

**DENSO**



## Annual Report 2016

For the year ended March 31, 2016



# We hope...

Spearheading *Monozukuri*, "we aim to create a bright future."



"Knowing that automotive parts have been a matter of life or death in DENSO's business development for more than 60 years, I learned how necessary high quality and high precision are. As a matter of life or death, we want to show commitment to consistently high quality. That is the thought that runs through DENSO's very foundation."

Koji Arima, President & CEO

"Clearing a 1,000-hour endurance test to bring to fruition absolutely unbreakable products was astonishingly brief. It's a battle of one in a million. Although not a soaring achievement, I would like to repeat the seesawing and move forward little by little."

Masahiko Miyaki, Executive Vice President and Board member who oversees overall production

"Continuing to demonstrate theories that exceed customer expectations is essential in gaining trust. For that reason, we must not assume that customer trends have their own logical categories. We have to gather more multi-faceted information, rack our brains for wisdom and form every hypothesis."

Haruya Maruyama, Executive Vice President and Board member who oversees sales & marketing

"When taking on new challenges, the more we know, the more the thinking is that we are never likely to succeed and the normal thing to do in the end is to give up. However, a company that will not give up under those circumstances is DENSO. The thought that 'we view development as really something for the benefit of the world' has become a driving force."

Yasushi Yamanaka, Executive Vice President and Board member who oversees future creation technology

## DENSO's Mission

Contributing to a better world by creating value together with a vision for the future

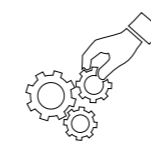
### KEY FIGURES



R&D expenditure  
(as a proportion of revenue)



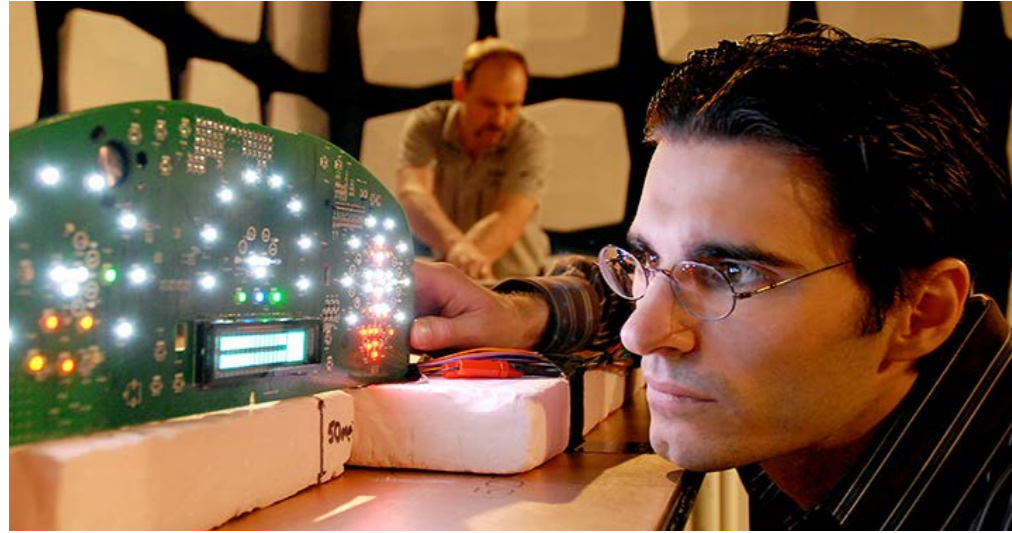
**399.3** billion yen (9%)



Number of worldwide patents held



Approx. **38,000**



"Rather than focusing on short-term profit, DENSO is a company that aspires to long-term sustainable growth and aims to consistently deliver joy and new value to society for the future. It is precisely because DENSO is a company that aims to foster growth in people and communities that we are able to bring these kinds of ideas to fruition."

Manager, North American Regional Headquarters

"Maintaining close relationships with customers and following a way of working that emphasizes teamwork are of vital importance in verifying the real situation on the front line of manufacturing. Doing things that our competitors have yet to do—that is what I feel is the essence of DENSO."

Manager, European Regional Headquarters

"The way we see it, we are strongly committed to turning the negative aspects of society into positive situations. In other words, beyond society we would like to be of immediate assistance to someone and make them smile."

Manager, South China Regional Headquarters

# On a global scale

Expanding onto the world stage

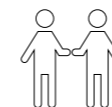
## KEY FIGURES



Development regions /  
Number of bases  
(Number of consolidated  
subsidiaries)

**35** countries and regions

**188** bases



Number  
of employees

**151,775**



"The overcoming of a number of difficulties together, that is what DENSO means to me. Going forward with high aspirations, I would like to continue to confront challenges that makes the impossible possible. I am fully expecting that DENSO will propose technologies that provide new value to society in the years to come."

Manager in charge of development at automaker

"A corporation representative of the local area, DENSO is a company that I have known since childhood. It is not only a business but also proactively serves as a member of our community, for example, by participating in local cleanup activities. I find its attitude of trying to coexist with society very impressive. DENSO is a company that is indispensable to this area."

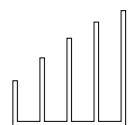
Local resident living in the vicinity of DENSO headquarters



# To connect to society

That feeling of satisfaction when delivering to society

## KEY FIGURES



Revenue



**4,524.5** billion yen

## SLOGAN

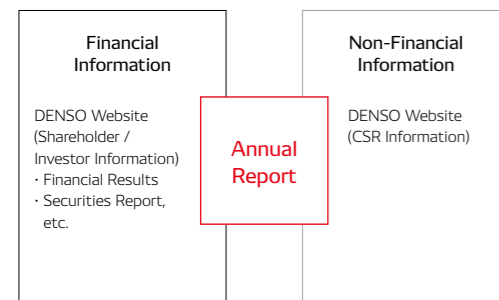
Protecting Lives,  
Preserving the Planet,  
and Preparing a Bright Future  
for Generations to Come

Note: All the numerical data published on pages 1-4 is for the fiscal year ended March 31, 2016, or as at March 31, 2016.



- 01 **Cover Story** \_\_\_\_\_
- 08 **A Message from the President** \_\_\_\_\_
  - 08 To Our Stakeholders
- 12 **Corporate Value Creation Process** \_\_\_\_\_
  - 12 Management Principles and Code of Conduct
    - 13 Long-term Policy
    - 14 Mid-term Policy
    - 15 DENSO Spirit
  - 16 Value Creation Model
  - 18 Strengths That the Company Has Nurtured Since Its Founding
    - 18 R&D, *Monozukuri*
    - 20 *Hitozukuri*
    - 22 Special Feature: Value Created from DENSO's Strengths — COA HVAC
  - 24 DENSO's History of Corporate Value Creation
- 26 **Business Growth Strategy** \_\_\_\_\_
  - 26 Overview by Segment / by Product
  - 28 Powertrain Control
  - 30 Thermal
  - 32 Information & Safety
  - 34 Electronics
  - 36 Small Motors
  - 38 New Business
- 40 **The Foundation That Supports Our Business Growth** \_\_\_\_\_
  - 40 Corporate Governance
    - 40 Corporate Governance
    - 44 Special Feature: Dialogue with Outside Directors
    - 46 Directors and Audit & Supervisory Board Members
    - 48 Compliance
    - 49 Risk Management
  - 50 Environmental Management
  - 53 Quality Assurance
  - 54 Intellectual Property Activities
  - 55 Engagement with Society
- 56 **Corporate Data** \_\_\_\_\_
  - 56 Facts & Figures
  - 58 Company Overview
  - 59 Stock Information

Positioning of Annual Report



Editorial Policy

In addition to providing financial information, such as results and sales overviews as well as management strategy, *Annual Report 2016* is edited as an integrated report that reports, in an easily understood manner, on what value DENSO is providing society and on the process of improving that corporate value. This we achieved by introducing, in an integrated manner, information of a non-financial nature on intangible assets, including on the environment, society and governance (ESG) that are seen as the foundation underpinning growth.

DENSO creates long-term corporate value for all of its stakeholders, including shareholders and other investors, and would appreciate understanding for the efforts the Company is making in aiming to realize a sustainable society.

In compiling this report, references have been made to the "international integrated reporting framework" that is proposed by the International Integrated Reporting Council (IIRC). In addition, with regard to social reporting and the environment, please refer to the Company's website as it contains detailed CSR information.

Cautionary Note: Forward-Looking Statements

Of the content published in this report, what is not historical fact comprises future predictions based on expectations or on plans for the future. As they include contributory factors, such as risks and uncertain elements, the possibility exists that actual achievements and results may differ materially from this report.

# A Message from the President

## To Our Stakeholders



We will engage in R&D and *Monozukuri* (the art of making things) by paying close attention to global trends while maintaining a future orientation and a strong sense of ownership.

Koji Arima  
President & CEO

### Q1 One year has now passed since you were appointed president and CEO in June 2015. Could you please provide a summary of what you focused on in particular and the resulting achievements during your first year at the helm?

In the year since my appointment as president, I maintained a global viewpoint and a sense of speed when making decisions to fulfill DENSO's mission of assisting broader society through products that contribute to the environment as well as to security and safety.

In 2015, with a view to realizing its aspirations for 2020, the Company formulated its Mid-term Policy for which 2019 is deemed as the fiscal year of its achievement, set three focus fields—the environment, safety and security; aftermarket and new business; and the global market—and started to address new challenges. In fiscal 2016 (the year ended March 31, 2016), the first year for the policy's initiatives, we accelerated development of environmental products that contribute to fuel consumption reduction and safety and security products that prevent traffic accidents while launching products in the field of agricultural production support that leverage the technologies the Company has accumulated in the automotive field. In addition to extending our *DANTOTSU* (outstanding) plant activities to Group companies in Japan and overseas, we commenced initiatives such as setting up the DP-Factory IoT Innovation Department and initiatives designed to bring about dramatic improvements in quality and further innovative technology for *Monozukuri*.

In an environment that is rapidly changing, we were able to overcome difficulties thanks to the efforts of each and every one of the DENSO Group's 150,000 employees and the support of all stakeholders, for which I would like to take this opportunity to express my heartfelt gratitude.

By fiscal 2019, having further raised our R&D and *Monozukuri* capabilities and accelerated the development of world-first and locally developed new technologies, I would like DENSO to have become a company capable of contributing to society on a global scale. With regard to the changes in the business environment in which we operate, so-called paradigm shifts are occurring more and more quickly and to a greater extent. Amid such extreme changes, I feel it imperative that to bring the Mid-term Policy to fruition we need to pay close attention to global trends, maintain a future orientation, confront whatever challenges that we might face while resolutely maintaining a healthy sense of crisis in decisively overcoming them with a strong sense of ownership and an unprecedented sense of speed. Fiscal 2017 is the second year of the Mid-term Policy, but as we are aware of its extreme importance for future growth it is positioned as "the first year of reform." Without wavering, I myself will continue to promote reforms in both awareness and actions.

### Q2 Could you please provide some examples of your initiatives up to now?

As a current important issue, I would like to introduce ADAS, our advanced driver assistance system, and IoT, as examples of efforts in which we are engaged based on society's needs.

#### ADAS Initiatives

Amid fears of a significant rise in traffic accident fatalities associated with the rapid increase in the global population, there is a greater need for advanced driver assistance technologies that will lead to automated driving to resolve this social problem. Competitive developments are being accelerated at each automaker toward the full-scale commercialization of automated driving in 2020, and DENSO is ascertaining areas in which to compete and areas in which to collaborate while proactively engaging in strategic mechanisms through alliances.

To accelerate technological developments related to automated driving, the Company integrated related internal business units that were formerly separate entities and established the ADAS Promotion Division in January 2016. The Company will give added impetus to promoting the commercialization of such systems by integrating and accelerating research and technological development that had been conducted individually by functional divisions and business divisions.

### IoT Initiatives

At the same time, as represented by Industry 4.0 (Fourth Industrial Revolution), there is increasing attention being paid to IoT across the world.

DENSO's policy is to bring about the evolution of *Monozukuri* on a global basis by utilizing IoT to realize further improvements in competitiveness in the years to come. Firstly, with the aim of bringing about a 30% improvement in productivity by 2020, the Company established and commenced the operations of its DP-Factory IoT Innovation Department. I would like to place importance on the *Monozukuri* front line, which is underpinned by people's capabilities. I would like to unleash further improvements in our global *Monozukuri* competencies by utilizing IoT in the management of plants and facilities, so that we have visual representations of information which we were previously unable to see and can take measures before a problem occurs, so that cases of improvements go back and forth, transcending the corporate group and national boundaries. At the same time, I would also like to realize a manufacturing front line that has even more of a creative dynamism by drawing on people's unbounded wisdom and taking advantage of progressive improvements.

### Q3 What are the aspects to which DENSO attaches importance in promoting its business activities?

The aspects that the Company values the most are its comprehensive wisdom and comprehensive capabilities in R&D, *Monozukuri* and *Hitozukuri* (human resource development). I believe that these will be the driving force behind DENSO's growth.

Focusing on being the first in the world, the Company has been working with automakers on R&D from a global viewpoint that looks ahead 10–20 years. Having constantly focused on in-house technologies since its establishment, in *Monozukuri* the Company carries out in-house manufacturing design, from facilities and production lines to materials and process methods. Furthermore, I believe that the Company's distinctive feature is its sophisticated and speedy product development that is brought about through the close collaboration between R&D and *Monozukuri*.

While placing value on this strength, it is my firm belief that there are things that we should change and things that we must not change.

In a rapidly changing business environment, speed will take on even greater importance. However, there is a general belief that a principle of self-sufficiency



that brings everything under one roof will not in itself enable a company to respond with a sense of speed to its rivals and competition in development. Without being afraid of change, I would like to continue to further hone the technologies that incorporate a range of knowledge by collaborating with other companies and research institutions to make DENSO more agile than ever before.

At the same time, the "DENSO Spirit" that embodies the common employee values that we have been cultivating since our establishment is an unchanging asset on which the Company has placed a high value. Considering *Hitozukuri* as a management foundation, we have been focusing efforts on proactive human resource training based on that DENSO Spirit.

Continuing to confront challenges with a stance of always predicting change, DENSO will attach importance to three areas: "advances" that continue efforts to create new value unique to the Company through creativity and ingenuity; "trust" to offer values that exceed the expectations of our customers and society by showing a thorough commitment to quality and tireless day-to-day improvements based on local products; and "comprehensive wisdom and capabilities" that share targets with Company employees, bring together wisdom and capabilities, and continue to confront high-set targets as a unified Company. As the driving force for opening up the Company's future in the years to come, I would like to continue sharing this DENSO Spirit with our partners across the world.



### Q4 President Arima, in closing, could you please tell us about your hopes and aspirations with regard to the further growth of the DENSO Group?

In the years to come, we will aim to remain a company that is sought after and needed by people and conduct our business activities by contributing to the creation of a better society.

Established as a manufacturer of automotive electronic components in 1949, DENSO has been globally expanding its business domains to this day. Always responding to the needs of our customers and of the times, this expansion has had the effect of addressing the creation of a better society by causing accumulated R&D capabilities to come together with *Monozukuri* and *Hitozukuri* capabilities as well as the provision of world-first technologies and products, and I consider it important for this cycle to continue. For that reason, I recognize it as my responsibility to steer a course to become a corporate group that repeats that cycle and grows and develops in its relationships with all of its stakeholders.

In resolving social issues through business and continuously providing value, I believe that we have been improving our earnings, strengthening our financial base, and realizing an improvement in DENSO's corporate value. As a result, under the policy that continues to be linked to dividend returns to all shareholders, I recognize it as an important mission of the DENSO Group to stably bring about improvements in the dividend threshold over the long term.

It sometimes happens that there is a tendency for corporate value, such as the sales and profits resulting from business activities, to be misunderstood when shown only in numerical values. It is my belief, however, that activities that can neither be seen nor recorded in numerical terms yet underpin corporate value—such as governance, environmental and social activities—are indispensable in improving that value. To create a foundation by which we contribute to a better society on an ongoing basis, we will further strengthen those kinds of activities.

So that we are able to contribute to the creation of a better society from now on, I would like DENSO to remain a company that is full of enthusiasm and smiling faces and in which each and every employee takes steps to go further and higher with courage.

I would like to take this opportunity to thank everyone for their continued and unflagging support.

# Corporate Value Creation Process

“Contributing to a better world by creating value together with a vision for the future”

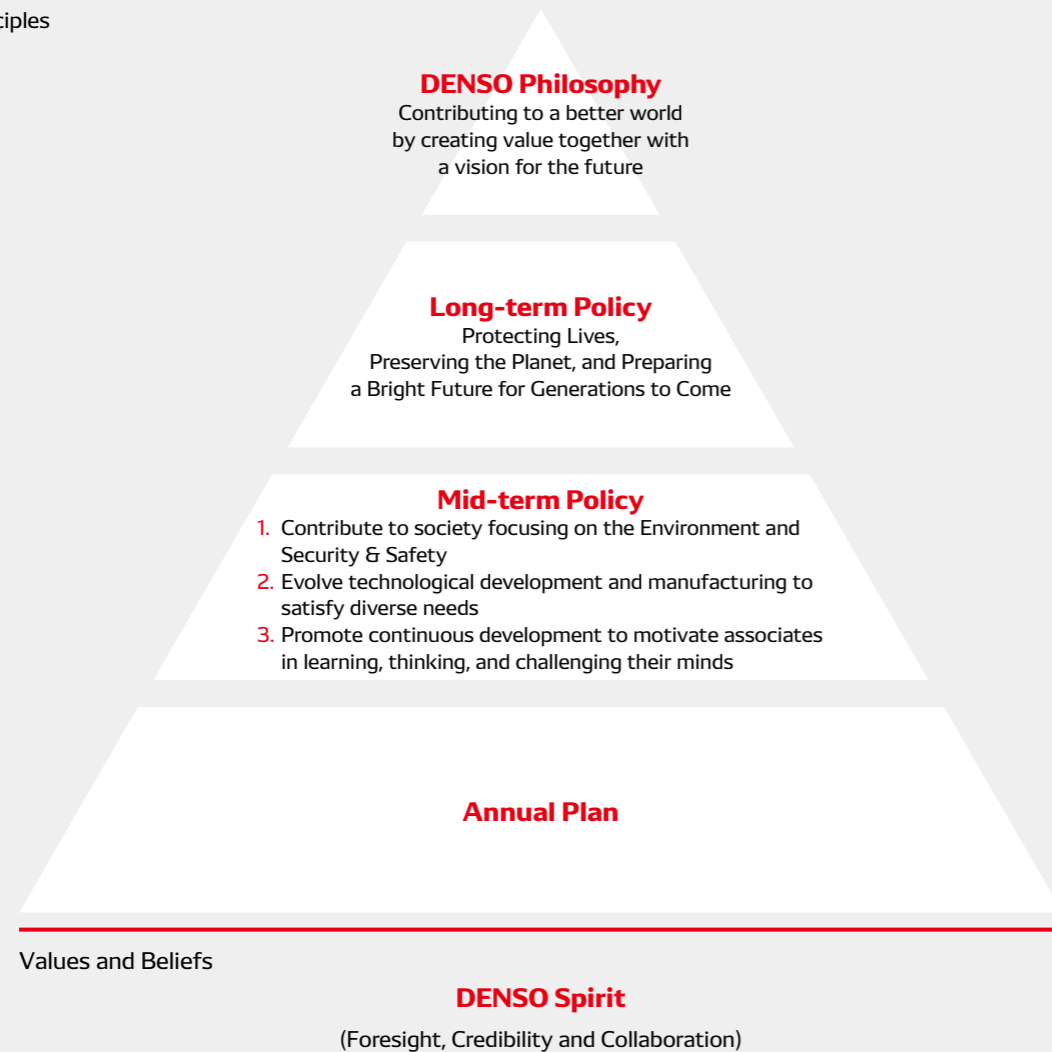
To continue as a company that has earned the trust and meets the expectations of people all over the world, DENSO helps to deliver the convenience and joy of cars to people all over the world while aiming to realize its Long-term Policy of “preserving the Earth’s environment” and “creating a society that ensures security and safety.” For that reason, DENSO has been sharing among all its employees the DENSO Spirit passed down since its establishment and contributing to the creation of a better society by leveraging its strengths in unique R&D, *Monozukuri* and *Hitozukuri* (human resource development).

Assuredly leading to the creation of corporate value, this “Business to Society” viewpoint has been underpinning DENSO’s growth.

## Management Principles and Code of Conduct

DENSO has positioned three elements under the framework shown below: its Long-term Policy, which tackles issues in critical operational fields heading toward 2020 based on the DENSO Philosophy that outlines the Company’s corporate stance and mission; its Mid-term Policy that shows the strategies designed to achieve the Long-term Policy; and the DENSO Spirit that forms a day-to-day code of conduct.

### Basic Principles



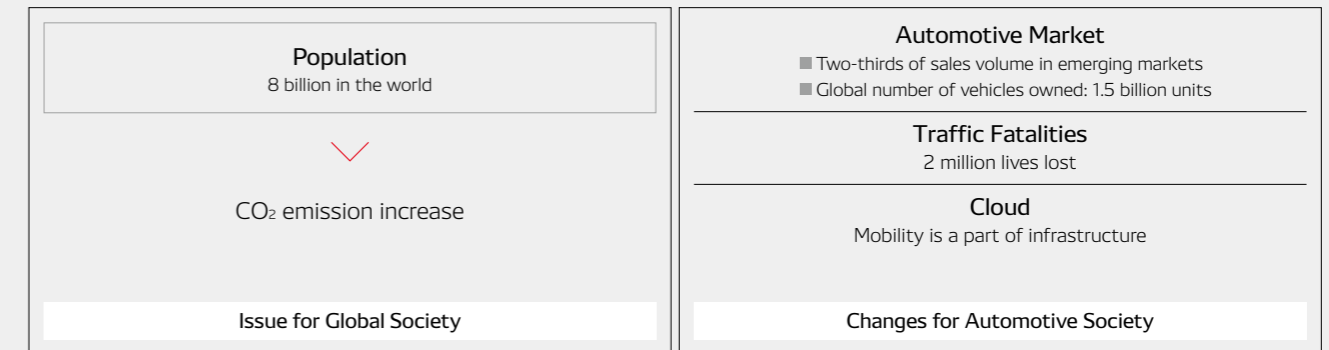
## Long-term Policy

### Slogan

### Protecting Lives, Preserving the Planet, and Preparing a Bright Future for Generations to Come

In light of difficult times expected caused by severe environmental changes, DENSO formulated the DENSO Group Long-term Policy 2020 in 2013 while keeping in mind its strong motivation to contribute to society and taking aggressive action on its own accord to remain a company that has earned the trust and meets the expectations of people all over the world.

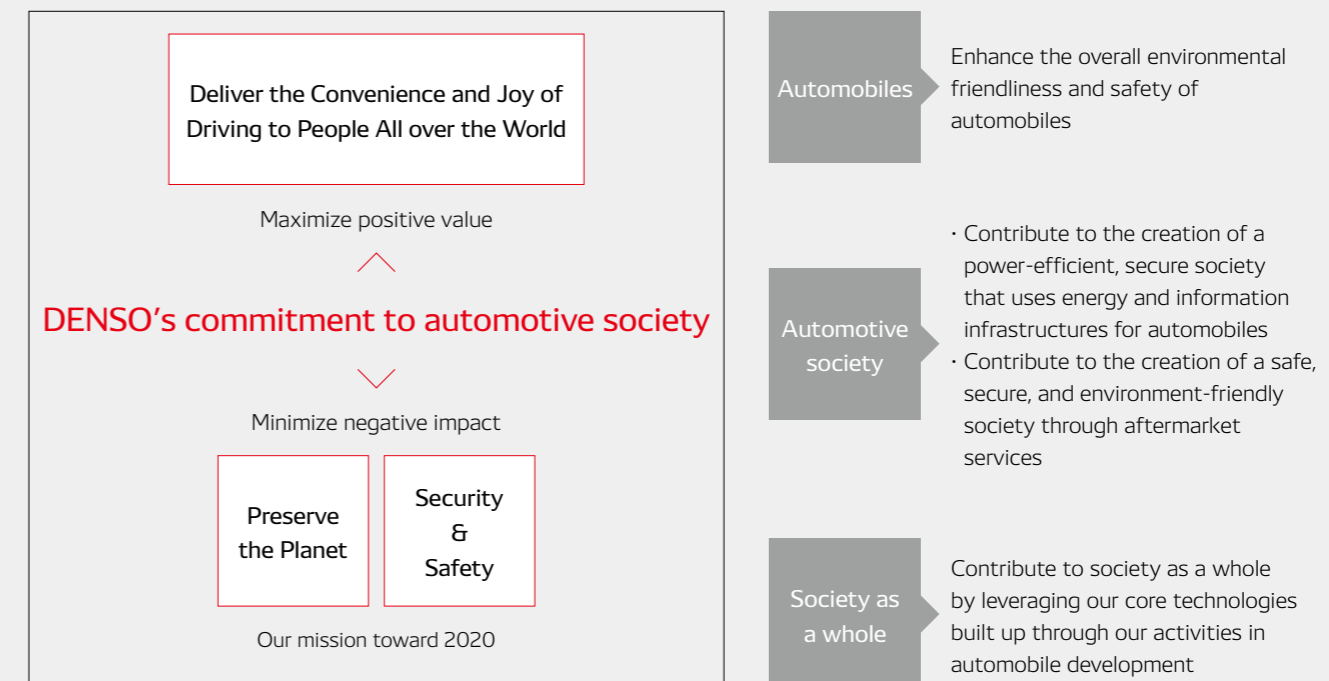
### 2025 Business Environment



### 2025 Society of the Future



### Value Delivered to Society



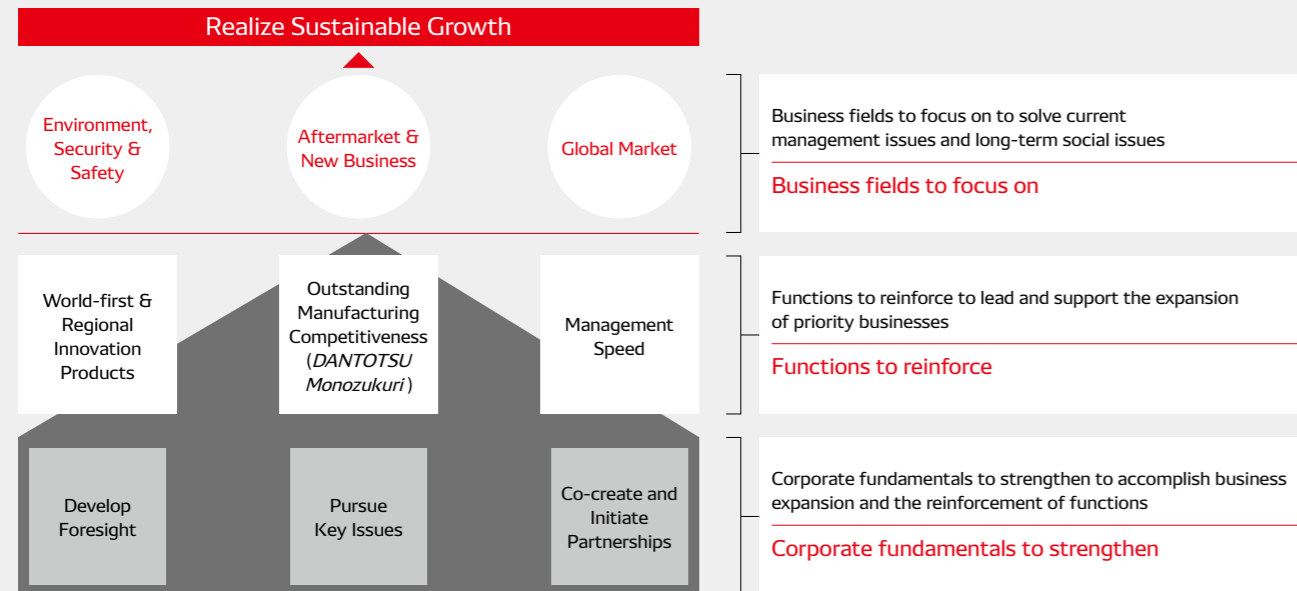


## Mid-term Policy

### Business fields to focus on

### Environment, Security & Safety, Aftermarket & New Business, and Global Market

DENSO Group Mid-term Policy describes the key business fields to focus on, the functions to reinforce, and the corporate fundamentals to strengthen through fiscal 2019 in order to achieve the goals of Long-term Policy 2020.



### Strategy for Mid-term Policy

Themes to Promote	Direction
<b>Business fields to focus on</b> <b>Environment, Security &amp; Safety</b> Create system products that address social issues and help reduce the environmental footprint and traffic accidents	<ul style="list-style-type: none"> <li>Strengthen technological developments toward greater fuel saving, air purification, energy diversification (improve fuel efficiency, electrification, fuel economy, etc.), and system proposal capabilities</li> <li>Strengthen technological developments in vehicle control, human machine interface (HMI), and information and communications systems toward the evolution of advanced driving support</li> <li>Strengthen new product design and development in automobiles and social systems and related areas</li> </ul>
<b>Aftermarket &amp; New Business</b> Expand aftermarket & new business markets to create new customer value from a societal needs and end-user perspective	<ul style="list-style-type: none"> <li>Propose products that maintain a societal needs and end-user viewpoint and that create customer value</li> <li>Improve speed from product planning to sales through initiatives that prioritize the front line (customers, markets) and through active collaboration with partners</li> </ul>
<b>Global Market</b> Reinforce the relationship of mutual trust and raise DENSO's presence in each region so that people around the world can enjoy driving and the convenience of vehicles	<ul style="list-style-type: none"> <li>Predict customers' essential expectations, continually provide value linked to customer brand improvements</li> <li>Provide multifaceted value added—for example, in terms of quality, value, delivery and service—compatible with the needs of each region to become more region-centric</li> </ul>
<b>Functions to reinforce</b> <b>World-first &amp; Regional Innovation Products</b> Take on the challenge of advanced technological development that creates the world-first and regional innovation products by realizing regional strengths and community-based wisdom	<ul style="list-style-type: none"> <li>Accelerate advanced technology research and reinforce efforts in social science</li> <li>By predicting the trend in regional needs, enhance the ability to design product concepts and develop advanced technologies</li> </ul>
<b>Outstanding Manufacturing Competitiveness</b> Enhance <i>Monozukuri</i> capabilities and the global expansion of <i>DANTOTSU</i> through enhanced competitiveness to realize a regional No. 1 production structure, the <i>DANTOTSU</i> plant	<ul style="list-style-type: none"> <li>Reinforce simultaneous development of products and <i>Monozukuri</i> for product evolution (high difficulty level, systems) and expansion of overseas production</li> <li>Establish strong <i>Monozukuri</i> capabilities by One DENSO and realize regional No. 1 production supply structure and the <i>DANTOTSU</i> plant</li> </ul>
<b>Management Speed</b> Accelerate management speed by promoting global collaboration and changing our way of working to improve the speed of business operations	<ul style="list-style-type: none"> <li>Collaborate with diverse people</li> <li>Implement global next-generation information systems and change our way of working to improve speed of business operations</li> </ul>

## DENSO Spirit

### What is DENSO Spirit

### A spirit of foresight, credibility and collaboration

The DENSO Spirit expresses values and beliefs shared by our employees around the world that have driven us to contribute to the automotive industry and society as a whole since our establishment in 1949.

#### Foresight

Providing surprises and impressions in a way that only DENSO can

#### Vision

Anticipate change

#### Creativity

Create new value

#### Challenge

Overcome difficulties

#### Credibility

Providing quality and reliability beyond customer expectations

#### Quality First

Ensure the best quality for our customers

#### On-site Verification

Grasp the facts firmly

#### *Kaizen*, Continuous Improvement

Strive to reach higher levels

#### Collaboration

Achieving the highest results by working as a team

#### Communication

Understand one another completely

#### Teamwork

Do your best as a team

#### Human Development

Develop yourself and the next generation

### COLUMN

## Boldly Taking on New Challenges No Matter What the Circumstances

In 1950, soon after its establishment, DENSO released 50 "Denso Go" electric vehicles to the market. With the exception of the batteries and chassis, the core components for these vehicles were manufactured entirely in-house. Fighting to survive during a difficult time when automobile demand had fallen off, we developed *Denso Go* through ongoing R&D driven by the deep desire of employees to contribute to society by providing useful products on the back of our electric component-related technologies and equipment. While *Denso Go* went out of production approximately a year after it was launched due to the government's lifting of the ban on gasoline control and surging lead prices, the spirit of challenge and technical legacy that emerged during that time led to the creation of the Electric Vehicle Equipment Department in 1970, 20 years after *Denso Go* was launched.

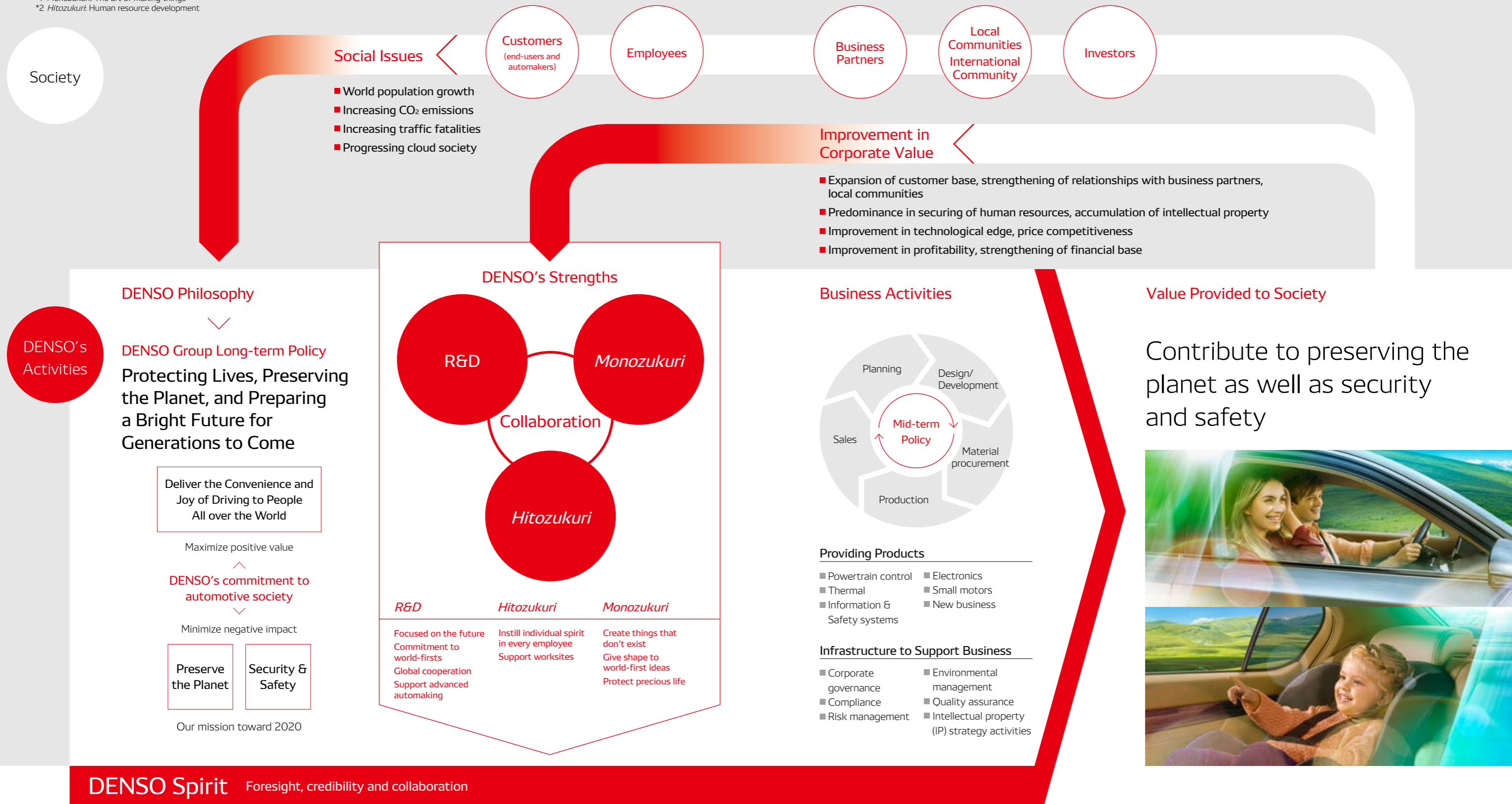


# Value Creation Model

Guided by the basic principles of its management policy and code of conduct, DENSO is leveraging the strengths of its R&D, *Monozukuri*\*1 and *Hitozukuri*\*2 nurtured over a lengthy period since its founding, to drive its business forward.

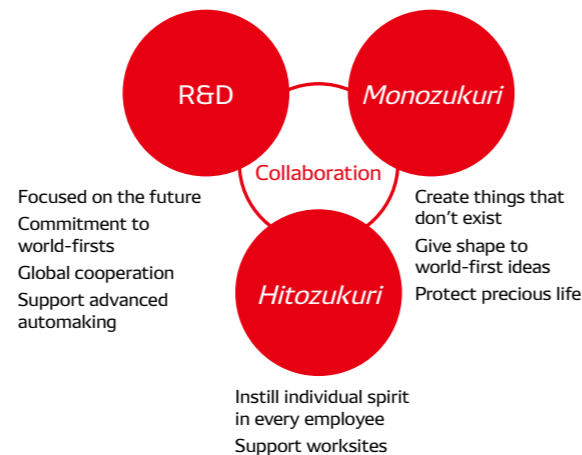
By addressing a variety of social challenges, helping to preserve the global environment, and contributing to the security and safety of society, DENSO is also taking steps to enhance its corporate value. Through these means, the Company is further reinforcing its inherent strengths while ensuring that its efforts lead to sustainable growth. Here, we would like to provide details of our thoughts and the processes implemented.

\*1 *Monozukuri*: The art of making things  
 \*2 *Hitozukuri*: Human resource development



# Strengths That the Company Has Nurtured Since Its Founding

As identified under its Value Creation Model, DENSO's strengths lie in the R&D, *Monozukuri*, and *Hitozukuri* that it has continued to nurture since its founding. Each of these strengths mutually supports the other, helping to drive the activities of the Company forward. These strengths also help realize DENSO's Long-term Policy, which is supported by the pillars of environmental preservation, security, and safety and provide the engine that delivers new value to society. Here, we provide details of the secrets behind our strengths and activities that help bolster our competitive advantage.



## R&D, *Monozukuri*

### Research and Development (R&D)

In research and development—the starting point for new value creation—we are taking steps to further strengthen planning and R&D in order to accurately perceive society's needs and produce competitive products. DENSO has been promoting roadmaps that show the path for advancing to each successive period: short term (five years), medium term (10 years), and long term (11 years or more). The roadmaps will incorporate changes in regulations and the needs of the global community and will decide the R&D themes to be started and terminated after they are shared with each division, the Engineering Research & Development Center, and the Production Innovation Center.

In addition, to strengthen the global development network, we maintain technical centers at seven regions throughout the world and incorporate technical proposals tailored to local needs.

DENSO considers R&D expenditure at around 9% of revenue to be an appropriate level, and in fiscal 2016, the year ended March 31, 2016, R&D expenditure came to ¥399.3 billion and is expected to be ¥415.0 billion in fiscal 2017.

#### The Key to Our Strength

##### Basic Research Focused on the Future

At the Basic Research Laboratories established in 1991 and responsible for long-term R&D, equipped with state-of-the-art facilities, we conduct research and development of future technologies looking five to 20 years ahead. We perform basic research in a wide range of fields, from semiconductor materials to oil-producing microalgae, which has led to commercialization over the near term.



##### Commitment to World-Firsts

Based on its mission of "contributing to people's well-being through new value creation," DENSO is committed to creating world-first products that are connected to the environment, security and safety. DENSO has created various world-first products including the common rail system, which dramatically increases diesel engine performance, and short-range LiDAR, which prevents rear-end collisions and has been commercialized for compact vehicles.



#### Roadmaps



#### Global R&D Structure

With technical centers based throughout the world (Japan, the United States, Germany, China, Thailand, India, Brazil), DENSO transcends the internal and external boundaries of the Company and collaborates with automakers, research institutions, universities, and other organizations to develop advanced technologies and products that meet the needs of each region.



### *Monozukuri*

Since its inception, DENSO's *Monozukuri* has thoroughly integrated in-house technologies. Through *Monozukuri* positive steps are taken to design and manufacture equipment, production lines, materials and processing methods. This enables us to provide society with the world's most advanced groundbreaking technologies and products conceived by our R&D.

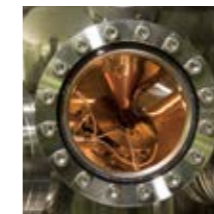
We have strived to develop speedy and efficient production lines and compact unique facilities, as well as streamline distribution and inspection with our own production technology, and we have built a *DANTOTSU*\* plant that performs *Monozukuri* at a *DANTOTSU* price. This has enabled us to also ensure high efficiency and high quality and offer competitiveness and added value to our products.

\* *DANTOTSU*: A *DANTOTSU* plant is one that undertakes *Monozukuri* at a *DANTOTSU* (outstanding) cost. A *DANTOTSU* plant is at such a high level that it cannot be compared to other plants.

#### The Key to Our Strength

##### Material Technology to Create Things That Don't Exist

To pursue product performance and quality, if we don't have suitable general purpose materials, we create them. This is part of our commitment to DENSO's *Monozukuri*. Materials that DENSO's material engineers have jointly developed with material manufacturers help us to achieve world-first products and world-best performance.



### Concurrent Engineering

At DENSO, we believe that new product development comprises both R&D and *Monozukuri*. As with any new technology, if it cannot be turned into reality it cannot be developed into a product. Because R&D and *Monozukuri* jointly contribute knowledge and provide positive influence, we can produce new products of a higher dimension.

#### The Key to Our Strength

##### The Two Prongs of R&D and *Monozukuri*

We have been working on concurrent engineering to closely coordinate between the product development department, which is engaged in everything from development to mass production, and the manufacturing technology department. Thus, by thinking about the technology and process that achieves new products, we can develop products with a higher degree of perfection in a shorter period of time. To turn this into reality, engineers and technicians will work together to achieve

#### Partnerships That Support Advanced Automaking

DENSO provides technologies and products to the world's automakers. As the best partner with the best solutions, DENSO meets a wide range of end-user needs with technologies and know-how accumulated through the development of new technologies in every field.



#### Production Technology That Gives Shape to World-First Ideas

DENSO leverages a world-class micro-processing and assembly line that improves production efficiency and quality. DENSO also supports world-first products and the world's highest level of product performance and quality from a *Monozukuri* perspective by designing and manufacturing its own equipment and production lines.



#### Quality Assurance That Helps Protect Precious Lives

In order to make automobiles that can be driven with peace of mind, DENSO, as a parts manufacturer, has owned a test course from early on. Having evaluation equipment comparable to that of automakers, such as a low-temperature wind tunnel testing room and an electromagnetic wave dark room, DENSO repeatedly runs tests that simulate the driving environments of any part of the world and strives to maintain high quality and trust in its products.



commercialization. Concurrent engineering is now becoming mainstream in the world of *Monozukuri*, but at DENSO, since the 1970s we have engaged in concurrent engineering as next-generation product research. This is a method that DENSO has continued with great commitment.

#### The DENSO-style of Concurrent Engineering



## Hitozukuri

“The best products are made by the best human resources.”

DENSO has positioned human resources as its most important management resource. Accordingly, the Company has focused on the training and skill development of employees based on the idea that human resource development supports R&D and *Monozukuri*.

### The Key to Our Strength

#### The DENSO Spirit Instilled in Every Employee

Documented in 2004, the DENSO Spirit\* approach of “foresight,” “credibility” and “collaboration” has been handed down as implicit knowledge since the Company’s founding. In order to function as our code of conduct, which serves as the driving force and source of our competitive advantage, the crux of the DENSO Spirit has been translated into 17 languages to help contribute to the advancement of an automotive society and to people worldwide.

Based on the DENSO Spirit, “DENSO’s Work Procedures,” which summarize the basic approach, tools, and process for conducting daily work, and “On the Job Development,” which summarizes the approach and process for training employees at DENSO, have been deployed worldwide as a global educational curriculum. The DENSO Spirit is not merely a slogan—it has been instilled in all employee behavior and is practiced in day-to-day business.

\* Please see page 15 for more information on the DENSO Spirit.

#### Human Resources in *Monozukuri* That Support Production Worksites

Believing that the development of advanced engineers and technicians who enable innovative product development and production is the key to corporate growth, DENSO operates the DENSO Industrial School (offering industrial high school and specialized vocational high school courses), which carries on the tradition of the technical training schools established in 1954.

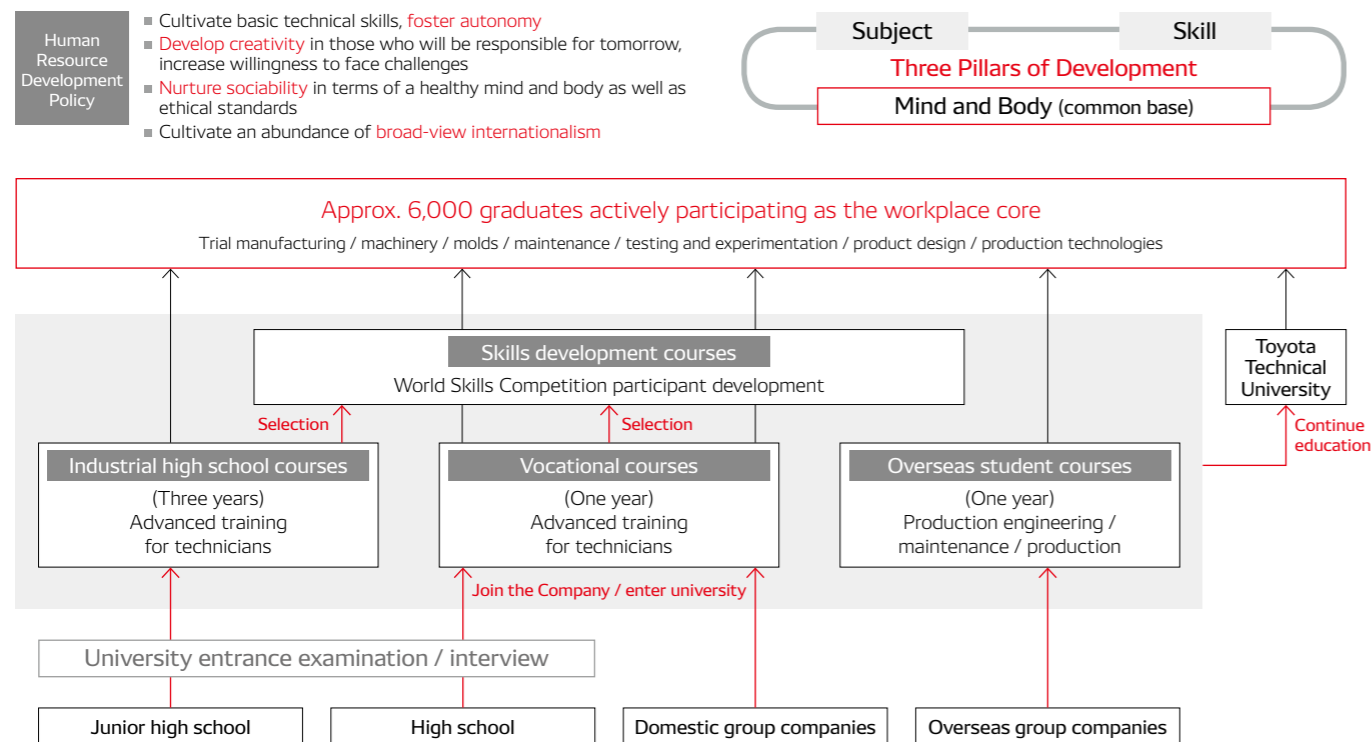
The school has produced many World Skills Competition medalists from among its young technicians who compete at the world’s highest level. Participation in the Skills Competition is not for the purpose of achieving an excellent score. The true purpose is to refine one’s skills through training, leverage those skills in *Monozukuri* at the workplace, and develop the next generation of youth.

The DENSO Industrial School has produced 6,000 graduates and 300 medalists who support DENSO’s *Monozukuri*.



### Development Policy and System Diagram

Development of autonomous creative human resources who can flexibly respond to changes in the times and the environment and form the core of the future workplace



## TOPICS

### Monozukuri

## DENSO’s Factory IoT Activities

To increase its competitiveness in continuously expanding global markets, DENSO has begun the full-scale launch of its own IoT that connects the world’s factories via network. By sharing and fully leveraging all information on goods, things, and people (wisdom) within the DENSO Group, we are stimulating the further development of DENSO’s *Monozukuri*.

To that end, we are now working to introduce a co-creative IoT system. In this initiative, improvements carried out day-to-day are immediately turned into computerized data and delivered in a timely manner to people who perform associated work that transcends departmental and national boundaries. As a result, the improvement cycle continues, high-quality, swift *Monozukuri* through global coordination is achieved, and product competitiveness and added value continue to expand.



### Hitozukuri

## Medals Won at the World Skills Competition

At the World Skills Competition held in São Paulo, Brazil, 16 people representing 10 occupational categories participated from Japan, Thailand, Indonesia, and Vietnam.

The DENSO Group won gold medals in the three occupational categories of the Manufacturing Team Challenge and Mobile Robot (Japanese representative) and CNC Lathe (Thai representative). Representatives from Japan and Thailand won their fourth consecutive competition (gold medals). Every effort is being made to pass on technologies and skills on a global basis and to enhance the competitiveness of the Group’s *Monozukuri* capabilities.

Number of gold medals won

31

World Skills Competition

### Accumulated Medals Won at All World Skills Competitions

	Gold	Silver	Bronze
Number of medals won	31	16	14



# Special Feature: Value Created from DENSO's Strengths – COA HVAC

The world's first new car air-conditioning unit that can be installed across manufacturers, car models, and powertrains.

## COA HVAC

DENSO works diligently to manufacture cars that allow people to drive and ride in comfort while consistently making efforts to improve the environmental and safety performance of cars. DENSO's COA HVAC is a prime example of the Company's endeavors and its efforts to make full use of its inherent strengths. Drawing on the steps taken to launch COA HVAC, we provide details of the Company's unique value creation mechanism.

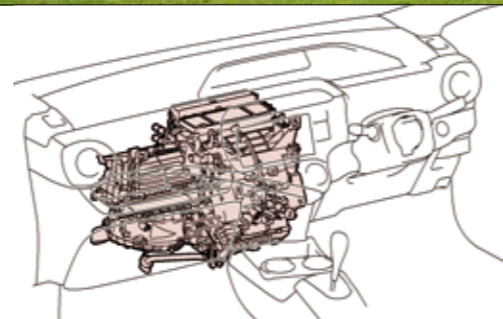
### Glossary

#### What is HVAC?

HVAC is the acronym for "Heating Ventilation and Air-Conditioning," a major component of car air-conditioners that controls temperature, air volume, and outlet locations in order to maintain a comfortable temperature in the vehicle interior.

#### What is COA?

"CO" refers to the first two letters of the words "Common," "Compact," and "Collaboration" (between departments within the Company and joint development with Group companies). "A" refers to the first letter of the word "air-conditioner." "COA" also includes the idea of the "CORE" of the thermal business.



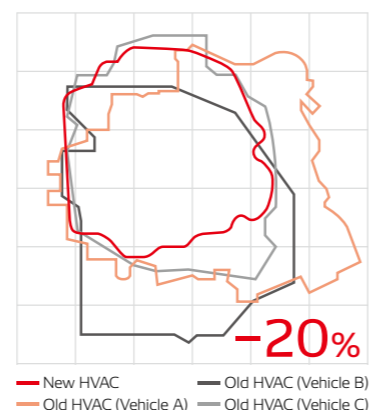
### Development Background

Improvement of environmental performance and comfort, a challenge that automotive society currently faces, as well as a Company theme, is the basis of development. The societal need for greater fuel economy, which significantly affects environmental performance, is further increasing. At the same time, if we can ensure a higher degree of design freedom, a comfortable interior, and eliminate noise, we can make more competitive products. The Company is working to create smaller, lighter, and higher performance air-conditioning units (HVACs) that currently take up a considerable amount of space in vehicles' instrument panels, and curtail costs through standardization with the idea that they could be installed in even more vehicles. In other words, one HVAC unit would be compatible with a wide range of vehicles including compact cars, SUVs, luxury cars, hybrid cars, and idling-stop vehicles across automakers, car models, and powertrains. In past HVAC development, an enormous variety existed because they were specially designed for each car model. By overturning that major premise, however, we tackled the challenge of developing a general-purpose HVAC while meeting the needs of many customers.

### R&D That Confronts the Impossible Commitment to World-Firsts

In order to make an HVAC that can be used in everything from compact cars to large vehicles, it must be based on a size that fits in a compact car. Therefore, we made changes in the installation space for HVACs of the last 10 years of major Japanese, U.S., and European manufacturers and clarified specifications for performance and function. From there we derived future trends and created an HVAC to cover them. A particularly important change was the reduction in the area visible from the side. We were able to achieve a 20% reduction in the side area by miniaturizing such new functional components as the blower fan and servomotor module and applying a sliding door system to the air mix section. Furthermore, we standardized the parts so that the HVAC unit could be installed in vehicles of various shapes and performance by replacing only some of the parts.

Side Area View: Size Comparison



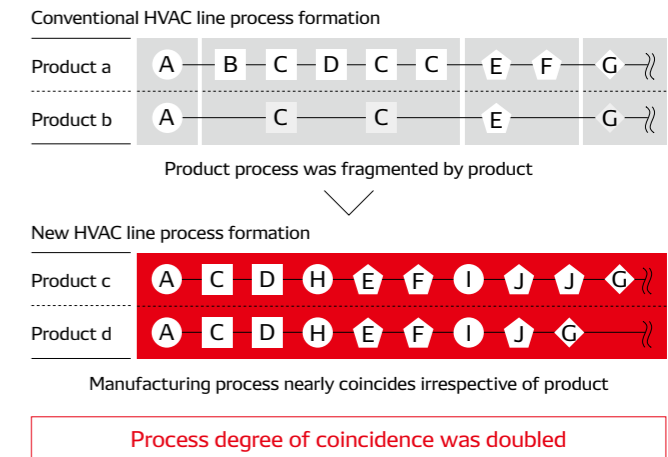
### Innovative *Monozukuri*:

#### Production Technology That Gives Shape to World-First Ideas

In order to take advantage of HVAC features aimed at complete standardization, we sought to create a process concept that would become a highly efficient compact global standard. To achieve this, we adopted a Process Degree of Coincidence Index.\* Because conventional HVACs are specially designed for each vehicle model, part types are vast and the production process is also fragmented. Therefore, even if the HVAC were produced with differing specifications, standardized parts would run in the same order, and as such, we devised a method to raise the process degree of coincidence. As a result, the process degree of coincidence was doubled and a significant production improvement was achieved.

\* Process degree of coincidence = Number of processes that coincide ÷ Maximum number of processes × 100

### Image of Doubled Process Degree of Coincidence



### DENSO's Strength

- R&D**  
Partnerships that support advanced automaking
- Monozukuri**  
Rigorous standardization
- Concurrent Engineering**  
Collaboration system that transcends the boundaries of each division and Group company
- DENSO Spirit**  
Foresight, Credibility and Collaboration

Input

### COA HVAC



- Standardization, unit size reductions, reduced power consumption, and improved comfort
- Standardization of processes that promote high efficiency and automation

Outcome

### Value to Society

- Relationships of trust with customers
- Achieve comfortable car interiors
- Consideration of the environmental impact of fuel economy improvement
- Globally fair and stable product supply
- Energy efficiency through low cost and productivity improvement

### Concurrent Engineering

Concurrent engineering, which transcends development and manufacturing departments, was essential to the creation of the COA HVAC. Up until completion, we ran into a number of challenges and obstacles and those that could not be resolved by the development department alone we repeatedly discussed, using things in the training camp and worksite outside the Company, and we solved them one by one with the cooperation of Group companies. In the production process as well, in the concurrent engineering activities, in order to make an easy-to-build product configuration significant changes were made to the *Monozukuri* system, such as approving the manufacturing department's request that it be involved from the design phase of each part.

### Manifestation of the DENSO Spirit

Initially, everyone thought that this project would be "impossible," but the goals of making a world-first HVAC and transforming *Monozukuri* were shared beyond the development, manufacturing departments, and Group companies. The COA HVAC was completed by mobilizing the collective wisdom and strength of everyone involved.



Team involved in the development of HVAC

# DENSO's History of Corporate Value Creation

DENSO has maintained the corporate mission of addressing shifts in societal needs while helping to solve social issues. Beginning with the manufacture of such electrical components as alternators and starters, the Company has continued to substantially expand the scope of business activities and accordingly achieved a dramatic increase in sales. In this manner, DENSO has successfully linked the creation of value for society with the creation of corporate value. Here, we provide details of the Company's growth trajectory that is grounded in efforts to consistently create both social and corporate value over the more than 60 years since DENSO's founding.

## Value Provided to Society

### Environment



Smaller inverters that utilize cooling on both sides



ISS (idle-stop system) tandem solenoid starter that can immediately start up even when engine speed decreases



Motor generators that utilize a unique winding configuration



i-ART injectors for optimal fuel injection



Radiator tank made from plant-derived resin



Smaller and lighter air-conditioning units that can be installed across manufacturers, car models, and powertrains



Heat-pump water heaters using natural refrigerant (CO<sub>2</sub>)

### Security & Safety



Millimeter-wave radar that lessens damage at time of collision

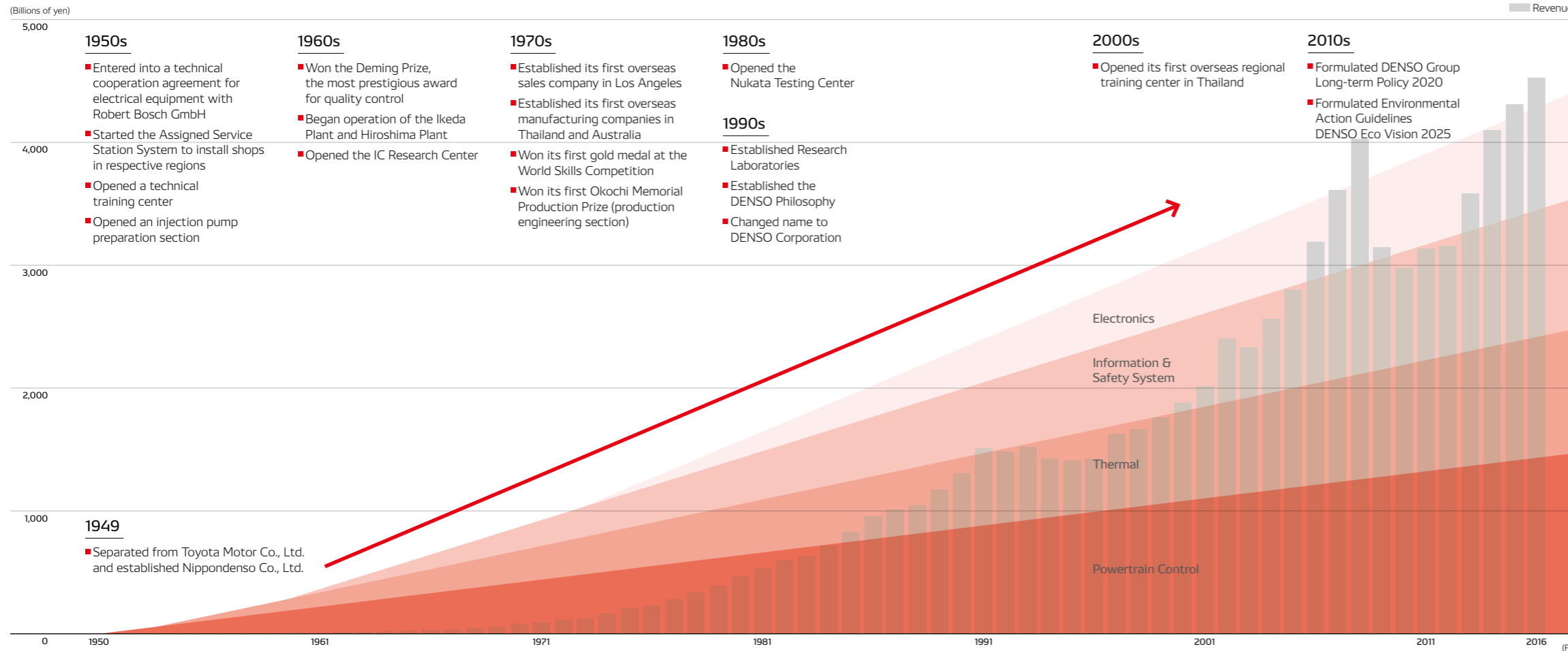


Pedestrian collision detection sensors that accurately detect along the entire bumper

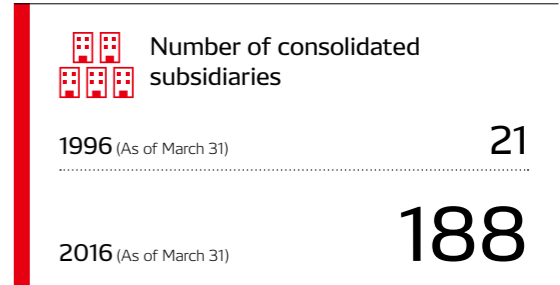
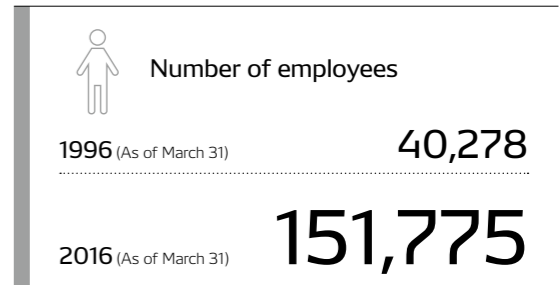
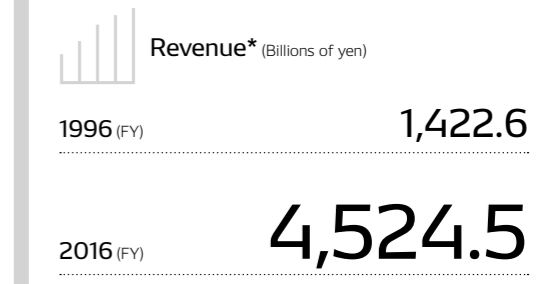


Driver status monitoring systems that detect driver abnormalities such as falling asleep at the wheel

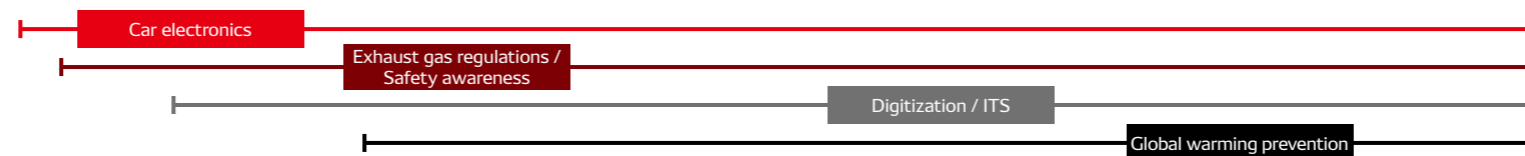
## Corporate Value Creation



## 20 Years of Growth in Figures



## Changing Societal Needs



\* Fiscal years 1951 to 1978 show non-consolidated revenue, while fiscal years 1979 and after show consolidated revenue. In addition, from fiscal 2014, the financial statements have been prepared based on International Financial Reporting Standards (IFRS). (Japanese accounting standards were employed up to and including fiscal 2013.)

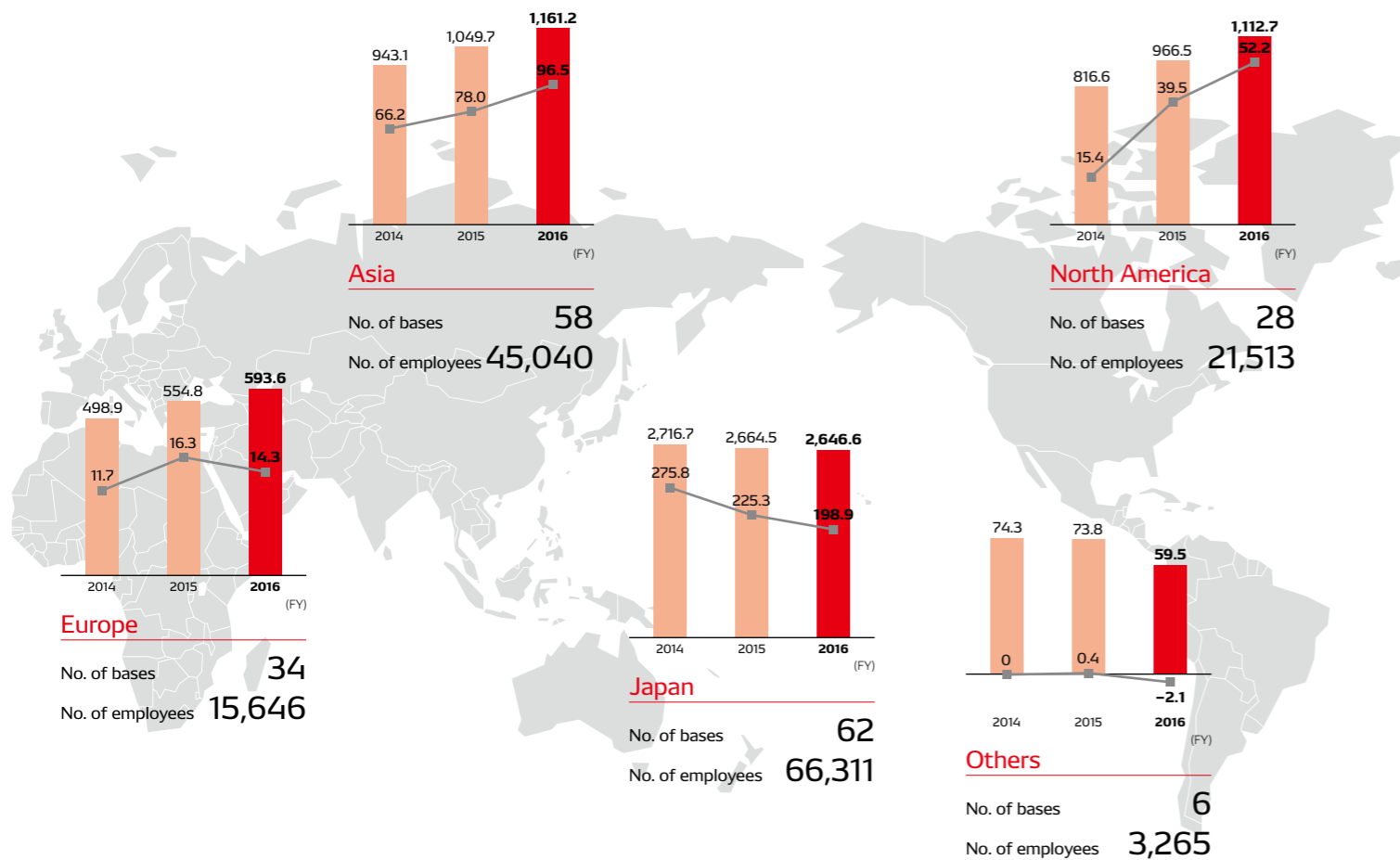
# Business Growth Strategy

DENSO is working vigorously to expand its global business activities. In addition to addressing the needs of customers across a wide range of regions worldwide, the Company is endeavoring to become an entity that is highly trusted. Through these efforts, DENSO has continued to expand its business domain and today boasts a global network of 188 consolidated subsidiaries spanning 35 countries and regions. Currently, the Company maintains regional headquarters covering the Group's operations in Japan, North America, Europe, Asia, and other regions. Spearheaded by these regional headquarters, steps have been taken to set up an independent structure within each region while promoting increased awareness toward the Group's business policies.

In addition, DENSO is organized around business groups. These businesses coordinate with one another to accommodate systemization and modularization with decision-making conducted promptly in line with the prevailing conditions of each business.

## Overview by Segment

DENSO has also established autonomous development, procurement, and production activities by each regional organization. This framework enables faster local decision-making in line with customer needs.



■ Revenue (Billions of yen) ■ Operating profit (Excluding other income and expenses) (Billions of yen)  
 Note: The number of employees excludes personnel dispatched to consolidated companies, but includes personnel on loan from consolidated companies. Temporary staff are also excluded from the number of employees.

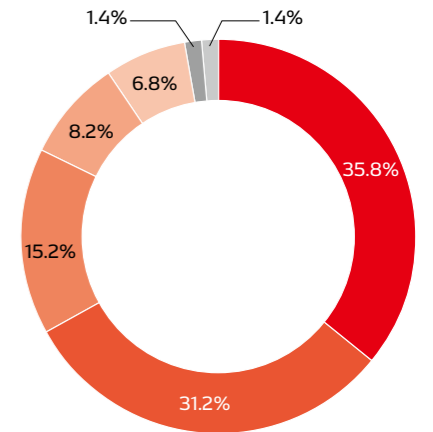
## Overview by Product

While focusing mainly on its automotive-related operations, DENSO also pursues a wide range of business opportunities, from new businesses that utilize automotive technologies to consumer-, industrial-, and other related products. Details of the composition of revenue for each business are presented briefly as follows.

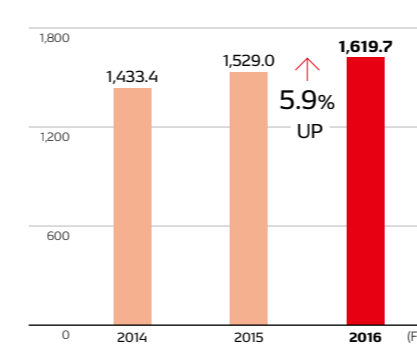
Revenue

**4,524.5** billion yen

- Powertrain Control
- Thermal
- Information & Safety
- Electronics
- Small Motors
- Others
- New Business

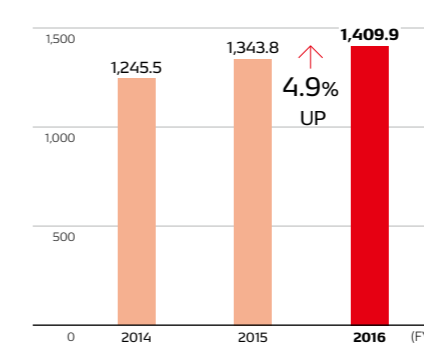


### Powertrain Control



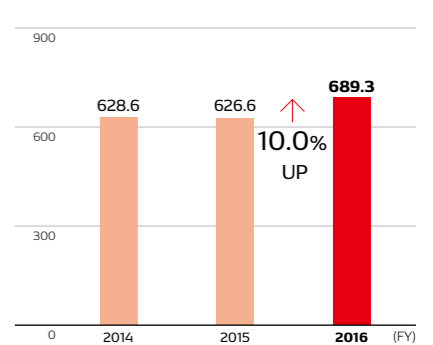
In fiscal 2016, the year ended March 31, 2016, revenue increased 5.9% compared with the previous fiscal year, to ¥1,619.7 billion. This was largely due to the increase in sales of gasoline direct injection products including injectors and pumps as well as variable valve timing (VVT)-related products, mainly in North America and China.

### Thermal



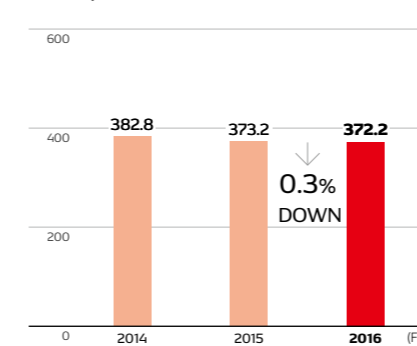
In fiscal 2016, revenue increased 4.9% compared with the previous fiscal year, to ¥1,409.9 billion. In addition to the volume production of global standard air conditioners, this increase largely reflected the upswing in sales of heating, ventilation, and air-conditioning (HVAC) in Europe.

### Information & Safety



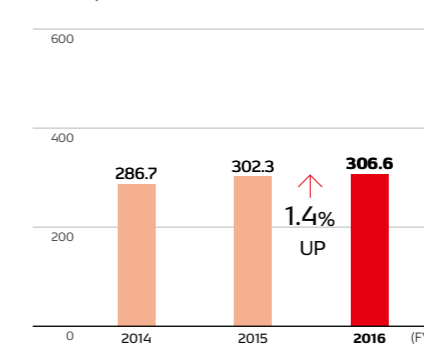
In fiscal 2016, revenue climbed 10.0% compared with the previous fiscal year, to ¥689.3 billion on the back of increased sales of meters in North America and safety products in Japan.

### Electronics



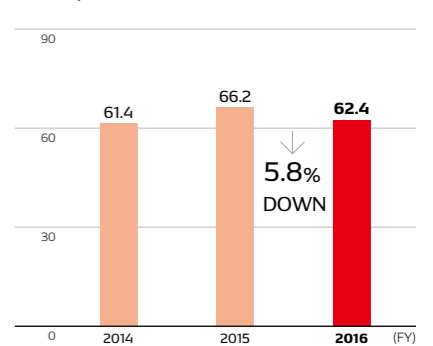
In fiscal 2016, revenue was roughly the same as the previous fiscal year, edging down 0.3%, to ¥372.2 billion. Results were significantly impacted by the decline in vehicle production in Japan.

### Small Motors



In fiscal 2016, revenue grew 1.4% compared with the previous fiscal year, to ¥306.6 billion. While the Group's performance in this business was impacted by the decline in vehicle production in Japan, the improvement was mainly due to increased sales of windshield wiper systems in the U.S., South Korea, and China. Results were also supported by automobile sales growth in North America.

### New Business



In fiscal 2016, revenue decreased 5.8% compared with the previous fiscal year, to ¥62.4 billion. Despite increased sales of industrial robots in the industrial products field, this downturn largely reflected the impact of the curtailment of capital investment by DENSO's customers.

# Powertrain Control

## VISION

We will take the lead in developing, mass-producing, and marketing environment-friendly products that help to completely utilize fuel, recover energy, and purify emissions to the broader global market in a bid to ensure a sustainable global environment.

## OVERVIEW

### Business Activities

Development and production of gasoline and diesel engine control systems and related products, hybrid and electric car drive systems, power supply and related products, and power supply and starting system parts such as alternators and starters



### Main Products



Common rail systems



Fuel pump modules



Alternators

### Strengths

■ We maintain a wide variety of technologies and are active across a broad range of business domains that extend from gasoline and diesel internal combustion engines to products that are powered by electricity, including hybrid cars, electric automobiles, and fuel-cell vehicles. Drawing on our inherent strengths, we are engaged in comprehensive systems and technology development.

## STRATEGY

### Our Understanding of the Business Environment

Looking at the fuel economy and exhaust gas emission regulations of various countries, requirements are becoming increasingly stringent. As a result, we are seeing:

1. An increase in the number of automobiles equipped with idle-stop systems as well as hybrid, electric, and fuel-cell vehicles
2. The growing importance of improved gasoline and diesel internal combustion engines

### Mid-term Policy

#### Strengthen Electric System and Product Development Capabilities

■ With the increasingly fast-paced application of electric systems, automobile manufacturers and the market as a whole are demanding more compact and cost-effective products that deliver a host of benefits including greater efficiency and higher output. With this in mind, DENSO is committed to preempting these needs by developing the necessary technologies. To do this, the Company is increasing the number of high-quality personnel with product development capabilities and bolstering its collaborative ties with automobile manufacturers.

#### Deliver High-Value-Added Internal Combustion Engines

■ Amid the growing use of electric technologies in automobiles, we recognize the need for gasoline, diesel, and other internal combustion engines to deliver additional value. In order to ensure that the internal combustion engine business remains a mainstay pillar of the Group, we are therefore shifting our focus to high-value-added development and production.

#### Strengthen Manufacturing Capabilities

■ We work diligently to ensure that our products are efficient, reliable, and easy to use. Every effort is also made to apply a standard design that transcends regional boundaries. In this manner, we are endeavoring to promote the seamless overseas expansion of our high-value-added products while reinforcing our cost-competitive advantage.

## PERFORMANCE OVERVIEW

### Fiscal 2016 Overview

■ In fiscal 2016, we developed and commenced the mass production of power control units and motor generators that help improve the environmental performance of the new model Prius, a hybrid vehicle manufactured by Toyota Motor Corporation. After our success in North America, we also commenced the production of power control units in China in line with the needs of the region and customers.

#### 1. Power Control Unit

We developed a new high output density power card and a more efficient cooling structure. Compared with its installation in the previous Prius model, application of this advanced power control unit helps to reduce electric power loss by 24%. At roughly two-thirds the size of the Company's existing product, this new power control unit can be easily installed. Improved energy regeneration efficiency also contributes to increased fuel economy while reducing CO<sub>2</sub> emissions. In addition, we focused on standardizing the design of the product in order to further curtail costs.



Power control unit

#### 2. Motor Generator

We developed a new stator for use in high-rotation motors using a new innovative coil winding technique that is more than 20% lighter than that used in the previous Prius.

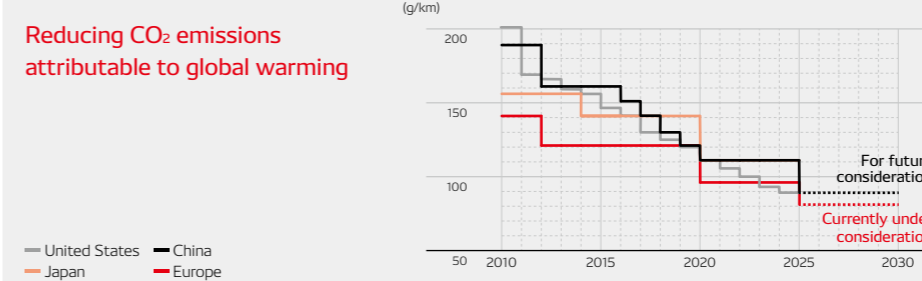
■ As a part of efforts to strengthen our manufacturing capabilities, we adopted a global standardization policy across our production lines. We are engaging in development that focuses on the specific attributes of each product in line with this policy, with plans to commence operations at the first production line in fiscal 2017.

## VALUE PROVIDED TO SOCIETY

### Social Issues

Reducing CO<sub>2</sub> emissions attributable to global warming

### Emission Regulations by Country



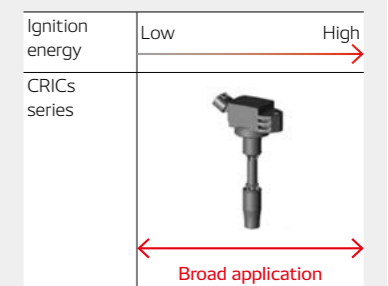
### DENSO's Aspiration

Our goal is to help maintain the global environment by further enhancing the efficiency of internal combustion engines in concert with the increasingly fast-paced trend toward electric-powered vehicles and related products.

### Taking Steps to Resolve Social Issues

We have commenced the manufacture of a new ignition coil, CRICs. For gasoline engines, the trend toward supercharged downsizing and the application of a high compression ratio make it difficult to effectively ignite fuel. Our new ignition coil overcomes this difficulty. By reducing the amount of voltage conversion loss and promoting ignition efficiency to ensure an intense flame, our coil facilitates total fuel combustion, thereby contributing to a reduction in CO<sub>2</sub> emissions.

At the same time, we have succeeded in developing a more compact product. The same structure can therefore be applied to a wide range of engines that require different types and degrees of ignition energy.





# Thermal

## VISION

We are committed to consistently creating world-first products that help maintain the environment as a leading company in thermal management. In addition, we are determined to reduce the incidence of traffic accidents while enhancing comfort and contributing to a safe and secure automotive society.

## OVERVIEW

### Business Activities

Development and production of air-conditioning systems for cars and buses, truck refrigeration units, air purifiers and related air-conditioning products, radiators, and cooling systems



### Main Products



Air-conditioning systems for cars



Radiator

### Strengths

- **Leading share of the global market**
- **Outstanding proposal and development capabilities that link closely to a wide range of products** from engine-related control systems to meters that convey information to drivers

## STRATEGY

### Our Understanding of the Business Environment

1. Differentiation difficult; susceptible to price competition
2. Fuel economy regulations in each country becoming increasingly stringent
3. Increase in the incidence of traffic accidents attributable to human error, including day-dreaming, inattention, and a lack of due diligence

### Mid-term Policy

#### Strengthen the Competitiveness of Existing Products

- Turning to the Group's existing products, we are determined to leverage our relationships with customers throughout the world and to further standardize global specifications and attributes in an effort to strengthen cost competitiveness while addressing market needs.
- Basing our activities around standardized products, we will strengthen the competitiveness of our products by adding value in line with the driving conditions of each region while upgrading and expanding our product lineup.

#### Develop the World's Most Advanced Fuel-Saving Products for Air-Conditioning Systems and Vehicles as a Whole

- We will look to differentiate ourselves from competitors by employing proprietary fuel-saving technologies. Every effort will be made to reduce power consumption in the air-conditioning field. To this end, we will work to reduce heat loss caused by air ventilation and minimize air-conditioning capacity by directing both heating and cooling functions solely to passengers, and by promoting increased power-saving capabilities.

- We will place considerable weight on increasing fuel economy in connection with each vehicle as a whole through proper thermal management. This will include various measures including efforts to reduce thermal damage and to promote the recovery and use of waste heat.

#### Develop Products That Enhance Comfort and Contribute to Increased Security and Safety

- We will endeavor to commercialize technologies that help minimize the incidence of traffic accidents as a part of efforts to explore opportunities in new value fields. To this end, we will pursue increased comfort focusing mainly on the five human senses as well as human biology research. At the same time, energies will be channeled toward further differentiating existing products with a particular emphasis on air-conditioning products and systems in which we maintain a top global share.

## PERFORMANCE OVERVIEW

### Fiscal 2016 Overview

- We commenced the mass production of air-conditioning systems to a uniform global standard across seven regions worldwide. At the same time, we upgraded and expanded our product lineup while taking into consideration the needs of each region. As a part of efforts to further localize the production function, positive steps were taken to increase the content of local materials and facilities used for products targeting emerging countries. In this manner, we were successful in enhancing the cost competitiveness of our products.
- Turning to the development of fuel-saving products, we brought to the market a cold storage evaporator that increases actual fuel economy during the summer months by 5%. We also developed a water-cooled charge air cooler for

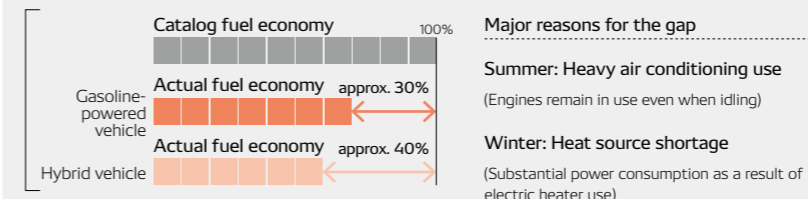
use in supercharged downsizing engines that contributes to improved vehicle fuel economy. Making the most of the technologies developed through its automotive operations, we developed an ejector, which is a small refrigerant injector, for use in the cooling systems of the vending machines used for beverages. This ejector helps to reduce annual electric power consumption by 25%.

- We completed steps to commercialize certain products including seat air conditioning and temperature sensors. As a part of efforts to develop products that in addition to their focus on user comfort also help to enhance safety and security, we undertook verification tests to improve the accuracy of product concepts.

## VALUE PROVIDED TO SOCIETY

### Social Issues

#### Gap between catalog and actual fuel economy



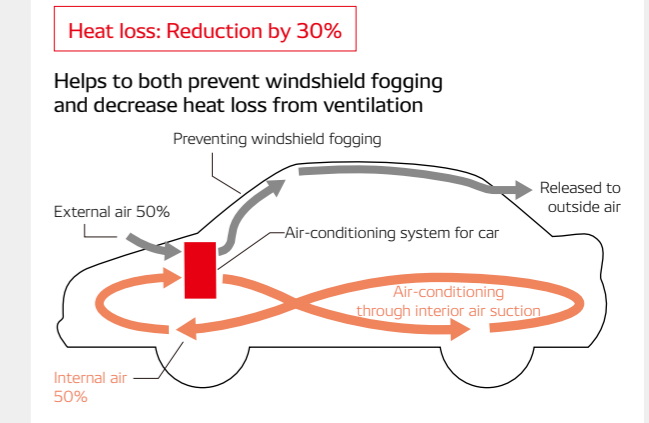
Air conditioning is estimated to account for approximately 40% of the gap.

**DENSO's Aspiration**  
Our goal is to increase the fuel efficiency of our air-conditioning systems, thereby helping to produce vehicles that better contribute to the environment.

### Taking Steps to Resolve Social Issues

We developed a car air-conditioning system that balances the needs for comfort and environmental performance for use in the new model Prius manufactured by Toyota Motor Corporation. In addition to increasing the efficiency of its electric compressor, this system is also equipped with an ejector-integrated evaporator (heat exchanger) that helps to reduce power consumption during air cooling by roughly 18% compared with the system used in the previous model Prius. Moreover, this new air-conditioning system employs a two-layer recirculated/fresh air unit to draw in external air while circulating internal air to ensure the performance of air heating during the winter months and preventing windshields from fogging up. This in turn reduces the heat loss due to air ventilation by 30%.

#### Two-layer recirculated / fresh air unit



# Information & Safety

## VISION

We are helping to bring about a safe and secure automotive society by providing a broad range of technologies that deliver advanced driver assistance systems while realizing automated driving in a timely manner.



## OVERVIEW

### Business Activities

We develop and manufacture products and provide services across a wide range of human machine interface (HMI), information and communications, body electronics, advanced safety, collision safety, vehicle motion control, and related fields.

### Main Products



### Strengths

- We are active in **four key areas that are essential to realizing advanced driver assistance systems**. These areas are road environment recognition, HMI, information and communications, and vehicle motion control technology. We are able to engage in the development of products that draw on these comprehensive strengths.
- Our competitive advantage also rests on the **combined basic research** that underpins each of these technology fields.

## STRATEGY

### Our Understanding of the Business Environment

1. Continued progress in the area of advanced driver assistance systems and accelerated efforts to commercialize automated driving
2. Growing demand for "connected vehicles" in line with evolution toward an information society

### Mid-term Policy

#### Road Environment Recognition Field

- Drawing on the technological expertise and know-how gained through our efforts to develop automated driving systems for use on such roads as expressways, we are expanding into next-generation advanced driver assistance systems.

#### HMI Field

- We are focusing on technologies that hone in on a driver's physical and mental condition including drowsiness and inattention as well as systems that draw from a wide range of data to convey to the driver select information. In this way, we are strengthening our ability to develop technologies that provide drivers with important information in an easy-to-understand manner without imposing any excess burden.

#### Information and Communications Field

- Drawing on our many years of experience as an in-vehicle product manufacturer with a wealth of outstanding environment-resistance (including low and high temperatures) as well as noise-resistance technologies, we are working to deliver safe driving support by developing products that provide a link between vehicles and connect vehicles with infrastructure to convey a wide range of information encompassing dangerous blind spots and distant traffic congestion data.

#### Vehicle Motion Control Field

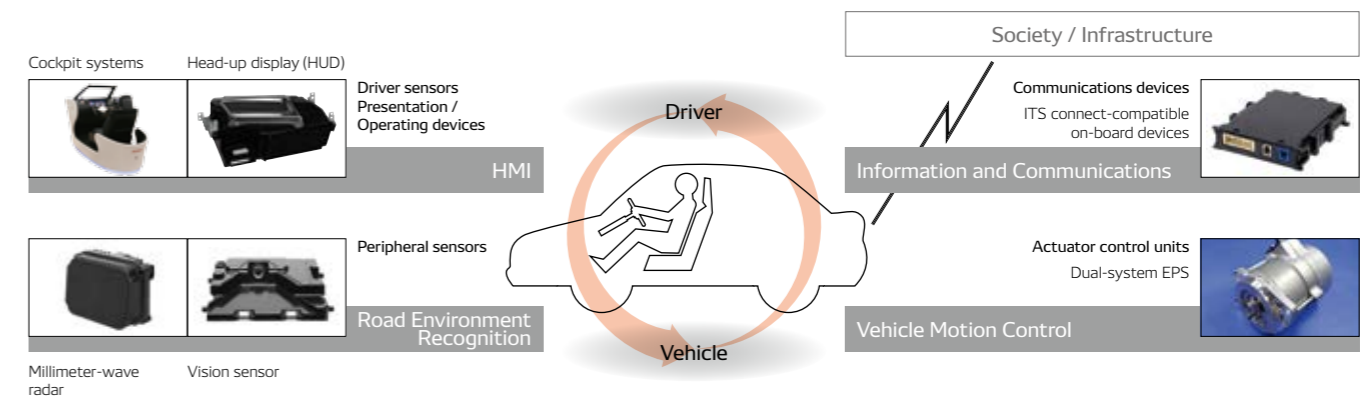
- We are pushing forward efforts to develop and provide power steering control systems that deliver enhanced reliability in a bid to address the needs for advanced driver assistance systems and automated driving.

## PERFORMANCE OVERVIEW

### Fiscal 2016 Overview

- We established the Advanced Driver Assistance System (ADAS) Business and Technology Development Division by integrating related internal technology units as a part of efforts to provide practical advanced driver assistance systems and help commercialize automated driving in earnest. We also set up the Information & Safety Systems Advanced Technology Development Office in its Tokyo Office with the aims of recruiting excellent human resources, strengthening cutting-edge technological development, and promoting academia and industry collaboration. Consistent with our efforts to enter into alliances with external organizations, we concluded an agreement with Morpho, Inc. to pursue the joint development of image recognition technologies that employ image processing and deep learning techniques.
- As for new product development, we have developed and commenced the volume production of the following: millimeter-wave radar and vision sensors, which detect obstacles in front of a vehicle and thereby assist in collision avoidance or reducing damage; intelligent transportation system (ITS) connect-compatible, vehicle-mounted devices that contribute to preventing road traffic accidents and traffic efficiency by linking cars with infrastructure and other cars via communications; and dual-system electric power steering (EPS) that has brought about improvements in the safety of the "turn" function. These products are being installed in the Toyota Motor Corporation's new Prius and other models.

### DENSO Technologies That Provide Advanced Driver Assistance Systems and Help Realize Automated Driving



## VALUE PROVIDED TO SOCIETY

### Social Issues

European NCAP\*1 trend leading the way in the world

2014	2015	2016	2017	2018	2019	2020	2021
AEB*2 Vehicle (Rear-end collision)		AEB Pedestrians (Day)		AEB Pedestrians (Night)		AEB Vehicle (Head-on)	
[Image]		[Image]		[Image]		[Image]	
						Under consideration	

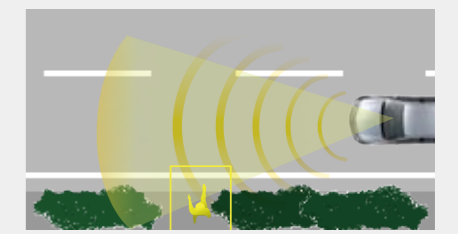
Source: Revised by DENSO based on Euro NCAP Rating Review 2015

\*1 NCAP: New Car Assessment Program  
\*2 AEB: Autonomous Emergency Braking

**DENSO's Aspiration**  
Provide security and safety in every driving-related situation

### Taking Steps to Resolve Social Issues

We have developed vision sensors and millimeter-wave radar to realize the detection not only of vehicles but also of pedestrians. Combining the functions of two sensors utilizes the features of each sensor and has enabled the faster and more accurate detection of obstacles in front of the vehicle. Toyota Motor Corporation is adopting these products for its Toyota Safety Sense P safety technology package. Currently, the products are installed on the company's new Prius and Land Cruiser.



# Electronics

## VISION

Amid the advancing installation of electronics in cars, we are contributing to the more widespread use of environment-friendly, secure, and safe products by offering overall-optimized system products across the Company's business domains.

## OVERVIEW

### Business Activities

Development and manufacture of electronic products and in-car semiconductor sensors for engine control computers as well as of microelectronic devices such as ICs

### Main Products



ECUs for engine control



In-car semiconductor sensors

### Strengths

- Extensive product lineup in the field of in-car electronics
- Advanced technological strengths capable of in-house semiconductor manufacturing
- Development capabilities in vertical integration\* of semiconductors that satisfy individual product needs

\* DENSO proprietary integrated semiconductor development, from semiconductors to ECUs and actuators



## STRATEGY

### Our Understanding of the Business Environment

In association with the further installation of car electronics, brought about by more stringent environmental regulations and the accelerated development of automated driving systems:

1. Increased technological sophistication (improvements in precision/responsiveness, reliability, and durability)
2. Accelerated development

### Mid-term Policy

#### Construction of Development System Capable of Responding to Customer Needs

- Amid increasing technological sophistication, we are entering the upstream processes of vehicle development and undertaking product development that predicts manufacturer and market needs. With regard to our global customers, we are providing application development systems that are completed locally.

#### Technology Differentiation and Streamlined Development through Strengthening of Partnerships

- We are raising our differentiated technological capabilities and accelerating the pace of development through wide-ranging partnerships (in industrial fields: general manufacturers; industry and academia: research institutes and universities; horizontal relationships: industry standardization, alliances, etc.). Furthermore, by going one stage further into the completion level of current development themes, we are creating world-first and regionally developed technologies.

#### Software Standardization

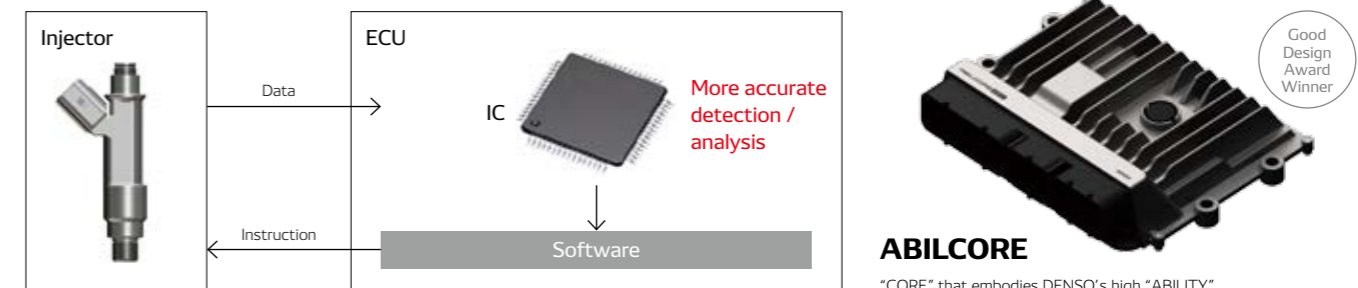
- Rather than developing software individually customized for each vehicle, we work to streamline development by arranging the software structure, such as by integrating the software for each function, and advancing standardization. For example, rather than a jumble of individual components, software is designed to control each domain arranged by function, such as the functions for conveying information to the driver, or detecting the driver's status, and the design standardized to allow changes to the software and to allow for the software's evolution.

## PERFORMANCE OVERVIEW

### Fiscal 2016 Overview

- Together with combining technologies to be compatible with any vehicle, we have developed the next-generation ABILCORE engine computer series that realizes improvements in combustion performance and a reduction in unit size. The development of products is under way for which semiconductor miniaturization technologies have been utilized and improved performance materials (SiC, silicon carbide) adopted, thereby contributing to higher performance and unit size reductions.
- At the same time as strengthening its R&D structure in Japan and overseas, the Company promoted the functional strengthening of its development system, particularly in Europe, in fiscal 2016.
- Aiming for standardization and accelerating efforts toward development efficiency, in May 2016 DENSO established AUBASS, CO. LTD., which is responsible for the basic software to be installed in cars. The plan is to establish Toyota Tsusho DENSO Electronics (Thailand) Co., Ltd. in October 2016, and for the company to be in charge of the application development for engine ECUs.

#### Next-Generation ABILCORE Engine Computer



**ABILCORE**

"CORE" that embodies DENSO's high "ABILITY"

## VALUE PROVIDED TO SOCIETY

### Social Issues

The incidence of unauthorized entry into computers and cyberattacks to enable fraudulent manipulation is on the rise.

In anticipation of automated driving, amid expanding collaboration between cars and with social infrastructure, measures for the cyber security of cars have also become necessary.

### Protection from Cyberattack



DENSO's Aspiration  
To achieve the high-level safety of a "connected car"

### Taking Steps to Resolve Social Issues

In January 2014, we set up a project office responsible for cyber security measures. The development of the basic specification, architecture, and processes that have been advanced as a result ended with the goal of the necessary security infrastructure completed for a product that will enter the market in 2019. Following interactions between Japanese and overseas

industry associations, we also assisted in the standardization of security specifications. In the years to come, we will seek to collaborate with diverse development partners to advance a car security system structure that will be compatible with the increasing sophistication of the permanent connectivity and automated driving of cars.

# Small Motors

## VISION

Through the development and supply of small motors for use in new systems that contribute to CO<sub>2</sub> reduction and improved fuel efficiency, and electromechanically integrated motors that combine electronic control units and small motors, we are contributing to the spread of environment-friendly, secure, and safe products



## OVERVIEW

### Business Activities

Development and manufacture of all types of small motors, including windshield wiper systems, power windows, power seats, power steering, motors for engine control systems, blowers, and cooling fans (ASMO Co., Ltd.)

### Main Products



Windshield wiper systems      Motors for power windows

### Strengths

- **Speedy development system** through close collaboration between machine (small motor) technology and electronic control technology specialists within the Group and the orchestration of comprehensive capabilities
- **Monozukuri capabilities that realize smaller, lighter, and more efficient products—precisely** because we have a thorough knowledge of small motors

## STRATEGY

### Our Understanding of the Business Environment

1. Due to the increase in vehicles equipped with electrically powered systems for a range of functions, the number of small motors being installed in cars is increasing.
2. Amid the accelerated efforts toward the commercialization of automated driving, there are expanding needs for small motors, but on the other hand, competition is also intensifying.

### Mid-term Policy

#### Product Development Compatible with Switch to Electric-Powered Vehicles and Related Products

- There will be a rise in development capabilities that enable small motors to be controlled with greater precision. In the environment field, amid the increase in numbers of small motors installed in cars, the development of more compact and lighter small motors that have lower energy consumption will be undertaken to contribute to improvements in fuel economy. In the security and safety fields, as advanced control becomes necessary—for example, running, turning, stopping as automated driving progresses—efforts will also be directed toward the development of more functional products.

#### Strengthening of Monozukuri Competitiveness

- In response to moves to increase the production of small motors due to the switch to electric-powered vehicles and related products and the commercialization of automated driving, we are addressing the establishment of a stable, global production structure. For example, we will realize launches of new products with fewer losses and greater operational efficiency by advancing concurrent development from the product design stage so that the production technologies, processing machines, and trial production all come together. Moreover, we will address the acceleration of product launches and the undertaking of stable production by promoting the standardization of the facilities and equipment themselves and the modularization of each process.

## PERFORMANCE OVERVIEW

### Fiscal 2016 Overview

- In the case of the brushless small motors used for electric fans, the design of the motors and electronic controls was akin to that of semi-detached houses that had been separately individually optimized, and the conventional products had inferior competitiveness, including on cost. Therefore, design engineers transcended organizational boundaries by discussing face to face their visions of the ideal product and undertaking joint development to arrive at a detached house, that is to say they were able to devise optimizations to the overall product lineup in a short period of time. As a result, they ensured its superior performance in terms of build and noise level, and developed a power-saving, high-efficiency product that is competitive, including on cost.

- In the development of the next-generation fan, we visualized volume production issues from the trial development stage and engaged in making *Monozukuri* that brings together products and processes more efficiently. For example, in anticipation of volume production, we used corrugated plastic to put together model processes from processing standards to facility specifications to carry out the process concept. As a result, we achieved an improved level of completeness of the final product and minimization of start-up loss.



Model processes with corrugated plastic

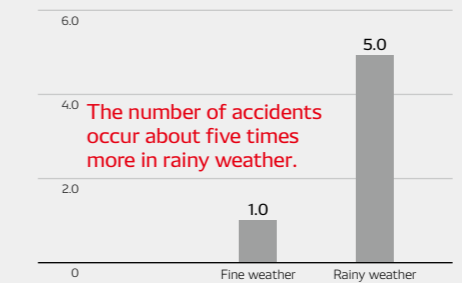
## VALUE PROVIDED TO SOCIETY

### Social Issues

Increase in the number of traffic accidents in rainy weather

### Number of Accidents per Hour

(Number of accidents/hour)



To ensure visibility in the rain, improvements in wiping performance that does not obstruct the driver's view are being demanded.

Source: <http://www.shutoko.co.jp/english/drive/>

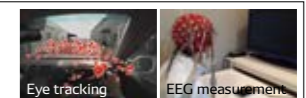
**DENSO's Aspiration**  
Realize safe, comfortable driving from a variety of perspectives

### Taking Steps to Resolve Social Issues

To realize a high field of vision that does not obstruct the driver's view, we are advancing the pursuit of wipe control technologies linked to improvements in driving safety. In comprehensive collaboration with Toyohashi University of Technology, we are focusing on human cognition and sensitivity to quantify wiper movement that feels comfortable as well as the timing of the wiping operation. We are also engaged in R&D from various points of view, including the efficiency of energy consumption, and are aiming for commercialization as a next-generation advanced technology.

#### Cognition / Sensitivity

Verification of eyesight specificity when driving Sense of obstruction / Stress quantification Cognitive-emotional evaluation of all types of control systems



#### Provide new value

Automatic ON/OFF, pleasant movement  
Balance performance and feel (trade-off)

# New Business

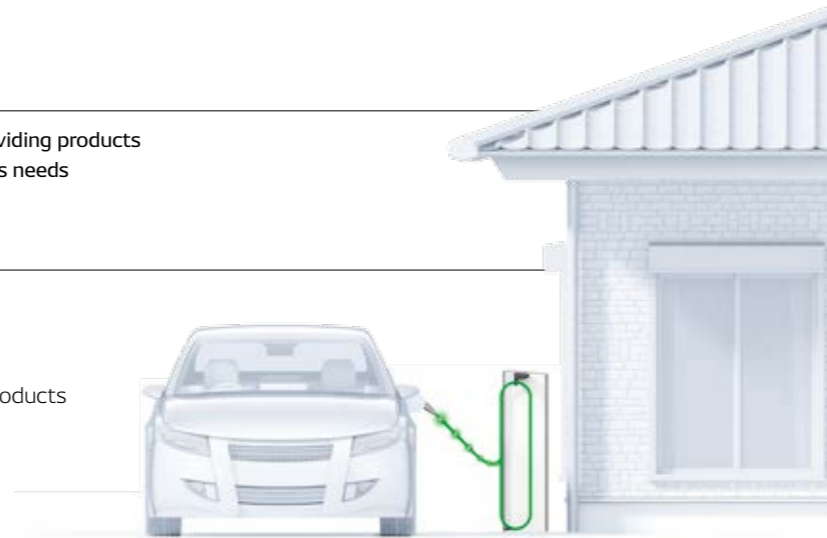
## VISION

Honing authentication, control, and sensing technologies, and providing products and services even outside the automotive field that meet society's needs

## OVERVIEW

### Business Activities

Development and manufacture of consumer products and other products not in the automotive field, such as industrial products for industrial robots (for which Denso Wave Inc. is responsible) and CO<sub>2</sub> refrigerant heat pump water heaters



### Main Products



Articulated robot



CO<sub>2</sub> refrigerant heat pump water heaters

### Strengths

- Advanced recognition, control, and sensing technologies accumulated from the automotive field
- Understanding of customers' and society's needs and efforts to propose innovative products and services

## STRATEGY\*

### Our Understanding of the Business Environment

1. Expansion of medical/pharmaceutical industries associated with the rapidly advancing aging society
2. Progress with the Internet of Things (IoT) and acceleration of big data utilization associated with Industry 4.0 proposals

### Mid-term Policy

#### Pioneering New Fields by Leveraging Core Technology Strengths of Existing Products

■ Leveraging the robotics technologies accumulated on the front line of *Monozukuri*, we will deploy the high reliability and maintenance of sanitary conditions demanded by robotics in the medical/pharmaceutical, food, and cosmetics industries. For example, in the medical/pharmaceutical field, we will build up a picture of the front-line needs, such as the innovative development of robots that can ensure high sanitary levels and fungus resistance, and reflect those needs in products. Furthermore, we will strengthen security measures—such as settlement business that utilizes its QR code and IC reader technologies and QR code anti-counterfeiting measures—while promoting market expansion to create a new business model in fields requiring high reliability, including an anti-counterfeiting business for use with various forms of tickets.

#### Create New Product Value That Will Transform Social Systems

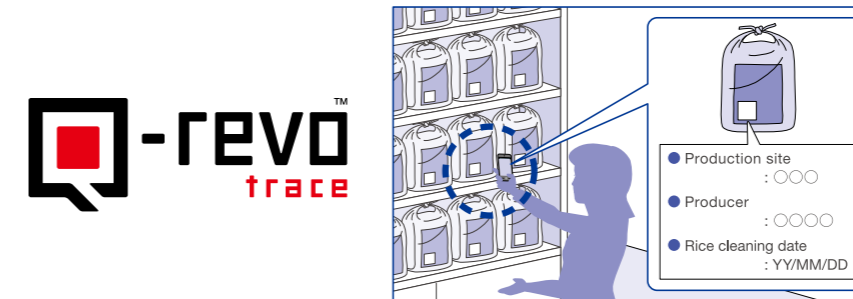
■ To realize an IoT for *Monozukuri*, we will collaborate with the DENSO DP IoT Innovation Office to develop a database to centrally manage front-line information, such as the operational status of facilities for their production progress and results. Linking 30,000 pieces of equipment across the world, we will then work to improve productivity. Leveraging the technologies amassed within the DENSO Group, we will also promote the commercialization of the IoT database and services.

## PERFORMANCE OVERVIEW\*

### Fiscal 2016 Overview

- In the robot business, for medical robots we commenced the volume production of the Intelligent Arm Support System (iArms), an automatic tracking robot that innovatively supports surgeons' hands when performing operations and reduces hand shaking and strain, and of medical-use robots for sterile environments. Starting with these products, we will make headway with further business expansion.
- Having started the "Q-revo trace" service, which provides a visual representation of distribution from the producer to the consumer by the utilization of QR codes and the cloud, we commenced sales. Users are able to simply check on their smartphones who the producer was, when the shipment was sent, and by which route it is being delivered, thereby enabling the delivery of safe, reliable products to the consumer.

### Traceability Service Beginning with QR Codes and Smartphones



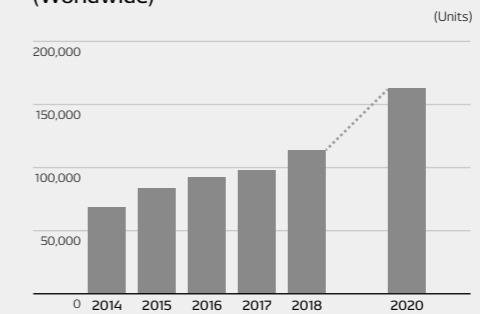
## VALUE PROVIDED TO SOCIETY\*

### Social Issues

Medical needs are expanding due to the rapidly advancing aging society

Cultivation technologies for the pharmaceuticals effective in regenerative medicine/cell treatments (cell cultivation, formulation of anti-cancer agents, etc.) are in demand.

### Medical-Use Robot Market Forecast (Worldwide)



**DENSO's Aspiration**  
We want to contribute to people's safety and security by developing medical- and pharmaceutical-use robots

### Taking Steps to Resolve Social Issues

Denso Wave Inc. has started to develop and market high-productivity robots for the innovative pharmaceutical cultivation industry. Due to the robotics technologies Denso Wave has been amassing over many years, the company has brought to fruition a compact body that enables the robot's operation amid the equipment used to perform cultivation operations. Using the robot in sterile conditions, such as cell culture and medicine formulation, is made possible by a surface treatment that is designed to withstand washing by hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>), and high cleanliness is maintained by having kept the unevenness of the surface to the absolute limit. Highly rated for this level of outstanding design, we won a Good Design Award for the robot.



\* We provide details with a focus on the Industrial Systems field, which has a high sales revenue ratio.

# The Foundation That Supports Our Business Growth

While fulfilling its responsibility to each shareholder by contributing to the creation of a better society through its business operations, DENSO aims for the creation of sustainable corporate value. Toward that goal, the Company proactively engages in advanced environmental management and thorough quality assurance and strategic intellectual property activities by practicing highly transparent management. In this section, in addition to DENSO's business operations, we explain the unique initiatives that support management strategy and promote sustainable growth.

## Corporate Governance

### Basic Stance

DENSO believes that establishing a corporate governance system designed to strengthen Group competitiveness is the key to maintaining and improving long-term corporate performance in a quickly changing global marketplace. Specifically, DENSO Corporation has adopted a corporate auditor system. In addition to statutory bodies such as the General Meeting of Shareholders, Board of Directors, Audit & Supervisory Board, and Accounting Auditor, DENSO Corporation has developed various

governance mechanisms. We are implementing highly sound, efficient, and transparent management by continuously providing shareholders and investors with information on the state of our business.

In June 2015, DENSO formulated the Basic Policies on Corporate Governance based on the Corporate Governance Code that aims for transparent and efficient corporate management.

Please refer to the DENSO website for our Basic Policies on Corporate Governance.

<http://www.denso.com/global/en/csr/csrpolicy/governance>

### Corporate Governance System

#### Reason for Selecting Our Current Corporate Governance System

In addition to performing management decision-making that emphasizes *genchi genbutsu* (on-site verification), DENSO believes that it is important to build a system that can verify whether management decision-making has met shareholder expectations and whether there is a problem from the point of view of governance.

Accordingly, we believe that the current system to supervise and audit the execution of business duties by the Board of Directors including outside directors, as well as Audit & Supervisory Board members including outside Audit & Supervisory Board members, is most suitable.

#### System Overview

The Company has established a management system that performs accurate decision-making and rapid business execution, while enabling proper oversight and monitoring. As a system of

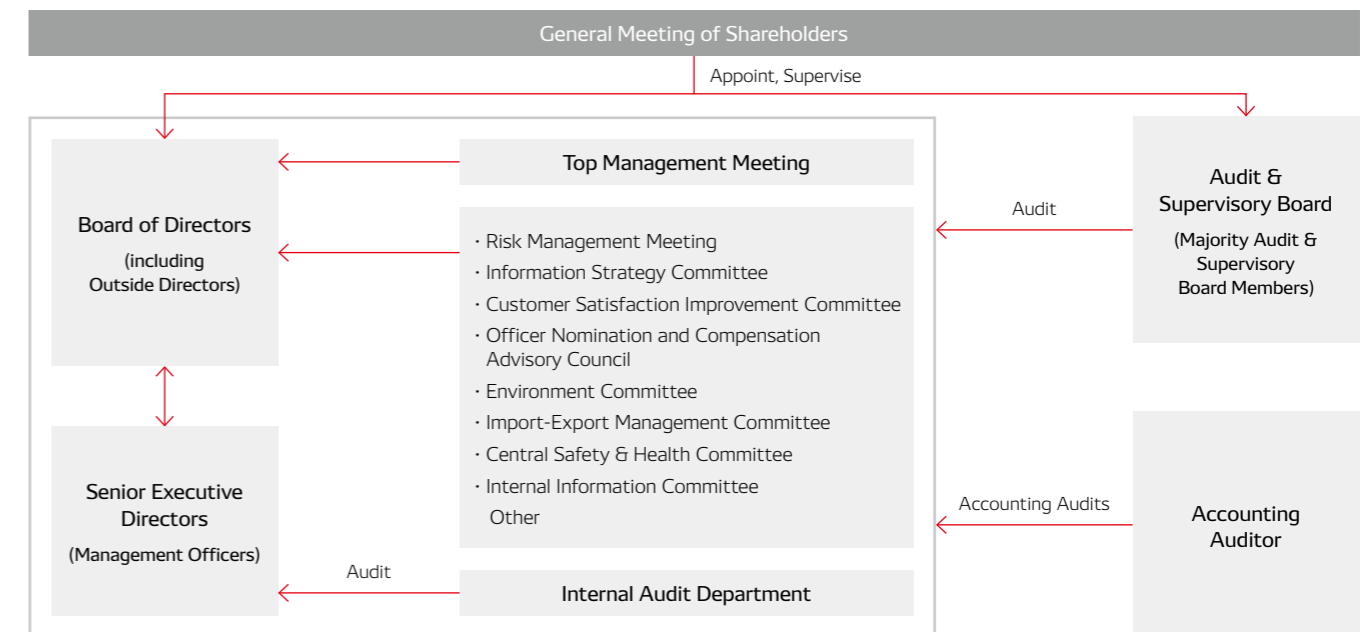
decision-making for business execution, DENSO has established the Officer Meeting comprising the Board of Directors (which convenes once a month, in principle) as a "decision-making body" that resolves legal matters and important issues, as well as the Top Management Meeting (which convenes once a week, in principle) as a "deliberative body" that deliberates on matters from a Companywide perspective and submits motions to the Board of Directors. Through a corporate officer system that separates and clarifies the roles between Members of the Board, who are responsible for management (decision-making and supervision), and Senior Executive Directors and Executive Directors, who are responsible for the execution of business operations, DENSO Corporation is streamlining the number of Members of the Board and is realizing swift decision-making and business operations. Under this system, depending on the circumstances, Members of the Board serve concurrently as Senior Executive Directors to directly link management with operational sites. DENSO Corporation sets the term of office for

Members of the Board at one year, with the aim of building a flexible management structure that responds to changes in the management environment and to further clarify management responsibility during the business year.

Moreover, we have strengthened our corporate governance system by establishing the Officer Nomination and

Compensation Advisory Council as an ad-hoc committee that corresponds to the Nomination Committee or Compensation Committee in appointing directors and auditors and determining their compensation.

### Corporate Governance System



### Overview of Corporate Governance System (as of June 21, 2016)

Format	Audit & Supervisory Board system
Number of directors	13
Chairman of the Board	President & CEO
Number of outside directors	2
Term of directors	1 year
Number of Audit & Supervisory Board members	5
Number of outside Audit & Supervisory Board members	3
Number of meetings of the Board of Directors*	11
Number of independent officers	4

\* Total for the period from April 2015 to March 2016

### Analysis and Evaluation of the Effectiveness of the Board of Directors as a Whole

Once a year, DENSO Corporation interviews the representative director, outside directors, and Audit & Supervisory Board members about the effectiveness of the Board of Directors. The challenges and improvement plans extracted from these interviews are then reported to the Board of Directors and steps are taken to improve effectiveness.

Interview Results	Challenges
It has been confirmed that the Board of Directors of DENSO Corporation reviews matters to be resolved and reported and makes improvements based on a corporate culture that adequately discloses information and encourages open and vigorous debate.	On the other hand, DENSO has identified several challenges, including the reinforcement of statements and discussions from a Companywide and outside stakeholder perspective, the intensification of debate about future themes that are shared throughout the Company, and the delegation of authority or promotion of simplification concerning matters to be resolved that are still partially open to discussion.

#### Improvement Plan

Based on the results, DENSO's Board of Directors will implement the following improvement plan after conducting a sufficient review.

- Build an operation and system that stimulates discussion from a Companywide and outside stakeholder perspective
- Create a mechanism for discussing future themes that are shared throughout the Company
- Promote the delegation of authority concerning the resolution of the execution of business duties

### Policy and Procedures for the Appointment of Directors and Audit & Supervisory Board Members

Policy	Procedures
Nominate directors and Audit & Supervisory Board members from the viewpoint of striking a balance between diversity, experience, skill, and expertise so as to promote accurate and swift decision-making.	<ol style="list-style-type: none"> <li>1) The president listens to the opinions of all parties, and taking into overall account performance, character, insight and other factors, he selects people who are suitable for those responsibilities and decides who to nominate in that fiscal year after consulting with the Officer Nomination and Compensation Advisory Council.</li> <li>2) Directors are selected based on an informal resolution by the Board of Directors and deliberation at the General Meeting of Shareholders and the Board of Directors. Audit &amp; Supervisory Board members are selected based on an informal resolution by the Board of Directors and deliberation at the General Meeting of Shareholders and the Board of Directors, with the consent of the Audit &amp; Supervisory Board.</li> </ol>

### Approach to Director Diversity and Size

At the Company, 13 directors have been appointed, which is considered the appropriate number or size for promoting continued swift decision-making.

The breakdown is of people who are familiar with the management of each business and their pressing issues and the composition strikes a strong balance between expertise, experience, skills, and global perspective, including of outside directors. In the appointment of directors, we plan to adhere to the same number and approach that we have in the past.

### Audit System

As an audit system, in addition to Audit & Supervisory Board members, who have a legal function, we have established a specialized department for internal audits in our major domestic and overseas companies. In addition to a voluntary inspection system whereby each department of the Company and domestic and overseas subsidiaries inspect their own internal control status, we conduct ongoing site audits that include not only legal compliance but also the adequacy of management and

business procedures. Audit & Supervisory Board members attend important meetings including the Board of Directors and Top Management Meeting and audit directors' execution of their business duties through the exchange of information with directors, the Internal Audit Department and internal control-related departments, and accounting auditors, thereby fulfilling their management oversight function.

### Outside Directors and Outside Audit & Supervisory Board Members

The Company has appointed two outside directors. So that the Company can make better management decisions to improve performance and raise corporate value, it appoints people who have extensive knowledge about company management to be outside directors; they provide decision-making and oversight based on their knowledge. In addition, the Company has appointed three outside Audit & Supervisory Board members. In

order to ensure the effectiveness of audits, we appoint people who are familiar with the trends in our industries and who are experts in the fields of law, finance, and accounting to be outside Audit & Supervisory Board members. These outside Audit & Supervisory Board members audit the execution of business duties from a standpoint that is professional, neutral, and fair.

Outside Directors	Reason for Appointment	Attendance at Meetings of the Board of Directors
George Olcott*	To reflect his wealth of experience and considerable knowledge in academia and corporate management in the Company's management	11/11
Takashi Nawa*	To reflect his wealth of experience and considerable knowledge in the field of corporate management strategy in the Company's management	10/11

Outside Audit & Supervisory Board Members	Reason for Appointment	Attendance at Meetings	
		Board of Directors	Audit & Supervisory Board
Moritaka Yoshida	To reflect the wealth of experience and broad knowledge as a corporate executive in the Company's auditing activities	8/8	9/9
Tsutomu Saito*	To reflect the abundant knowledge as a lawyer in the Company's auditing activities	11/11	12/12
Toshimichi Kondo*	To reflect the abundant knowledge as a certified public accountant in the Company's auditing activities	11/11	12/12

\* Independent officers

### Criteria for Judging the Independence of Outside Directors and Outside Audit & Supervisory Board Members

With respect to the independence of outside directors and outside Audit & Supervisory Board members, assuming that they fulfill the independence criteria stipulated by the Financial Instruments and Exchange Act, the Company possesses a wealth of experience and knowledge in specialized areas such as

corporate management, law, and accounting and is required to be able to proactively make proposals, suggestions, and give opinions about management issues. The Company declares that four outside directors who meet the qualifications for independent director are independent directors.

### Executive Compensation

#### Policies

- Compensation for Company directors comprises fixed monthly compensation and a variable bonus based on Company performance. Compensation for outside directors and Audit & Supervisory Board members comprises solely fixed monthly compensation in order to ensure independence from management.
- The level of compensation is deemed appropriate for the Company based on economic and social conditions and trends at other companies.
- In particular, bonuses are decided based on operating profit after taking into overall account dividends, employee bonus levels, trends at other companies, medium- to long-term performance, and the record of past payments.
- Stock options and retirement benefits are not paid.

#### Procedures

Directors		Audit & Supervisory Board Members
Monthly Compensation	Bonuses	Compensation Amount
Monthly compensation is decided by a resolution of the Board of Directors after consulting with the Officer Nomination and Compensation Advisory Council, and is an amount within a range (total amount for directors: ¥80 million/month) established by a resolution of the General Meeting of Shareholders.	Bonuses to each director are decided by a resolution of the Board of Directors after consulting with the Officer Nomination and Compensation Advisory Council and receiving approval of the resolutions of the Board of Directors and General Meeting of Shareholders concerning total payment to the directors.	Compensation is decided by consultation with Audit & Supervisory Board members after consulting with the Officer Nomination and Compensation Advisory Council and is an amount within a range (total amount for Audit & Supervisory Board members: ¥15 million/month) established by a resolution of the General Meeting of Shareholders.

### Compensation of Directors and Audit & Supervisory Board Members

Position	Total Compensation (¥ million)	Total Compensation by Type (¥ million)				Directors / Audit & Supervisory Board Members
		Base	Stock Option	Base	Retirement Benefits	
Directors (excluding outside directors)	906	555	—	351	—	15
Audit & Supervisory Board members (excluding outside Audit & Supervisory Board members)	92	92	—	—	—	2
Outside directors	68	68	—	—	—	6

### Internal Controls

With the aim of fair and efficient business operations, the Company formulated the DENSO Basic Policies for Internal Control. We have stipulated basic policies for control, various rules and systems in areas that form the basis of our

management such as the code of conduct, management systems, risk management, and compliance. We make revisions and changes when necessary after undertaking regularly scheduled annual verifications of the status of implementation.

Please refer to the DENSO website for our Basic Policies for Internal Control.

 <http://www.denso.com/global/en/csr/csrpolicy/governance>

## Special Feature: Dialogue with Outside Directors



Outside Director  
**George Olcott**  
Mr. Olcott has been serving as an outside director with the Company since 2014. He also teaches as a guest professor at the Faculty of Business and Commerce at Keio University.



Outside Director  
**Takashi Nawa**  
Mr. Nawa has been serving as an outside director with the Company since 2014. He also works as a professor at Hitotsubashi University Graduate School of International Corporate Strategy as well as a senior advisor at the Boston Consulting Group.

## Actively Incorporating Different Perspectives to Reinforce Governance as a Foundation for Growth

To realize long-term corporate growth, the DENSO Group is working to reinforce its governance, which acts as the foundation for such growth.

We had our two outside directors provide us with their honest opinions on the Group's governance and speak frankly about the issues the Group faces in improving its corporate value going forward.

### Evaluation of DENSO's Governance and Issues the Company Faces

#### George Olcott

Mr. Nawa and I were appointed as DENSO's first outside directors in 2014, which means that the Company's history with outside directors is extremely short. At the time of our appointment, I am not sure if DENSO understood what kind of impact outside directors would have on the Company. However, governance is something that changes through trial and error in accordance with the characteristics of a company's business. The introduction of the outside directors has given DENSO an opportunity to make significant progress in enhancing the function of its governance system and the Board of Directors. DENSO's Board of Directors is very open, and management is welcoming of comments and opinions from the outside directors. In addition, the Company is very keen for us to get to know DENSO's operations

as much possible to enable us to make a much stronger and better-informed contribution to the Board's discussion as outside directors.

#### Takashi Nawa

I also agree that DENSO's governance has evolved during this two-year period. However, the Company still faces several issues. For example, I believe it is necessary for DENSO to deepen its debate on what the quality of management practice is. In other words, it is important for



the Company to return to the basics and deliberate on management issues from the perspective of customers and society as a whole. I believe that DENSO's commitment to quality and performance in manufacturing is unmatched, and this is precisely why I would like to see the Company thoroughly pursue that same level of commitment in terms of the quality of management practice as well.

#### Olcott

I also believe that DENSO boasts a world-class level of manufacturing and this will continue to enhance its global competitiveness in the long term. However, I also believe that DENSO can make further improvements in its strategic decision-making process. For many Japanese companies, not only DENSO, there is a need for the Board's decision-making process to be based on thorough debate that emphasizes real strategic content, rather than a ritualistic approach to the agenda, which has

prevailed in the past. Without a thorough airing of high-level strategic issues at the Board, our role as outside directors is limited. But I would emphasize that what separates DENSO from many other companies is its desire to enable outside directors to properly understand both its strong and weak aspects, which in turn allows us to take part in the decision-making process in an informed way, even when a high level of technical knowledge is required. Our role as outside directors is to be satisfied that the Company has a clear management vision, and a rational and realistic strategy in place to realize that vision. We need to ensure that major investment decisions are consistent with this strategy. From this perspective, I would like to further deepen the content of debates at the Board of Directors going forward.

### The Role of Outside Directors in Enhancing DENSO's Competitiveness through Governance

#### Nawa

I believe it is extremely important for the decisions being made now to properly reflect the Company's underlying management vision and strategy. My role as an outside director is to constantly question the motivation behind the Company's decisions and what the Company intends to do by making those decisions.

#### Olcott

DENSO is a global company providing its products and services to customers around the world. However, the Company's employees, particularly its management, consist predominantly of Japanese males who joined the Company straight from university and who have only had experience working for DENSO. In this sense, DENSO is a typical Japanese "community firm." While this brings a number of advantages, competing in an increasingly global environment means that DENSO needs to accelerate changes in its thinking on human resource management, promoting diversity much more aggressively, especially at the senior ranks. While employees are important stakeholders, we need to consider the entire DENSO global workforce as equal members of this stakeholder group. I see it as one of my missions to ensure that this is reflected in Board deliberations and decisions. This is a critical factor in building DENSO's long-term competitiveness and corporate value.



### Necessary Steps to Further Improve Corporate Value

#### Nawa

I believe DENSO is an extremely honest company, which gives me a clear sense of its spirit and underlying values. In order to become an even better company, however, DENSO needs to provide society with products and services of even higher value. In doing so, DENSO will become a company that society itself needs. As part of this process, a cycle needs to be established that connects this higher social value with financial value, and the proper governance systems must be in place to secure such a cycle. I believe that by aiming to realize this kind of Company, DENSO will improve its quality of management practice, which I had mentioned earlier.

#### Olcott

With the discontinuity and disruptive innovation that is occurring in the automotive industry, DENSO faces an extremely difficult operating environment going forward. In this kind of environment, the Board of Directors must become a much stronger forum for debate to ensure that the Company can strategically and promptly respond to challenges as they arise. I believe that DENSO is fully aware of the challenges it faces going forward. Our mission as outside directors is to assist the Company in overcoming these challenges.



# Directors and Audit & Supervisory Board Members

(As of June 21, 2016)

## Directors

### Chairman

#### Nobuaki Katoh

(Date of birth: November 3, 1948)  
1971 Joined DENSO CORPORATION  
2000 Executive Director, Member of the Board, DENSO CORPORATION  
2004 Executive Director, DENSO CORPORATION  
2007 Senior Executive Director, Member of the Board, DENSO CORPORATION  
2008 President & CEO, DENSO CORPORATION  
2015 Chairman, DENSO CORPORATION (current position)



### President & CEO

#### Koji Arima

(Date of birth: February 23, 1958)  
1981 Joined DENSO CORPORATION  
2008 Executive Director, DENSO CORPORATION  
2014 Senior Executive Director, DENSO CORPORATION  
2015 President and CEO, DENSO CORPORATION (current position)



### Executive Vice President

#### Haruya Maruyama

Support of President & CEO, Overall Sales and Marketing, Corporate Strategy, Sales and Marketing Group

(Date of birth: November 29, 1954)  
1978 Joined DENSO CORPORATION  
2004 Executive Director, DENSO CORPORATION  
2010 Senior Executive Director, Member of the Board, DENSO CORPORATION  
2014 Executive Vice President, DENSO CORPORATION (current position)



### Director, Member of the Board, Senior Executive Director

#### Yoshikazu Makino

Corporate Center, Thermal Systems Business Group, Audit Department

(Date of birth: July 1, 1955)  
1978 Joined DENSO CORPORATION  
2005 Executive Director, DENSO CORPORATION  
2014 Senior Executive Director, DENSO CORPORATION  
2015 Director, Member of the Board, Senior Executive Director, DENSO CORPORATION (current position)



### Director, Member of the Board, Senior Executive Director

#### Hiroyuki Wakabayashi

ADAS Technology Strategy, ADAS Business and Technology Development Div., Information & Safety Systems Business Group

(Date of birth: January 15, 1956)  
1979 Joined DENSO CORPORATION  
2006 Executive Director, DENSO CORPORATION  
2013 Senior Executive Director, Member of the Board, DENSO CORPORATION  
2014 Director, Member of the Board, Senior Executive Director, DENSO CORPORATION  
2015 Senior Executive Director, DENSO CORPORATION  
2016 Director, Member of the Board, Senior Executive Director, DENSO CORPORATION (current position)



### Director, Member of the Board, Senior Executive Director

#### Masahiko Ito

Aftermarket, Fleet & New Business Group, New Business Promotion Department

(Date of birth: August 21, 1956)  
1979 Joined DENSO CORPORATION  
2007 Executive Director, DENSO CORPORATION  
2014 Director, Member of the Board, Senior Executive Director, DENSO CORPORATION (current position)



### Vice Chairman

#### Koji Kobayashi

(Date of birth: October 23, 1948)  
1972 Joined Toyota Motor Co., Ltd.  
2004 Executive Director, DENSO CORPORATION  
2007 Senior Executive Director, Member of the Board, DENSO CORPORATION  
2010 Executive Vice President, DENSO CORPORATION  
2015 Vice Chairman, DENSO CORPORATION (current position)



### Executive Vice President

#### Masahiko Miyaki

Support of President & CEO, Overall Production, Safety & Environment, Quality Center

(Date of birth: December 12, 1953)  
1977 Joined DENSO CORPORATION  
2004 Executive Director, DENSO CORPORATION  
2010 Senior Executive Director, Member of the Board, DENSO CORPORATION  
2013 Executive Vice President, DENSO CORPORATION (current position)



### Executive Vice President

#### Yasushi Yamanaka

Support of President & CEO, Overall R&D, Future Creation Technology

(Date of birth: March 10, 1957)  
1979 Joined DENSO CORPORATION  
2005 Executive Director, DENSO CORPORATION  
2014 Senior Executive Director, DENSO CORPORATION  
2015 Executive Vice President, DENSO CORPORATION (current position)



### Director, Member of the Board, Senior Executive Director

#### Michio Adachi

Powertrain Control Systems Business Group

(Date of birth: September 26, 1954)  
1977 Joined DENSO CORPORATION  
2006 Executive Director, DENSO CORPORATION  
2012 Senior Executive Director, Member of the Board, DENSO CORPORATION  
2014 Director, Member of the Board, Senior Executive Director, DENSO CORPORATION (current position)



### Director, Member of the Board, Senior Executive Director

#### Satoshi Iwata

Information & Safety Systems Business Group (Deputy), Tokyo Office

(Date of birth: October 17, 1953)  
1976 Joined Ministry of International Trade and Industry  
2006 Joined DENSO CORPORATION  
2007 Executive Director, DENSO CORPORATION  
2013 Senior Executive Director, Member of the Board, DENSO CORPORATION  
2014 Director, Member of the Board, Senior Executive Director, DENSO CORPORATION (current position)



### Outside Director

#### George Olcott

(Date of birth: May 7, 1955)  
1986 Joined S.G. Warburg & Co., Ltd.  
1991 Director, S.G. Warburg & Co., Ltd.  
1993 Executive Director, Equity Capital Market Group, S.G. Warburg Securities London  
1997 Head of Tokyo Branch, SBC Warburg  
1998 Vice President, LTCB-UBS-Brison Asset Management  
1999 President, UBS Asset Management (Japan) President, Japan UBS Brinson  
2000 Managing Director, Equity Capital Market, UBS Warburg Tokyo  
2001 Judge Business School, University of Cambridge  
2005 FME Teaching Fellow, Judge Business School, University of Cambridge  
2008 Senior Fellow, Judge Business School, University of Cambridge  
2008 Outside Director, Nippon Sheet Glass Co., Ltd.  
2010 Outside Director, NKSJ Holdings, Inc.  
2010 Project Professor, Research Center for Advanced Science and Technology, The University of Tokyo  
2014 Guest Professor, Keio University Faculty of Business and Commerce (current position)  
2014 Outside Director, Hitachi Chemical Company, Ltd. (current position)  
2014 Director, Member of the Board, DENSO CORPORATION (current position)  
2015 Outside Director, The Dai-ichi Life Insurance Company, Limited (current position)



### Outside Director

#### Takashi Nawa

(Date of birth: June 8, 1957)  
1980 Joined Mitsubishi Corporation  
1991 Joined McKinsey & Company, Inc.  
2010 Professor, Graduate School of International Corporate Strategy, Hitotsubashi University (current position)  
2010 President, Genesis Partners (current position)  
2010 Senior Advisor, Boston Consulting Group (current position)  
2011 Outside Director, NEC Capital Solutions Limited (current position)  
2012 President, Next Smart Lean Co., Ltd. (current position)  
2012 Outside Director, FAST RETAILING CO., LTD. (current position)  
2014 Director, Member of the Board, DENSO CORPORATION (current position)  
2015 Outside Director, Ajinomoto Co., Inc. (current position)



## Audit & Supervisory Board Members

### Standing Audit & Supervisory Board Member

#### Masato Iwase

(Date of birth: February 4, 1955)  
1978 Joined DENSO CORPORATION  
2002 Associated Fuel Pump Systems Corporation, Company Secretary  
2003 General Manager of Legal Division, DENSO CORPORATION  
2009 Standing Audit & Supervisory Board Member, DENSO CORPORATION (current position)



### Outside Audit & Supervisory Board Member

#### Moritaka Yoshida

(Date of birth: July 12, 1957)  
1980 Joined Toyota Motor Corporation  
2009 Managing Officer, Toyota Co., Ltd.  
2014 Senior Managing Officer, Toyota Motor Corporation (current position)  
2015 Outside Audit & Supervisory Board Member, DENSO CORPORATION (current position)



### Outside Audit & Supervisory Board Member

#### Toshimichi Kondo

(Date of birth: February 3, 1955)  
1979 Joined the Audit Corporation Marunouchi Accounting Firm  
1983 Registered Certified Public Accountant  
1985 Director, Kondo Accounting Office (current position)  
2011 Outside Audit & Supervisory Board Member, DENSO CORPORATION (current position)



### Standing Audit & Supervisory Board Member

#### Atsuhiko Shimmura

(Date of birth: June 28, 1957)  
1980 Joined DENSO CORPORATION  
2011 Executive Vice President, DENSO International America, Inc., DENSO Corporation  
2014 Director, Corporate Planning Division of DENSO Corporation  
2014 Standing Audit & Supervisory Board Member, DENSO CORPORATION (current position)



### Outside Audit & Supervisory Board Member

#### Tsutomu Saito

(Date of birth: September 12, 1951)  
1977 Registered Attorney  
1993 Vice President, Nagoya Bar Association  
2005 Appointed and still serving as Outside Audit & Supervisory Board Member of DENSO CORPORATION (current position)  
2010 Chairman, Aichi Bar Association Vice President, Japan Federation of Bar Associations



# Compliance

## Basic Stance

We believe that key actions to earn the trust and understanding of society pertain to the DENSO Group's observance of all applicable national and regional laws and all Group employees' fair and faithful conduct that embodies the highest ethical standards.

Based on this recognition, in 2006 we adopted the Code of Conduct for DENSO Group Associates, which clearly indicates the standards of conduct for each and every employee. In training and workplace conferences, we utilize the Code for raising

employees' awareness of corporate social responsibility (CSR), which includes all domestic Group companies.

Overseas Group companies use a regional version of the Code of Conduct for DENSO Group Associates, formulated by their regional headquarters in accordance with national and regional laws and customs.



## Promotion Structure

The DENSO Group has created a global structure for promoting compliance while keeping its organizational structure sensitive to the characteristics of each region, introducing and administering a reporting system, and training employees. In 1997, the DENSO Group established the Corporate Ethics Committee (now a part of the Top Management Meeting), headed by the director in charge of DENSO, and created the Compliance

Committee and other committees to coordinate regional and global compliance activities, while putting Compliance Leaders and other managers in charge of promoting compliance.

On a regular basis, our legal departments in Japan, North America, Europe, China, Southeast Asia, India, and South Korea share and discuss information and issues related to compliance.

## Specific Initiatives

### Training and Education

The DENSO Group continues to train and educate its employees with the objective of enhancing their awareness of various issues. Overseas Group companies, centered on the regional headquarters, implement initiatives based on examples set by DENSO.

In accordance with the Whistleblower Protection Act, DENSO has established a Corporate Ethics Hotline as a system for the anonymous reporting of legal issues to outside attorneys at legal firms independent of the regular chain of command.

### Inspection and Improvement of Activities

The DENSO Group conducts inspections to ascertain whether its compliance activities have sufficiently taken hold and to look for any potential compliance issues. If an issue is discovered, reports are made to top management as necessary, and steps are taken to prevent a recurrence of the issue.

### Internal Reporting System

The DENSO Group has set up internal reporting systems at its regional headquarters and business sites for employees to report their concerns and receive consultation on matters related to legal and regulatory violations, via email, telephone, written correspondence, or face-to-face interaction.

## Response to Antimonopoly Act

U.S. subsidiary DENSO International America, Inc. was investigated by the U.S. Department of Justice in February 2010. Recognizing the gravity of the situation, the DENSO Group has since then created the Antimonopoly Act Compliance Committee, chaired by the representative director, to ensure strict compliance with the Antimonopoly Act. Under the guidance and supervision of this committee, we have endeavored to reinstitute strict compliance with the Antimonopoly Act

across the entire DENSO Group by enhancing awareness and education about relevant rules and ensuring strict adherence to laws and regulations. As a result, we are now in full compliance with laws and regulations.

The DENSO Group is keen to restore confidence while further strengthening its compliance structure in accordance with the Antimonopoly Act.

# Risk Management

## Basic Stance

In keeping with the global expansion of business, the DENSO Group is striving to strengthen risk management as part of its internal control system to help minimize risk.

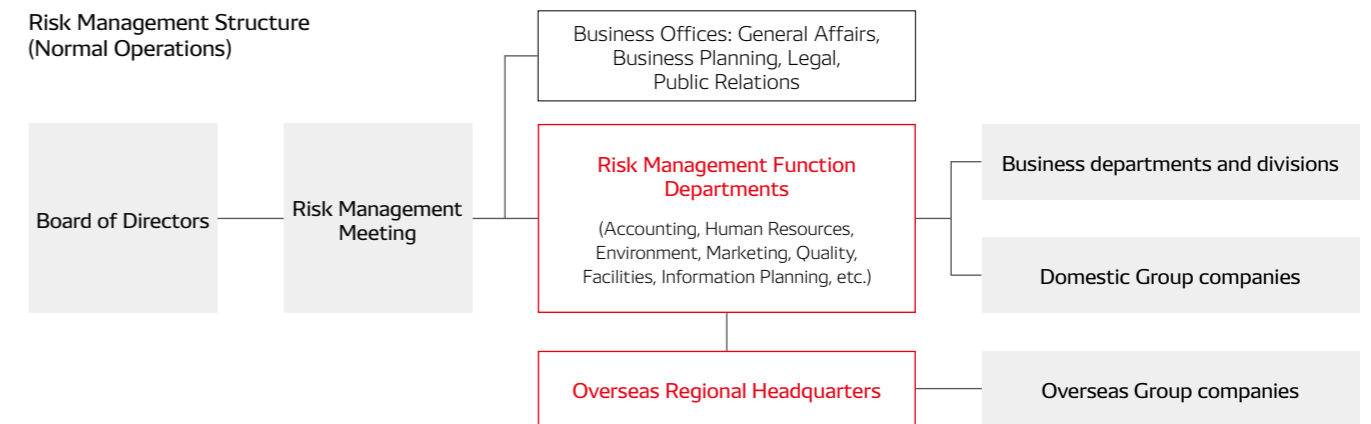
Specifically, the emergence of circumstances with the potential to cause damage to corporate management are classified as risks (situations in which risks have not yet been

realized) and crises (emergency situations in which risks have already been realized). For the former, efforts focus on thwarting risks before they have the chance to manifest themselves; for the latter, DENSO strives to make an initial response as well as a response for restoring business operations in a prompt and appropriate manner.

## Promotion Structure

The DENSO Group comprehensively manages Groupwide risks and crises through the Risk Management Meeting.

### Risk Management Structure (Normal Operations)



## Specific Initiatives

### System for Swiftly and Accurately Addressing Crisis Situations

The DENSO Group has created a Crisis Communications Manual in order to facilitate a swift and accurate response to a crisis situation. Designed to minimize damage, this manual clarifies the basics of situational decision-making, reporting standards, reporting channels, and internal/external communications.

Moreover, we are able to create a dedicated crisis management team depending on the size and urgency of a crisis situation, in our efforts to nimbly address a crisis and minimize damage.

### Addressing Higher Risks from Global Business Development

In tandem with the globalization of supply chains, the DENSO Group has identified critical risks from the standpoint of global Group management and is working to improve its readiness to these potential risks, having learned lessons from the 2011 Great East Japan Earthquake and flooding in Thailand about how risk events in one region can have ripple effects in other regions.

We are constantly improving our rules and systems so that the right directors and managers will be informed of a crisis as soon as possible, regardless of the time of day or whether it is a holiday.

### Enhancing Our Readiness to Natural Disaster Risk (Creation of Business Continuity Plan)

DENSO and domestic Group companies have begun to enhance their readiness for natural disaster risks across the entire DENSO Group from the standpoint of business continuity management (i.e., creating business continuity plans [BCPs\*]). Our approach to mitigate damage from a natural disaster is based on the formulation of effective action plans.

With people's lives our first and foremost priority, we engage in disaster preparedness and education activities that involve employees and their families, such as initial response drills and safety confirmation system training.

\* BCPs: Business continuity plans. In the event that operations are interrupted by an earthquake or other large-scale natural disaster, BCPs are designed to minimize damage to the business by aiming to restore operations within a targeted timeframe.

# Environmental Management

## Basic Stance

DENSO aims to be a corporate group that contributes to the “creation of an advanced automotive society” in order to maintain and ensure harmony with the Earth’s environment. As such, we must work to achieve world-class environmental efficiency and high resource productivity as we reduce the environmental impact of our operations. This applies not only to product development and production but also to all aspects of our business activities. We are also promoting environmental management, an approach that creates economic value through environmental conservation activities.

## Environmental Value Creation Management

Every 10 years, DENSO formulates its DENSO Eco Vision to demonstrate its long-term commitment and to serve as its environmental policy for the environmental management to which the Group aspires. Every five years, DENSO defines an Environmental Action Plan to embody the commitment and environmental policy set out in its Eco Vision.

### DENSO Eco Vision 2025

DENSO has formulated the new DENSO Eco Vision as an action plan toward realizing sustainable regions and societies in 2050. This latest Eco Vision sets three targets (Target 3) to be achieved in 2025: ENERGY 1/2; CLEAN × 2; and GREEN × 2.

The Company will also promote 10 specific actions (Action 10) to realize these three targets in the respective stages of products, factories, associates (employees), and management.



Please visit our special Eco Vision 2025 website at:

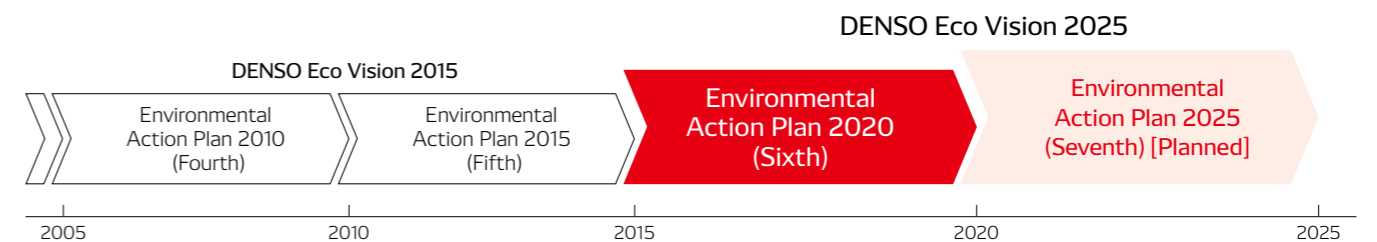
<http://www.globaldenso.com/en/ecovision/>

## Three Targets (Target 3)

<p>DENSO aims to halve CO<sub>2</sub> emissions by technologies that resolve global warming as well as energy and resource issues.</p> <p><b>(Examples)</b></p> <ul style="list-style-type: none"> <li>Development of new technologies and products compatible with improved fuel economy and fuel diversification</li> <li>Promotion of energy Just-in-Time (JIT) activities* in production processes</li> </ul> <p>* A system for the utilization and supply of just the right amount of energy at the necessary time</p>	<p>To provide reassurance to all stakeholders, DENSO will aim to reduce by half the impact of environmentally hazardous substances as well as halve emissions and waste while advancing sustainable improvements.</p> <p><b>(Examples)</b></p> <ul style="list-style-type: none"> <li>Development of exhaust gas reduction technologies for automobiles</li> <li>Reductions in waste at plants and through distribution as well as in the amounts of water used</li> </ul>	<p>To pass on a rich natural environment to the next generation, DENSO will work to create environment-friendly communities through corporate activities that aim for symbiosis with nature.</p> <p><b>(Examples)</b></p> <ul style="list-style-type: none"> <li>New environment-related businesses (bio-fuel, agricultural support, etc.)</li> <li>Plant greening</li> <li>Environmental social contribution events</li> </ul>
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### Sixth Environmental Action Plan (Fiscal 2017 to Fiscal 2021)

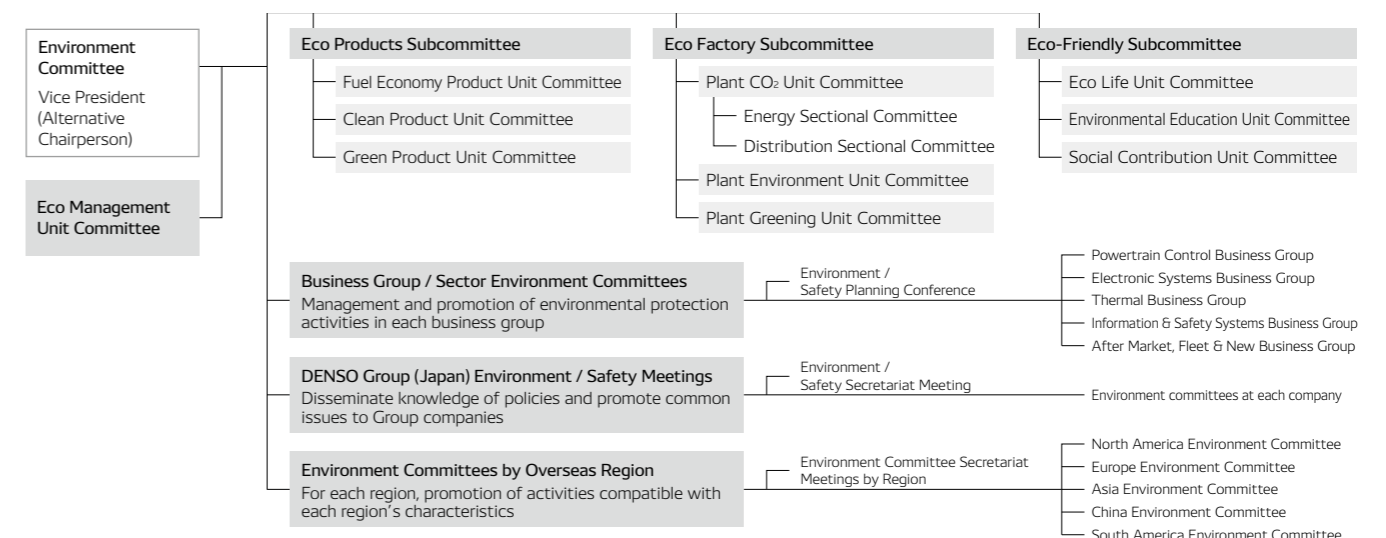
Aiming to realize the three targets (Target 3) and the 10 specific actions (Action 10) stipulated under Eco Vision 2025, DENSO has set out its Sixth Environmental Action Plan and is clarifying the specific activities and objectives as far as the fiscal 2021 milestone.



### Promotion Structure

DENSO established its Environment Committee in December 1992. Chaired by the vice president and attended by senior management—those in charge at overseas regional headquarters and those responsible for matters concerning environmental management at Group companies—the Environment Committee meets twice a year to formulate policy, verify the status of progress made on activities, and undertake examinations of issues and solutions.

### Environment Committee Organization



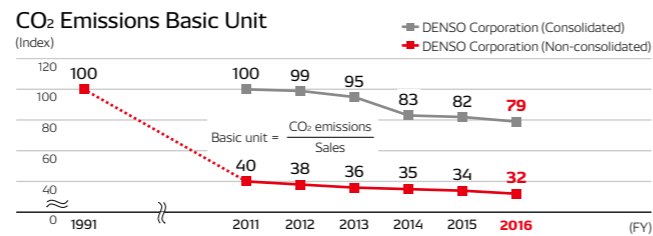
### Case Study

#### Aiming for Minimum CO<sub>2</sub> Monozukuri

CO<sub>2</sub> emissions from energy consumption account for 95% of the principal greenhouse gases that DENSO emits in its production operations. Considering it important for energy loss to be as close as possible to zero, DENSO is concentrating its efforts on reducing electricity, the form of energy that is used the most.

Making advances in its production field's energy conservation to the fullest extent by a range of activities—including highly efficient production through *Monozukuri* innovation, consistent energy-saving activities from energy supply to use, and the use of natural energy—DENSO achieved the CO<sub>2</sub> emissions reduction target set in Eco Vision 2015.

In the years to come, DENSO will make further advances in energy conservation while aiming to realize a 50% reduction in energy (halving the volume of CO<sub>2</sub> emissions compared with 2012) across the entire Group.



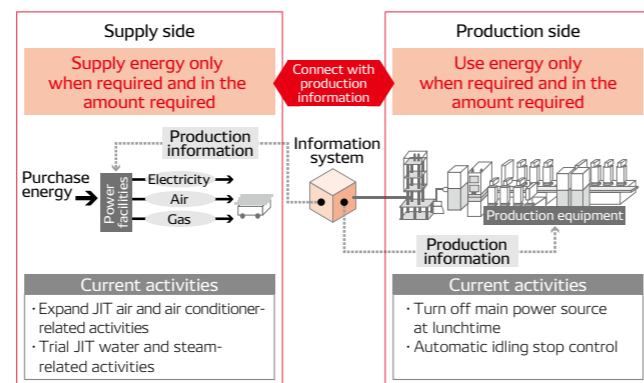
#### "1/N Facilities" Contributing to DANTOTSU Plants

As part of its efforts to thoroughly eliminate all waste (including waste materials, waste generated through transportation as well as operations, and waste inventory) at facilities and through processes, DENSO is engaged in technical developments such as the creation of "1/N facilities" designed to significantly reduce the size of production facilities (N is an integer multiple).

Through this activity, the Company is working to be outstanding (*DANTOTSU*) not only in terms of manufacturing costs but also for the amount of energy consumed.

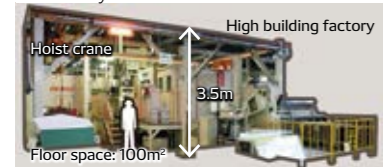
#### Energy Just-in-Time (JIT) Activities Adapted to Production Fluctuations

Based on the idea that "energy for production is not fixed infrastructure but another component to be controlled," DENSO is working to establish a system for the utilization and supply of just the right amount of energy at the necessary time. The Company is optimizing both JIT supply that provides energy and JIT production that uses energy.



#### Case Study: Time Variation Foamer

Previously



Significantly reduce required equipment load (motive power) by dividing processes within one rotation, setting time variations, and processing sequentially

Now



Facilities one-sixth the size, realizing one-third of CO<sub>2</sub> emissions

### TOPICS

#### METI Grand Prize for Excellence in Energy Efficiency and Conservation for Second Successive Year

DENSO was presented with the Ministry of Economy, Trade and Industry (METI) Minister's Prizes, the highest award for excellence in energy efficiency and conservation for the second successive year. Awarded in the energy conservation and case study categories, the efforts that the prizes recognize include the Company's superior energy conservation activities, which are sponsored by the Energy Conservation Center, Japan (ECCJ), and its advanced energy-saving products that result from technological developments.

The Driving Safety Manufacturing Unit of DENSO's Daian Plant has continuously implemented energy-saving activities that involve all of its employees. Through these endeavors, the Unit achieved a reduction in power consumption of 7,035MWh per year and attracted high praise and recognition.

In the years to come, DENSO will engage in thorough energy-saving initiatives on a Companywide basis while contributing to the maintenance of the global environment as well as society's sustainable development.

#### Prize-Winning History: DENSO's METI Minister's Prizes for Excellence in Energy Efficiency and Conservation

Fiscal Year	Organizational category (fiscal 2010 award system)	For promoting energy conservation, the Company's key activities that prioritize and address environmental challenges on a Companywide basis
Fiscal 2010	Organizational category (fiscal 2010 award system)	For promoting energy conservation, the Company's key activities that prioritize and address environmental challenges on a Companywide basis
Fiscal 2012	Case study category	Energy JIT activities
Fiscal 2015	Product/business model category	Electric refrigerator system for heavy-duty trucks DENSO jointly developed with Hino Motors, Ltd.



## Quality Assurance

### Basic Stance

Since its founding, the DENSO Group has been dedicated to providing reliable, safe, and high-quality services that will satisfy customers and earn their trust based on a commitment under the DENSO Group Declaration of Corporate Behavior. We have designated the thorough implementation of the Quality First principle, the practice of quality assurance from the beginning of production and the promotion of quality control with full

employee participation as basic quality assurance policies, and we are committed to carrying out a Customer First principle in creating products.

Additionally, based on information collected by sales and technology departments from customers, we are continuously making efforts to enhance customer satisfaction in terms of quality, cost, and delivery.

### Promotion Structure

#### Product Development System Responsive to Customer Needs

In order to provide customers worldwide with optimum products matched to the characteristics of each region, we have established Technical Centers (T/Cs) in Japan, the United States, Germany, Thailand, China, India, and Brazil. This global structure allows us to conduct product development, quality testing, and evaluation in accordance with local characteristics.

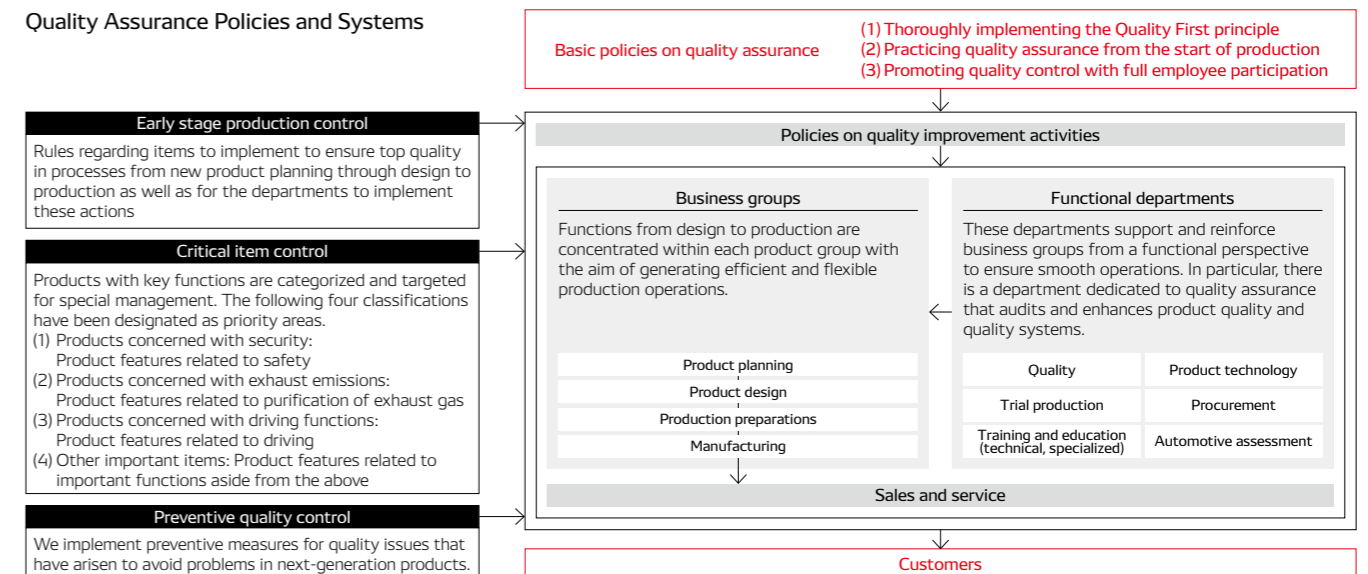
Additionally, the DENSO Group has completed the acquisition of ISO/TS16949 certification.

#### Quality Management

For the quality assurance process of new products, we are thoroughly carrying out early stage control. In terms of early stage

control, the degree of product completion and product risks are visualized via a total of nine phases, with specialized departments including quality control and production technology also undertaking concerted initiatives in unison to strictly check quality. The design stage, in particular, benefits from a rigorous quality confirmation process. This includes not only the assurance of individual products but also a series of tests. In order to assure high reliability and durability in a vehicle system, we conduct in-vehicle testing under a range of conditions such as high-speed driving, rough roads, low temperatures, and icing on our test course, as well as various tests in our environmental testing room.

### Quality Assurance Policies and Systems



### TOPICS

#### Improving Customer Satisfaction—Ensuring Product Safety

In creating products, the DENSO Group places the highest priority on ensuring safety for our customers, and design departments thoroughly conduct both safety designs, such as fail-safe\* designs, and safety evaluations. We also promote system and product design pursuant to ISO 26262 certification for functional safety.

From product planning to production and shipment, functional departments clearly specify operational procedures and responsible departments and strictly monitor compliance with applicable laws and regulations at each stage. When launching new products, in particular, the responsible departments are required to conduct safety evaluations based on internal regulations and to report on the results of legal compliance checks.

In order to reduce road accidents worldwide as one of our missions as a company engaged in the automobile industry, we are also focusing on developing preventive safety systems that support the prevention of road accidents. We are working to improve the safety functionality of our preventive safety systems by analyzing various traffic conditions such as road accidents and road environments around the world and reproducing and assessing road accident scenes on our test course.

\* A design philosophy requiring products to be controlled in a safe manner in the event of an accident or erroneous operation



Car driving test on country road at the DENSO Abashiri Test Center



Evaluation equipment used to confirm quality

# Intellectual Property Activities

## Basic Stance

DENSO is endeavoring to unify its business unit strategies with its IP strategies in a bid to better engage in business activities that help resolve such critical issues as preserving the Earth's environment and ensuring security and safety. In line with the DENSO Group's Global Mid-term Policy, energies are directed on a priority basis toward building a patent portfolio of system and world-first products in the environment, security, and safety fields as well as conducting IP activities related to open innovation. The Company is supporting efforts to expand its business and achieve continued growth by utilizing in a strategic manner the patents that have been acquired.

### Respect for Other Companies' IP Rights

DENSO sees problems related to other companies' IP rights as equally important as major quality problems in its own products.

## Promotion Structure

### Global IP System

As we bolster development in our overseas technical centers, we are working to set up IP systems at our centers in North America, Europe, and China, thereby strengthening our acquisition of IP rights for local inventions and examination of other companies' IP rights. In addition, as a cooperative framework within the Group, we support patent disputes in North America through our bases in North America, and our bases in China

From the development stage, the Company examines the IP rights of other companies and has clearly defined internal rules to ensure that its products do not infringe on the IP rights of third parties.

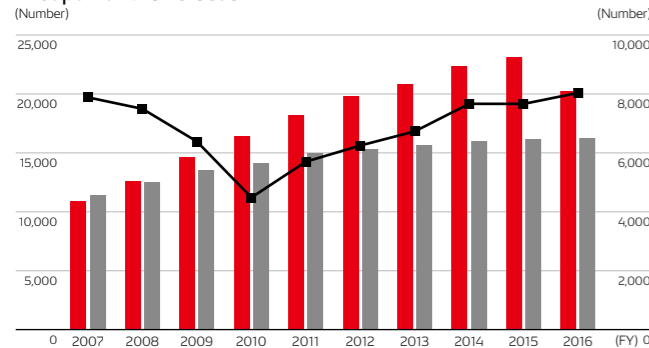
### Measures Against Counterfeit Products

DENSO takes active measures against counterfeit products (in particular those with imitation trademarks). There are many quality problems with counterfeit products, and there is the possibility that purchasing such a product in the belief that it was manufactured by DENSO could be detrimental to the purchaser. In 2005, the Company commenced activities to detect counterfeit products in cooperation with government and customs agencies. DENSO is continuing those activities and, since more recently, has been monitoring Internet auctions and other sales channels for counterfeit products.

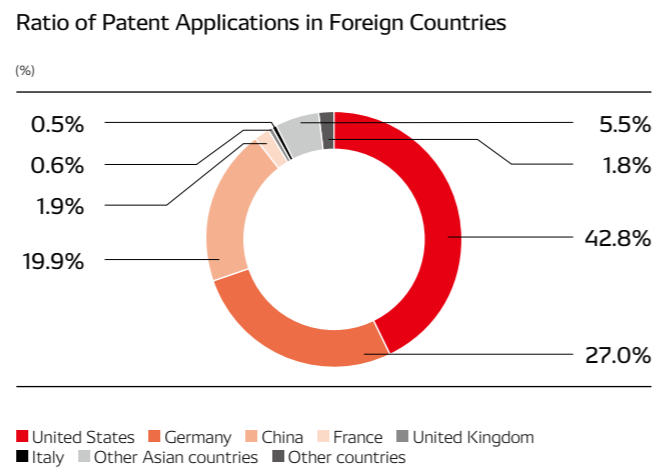
engage in product protection by taking measures against counterfeit products and the taking out of Chinese petty patents.

Problems are shared between the IP staff at each technical center and Head Office, and a global IP meeting is in place to work on plans to stimulate and develop the IP activities in each region. In place to allow discussions between IP staff from Group companies in Japan, a similar meeting works on plans to stimulate and develop the IP activities at each Group company.

Number of Patents Held and Patent Applications Filed in Japan and Overseas



Ratio of Patent Applications in Foreign Countries



Note: The number of patent applications filed shows the total number of filings in Japan and overseas. This figure includes patents filed during DENSO's fiscal year. The number of patent applications filed in Japan includes withdrawn items for priority claim based on Japanese patent application and divisional applications. The number of patent applications filed in foreign countries includes continuing and divisional applications.

## TOPICS

### 2016 Intellectual Property Achievement Award Received from the Minister of METI

In recognition of the level of integration of intellectual property activities in its operations, DENSO received the Intellectual Property Achievement Award from the Minister of Economy, Trade and Industry, as a part of Awards for Contributors to the Intellectual Property Rights System in Japan, administered by the Ministry of Economy, Trade and Industry (METI) and the Japan Patent Office.

#### Highlights of Award

- The award recognizes the strength of DENSO's intellectual property organization at its technical centers in North America, Europe, and China, as well as its reinforced patent monitoring system for rival companies in BRICs. DENSO quantifies the balance of patent strengths in light of shares in each country, and sets the direction of development efforts at technology departments.



Left: Executive Vice President Yasushi Yamanaka  
Right: Tsuyoshi Hoshino, Parliamentary Secretary for METI

# Engagement with Society

## Basic Stance

DENSO advances business activities while interacting with various stakeholders.

To create a better society, DENSO clarifies its responsibility to stakeholders in its business activities, and values engagement

with stakeholders as a helpful means of avoiding self-satisfying activities that are biased by its own logic and preconceptions. DENSO fulfills its social responsibility while reflecting stakeholder opinions and the needs of society in its corporate activities.

## Examples of Engagement with Stakeholders

### Customers

#### Customer Satisfaction (CS) Improvement Exhibition

DENSO holds an exhibition to present its *Monozukuri* initiatives and associated case examples—which are based on customer feedback and undertaken from the customer's perspective—to employees, Group companies, and suppliers. We also hold lecture sessions on the theme of fostering awareness of the customer's perspective to learn about efforts by other companies.

Approx.  
**20,000** people  
attended



### Employees

#### Global Conference

Leaders from Group companies around the world gathered at the Global Conference to learn more about the Mid-term Policy and discuss related strategies as well as hear presentations by directors about how the Group is pivoting toward sustainable development, followed by group sessions.

Approx.  
**300** employees  
participated from  
around the world



### Suppliers

#### General Meeting of Suppliers

As a measure to deepen interactions with our suppliers, we provide information to major suppliers inside and outside Japan about our procurement policy and the initiatives of each business division.

Approx.  
**340** suppliers  
participated from  
around the world



### Local Communities

#### DENSO Group Heartful Day

DENSO has designated a day ("Heartful Day") for employees to give back to their local communities. DENSO aims to contribute to society in ways that reflects its unique position and role in society.

Approx.  
**30,000** employees  
participated from  
around the world



Cleanup activities to protect the green turtle

### Shareholders and Investors

#### Results Briefings for Institutional Investors

DENSO holds results briefings for the purpose of disclosing business and financial information in a timely and appropriate manner and enhancing management transparency through dialogue. After presenting financial information, DENSO updates investors on the development of products that contribute to security, safety, and the environment based on its Mid-term Policy, and then opens the floor to questions.

Approx.  
**130** people  
participated in each of the  
four annual events



#### Ordinary General Shareholders' Meeting

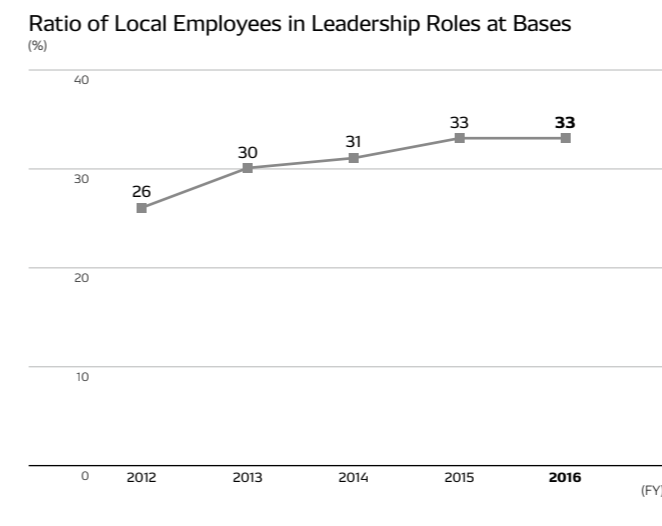
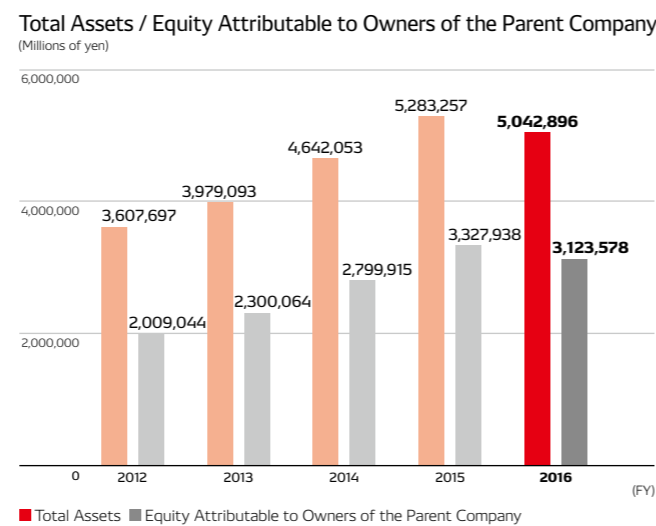
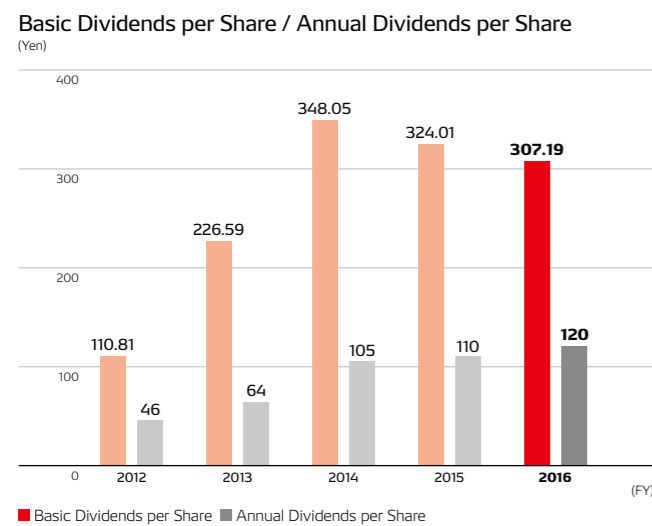
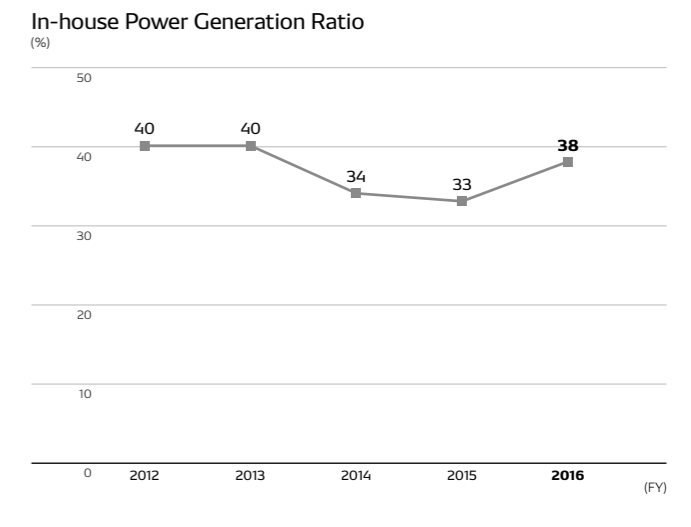
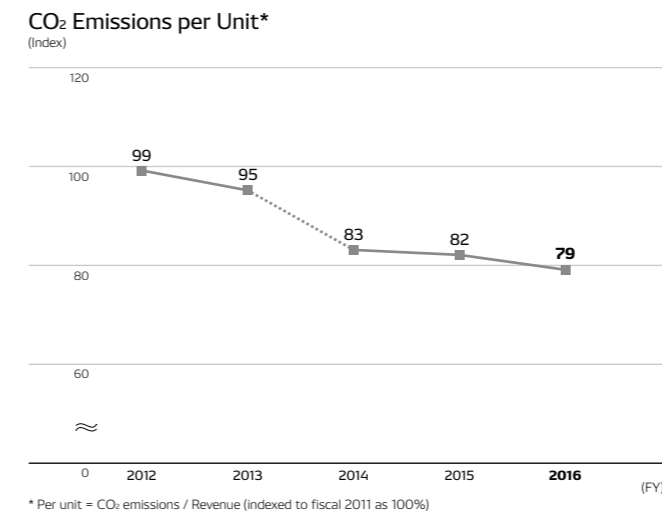
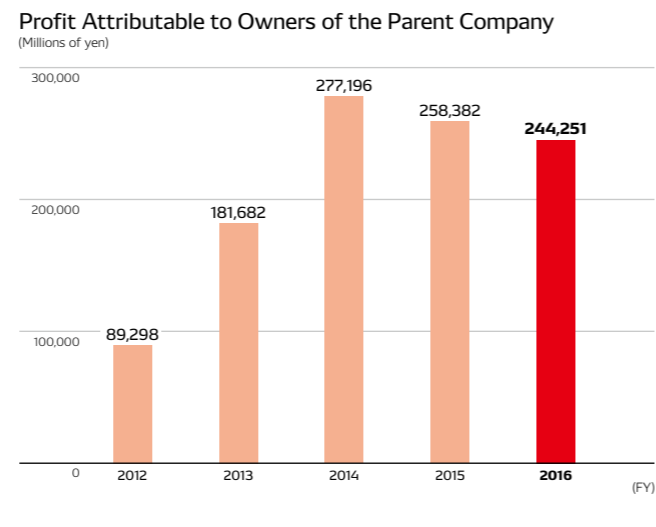
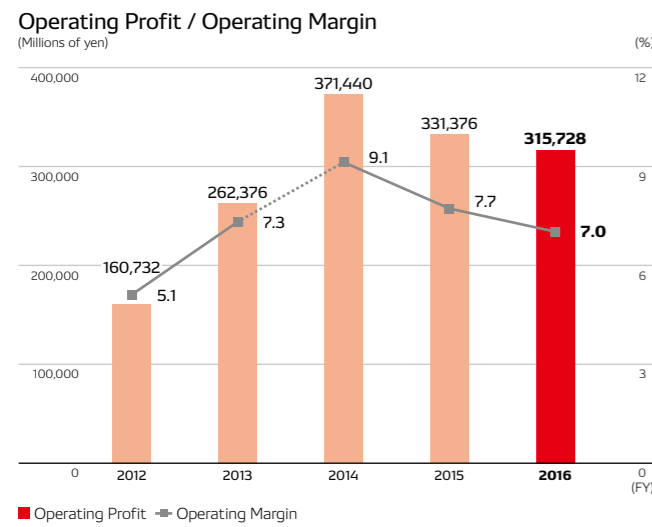
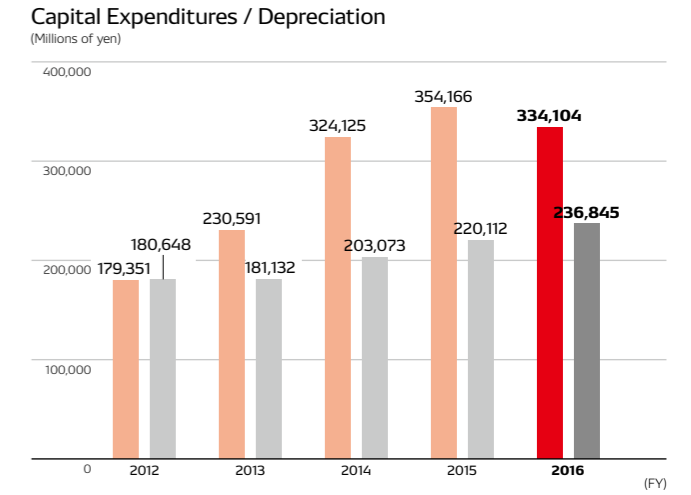
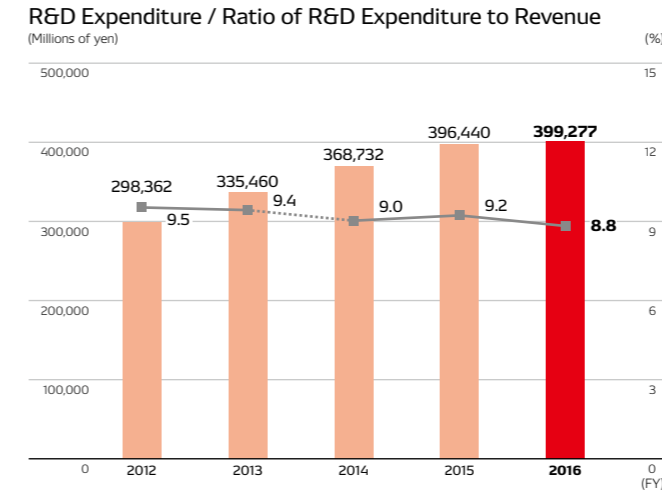
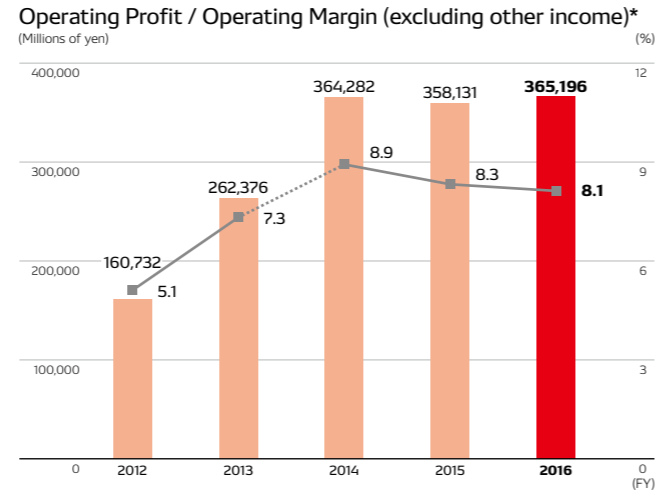
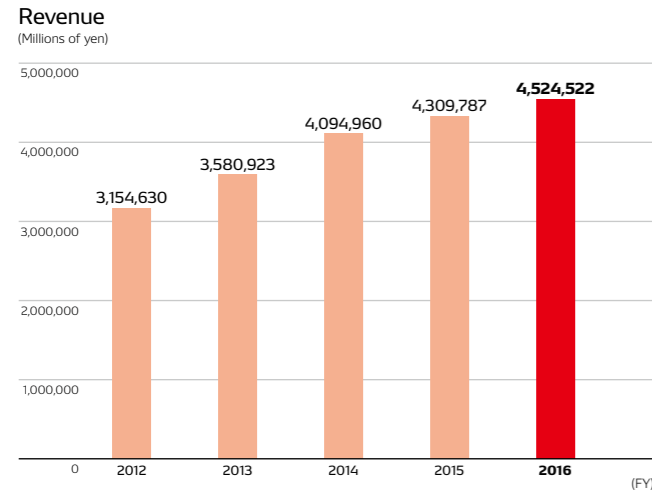
After the president reports progress on annual initiatives, the president and Board members answer questions posed by shareholders. Once the General Shareholders' Meeting ends, DENSO offers participants a tour of its plants with a choice of seven courses for learning more about *Monozukuri*.

Approx.  
**1,200** people  
participated



# Corporate Data

## Facts & Figures



From fiscal 2014, the financial statements have been prepared based on International Financial Reporting Standards (IFRS). (Japanese accounting standards were employed up to and including fiscal 2013.)

Please find more details on financial information via the link below.  
[https://www.denso.com/global/en/investors/library/annual\\_report/documents/2016\\_annual\\_report.pdf](https://www.denso.com/global/en/investors/library/annual_report/documents/2016_annual_report.pdf)

# Company Overview

(As of March 31, 2016)

Company Name	DENSO CORPORATION
Established	December 16, 1949
Capital	¥187.4 billion
Head Office	1-1, Showa-cho, Kariya, Aichi 448-8661, Japan
Employees	Consolidated basis: 151,775 Non-consolidated basis: 38,490
Consolidated Subsidiaries	188 (Japan 62, North America 28, Europe 34, Asia 58, South America/Others 6)
Companies Accounted for by the Equity Method	36 (Japan 13, North America 4, Europe 4, Asia 13, South America/Others 2)
Fiscal Year	From April 1 to March 31
Ordinary General Shareholders' Meeting	June
Share Trading Unit	100 shares
Number of Shares Issued	884,068,713 shares (including DENSO CORPORATION owning 91,246,018 shares of treasury stock)
Number of Shareholders	59,829 (including DENSO CORPORATION owning treasury stock)
Securities Identification Code	6902
Stock Exchange Listings	Tokyo, Nagoya

## Regional Headquarters

### The Americas

#### DENSO INTERNATIONAL AMERICA, INC.

24777 Denso Drive, P.O. Box 5047,  
Southfield, Michigan 48086-5047, U.S.A.  
Tel: +1-248-350-7500  
<http://www.denso-na.com>

### Europe

#### DENSO EUROPE B.V.

Hogeweyselaan 165, 1382 JL Weesp, The Netherlands  
Tel: +31-294-493493  
Fax: +31-294-417122  
<http://denso-europe.com>

### Asia

#### DENSO INTERNATIONAL ASIA CO., LTD.

888 Moo 1, Bangna-Trad Km. 27.5, Tambol Bangbo,  
Amphur Bangbo, Samutprakarn 10560, Thailand  
Tel: +66-2-315-9500  
Fax: +66-2-315-9559  
<http://www.denso.co.th>

#### DENSO INTERNATIONAL ASIA PTE., LTD.

51 Science Park Road, #01-19 The Aries,  
Science Park II, Singapore 117586  
Tel: +65-67768268  
Fax: +65-67768698  
<http://www.denso.com.sg>

### China

#### DENSO (CHINA) INVESTMENT CO., LTD.

Room No. 518, The Beijing Fortune Building,  
No. 5 Dong San Huan Bei-Lu, Chaoyang District,  
Beijing 100004, China  
Tel: +86-10-6590-8337  
Fax: +86-10-5758-2781  
<http://www.denso.com.cn>

# Stock Information

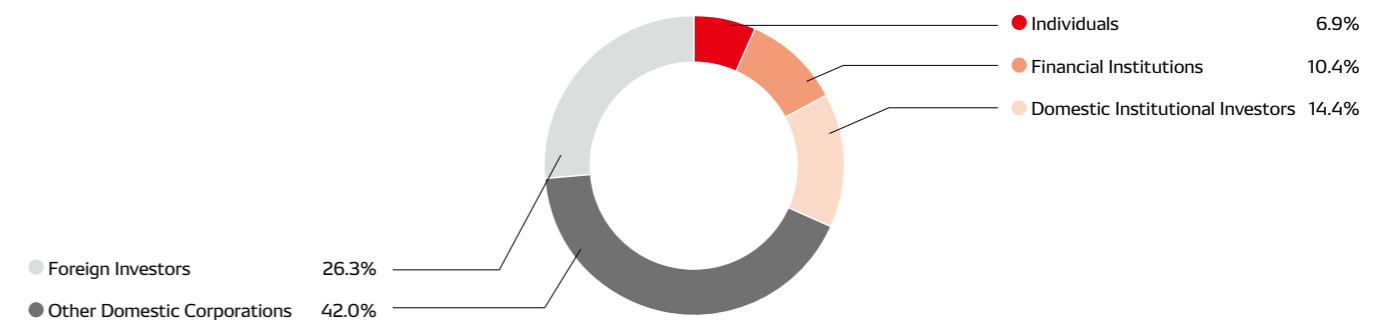
(As of March 31, 2016)

## Principal Shareholders (Leading 10 Principal Shareholders)

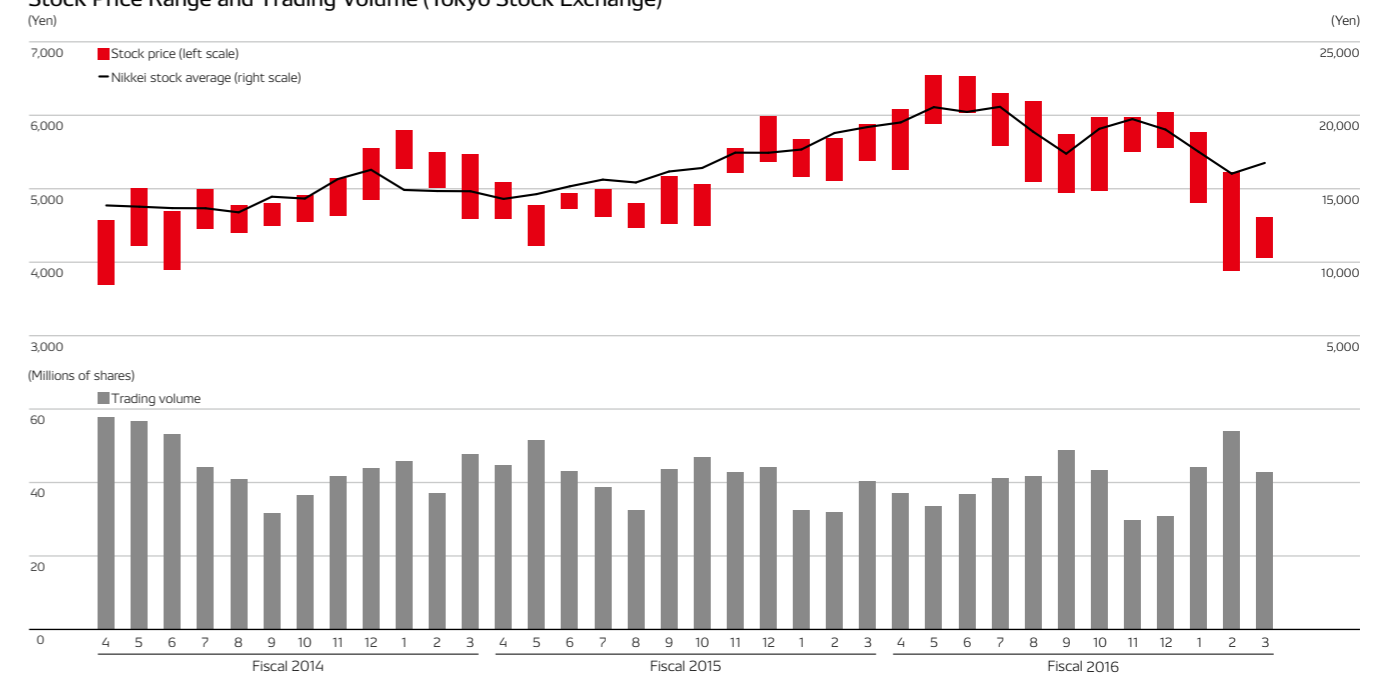
	Number of shares held (thousands)	Voting share ratio (%)
Toyota Motor Corporation	196,690	24.82
Toyota Industries Corporation	69,373	8.75
The Master Trust Bank of Japan, Ltd. (Trust Account)	33,516	4.22
Towa Real Estate Co., Ltd.	33,309	4.20
Japan Trustee Services Bank, Ltd. (Trust Account)	26,863	3.38
Nippon Life Insurance Company	21,645	2.73
Aisin Seiki Co., Ltd.	12,518	1.57
DENSO Employees' Shareholding Association	1,902	1.50
Mitsui Sumitomo Insurance Co., Ltd.	10,604	1.33
STATE STREET BANK AND TRUST COMPANY	9,691	1.22

Note: The above table excludes 91,246 thousand shares of treasury stock held by DENSO Corporation.

## Breakdown of Shareholders



## Stock Price Range and Trading Volume (Tokyo Stock Exchange)



## DENSO CORPORATION

1-1, Showa-cho, Kariya, Aichi 448-8661, Japan  
Tel: +81-566-25-5511 (Information Center)  
[www.denso.com/global/en/](http://www.denso.com/global/en/)