended March 31, 2018. The Company's Responsibility The Company's responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company") Cour Responsibility Our responsibility Our responsibility Conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurat Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Assuran Standards Board, and the 'Practical Guidelines for the preparation of information presented in the Report, and applying analytical a other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement are viewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report a reviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report a reviewing the Company's reporting criteria. Inquiring analytical procedures on the Indicators. Performing analytical procedures on the Indicators. Performing analytical procedures on the Indicators. Visiting the Company's headquarter selected on the basis of a risk analysis. Evaluating the overall presentation of the Indicators. Conclusion
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<ul> <li>The Company's Responsibility</li> <li>The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company reporting criteria"), as described in the Report.</li> <li>Our Responsibility</li> <li>Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. I conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurant Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Assurant Standards Board, and the 'Practical Guidelines for the Assurance of Sustainability Information' published by the Japane Association of Assurance Organizations for Sustainability Information. The limited assurance engagement consisted of makiniquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical a other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Cassurance procedures included:</li> <li>Interviewing the Company's reporting criteria.</li> <li>Inquiring about the design of the systems and methods used to collect and process the Indicators.</li> <li>Performing analytical procedures on the Indicators.</li> <li>Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity w the Company's reporting criteria, and recalculating the Indicators.</li> <li>Visiting the Company's headquarter selected on the basis of a risk analysis.</li> <li>Evaluating the overall presentation of the Indicators.</li> </ul>
<ul> <li>Our Responsibility</li> <li>Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. Y conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurant Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Assurant Standards Board, and the 'Practical Guidelines for the Assurance of Sustainability Information' published by the Japane Association of Assurance Organizations for Sustainability Information. The limited assurance engagement consisted of makininquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical a other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Cassurance procedures included:</li> <li>Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report a reviewing the Company's reporting criteria.</li> <li>Inquiring about the design of the systems and methods used to collect and process the Indicators.</li> <li>Performing analytical procedures on the Indicators.</li> <li>Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity w the Company's neadquarter selected on the basis of a risk analysis.</li> <li>Evaluating the Overall presentation of the Indicators.</li> </ul>
<ul> <li>Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report a reviewing the Company's reporting criteria.</li> <li>Inquiring about the design of the systems and methods used to collect and process the Indicators.</li> <li>Performing analytical procedures on the Indicators.</li> <li>Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity w the Company's reporting criteria, and recalculating the Indicators.</li> <li>Visiting the Company's headquarter selected on the basis of a risk analysis.</li> <li>Evaluating the overall presentation of the Indicators.</li> </ul>
Conclusion
Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as describ in the Report.
Our Independence and Quality Control We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectiv professional competence and due care, confidentiality and professional behavior. In accordance with International Standard Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regard compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.
KPMG A2SA Sustainability Co., Ltd. KPMG AZSA Sustainability Co., Ltd.

# **GRI Content Index**

The table below shows the pages in this report containing information relevant to each of the required disclosures under the GRI Sustainability Reporting Standards and its Core option, and each of the ISO 26000 subjects.

Core option requirements	GRI Standard	Disclosures	Relevant pages	ISO26000	
	102	GENERAL DISCLOSURES			
GRI 102 :		General Disclosures 2016			
	1	Organizational profile			
v	102-1	Name of the organization	16	_	
V	102-2	Activities, brands, products, and services	15、16	_	
V	102-3	Location of headquarters	16	_	
~	102-4	Location of operations	14, 16	_	
~	102-5	Ownership and legal form	16	_	
~	102-6	Markets served	14、15、16	_	
~	102-7	Scale of the organization	14、16	_	
~	102-8	Information on employees and other workers	89	6.4、6.4.3	
~	102-9	Supply chain	120	_	
~	102-10	Significant changes to the organization and its supply chain	N/A	_	
~	102-11	Precautionary Principle or approach	113-116	6.2	
~	102-12	External initiatives	19-21	6.2	
~	102-13	Membership of associations	131-133	6.2	
	2	Strategy			
<b>v</b>	102-14	Statement from senior decision-maker	4-7	6.2	
	102-15	Key impacts, risks, and opportunities	20-24、59-60	6.2	
	3	Ethics and integrity			
<b>٢</b>	102-16	Values, principles, standards, and norms of behavior	117	_	
	102-17	Mechanisms for advice and concerns about ethics	117	-	
	4	Governance			
<b>`</b>	102-18	Governance structure	19、109-110	6.2	
	102-19	Delegating authority	19、109-110	_	
	102-20	Executive-level responsibility for economic, environmental, and social topics	19、109-110	_	
	102-21	Consulting stakeholders on economic, environmental, and social topics	19、109-110	6.2	
	102-22	Composition of the highest governance body and its committees	Securities Report*1	6.2	
	102-23	Chair of the highest governance body	Corporate Governance Report <sup>*2</sup>	6.2	
	102-24	Nominating and selecting the highest governance body	109	6.2	
	102-25	Conflicts of interest	Corporate Governance Report <sup>*2</sup>	6.2	
	102-26	Role of highest governance body in setting purpose, values, and strategy	Corporate Governance Report <sup>*2</sup>	_	
	102-27	Collective knowledge of highest governance body	Corporate Governance Report <sup>*2</sup>		
	102-28	Evaluating the highest governance body's performance	Corporate Governance Report <sup>*2</sup>	6.2	
	102-29	Identifying and managing economic, environmental, and social impacts	18-21、113	6.2	
	102-30	Effectiveness of risk management processes	18-21, 113	_	

\*1 Securities Report (Japanese only) http://www.mazda.com/ja/investors/library/s-report/ \*2 Corporate Governance Report http://www.mazda.com/en/investors/library/governance/

Core option requirements	GRI Standard	Disclosures	Relevant pages	ISO26000
	102-31	Review of economic, environmental, and social topics	18-21, 113	6.2
	102-32	Highest governance body's role in sustainability reporting	18-21	_
	102-33	Communicating critical concerns	Corporate Governance Report*2	6.2
	102-34	Nature and total number of critical concerns	_	_
	102-35	Remuneration policies	109 • Corporate Governance Report <sup>*2</sup>	6.2
	102-36	Process for determining remuneration	109 • Corporate Governance Report <sup>*2</sup>	_
	102-37	Stakeholders' involvement in remuneration	_	6.2
	102-38	Annual total compensation ratio	Corporate Governance Report*2	_
	102-39	Percentage increase in annual total compensation ratio	_	-
	5	Stakeholder engagement		
~	102-40	List of stakeholder groups	27-28	6.2
v	102-41	Collective bargaining agreements	99	6.3.10、6.4 6.4.3、6.4.4 6.4.5
~	102-42	Identifying and selecting stakeholders	27-28	6.2
~	102-43	Approach to stakeholder engagement	27-28	6.2、6.7 6.7.4、6.7.5 6.7.6、6.7.8 6.7.9
<b>v</b>	102-44	Key topics and concerns raised	27、31、35-36、83、90、122	6.2
	6	Reporting practice		
<b>v</b>	102-45	Entities included in the consolidated financial statements	2 • Securities Report*1	6.2
<b>v</b>	102-46	Defining report content and topic Boundaries	2, 18-21	_
~	102-47	List of material topics	20	_
<b>٢</b>	102-48	Restatements of information	N/A	_
~	102-49	Changes in reporting	N/A	_
~	102-50	Reporting period	2	_
<b>۲</b>	102-51	Date of most recent report	2	_
~	102-52	Reporting cycle	2	-
<b>v</b>	102-53	Contact point for questions regarding the report	146	_
<b>v</b>	102-54	Claims of reporting in accordance with the GRI Standards	2、140-145	_
<b>v</b>	102-55	GRI content index	140-145	_
~	102-56	External assurance	138、139	7.5.3
	103	Management Approach		
	GRI 103:	Management Approach 2016		
	103-1	Explanation of the material topic and its Boundary	20	_
	103-2	The management approach and its components	19	_
	103-3	Evaluation of the management approach	19、22-24	_

#### •:Important issues specified by Mazda

Core option requirements	GRI Standard	Disclosures	Relevant pages	ISO26000
	200	Economic		
•	GRI 201 :	Economic Performance 2016		
	201-1	Direct economic value generated and distributed	91、105、123	6.8、6.8.3 6.8.7、6.8.9
	201-2	Financial implications and other risks and opportunities due to climate change	56 • Securities Report <sup>*1</sup>	6.5.5
	201-3	Defined benefit plan obligations and other retirement plans	Securities Report*1	_
	201-4	Financial assistance received from government	Securities Report*1	_
•	GRI 202 :	Market Presence 2016		
	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	-	6.4.4、6.8
	202-2	Proportion of senior management hired from the local community	88	6.8、6.8.5 6.8.7
•	GRI 203 :	Indirect Economic Impacts 2016		
	203-1	Infrastructure investments and services supported	52	6.3.9, 6.8 6.8.3, 6.8.4 6.8.5, 6.8.6 6.8.7, 6.8.9
	203-2	Significant indirect economic impacts	104-107	6.3.9、6.6.6 6.6.7、6.7.8 6.8、6.8.5 6.8.6、6.8.7 6.8.9
•	GRI 204 :	Procurement Practices 2016		
	204-1	Proportion of spending on local suppliers	_	6.6.6、6.8 6.8.5、6.8.7
•	GRI 205 :	Anti-corruption 2016		
	205-1	Operations assessed for risks related to corruption	-	6.6、6.6.3
	205-2	Communication and training about anti-corruption policies and procedures	118、121	6.6、6.6.3
	205-3	Confirmed incidents of corruption and actions taken	N/A	6.6、6.6.3
	GRI 206:	Anti-competitive Behavior 2016		
	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	N/A	6.6、6.6.5 6.6.7
	300	Environmental		
•	GRI 301:	Materials 2016		
	301-1	Materials used by weight or volume	85	6.5.4
	301-2	Recycled input materials used	85	6.5.4
	301-3	Reclaimed products and their packaging materials	-	6.5.3、6.5.4 6.7.5
•	GRI 302 :	Energy 2016		
	302-1	Energy consumption within the organization	63、73、85	6.5.4
	302-2	Energy consumption outside of the organization	85	6.5.4
	302-3	Energy intensity	_	6.5.4
	302-4	Reduction of energy consumption	73	6.5.4、6.5.5
	302-5	Reductions in energy requirements of products and services	65-68	6.5.4、6.5.5
•	GRI 303 :	Water 2016		
	303-1	Water withdrawal by source	77、85	6.5.4

\*1 Securities Report (Japanese only) http://www.mazda.com/ja/investors/library/s-report/

Core option requirements	GRI Standard	Disclosures	Relevant pages	ISO26000
	303-2	Water sources significantly affected by withdrawal of water	_	6.5.4
	303-3	Water recycled and reused	_	6.5.4
	GRI 304 :	Biodiversity 2016		
	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	_	6.5.6
	304-2	Significant impacts of activities, products, and services on biodiversity	_	6.5.6
	304-3	Habitats protected or restored	_	6.5.6
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	_	6.5.6
•	GRI 305 :	Emissions 2016		
	305-1	Direct (Scope1) GHG emissions	73、78、85	6.5.5
	305-2	Energy indirect (Scope2) GHG emissions	73, 85	6.5.5
	305-3	Other indirect (Scope3) GHG emissions	85	6.5.5
	305-4	GHG emissions intensity	73	6.5.5
	305-5	Reduction of GHG emissions	73	6.5.5
	305-6	Emissions of ozone-depleting substances (ODS)	_	6.5.3、6.5.5
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	78、85	6.5.3
•	GRI 306 :	Effluents and Waste 2016		
	306-1	Water discharge by quality and destination	78、85	6.5.3、6.5.4
	306-2	Waste by type and disposal method	85	6.5.3
	306-3	Significant spills	N/A	6.5.3
	306-4	Transport of hazardous waste	_	6.5.3
	306-5	Water bodies affected by water discharges and/or runoff	_	6.5.3、6.5.4 6.5.6
•	GRI 307:	Environmental Compliance 2016		
	307-1	Non-compliance with environmental laws and regulations	59	4.6
•	GRI 308 :	Supplier Environmental Assessment 2016		
	308-1	New suppliers that were screened using environmental criteria	_	6.3.5、6.6.6 7.3.1
	308-2	Negative environmental impacts in the supply chain and actions taken	-	6.3.5、6.6.6 7.3.1
	400	Social		
•	GRI 401 :	Employment 2016		
	401-1	New employee hires and employee turnover	89	6.4、6.4.3
	401-2	Benefits provided to full-time employees that are not provided to temporary or part- time employees	_	6.4、6.4.3 6.4.4
	401-3	Parental leave	94	6.4、6.4.3
•	GRI 402:	Labor/Management Relations 2016		
	402-1	Minimum notice periods regarding operational changes	99	6.4、6.4.3 6.4.4、6.4.5
•	GRI 403 :	Occupational Health and Safety 2016		
	403-1	Workers representation in formal joint management-worker health and safety committees	96	6.4、6.4.6
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	96	6.4、6.4.6

Core option requirements	GRI Standard	Disclosures	Relevant pages	ISO26000
	403-3	Workers with high incidence or high risk of diseases related to their occupation	-	6.4、6.4.6 6.8、6.8.3 6.8.4、6.8.8
	403-4	Health and safety topics covered in formal agreements with trade unions	-	6.4、6.4.6
•	GRI 404 :	Training and Education 2016	-	
	404-1	Average hours of training per year per employee	91	6.4、6.4.7
	404-2	Programs for upgrading employee skills and transition assistance programs	91	6.4、6.4.7 6.8.5
	404-3	Percentage of employees receiving regular performance and career development reviews	92	6.4、6.4.7
•	GRI 405 :	Diversity and Equal Opportunity 2016		
	405-1	Diversity of governance bodies and employees	89 • Securities Report <sup>*1</sup>	6.3.7、6.3.10 6.4、6.4.3
	405-2	Ratio of basic salary and remuneration of women to men	91	6.3.7、6.3.10 6.4、6.4.3 6.4.4
	GRI 406 :	Non-discrimination 2016		
	406-1	Incidents of discrimination and corrective actions taken	-	6.3、6.3.6 6.3.7、6.3.10 6.4.3
	GRI 407 :	Freedom of Association and Collective Bargaining 2016		
	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	-	6.3、6.3.3 6.3.4、6.3.5 6.3.8、6.3.10 6.4.3、6.4.5
	GRI 408 :	Child Labor 2016		
	408-1	Operations and suppliers at significant risk for incidents of child labor	100-102、120-122	6.3、6.3.3 6.3.4、6.3.5 6.3.7、6.3.10
•	GRI 409 :	Forced or Compulsory Labor 2016		
	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	100-102、120-122	6.3、6.3.3 6.3.4、6.3.5 6.3.7、6.3.10
	GRI 410 :	Security Practices 2016		
	410-1	Security personnel trained in human rights policies or procedures	_	6.3、6.3.5 6.4.3、6.6.6
	GRI 411:	Rights of Indigenous Peoples 2016		
	411-1	Incidents of violations involving rights of indigenous peoples	_	6.3、6.3.6 6.3.7、6.3.8 6.6.7
	GRI 412 :	Human Rights Assessment 2016		
	412-1	Operations that have been subject to human rights reviews or impact assessments	100-102	6.3、6.3.3 6.3.4、6.3.5
	412-2	Employee training on human rights policies or procedures	100-102	6.3、6.3.5
	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	_	6.3、6.3.3 6.3.5、6.6.6
•	GRI 413 :	Local Communities 2016		
	413-1	Operations with local community engagement, impact assessments, and development programs	104	6.3.9、6.6.7 6.8、6.8.5 6.8.7
	413-2	Operations with significant actual and potential negative impacts on local communities	_	6.3.9、6.5.3 6.5.6、6.8.9

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Core option requirements	GRI Standard	Disclosures	Relevant pages	ISO26000
•	GRI 414 :	Supplier Social Assessment 2016		
	414-1	New suppliers that were screened using social criteria	121	_
	414-2	Negative social impacts in the supply chain and actions taken	_	_
	GRI 415 :	Public Policy 2016		
	415-1	Political contributions	_	-
•	GRI 416 :	Customer Health and Safety 2016		
	416-1	Assessment of the health and safety impacts of product and service categories	51	6.3.9、6.6.6 6.7、6.7.4 6.7.5
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	41	6.3.9、6.6.6 6.7、6.7.4 6.7.5
•	GRI 417 :	Marketing and Labeling 2016		
	417-1	Requirements for product and service information and labeling	43	6.7、6.7.3 6.7.4、6.7.5 6.7.6、6.7.9
	417-2	Incidents of non-compliance concerning product and service information and labeling	43	6.7、6.7.3 6.7.4、6.7.5 6.7.6、6.7.9
	417-3	Incidents of non-compliance concerning marketing communications	N/A	6.7、6.7.3 6.7.6、6.7.9
•	GRI 418 :	Customer Privacy 2016		
	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	N/A	6.7、6.7.7
•	GRI 419 :	Socioeconomic Compliance 2016		
	419-1	Non-compliance with laws and regulations in the social and economic area	N/A	6.6、6.6.3 6.6.7、6.8.7



## Official websites

## Mazda Sustainability Report http://www.mazda.com/en/csr/ report/download/

About the Title Page

The title page presents the Mazda Vision Coupe, unveiled to the world at the Tokyo Motor Show in October 2017. The Mazda Vision Coupe represents Mazda's design vision for next-generation models; a more mature expression of KODO-Soul of Motion, applying a Japanese aesthetic to achieve more elegant and premium styling. The model has been highly acclaimed since its unveiling.



**Other Information** 

Report http://www.mazda. com/en/investors/ library/annual/



## Mazda Technical Review

http://www.mazda. com/ja/innovation/ technology/gihou/

(For English, Summary is available)

	URL	Content
CSR	http://www.mazda.com/en/csr/	Mazda's CSR initiatives and other general information
Investor relations	http://www.mazda.com/en/investors/	Financial and governance information
Company	http://www.mazda.com/en/about/	Overview and business/production bases of the Mazda Group
Brand	http://www.mazda.com/en/innovation/	Information on brand, technologies
News	http://www.mazda.com/en/news/	News releases, SNS, animations
Sales/Customer service	http://www.mazda.com/en/about/d-list/ *	Information on products and others to customers before/after purchase

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